

Republic of Indonesia
KfW Development Bank

Final Study Report

Pre-Feasibility Study on Hasanuddin University Development Plan



November 2016 - Revised as per Comments dated January 2017

EPOS Health Management

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List of Abbreviations

ALOS	Average Length of Stay
ASKES	Asuransi Kesehatan (former National Health Insurance Scheme)
AusAID	Australian Agency for International Development
BAPPENAS	Indonesian Ministry of National Development Planning
BLU	Badan Layanan Umum
BMZ	German Federal Ministry for Economic Cooperation and Development
BNBP	Penerimaan Negara Bukan Pajak (Patient review)
BOPTN	Biaya Operational Perguruan Tinggi Negar/APBN (government Funding)
BOQ	Bills of Quantity
BOR	Bed Occupancy Rate
BPJS	National Health Insurance Scheme
BPR	Business Process Re-engineering
BTO	Bed Turn Over
CVD	Cardiovascular Disease
CICU	Cardiac Intensive Care Unit
COT	Central Operating Theatre
CPD	Continuing Professional Development
CPE	Continuing Professional Education
CSSD	Central Sterile Supply Department
CV	Curriculum Vitae
DIPA	Daftar Isian Perencanaan Anggaran (Government Regulated Annual expenditure Plan)
DP	Development Plan
EKG	Electrocardiogram
ERP	Electronic Patient Record
FOM	Faculty of Medicine
FS	Feasibility Study
FTE	Full Time Equivalent
GDR	Gross Death Rate
GIZ	German Agency for International Cooperation
Gol	Government of Indonesia
HCW	Healthcare Management
HMIS	Hospital Management Information System
HQ	Headquarters
HR	Human Resources

HRD	Human Resource Development
HRM	Human Resource Management
HRMIS	Human Resource Management Information System
HUH	Hasanuddin University Hospital
ICD-10	International Classification of diseases -10th version.
ICT/IT	Information (and Communication) Technology
ICU	Intensive Care Unit
ISO	International Organisation for Standardisation
IDR	Indonesian Rupiah
IT	Information Technology
JAMKESDA	"Jaminan Kesehatan Daerah" (free health service guaranteed by the Provincial health Administration)
JAMKESMAS	Free health services guaranteed by the MoH
JCI	Joint Commission International
KARS	Komisi Akreditasi Rumah Sakit MoH Hospital Accreditation Commission
KfW	German Development Bank
MCH	Mother and Child
MoHE	Kemenristekdikti Ministry of Research, Technology and Higher Education
MoF	Ministry of Finance
MoH	Ministry of Health
MoU	Memorandum of Understanding
NDR	Net Death Rate
NGO	Non-governmental Organisation
NHS	National Health Service
NICU	Newborn/ Neonatal ICU
NPV	Net Present Value
OH&S	Occupational Health and Safety
PAC	Picture Archiving and Communication system
PAM	Physical Assets Management
PDAM	Perusahaan Daerah Air Minum (State-owned water supply authority)
PEA	Project Executive Agency
PERSI	Indonesian Hospitals Association
PHO	Provincial Health Office
PICU	Paediatric ICU
PIU	Project Implementation Unit
PLN	Perusahaan Listrik Negara Minum (State-owned power supply authority)
PMU	Project Management Unit
PUSKEMAS	Pusat Kesehatan Masyarakat (Public or Primary Health Centre)

QM	Quality Management
QMM	Quality Management Manual
QMS	Quality Management System
RPJMN	National Medium Term Development Plan (Rencana Pembangunan Jangka Menengah Nasional)
RS UNHAS	Rumah Sakit Universitas Hasanuddin, alternate name for HUH
RSMH	Dr. Mohammad Hoesin Hospital
RSUZA	Rumah Sakit Umum Daerah Dr Zainoel Abidin
RSWS	Rumah Sakit Dr. Wahidin Sudirohusodo
SMF	Satuan Medic Functional (Director of Medical/ Clinical Specialty Departments)
SOP	Standard Operating Procedure
SULSEL	Sulawesi
SWOT	Strengths, Weaknesses, Opportunities and Threats
TOI	Turnover Interval

1 Executive Summary

1.1 Background

Hasanuddin University Hospital (known as UNHAS) is designated a Class B teaching hospital on the site of Hasanuddin University in Makassar City, South Sulawesi. It is located beside an established Class A teaching hospital, Dr Wahidin Sudirohusodo Hospital (RSWS), which has been built on university land but comes under the jurisdiction of the national Ministry of Health (MoH). UNHAS is under the jurisdiction of the Ministry of Research, Technology and Higher Education (MoHE). UNHAS is still developing its facilities and several years ago produced a development plan to create new buildings and develop centres of excellence for certain clinical specialties, and for training and research. The latest version was produced in 2015. This plan has been supported in principle by the MoHE and submitted to the Indonesian Ministry of National Development Planning (BAPPENAS) for consideration for foreign funding. Earlier in 2016 the project was gazetted into the BAPPENAS Blue Book, at which stage KfW indicated an interest in possibly extending a promotional loan to cover the costs. KfW already has experience over a number of years funding earlier developments at RSWS, as well as many other locations in Indonesia. There is a requirement now for the proposal to meet the readiness criteria (daftar kegiatan) of BAPPENAS to be included in the Green Book, and be considered an appropriate recipient of a loan by KfW. If these hurdles are overcome loan negotiations may occur.

This report is the outcome of a comparatively short field mission that took place from 27th September to 7th October, 2016, by a team from EPOS Health Management to Makassar (and Jakarta). A wide range of local counterparts and respondents were interviewed, as well as visits and meetings held with senior staff at the Provincial Health Office, Hasanuddin University, RSWH, other class B and private hospitals in the city, and primary health care centres. A presentation of the team's main findings were presented at UNHAS on Thursday 6th October, and again at BAPPENAS in Jakarta on 7th October. This report fills out and justifies those findings, and incorporates feedback received during the two presentations.

1.2 Governance, Organization and Management

HUH plays a significant role in the health economy of Eastern Indonesia as a provider of the highest level of clinical care, an exemplar of clinical excellence, a centre for research and a university training centre. It complements the work of RSWS, the apex level Class A hospital for the region, with which it shares a campus. Staff are credentialed to work at RSWS, UNHAS and HUH, and there is shared responsibility for the various specialties offered. The close working together is codified in a Tripartite MoU. An IT based system of referral links all levels of the health system within Makassar and Sulawesi; and a computerised telemedicine system links the hospitals and primary health care clinics within the city for cardio-vascular and obstetrics issues. Stakeholders, including in the private sector, speak positively of the services provided and support the proposed developments. Governance arrangements are good but there are some concerns that the MoH is not properly represented on the governing board, that accreditation and BLU status are not yet completed, and that management and planning are carried out by staff who are enthusiastic and able but who are also practising clinicians and so very busy. The EPOS team consider that HUH ought to employ full time hospital administrators and planners; that HMIS (including financial management systems) are under-developed; and that if the project is to proceed action is needed to set up appropriate planning and commissioning task groups to take things forward. Performance in terms of measures such as BOR and the use of existing facilities is good. Financial performance is satisfactory although the EPOS Team consider that the lack of a current business plan should be addressed, and that currently the net cash flow figures are overstated, as is the Net Present Value. There is also concern that the national health insurer reimburses HUH at a Class B tariff level, although its services are in reality Class A. As long as this (and care for the very poor falling through the insurance net) can be cross-subsidized from VIP co-payments this is acceptable, but represents a long term loss of revenue. The Team also believe the amount planned for project management has been underestimated.

The project proposals are congruent with the needs of the population served, reflecting the growing needs caused by population growth and urbanization, and local epidemiology and demand trends. The EPOS Team would recommend that some public health issues, the needs of an aging population and anticipated growth in diabetes and technological advances in, for example, epigenetics and robotics need to be considered.

1.3 Human Resource Management & Development

Professional Standards are generally of a high standard due to the high level of education and research, as well as the high level of service provided by the University, and the ability to recruit highly qualified staff. Training by Faculty of Medicine (FoM) trainers of HUH staff in-house, and health workers in provincial hospitals/health centres on a user-pays basis, is excellent.

Recruitment, performance appraisal, rewards and incentives, career development and CPE are managed well generally, but are better for doctors and nurses. However, as there is no updated Business Plan since the one for 2010-2014 Workforce Planning and projections are limited, and the HRMIS system is not sufficient as there are so many categories and multi-tasking.

FoM trainers, in many cases, have dual employment as managers of service areas within HUH, and receive payment from three sources (FoM for two positions – training and management jobs, and MoH for clinician work in other hospitals), with very high workloads. Also about 50% of staff, including many highly skilled health professionals, are contracted for up to one year, which, it was reported, results in many good people leaving to work in hospitals with more secure employment – neither situation can result in an efficient and sustainable health service.

Centre of Excellence Training and Staffing Plans are sensible, are based on rigorous analysis by Centre Heads, and align in general terms with the Green Book monetary framework. The EPOS Team have concerns that inadequate revenue has resulted in insufficient numbers of some staff categories being employed. For example, there are 35 less nurses than documented to meet the MoH requirement for a Class B hospital. The defined standard applies to a general hospital and HUH is a teaching hospital that should implement a higher standard than a general hospital. A rough estimate of staffing numbers by the end of the 4-year project (2020) are expected to be in the order of 1,369, based on number of beds, up from 810 in 2016.

HRMIS is not up to the task and needs to be re-constructed, and a hospital workload-based workforce plan should be developed. In the longer term there should be less reliance on short term contract hired staff, and this depends on HUH receiving BLU status. The excessive demands on senior staff trying to fill management, clinical and teaching roles is of concern. It is estimated that the cost of the proposed staffing and training for the project is 57% more than in the Green Book.

1.4 Construction

The physical development of HUH began in 2008 with the design and construction of the first building which is called 'Building A'. Since then a second building has been built and put into service; the building is called 'Building E,F'. At present a third building lies unfinished. This building is called 'Building B,C,D'. The HUH Development Plan projects services that will be delivered or supported by the three buildings, including the unfinished Building B,C,D.

Building A and Building E,F have both been in use for several years and are fully functional, in good condition and can expect to have a useful lifespan of many years. They can be considered successful building projects adapted to the needs of the teaching hospital.

Building B,C,D is a relatively large building which has been underway for six years but is still far from completion and commissioning. As it stands today it is still a valuable asset because of its potential and the amount of investment that has been expended, but there is a risk that it will not reach that potential if it is not expedited using appropriate building procurement methods.

The design of Building B,C,D began in 2009 on a site behind Building A. That development could not go ahead and so a series of planning and re-planning options were adopted. This led to the construction of Building E,F on land further afield and then the beginning of construction of Building B,C,D adjacent to it. There have been several design changes over this period, some of which have been incorporated into the final documents, some are still pending. The original design and some of the design changes were carried out by a large firm of established Indonesian hospital architects, some were decisions initiated by the hospital and did not involve the architects. Generally the design documents can be considered to be accurate, and the design is good overall, reflecting modern "green" hospital characteristics. The preliminary report of the structural engineers is positive although noting some areas needing repair or amelioration.

Construction of Building B,C,D was started in 2011 and is approximately 50% complete. If the building process had been properly funded and managed it should not have taken more than two or three years to complete. Even in its present state it is a valuable asset with great potential. Approximately IDP 200 billion (USD 15 million) has been spent on it so far. However, Building B,C,D is a large unfinished building that is currently deteriorating. The structural inspection has flagged several areas where the concrete structure is suffering or could be suffering cor-

rosion of reinforcing steel because of ponding water. The basement parking areas is continually flooded by several centimetres of water. This could be alleviated if the drainage was cleared or if measures were taken to pump out any water.

Some of the work carried out to date has been done in a piecemeal fashion, out-of-sequence and some is unfinished. It is becoming damaged, open to theft and vandalism and not protected. There is insufficient security and the site is dangerous with regards to standards of occupational health and safety.

It is a complex problem and there does not appear to be enough 'ownership' or responsibility for the unfinished building. Some decisions to carry out particular works appear to have been made to expedite spending, not with due regard to the whole of the building process. In most cases the reason given is the limited amount of funding in recent years, tenuous funding commitments and the requirement that funding be disbursed within the financial year. This has led to multiple, unfinished, overlapping contracts by small scale builders, a process which can be wasteful and difficult to ensure quality control.

The cost estimate to complete Building B,C,D has been calculated to be approx. IDR 200 billion, the equivalent of USD 15.4 million. The EPOS Team recommend that the unfinished building should be completed as soon as possible using one multi-year contract following freezing of the design and a tendering process with reputable contractors having the capacity to undertake the work. The Team urges BAPPENAS and MoHE to agree whether this should be financed by a larger KfW loan or from GoI resources. The proposed project could not go ahead without this construction completion, but if it can be pursued the project could be phased. For example, the part of the building needing only drainage work in the basement and an elevator installed would enable a currently wasted asset to be brought on line relatively quickly. Two timelines have been included for the internal and external funding scenarios.

1.5 Equipment

In close collaboration with the HUH equipment planning committee each functional area of the existing hospital was visited to make a visual assessment of the currently available equipment and its general state of repair. Time limitations prevented a full inventory being performed but the overall impression was that the existing equipment was appropriate and in good condition. An allowance has been made in the equipment lists to fit out 130 beds in the wards of Building B,C,D with beds, furniture, oxygen and suction equipment. Maintenance is largely satisfactory but the Team believe it will need enhancing.

The full list of planned equipment has been assessed and is provided, with cost estimates. At the wrap up meeting in Jakarta there was some concerns that the initial revised equipment costs presented were significantly higher than originally proposed (see slides in Annex 3). Subsequently, the assumptions and data being worked on were reconsidered and the difference is now considerably reduced in this report.

1.6 Poverty, Gender and Environmental Impact and Risk Assessment

The proposed project will contribute to social and gender wellbeing, without undue negative environmental effects. There are a number of risks of which the biggest is failure to reach agreement on funding the completion of building B,C,D. Other risks include an economic down turn which might make the level of services proposed unsustainable, and natural disasters. However, it is believed that these are not sufficiently likely to cause concern. There are many other operational risks which the EPOS Team has identified and described, but which are generally manageable.

1.7 Conclusions and Recommendations

The EPOS Team consider that the project is eminently sensible, fits the needs of the population and should be sustainable. Previous investment has led to a very attractive and well used facility which is clearly contributing successfully to access and quality within the local health economy, and, indeed, developing as a hub for Eastern Indonesia. The institutions work well together and staff have demonstrated great energy and commitment in the developments already achieved. The unfinished building is of considerable concern but with appropriate decisions about funding this problem is surmountable within a relatively short time, and the project could be phased to run in parallel with construction.

The revised estimated costs for the non-construction element are higher than originally indicated and this would have to be dealt with through increasing the loan; or reducing the staff and equipment planned for; or reducing the number of clinical specialties proposed; or phasing the developments e.g. “mothballing” some operating departments or wards.

A summary of the project cost estimate is given below. For the purposes of the study, the exchange rate of **USD 1 = IDP 13,000** has been used.

Table 1.1: Project Estimates Summary

Project Estimates Summary	USD
1 Medical Equipment	25,880,006
2 HMIS/Telemedicine	1,159,524
3 Human Resources Development	2,688,098
4 Completion of Building B,C,D	15,423,165
Subtotal	45,150,793
Project Consulting Costs @ 7%	3,160,556
Project Total Cost	48,311,349

Following the writing of the Draft Study Report, KfW Development Bank was informed that the Government of Indonesia had agreed to make an exception to their normal mode of working and would allow the incomplete construction at HUH to be finished using foreign funds. However, the total loan would have to remain within the parameters of the Green Book project description. This information was communicated to the EPOS Team in the context of a meeting at KfW Frankfurt on 07.11.16 (Minutes of Meeting enclosed as Annex 26). The EPOS Team were, therefore requested to give an indicative outline of how their proposals could be prioritised in order to plan a project whose cost would be within the loan amount shown in the Green Book. The results of their thinking are shown in Annexes 27 'Justification for Indicative Prioritisation', where they have been designated "Phase 1". Annex 21b and Annex 22b detail the cost estimates for the activities to be covered in such a Phase 1. KfW Development Bank has indicated that activities and investments not included in Phase 1 may be considered for funding through a subsequent Phase 2.

The prioritised Phase 1 construction activities assume that the shell of building B,C,D can be completed with some wards, theatres and technical services brought on line and others commissioned at a later stage, without fundamentally compromising the purpose of the Development Plan. Equipment and HR costs can be scaled back accordingly. The resulting project would protect the investments already made at the site, would clinically benefit the population served, and enable evolution of the site along sustainable lines. However, the suggestions made by the EPOS Team in regards to which services should be scaled back, and, , therefore the detailed implications for HR and equipment needs, will require refining by local stakeholders at a later stage of loan/project preparation. The broad breakdown of the elements of the loan under the constraint of staying within the Green Book parameters is:

REVISED Project Estimates Summary	USD
1 Medical Equipment	13,209,349
2 HMIS/Telemedicine	1,159,524
3 Human Resources Development	1,544,558
4 Completion of Building B,C,D	13,071,452
Subtotal	27,440,325
Project Consulting Costs @ 7.5%	2,308,866
Contingency	1,800,000
Project Total Cost¹	31,549,192

Figure 1.1: HUH's welcoming reception area



¹ Excluding the local contribution of USD 1,545,558 for HRD

2 Background

2.1 Background to the Project

The purpose of the pre-feasibility study funded by KfW was to assess the viability of the proposed expansion of HUH as detailed in the Development Plan, examining the current performance, facilities and finances of the hospital, the data and assumptions upon which the planning has been undertaken, as well as to gauge potential impact of the expansion on health outcomes, budget requirements, qualified staffing availability and training needs, medical education capacities, and referral responsibilities, taking also the role of RSWS into account. The assignment was carried out through pre-study of relevant documents followed by a meeting with representatives of the KfW office in Jakarta on 27th September, 2016, and a relatively short field mission to Makassar from 28th September – 6th October, and a wrap up session hosted by BAPPENAS in Jakarta on 8th October, 2016. EPOS Team members (see Annex 1) had meetings and in-depth interviews with local stakeholders (Annex 2), carried out site inspections and consulted local information and data sources.

The objectives of the study were laid out in KfW's terms of reference inviting proposals for the study. In summary they were to provide a study report which elaborates detailed justification of the proposed investment measures and the respective cost calculations as well as implementation schedule. When the team met with the KfW representatives in Jakarta on 27th September, 2016 at the start of their mission fears were shared with the team about the lack of progress on construction at HUH and the team were asked to look in detail at the implications of this on the proposed loan. The KfW representatives emphasised that the loan could not be considered as long as the buildings were in the state witnessed by the representatives when they had last visited the site, and the EPOS Team were asked to make this point clearly to the stakeholders in Makassar. That they did so is shown in the presentation made by the Team at their wrap-up sessions in Makassar and Jakarta (Annex 3).

HUH is located in the adjacent area to the campus of Hasanuddin University and to RSWS which is a Class A Hospital under MoH and is the regional referral Hospital for South Sulawesi and Eastern Indonesia.

The main goal of the development plan of HUH as described by the current senior staff is to provide health care services to improve the health status of society through the application of integrated health education, research and health services to produce qualified medical professionals to support the development of health services. Specifically it aims at improved quality and increased quantity of all services provided at the hospital. Its role as a centre of excellence producing medical professionals is becoming more significant as Makassar, which is the largest city in South Sulawesi, becomes the referral hub the eastern part of Indonesia.

The development plan had been gazetted in June 2016 in the List of Planned Priority External Loans or Daftar Rencana Prioritas Pinjaman Luar Negara (DRPPLN) of 2016 – Government of Indonesia (The Plan of Hasanuddin University Hospital Development – Program Reference BB-ID: BB-1519-RO-17). This is also referred to as the Green Book (Buku Hijau) in the local context which lists the country's foreign loans agreed upon by BAPPENAS. (Annex 1 –Extract from The Green Book – DRPPLN– 2016 – HUH Plan). The amount that had been listed for foreign funding from the lender, KfW, is USD 31,566,000 (92.43%) with counterpart funding of USD 2,586,000 (7.57%) which totals to USD 34,151,941 (100%) for the proposed HUH Development Plan, including Project Management Consultancy Costs and a 5% contingency to cover project cost overruns. The details of the use of the proposed promotional loan funds (Source: HUH Development Plan – Green Book submission paper) are shown in Annex 4.

The scope of the proposed KfW funds requested as a promotional loan is for the following purposes:

- Purchase of Hospital Equipment:
 - Procurement of Medical Equipment for Medical Education
 - Improving five specialties as Centres of Excellence namely Trauma, Ophthalmology, Oncology, Fertility & Endocrinology and Neuro-intervention
 - Improving the Diagnostics Centre and Clinical Pharmacy
 - A Simulation Centre to facilitate clinical education and training
 - Improving the Hasanuddin University Research Laboratory
 - Development of a Hospital Management Information System for HUH and a Telemedicine System for HUH to be a Centre for Telemedicine in Eastern Indonesia.
 - A contingency cost element of 5% on the above project scope to cover cost overruns in the project.



Figure 2.1: Class C private hospital RS Stella Maris

The Counterpart funding is for purposes of Human Resource Development which is targeted for education and training of medical professionals in HUH and short-term human resources payments including for the Management Consultants appointed for the project.

Please refer to Annex 5 for details of proposed budget expenditure by activity.

2.2 Health Situation in South Sulawesi and HUH's Status

2.2.1 Demography, Epidemiology and Health Economy

In 2015, the Indonesian population was approx. 255 million and, based on the data from PERSI, there are 2,083 hospital units throughout the country. Based on the local planning guidance that one hospital should serve a population of 100,000, it means that Indonesia has a shortage of about 467 hospitals. In addition, Indonesia had a shortfall of approx. 110,308 doctors in 2015 based on the standard set by MOH of 1,200 people to one doctor. Hence, educational institutions such as UNHAS are needed to produce medical doctors to meet the standards declared by MoH. It also underlines the political difficulties faced by the Government of Indonesia through agencies such as the (MoHE and BAPPENAS) to keep investing more resources into Makassar when so many other areas are less well developed. However, Makassar is developing as the referral health hub for Eastern Indonesia, and it can be argued, using the analogy of the hard resource decisions which must be made sometimes by clinicians, that from a triage point of view the investment should continue there until the present proposed developments are completed in order to ensure a fully functioning institution which can serve as an exemplar for the rest of the country.

The increased population of Eastern Indonesia, improved economic potential of communities and the increased incidence of sick patients requiring health speciality services which cannot be fulfilled by existing hospitals reinforces the argument that HUH should be developing further specialist and sub-specialist services. Currently within Makassar the "health economy" consists of a range of primary care and class C, B and



Figure 2.2: Class C Municipal run hospital RS Dayah

A hospitals, both privately and publicly owned, of which RSWS and HUH form the apex. However, private and Class C hospitals can also include specialist services (e.g. psychiatric or pulmonary) and the referral mechanisms allow for cross referral before referral straight to the apex units.

According to Statistic Central Bureau (BPS) Makassar, Makassar city's population in 2015 was 1,449,401 people, with 8,520,309 people living in South Sulawesi and about 19 million people in all of Sulawesi. (Ref. BPS 2015).

The high rate of urbanisation-related growth from other areas of Eastern Indonesia is due to:

- Availability of jobs
- High economic growth
- Increased education facilities
- Status as centre of local government
- Affordable accommodation

Currently, there is epidemiological transition characterised by increased number of degenerative diseases; chronic cardiac and neurovascular diseases; cancers and increased incidents of motor vehicle accidents. These statements have been supported by SURKESNAS data (2015) that shows increasing health care demand for trauma, neoplasm cases and cases of maternal/infant mortality. Annex 6 provides detailed demographic and epidemiological data.

Community understanding of health is increasing, and the impact of shifting lifestyles contributes to people's behaviour in adopting preventive measures toward the occurrence of chronic diseases. This gives rise to increased demand for preventive and promotive care such as the early detection of CVD, NVD and cancers.

Performance data in South Sulawesi referral hospitals shows an increased demand for neurological, eye and orthopaedic surgical services. This demand is treated as an unmet need for the services.

Based on assumptions the demand of the public in East Indonesia would potentially have the following incidences:

- 45,542 cardiac cases per year
- 39,849 orthopaedic cases per year
- 15,939 neurosurgical cases per year
- 1,138 eye cases per year

The increasing population of Eastern Indonesia, improved economic potential of communities and the increased incidence of patients requiring health specialty services which cannot be fulfilled by existing hospitals all provide an excellent opportunity for HUH to fulfill the need for specialist and sub-specialist services.

2.2.2 Current and Proposed Future Role of HUH

UNHAS, its medical school (and residency and post-graduate program) are one of the most highly regarded institutions in the east of Indonesia. UNHAS has traditionally used RS. Wahidin Sudirohusodo (RSWS) as its practicing hospital for both teachers and students. Recently MoHE has issued a regulation encouraging big universities with recognised medical schools to have their own university hospital. UNHAS has used the opportunity to get funds from MoHE to start the building of the hospital.

The University decided that the new university hospital would provide the following specialties which would be converted to centres of clinical excellence during the first five years:

- Trauma and Emergency Centre
- Critical Care (i.e. ICU, ICCU, PICU, NICU)
- Cardiac Centre – CATH lab (Cardiac Centre of Excellence taken over by RSWS)
- Oncology and Cancer Therapy
- Women's health with priorities on fertility, osteoporosis, family planning, in-utero fertilisation (in close collaboration with RSWS)
- Tropical Diseases Centre to address old and emerging infectious diseases (i.e. the Centre of excellence for infectious diseases is in RSWH)
- Eye Centre
- Research labs for gene therapy and bone marrow transplants

For the following five years (2016 – 2021) the plan was to develop further centres of excellence:

- Cardio-thoracic Centre, now transferred to RSWS
- Neurovascular surgery
- Stroke Centre
- Geriatric Centre
- Robotic surgery and Nano-technology research
- Kidney / bone marrow transplants
- Endocrinology
- Advanced skills laboratory and simulation centre (i.e. skills training using models rather than patients)
- Academic Centre

Implementation of these plans has been delayed due to budget and administrative problems.

2.2.3 Performance of HUH

From the indicators of the Performance Report of 2014 from the Provincial Health Office of South Sulawesi (Profil Kesehatan Tahun 2014 Sulawesi Selatan) the following table indicates the average BOR, BTO, TOI and ALOS taken from reporting from 30 provincial hospitals in the Year 2013 against HUH's performance achievement. (Annex 2 – SULSEL PHO Indicators- 2013)

Table 2.1: Comparison of Provincial and HUH hospital performance

No	Indicators	Standard from MOH - 2009	Average of 30 provincial Hospitals in SULSEL in 2013	HUH Services from Jan – July 2016
1	Bed Occupancy Rate (BOR)	65 – 85 (%)	44.23 %	53.04 %
2	Average length of Stay (ALOS)	6 – 9 days	3.39 days	7.72 days
3	Turnover Interval (TOI)	1 – 3 days	4.77 days	5.54 days
4	Bed Turnover (BTO)	n/a	42.69	n/a
5	Gross Death Rate (GDR)	n/a	2.12 %	n/a
6	Net Death Rate (NDR)	n/a	0.93 %	n/a

Table 2.1 above shows that MoH has set standards since 2009 for hospitals to measure their performance indicators, as part of the reporting process for MoH. It is noted that the provinces in SULSEL are still not able to meet these standards due to the hospitals being unable to extend further medical care to patients under their current classifications and are expected to refer patients to other higher specialty hospitals. In this aspect RSWS which is the regional Class A Hospital tends to be the most comprehensive MoH Hospital in the province for tertiary medical care. The development of the 5 clinical specialties is expected to contribute to alleviating this bottleneck.



Figure 2.3: Primary health care centre

Patients have to adhere to the referral system that has been put into place by MoH, i.e. based on hospital classification status, such as A, B,C and D, patients can only be referred to higher ranking hospitals after seeking treatment in lower ranking hospitals. The starting point is normally the Puskesmas centres (primary health care centre – there are 46 of these in Makassar). There are exceptions to this rule based on logistics of the hospitals and condition of patients. To further enforce this referral system, the national insurer, BPJS, which provides mandatory medical coverage for Indonesian citizens insists that patients adhere to this hospital step-up system for the insurer to cover their medical expenses. HUH is a Class B hospital in the system. HUH is a hospital built by MoHE to support teaching, research and community health services for the Faculty of Medicine, UNHAS.

Currently HUH has only 240 beds, with plans to increase to 256 – 400 beds (see Table 2. depending on the funds provided by the MoHE, which varies yearly on the budget allocation (DIPA).

Table 2.2: Number of Beds based on type in HUH

BED CAPACITY IN HUH - 2016			DEVELOPMENT PLAN – Buildings B+C	DEVELOPMENT PLAN - COMPLETION
No	Service Type	Number of Beds	Number of Beds	Number of Beds
1	EMERGENCY	15		15
2	RADIOTHERAPY	4		4
3	POLYCLINIC	14		14
4	ICU	7		7

BED CAPACITY IN HUH - 2016			DEVELOPMENT PLAN – Buildings B+C	DEVELOPMENT PLAN - COMPLETION
No	Service Type	Number of Beds	Number of Beds	Number of Beds
5	HEMODIALISA	11		11
6	COT	8		8
7	CHEMOTHERAPY	22		22
8	NICU	4		4
9	BIRTHING ROOM	2		2
10	MOTHER & CHILD ROOM	6		6
11	VVIP INPATIENT	11		11
12	VIP INPATIENT	19		19
13	WARD CLASS I	36		36
14	WARD CLASS II	24		24
15	WARD CLASS III	30		30
16	COT A BUILDING	6		6
17	WARD EYES A BUILDING	21		21
18	WARD CLASS 2 (3rd FLR)		72	72
19	WARD CLASS 3 (3rd FLR)		40	40
20	ISOLATION ROOM (3rd FLR)		2	2
21	WARD CLASS 2 (4th FLR)		72	72
22	WARD CLASS 3 (4th FLR)		40	40
23	ISOLATION ROOM (4th FLR)		2	2
24	WARD CLASS 2 (5th FLR)		72	72
25	WARD CLASS 3 (5th FLR)		40	40
26	ISOLATION ROOM (5th FLR)		2	2
27	WARD CLASS 2 (6th FLR)		72	72
28	WARD CLASS 3 (6th FLR)		40	40
29	ISOLATION ROOM (6th FLR)		2	2
	TOTAL	240	456	696

Since the establishment of HUH in 2010, the demand for health services has significantly increased from year to year; the increasing patient load is indicative of the development potential of HUH. Table 2.3 below shows in-patient visitors data and the bed occupancy rate from 2010 to 2014.

Table 2.3: The trend in patient visits by type in HUH from 2010 to 2014

NO	Visit of Patients	2010 (person)	2011 (person)	2012 (person)	2013 (person)	2014 (person)	2015 (person)
1	In-patient	0	5	39	82	296	207
2	Emergency Unit (average per day)	1	4	9	14	20	21
3	High Care Unit/ Intensive care unit (average per day)	0	0	2	3	4	1
4	Operation Room (average per day)	0	4	4	6	10	8

Source: Medical Record of Hasanuddin University Hospital, 2015

Table 2.4 below indicates that the bed occupancy rate has increased; in the first half of 2016 the BOR recorded was 53%. This was because the lower ranking inpatient beds, especially the Class III beds, were not in demand.

Table 2.4: The trend in Bed Occupancy Rate of HUH from 2011 to 2014

Indicators	Standard (Health Ministry, 2009)	2011	2012	2013	2014	2015
BOR	65 - 85 %	28,5%	45,53%	54,56%	68%	45.77%
TOI	1 – 3 days	15 days	9 days	7 days	3 days	n/a
ALOS	6 – 9 days	6 days	7 days	7 days	7 days	n/a

Source: Medical Record of Hasanuddin University Hospital, 2015

2.2.4 HUH within the referral system

An organigram of the referral system of HUH and its importance as a teaching hospital in providing tertiary care to the region is shown in Figure 2.4 and further details are shown in Annex 7.

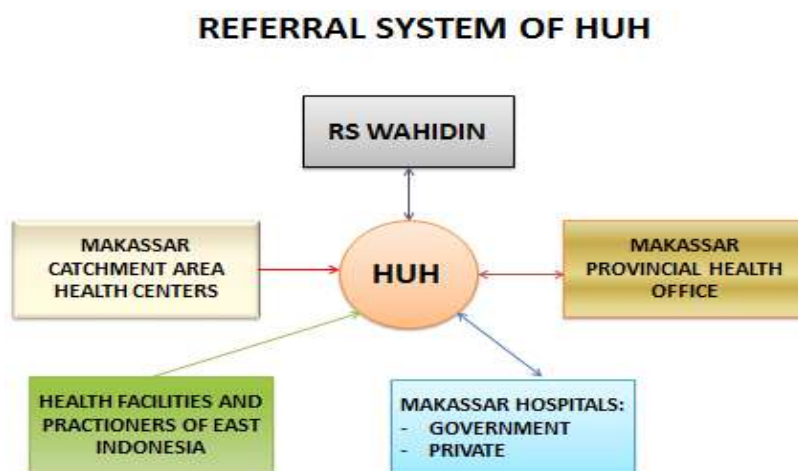


Figure 2.4: Schematic of HUH’s role within the referral network

The formal structure of the Indonesian referral system consists of Primary Health Care centres at the first level, and Class D hospitals (with general practitioners), as well as Class C hospitals (with specialists in basic medical services) at the secondary level. The top referral hospital of a province is normally a Class B hospital with more specialised services. In South Sulawesi Province, RSWS is a Class A Hospital and is the regional referential hospital at the apex for the province and also for Eastern Indonesia. As is the case in many other countries, a lot of patients directly try to access the referral hospitals by bypassing the primary health care level. People usually chose according to their perception of range and quality of services provided at different health facilities in order to get access to the best possible care, in line with their financial capacities, transport possibilities etc. Thus, their preference is often for the hospital because of its wider range of diagnostic and therapeutic services and the possibility to access services beyond the opening hours of Primary Health Care centres. However, under the BPJS national insurance scheme adherence to the referral system is strictly adhered to, though exceptions are made to take logistics and available medical treatment into account.

The BPJS follows the same grading hierarchy for remuneration. The EPOS Team were able to visit a cross section of primary care clinics and lower class hospitals, for example, a Class C hospital run by the municipality, as well as private hospitals in Makassar. All spoke highly of the services provided by RSWS/HUH and confirmed the importance of the apex for diagnostic and therapeutic purposes. In addition, the team witnessed referrals via the IT system to arrange for admission of patients which the peripheral units could not manage themselves, and via the telemedicine system for advice on how to treat patients locally. All the 46 primary units in Makassar have ultrasound and EKG machines that link with HUH. The patient referral system was developed by the Director of RSWS with support from the provincial health office, and the telemedicine system was developed by the Medical Director, HUH.



Figure 2.5: Primary care mini-ambulance



Figure 2.6: Triage desk at RSWS waiting for referrals

2.2.5 HUH's Formal Status and Role within UNHAS

HUH commenced operations in 2010. HUH's current status is defined by Minister of Health Decree No HK.02.03/1/2180/2013 under which it was given the classification grade of a Class B Hospital. UNHAS holds BLU status, meaning that it is a 'public services government enterprise', and the idea was modelled on the various forms of policies in Higher Education and Health Services. BLU status enables a degree of institutional decentralised authority, with powers to make local decisions about staffing, for example. UNHAS as a university has BLU status, but HUH is placed in line with all other Teaching Faculties under the UNHAS structure but has yet to achieve BLU status in its own right. Winning such recognition will be important for the efficient running of the hospital. The current planning has come about through several stages:

1. National Midterm Development Planning (RPJMN) 2015-2019

In an effort to contribute towards the national development agenda 2015-2019 (RPJMN), especially in improving the standard of living for the people in its catchment area, HUH has formulated its development activities in line with policies and strategies to improve the quality of higher education through the improvement of infrastructure of science and technology in UNHAS. Besides, it plays an important role in achieving targeted acceleration to fulfill access to

health services for mothers, children, adolescents, and the elderly who are eligible. The planning involves the development of various regulations, including standard guidelines in health care, institutional capacity-building to support the quality of services, improved access to health services, referrals, and quality, as well as improving availability, affordability, equity, and quality of pharmaceutical and medical devices. This is done by improving the availability, distribution and quality of healthcare human resources visually by improving the quality of health services personnel by improving their competence, education, training, and certification of all types of health personnel including the development of specialists and primary care professionals.

2. Strategic Planning of Ministry of Research, Technology, and Higher Education (MoHE, Kemenristekdikti) 2015-2019

One of the policy directions in the strategic plan of MoHE is to improve the relevance and competitiveness of higher education by increasing the expertise and skills of college graduates to shorten their waiting time in obtaining their first employment, as well as improving institutional governance of higher education through the strengthening of higher education institutions by establishing a centre of excellence in the field of science and in education. One area that is intended to support this development and has become its main focus is the development of science and technology in the field of health and medicine technology.

HUH operates as a Class B Hospital as per the MoH Classification based on minimal standards in meeting the number of beds and staffing requirements. **It has not been credentialed yet by KARS** (Hospital Accreditation Committee) as per MoH guidelines and has until mid-2017 to fulfil this legal requirement to maintain its Class B & Teaching Hospital status. It was originally to be audited in 2014 but requested an extension till 2017. HUH is now proceeding aggressively to be audited in December 2016 to obtain this certification. Once credentialed, the hospital will be re-assessed by KARS every 3 years.

In a recent exercise by HUH on 3rd October 2016 to gauge its status on completion of the documents for the 17 areas that KARS will be assessing, it was found that the accreditation documentation is 74.4% complete. (A status report on HUH Accreditation Documents is given in Annex 8). Although it is anticipated that HUH will be credentialed in accordance with MoH requirements in December 2016, currently **its medical equipment portfolio is estimated to be only 27% complete in relation to the medical equipment standards set for Class B hospitals**. Incomplete equipment will curb its development not only as a hospital but also in the area of teaching since the Hospital also serves as a training ground for its Medical Faculty, as well as for Dentistry, Pharmacy and Public Health. UNHAS also has plans to separate the Nursing programme - currently under the Medical Faculty umbrella - under a separate School of Nursing Faculty with Nursing Degree Programmes. This has been planned to materialise in 2017.

In this context an anomaly should be noted. MoH regulations allow only one Class A apex referral institution in a region, but HUH, and the developments under consideration here, are designed to create a complementary institution to RSWH with clinical centres of excellence i.e. Class A services. Due to the MoH regulation, in theory HUH can refer patients to RSWH but not vice versa, and, more importantly, **BPJS will only reimburse at Class B rates despite the services offered being at a higher Class A level**. This could represent a significant haemorrhage of resources over the years which will have to be cross subsidised via the income generated from VIP patients, or other fundraising activities.

2.3 Governance, Organization, Management and Funding

2.3.1 Governance

Under Indonesian Presidential Decree No.53 Year 2015 UNHAS as a University is accountable to Majelis Wali Amanat (MWA) which is headed by the Minister. As UNHAS falls under the jurisdiction of the Ministry of Higher Education, its Minister heads the MWA. The other members comprise certain members of the provincial legislature and of the public holding office.

The Rector of UNHAS reports to the MWA. Like the other faculties in the University, HUH reports to the Rector, whose office is the ultimate decision maker for HUH. The Supervisory Council comprises of members from the Medical Faculty since the HUH project was spearheaded by this Faculty. This Supervisory Council acts as an advisory board and also reports to the Rector as depicted in the Organisation Chart of HUH. This line hierarchy is because UNHAS has BLU status. It was mentioned that **HUH may apply for BLU** status but this may not be feasible until it is fully compliant with requirements for a Class B hospital. .

RSWS, categorised as a Class A Hospital, is, in comparison, responsible to its Supervisory Council (Dewan Pengawas), which was previously headed by the Governor of SULSEL. At present, after a change in the Supervisory Council members, it comprises of two members from MoH, two members from MoF and includes the Rector of UNHAS. The current Head of the Supervisory Council is from MoH, as part of the accountability drive by MoH in promoting its slogan of “Good Governance and Clean Government”.

The EPOS Team recommends that HUH considers following this example and invites on to its Supervisory Council a member from MoH to reflect its role as a public hospital. A good start would be inviting the Head of the PHO in Makassar to sit on its Council, to depict a closer relationship between the two Ministries.

2.3.2 Organisation and Management

HUH is currently managed by a management team who are also the academic staff at Hasanuddin University. The organisational structure was formed based on the classification of a Class B hospital in accordance to the Guidelines for Hospital Organisations within the Ministry of Health of the Republic of Indonesia under Number: 1045/Menkes/Per/XI/2006. Annex 9 provides the current organisational structure of HUH. Currently the hospital is chaired by the President Director (Direktur Utama) responsible to the Supervisory Council. The President Director reports to the Rector of UNHAS and so does the Supervisory Council.

The President Director is assisted by four other Directors with their respective portfolios as follows:

- Directorate of Education, Training, and Research,
- Directorate of Medical Services and Nursing,
- Directorate of Supporting Facilities and Cooperation, and
- Directorate of General Administration, Human Resources and Finance.

Each directorate is divided into two to three departments. The management responsibilities in each department are adjusted in accordance with the knowledge background of the manager and the duties and functions of the respective position. However, there are still some managers who do not have an educational background in hospital management (as required in the Regulation of the Minister of Health of the Republic of In-

donesia No. 971/Menkes/Per/Xi/2009 on standards of health competencies of structural positions). Further development and training is, therefore, indicated as part of the proposed development plan.

The total number of heads of department is 10, and all of them come from academic staff of Hasanuddin University. In addition to performing their main task as lecturers, they also have additional duties as manager in the hospital. The technical implementation of daily hospital operational activities is carried out by the head of the institution with 18 support staff persons (11 part time and 7 full time). In implementing their duties and functions as directors as well as heading their clinical field, there are many obstacles faced by them due to the nature of the activity, complexity of the problems, speed in decision-making, and monitoring of the performance of each unit in the hospital. Support staff of the hospital are composed of civil servants, part time, and contract staff who have been selected by HUH through several stages. **Most of the staff are fresh graduates who do not have a lot of work experience**; therefore they still need to have additional formal training as well as in-house training to increase staff competence. (The HR situation is analysed in greater detail in Section 3 below).

The EPOS Team feel that there is a **need for full time professional management and planning expertise**, in addition to enhancing the competence and capability of staff through training. This is not a criticism of the excellent work and commitment shown by existing staff, but is needed to consolidate achievements so far, to complete the development project successfully, and to provide better institutional memory and continuity. It is noted that UNHAS provides courses in hospital management yet its own technical arm does not employ full time professional managers, which may be seen as a wasted opportunity to showcase its wares.



Figure 2.7: Existing telemedicine set-up

The influence of the Medical Faculty on management appears strong. Senior doctors from the Medical Faculty, heading all clinical departments, demand changes in the hospital, i.e. extension of services, buildings or procurement of new equipment, which do not always match with the “agreed” strategic or work plan of the hospital. In most cases, considerations regarding cost-effectiveness, transparent assessments of actual demand and later utilisation of requested equipment are missing. Even so, the hospital management often complies with the demands, leading to an uncoordinated and ad-hoc planning and acquisition of new buildings and equipment.

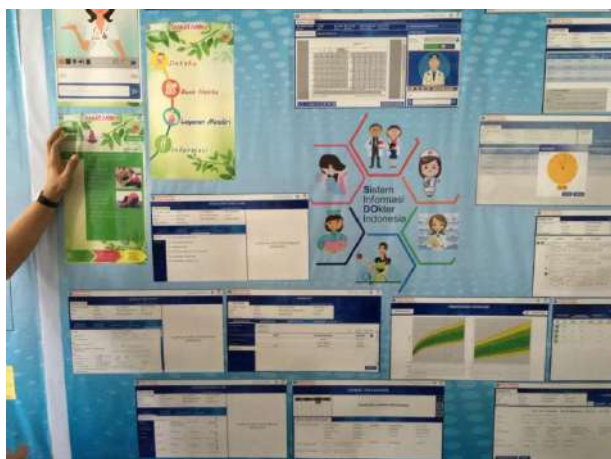


Figure 2.8: Telemedicine framework

2.3.3 Funding and financial management

A detailed description of the financial management and funding system and financial performance of HUH are given in Annexes 10 and 11.

2.3.4 Co-operation between HUH and RSWS

As indicated above, HUH is conceived of as being complementary to the existing Class A hospital, RSWS, run by the MoH on university land. RSWS offers a wide range of specialist services to the population, including surgery, paediatrics, orthopaedics, urology, neuro-surgery, cardiology, internal medicine, obstetrics & gynaecology, ear, nose and throat, ophthalmology, dermatology and venerology, dental services, neurology and psychiatric clinics, uro-nephrology with dialysis and intensive care. Compared to the other five A-class hospitals of Indonesia, RSWS is among the smaller ones in terms of bed capacity but is classified as a regional referral hospital serving more seriously ill patients. The organisational structure of RSWS is given in Annex 12. Based on the history of the development of RSWS, it was the teaching hospital (under MoH jurisdiction) for the Faculty of Medicine of UNHAS when it was first given land to set up the Hospital within the UNHAS compound. At one time RSWS had changed its name to Hasanuddin University RS Dr. Wahidin Sudirohusodo indicating their more formally joining forces. However, this was short lived since the concept of HUH was mooted by UNHAS. Now that HUH has been established there are some inevitable changes.

An MoU between RSWS and UNHAS was earlier developed in 2006 further clarifying the roles and responsibilities of the two institutions in providing care at the RSWS. This was of particular importance at that time because approximately 60% of the hospital's medical staff and almost all department heads are under contract with the university (Ministry of Education) – only forty percent (40%) have their contract with the hospital (Ministry of Health). Further MoUs were signed between the two institutions to maintain their cooperation. The MoU is clear in its understanding and provides a good framework for cooperation between the two institutions. However, it does not remove the potential friction between university and non-university doctors. This makes RSWS very difficult to manage without excellent cooperation between the hospital management and the medical school dean.

It was noted that there is currently good cooperation between HUH, the Dean of the Medical Faculty and RSWS. In an attempt to further strengthen their cooperation a tripartite MoU was signed by the three parties in January 2016 (see Annex 13). This will enable HUH to pursue its Centers of Excellence and not be in conflict with the Scope of

Services and Centers of Excellence provided in RSWS. It also sets all parties to formalise the training programmes for the medical faculty since clinical heads are involved in the training given to undergraduate and postgraduate students from the Medical Faculty. It also enhances their perspective in the roles they play in the provincial hospital referral system as better collaboration between the two hospitals provides improved medical services to the local community and province of South Sulawesi. With this integration RSWS and HUH will also be able to realise their vision to be recognised as an Academic Health Center in Indonesia by Year 2019. Their complementarity is further described in Annex 14.

As described above, RSWS has initiated an online integrated hospital referral system (SISRUTE) with other hospitals in the province. About 90 Hospitals are registered within this referral system. Some of the private hospitals are also linked in this system as RSWS is also the ultimate referral center for complicated medical cases. Decisions can now be made speedily in the best interest of the patient. With HUH also planning to develop further a telemedicine network within the province it will only further supplement this overall regional reach to patients. At **present HUH has already set up an online network with 46 Puskesmas within Makassar for Ultrasound and Cardiology diagnostic capabilities**. Inter-referrals between RSWS and HUH has also been running smoothly and within the framework of the BPJS insurance scheme. Both parties understand the framework and do not hesitate to refer to each other as per the medical services needed for the patient.

2.3.5 Review of Cost Benefit Analysis Projections Prepared by HUH

For the projections made by HUH in their Development Plan, a Business Plan has to be prepared to provide a base for projections to be made realistically. Certain assumptions made in the projection do not consider the operations of the hospital. Further, with a Business Plan in place, HUH could use it for benchmarking progress.

There are several mitigating factors that need to be reviewed in HUH's preparation of the Cost Benefit Analysis:

- **Prediction of Revenues and Expenses**

The Revenue is based on the assumption that Buildings B and C are completed and that the HUH can operate optimally generate a higher revenue. At present HUH faces problems in obtaining the funds to complete the buildings. In its actual context the operational funds are obtained from the Government Budget allocations and these may vary depending on the allocations approved for HUH. Further, DIPA funds are actually realised in the middle of the year. The assumption of the base year revenue of IDR 84,933,083,961 is the projected patient revenue to be derived in Year 2016. This is achievable based on the assessment of HUH's patient income collections. The revenue projections are based on a straight forward methodology by increasing each year's revenue by a percentage. If a business plan was in place for year 2015-2019, a more accurate projection could be made. This also applies to the expenditure projections. The EPOS Team believes that currently the net cash flow figures are overstated.

- **Analysis of Investment Feasibility of the Hospital Project**

Since the net cash flow projections are overstated, the Net Present Value (NPV) computation is also overstated. As a general rule of thumb the payback period for the amount of the investment in question the payback period would be in the region of 10 to 15 years.

2.3.6 Project Management

The funding of the Project Management Team is proposed to come from counterpart funding and is computed based on 3% of the total project cost excluding contingencies. **The EPOS Team believes that this amount is insufficient for management consultancy to implement a project with a proposed value of USD 30,062,644** (see Annex 5). We believe that the project management team proposed to be headed by the President Director would not have the capacity required for such an elaborate development and reflects the fact that HUH is unaware of the various committees which would need to be set up under a KfW financed project, for example an apex Project Executing Agency (PEA) and/or Steering Committee, with subsidiary Project Implementing Unit (PIU), Commissioning and other Technical Committees/ working groups.

We also have concerns around HMIS implementation which requires the development of the self-proprietary software involving a number of modules. Though HUH has budgeted approximately USD 430,441 for the procurement of the hardware & network system for start-up preparation of the HMIS modules, it also assumes that all existing computers and hardware within HUH will still be used to integrate the software upon its completion and that no additional costs would be incurred for this purpose. The implementation timeframe given needs to be monitored closely including for the software developer who should be selected from a pool of IT experts. It was noted that HUH has already contacted certain IT Experts to look into their requirements. In KfW-financed projects, bidding guidelines exist for open selection purposes.

While a good understanding between the present Directors of HUH and RSWS is evident, there still seem to be institutional barriers between them. However, close collaborative relationships are essential given the complementarity of the two hospitals. An example of where RSWS could help is with accreditation. RSWS has gone through a few accreditation processes relevant to HUH and would seem to be a logical source of assistance in preparing HUH for being credentialed. The EPOS Team has noted that RSWS has a quality department for ongoing training for their staff and also does training for other hospitals if invited.

3 Human Resources

This section of the report provides an assessment of the human resource implications of the implementation of the HUH Plan. It includes:

- A discussion on the links between the University, the Ministry of Higher Education, the Ministry of Health, Provincial Health Services, and the Private Sector.
- Current HR policies and their implications in planning.
- An analysis of staffing, education and training needs to implement the Plan 2017-2020.
- Additional costs to effectively implement the Plan.

3.1 Employment Conditions

In its role as a main teaching hospital **HUH serves up to 200 students doing clinical rotation per year**. It provides health services and teaching-learning-research at the same time. Staff who work in the HUH are mainly re-deployed from the Faculty of Medicine (FoM) at Hasanuddin University. All of the medical specialists are appointees of FoM. Some of the nurses also belong to the FoM, as well as several other health professionals.

Since HUH is a teaching hospital, most of the revenue is allocated for teaching and research activities. The main funding of the HUH comes from the FoM. Around 30% of revenue of FoM goes to the university and the remaining 70% is allocated for FoM itself and the HUH. Salaries of about 13% of the staff employed by HUH (who have civil servant status) are paid by the central government. FoM faculty members who treat patients at HUH also obtain a government salary. The number of government health worker employees allocated to HUH is based on formulae for the type of facility and, in some cases, numbers of beds.

The management staff of HUH come from the workforce of FoM. The executives are appointed as part-time managers to govern HUH but, as noted in the previous section, each still has to perform their job as a faculty member in FoM. **The workload for this dual-employment is unsustainable**. It is currently maintained due to the passion of the individuals, but is not sustainable long-term.

Other than civil servants employed by the Ministry of Higher Education, HUH contracts 57% of the HR with contracts subject to annual renewal if funds are sufficient. As they are paid from the hospital revenue, this creates a financial burden for the hospital. This comprises mainly long-term contracted staff, and a few short term contracted personnel (including security staff).

Although the long-term contracted staff may have developed a high level of skill, and are an asset to the organisation, it was reported that **due to the non-permanent nature of their employment, many move to other organisations** which is a great loss for HUH in terms of continuity and building long term capacity. To address this, negotiations are underway for them to be permanent employees of PTN-BH, but zero-growth poses restrictions.

3.2 Standards and Compliance

Professional Standards are set by professional associations/councils. This includes licensing, regulation, accreditation and Continuous Professional Development and Education (CPE).

- The Indonesian Medical Council established standards for doctors and medical education in 2006 under the Medical Practice Act 2004 but the EPOS Team was told that these have not been implemented consistently.
- There is lack of adequate oversight. e.g. there is monitoring by the local Medical Association of doctors, but if a doctor works in two districts the monitoring can be uncoordinated and incomplete.
- Other professional Councils are not yet formally established. Few midwifery and nursing schools are accredited and the quality of curricula is variable and there are low pass marks, especially for community health workers.
- Teaching services by UNHAS for medical students at RSWS (Class A Hospital) are JCI-accredited, although this accreditation is not regularly monitored by JCI. Although HUH is Class B, the teaching is inter-changeable between the two closely located hospitals with sharing of lecturers and equipment. This works well, and is governed by an MoU.

3.3 Evaluation of HRM and HRD at HUH

3.3.1 Recruitment at HUH

HUH has an established system to run recruitment. A current ongoing recruitment drive involves 6,000 applicants for 43 vacancies in HUH. The first selection phase was administrative screening. From this first phase, 2,000 applicants were selected since they could fulfill the administrative requirement. These 2,000 applicants undertook a competence test comprising both a computer-based and manual test. This competency test resulted in 1,000 passing. The next test will be the psychological test, which will filter the best 150 applicants. The final test will be the interview test to select the last 43 personnel. This case shows that the recruitment and selection mechanism in HUH is well advanced. It is able to attract many applicants (150 times the required personnel) and apply rigorous selection.

3.3.2 Initiation & Orientation

Once the new personnel have been selected, they proceed to the initiation and orientation program. Its aim is to align each individual's mission and values with the HUH's. This HRM function is very important for both the staff and the organisation, so as to synchronise expectations. The new personnel join this program for 3 months. HUH can cancel the contract of the new personnel within this initiation and orientation phase. If the organisation decides to continue the contract it means that the new personnel has a good attitude toward the organisation's mission and working climate.

3.3.3 Performance Appraisal

HUH utilises a central government instrument to assess the performance of the employees, so that all civil servants perform as mandated in the minimum standard of services. For contracted-staff, HUH performs the same scheme to review the performance and it is used to consider prolonging the contract. Among health professional categories, only the nursing department implements specific performance appraisal. The nursing care document is the standard to assess the performance of the nurse. So far in 2016, 80% of all staff have been assessed as having met performance targets. Those below the requirement are given CPE/additional training/support to meet the targets, and if they do not meet the requirement over time are asked to resign, so do not have a record of termination.

3.3.4 Rewards and Incentives

The reward mechanism in HUH is based on a national remuneration system that is widely implemented in government hospitals. It covers the pay level for a position and pay for performance.

- Pay for position is the basic salary received by the employee and the amount is based on working period, rank and grading, and education level.
- Pay for performance is paid based on workload, risk, and position.
- Other rewards have only been implemented in a very limited way, for example: recognition of employee of the month and additional training.



Figure 3.1: The simulation (training) facilities have equipment ranging from the highly sophisticated (although it was noted that manuals had not been provided for some equipment so it was standing idle) to the basic needed in case of disasters.

3.3.5 Career Development

Career development plans are based on national regulation. This is regularly maintained at the university level for all of civil servants working in HUH. However, there is no career development programme in the HUH, particularly for the contracted staff.

The Nursing Department has developed a specific career development plan aligned with the national nursing professional competency development programme. It uses a Ladder Career Development Model

Consisting of 6 levels of development. Levels 1 and 2 are general nurses. After 6 years they are eligible for the review and credentialing process. If assessed as competent they are eligible for training in a specialty. In level 3, nurses are trained in neurosurgery, neonatal, cancer, dialysis, and ICU. If they pass their specialty they are promoted into the hospital at level 4, and later are assessed for level 5 and then level 6 based on performance.

3.4 Workforce Planning

There is a Strategic Plan 2015-2019 which includes (a) implementation of 7 Centres of Excellence: Cancer, Neuro-intervention, Trauma, FER, Ophthalmology, Trauma, Clinical Pharmacology (which links with Research) and Hospital Management (which includes HMIS), and (b) HR knowledge and skill regarding education, research and health services – to achieve certification, performance and CPE at 50% level in 2015

and 100% level in 2019. The Simulation Centre and Telemedicine are part of this initiative.

The Business Plan 2010-2014 has not been updated, although a framework for one for 2016-2020 is being developed based on discussions held with the EPOS Team. Using the HR tables in this Plan, data from 2016 can be projected into the future based on the bed plan for the Hospital Development Plan of 721 additional beds in the new buildings, and the plans for the Centres of Excellence. This can provide a very rough estimate until detailed projections are done.

The HR Unit produced a Workload Analysis of staff in 2015. This can be used as a basis for planning for 5 years. The Unit has not liaised with the Strategic Planning area to do workforce planning projections for a five year period, so have no data on the number and qualification of HR needed in the future. However, the HR Unit is working on developing this now, again based on discussions with the EPOS Team. The formula used to calculate the number of HR needed varies from one health profession to another. For example, formula to calculate the number of nurses (one nurse per bed) is different to the formula that is used to calculate the number of pharmacists, which is usually a facility-based formula. The Ministry of Health Decree 2010 shows the requirements for different staff categories in a Class B hospital. They comprise: 12 GPs; 3 Dentists; 4 major medical specialties with at least 3 specialists each; 12 other specialties with at least one specialist each; 13 sub-specialties with at least one specialist each; at least 2 supporting medical specialists; 7 dental medical services with one specialist dentist each; and one nurse per bed.

However, **the hospital has prioritised other areas for revenue allocation**, so has not fulfilled these requirements, for example, there are 35 less nurses than required by the formula. Other paramedical staff are in short supply also.

In practice, complete HR planning in HUH has not been done for each health profession available in the hospital. It is mainly done for medical doctors and nurses. For other professionals and supporting staff it is executed partially, and predominantly to fill the vacancies at a minimum level. **The centres of excellence have not been a main consideration in planning HR.** This is because the needs assessment has been undertaken by each individual centre and to date the doctors have used their own resources to provide the HR they need.

The HRMIS is inadequate as there are so many categories and multi-tasking of clinicians/trainers/managers. Training of staff and support to update the database is required.

The Workload Indicators of Staffing Needs (WISN) approach has been accepted for national implementation, but is not being used in the MoH districts. They are still using the ratio approach for planning (e.g. one nurse per bed), and the facility numbers approach.

3.5 Availability of Health Workers

There are adequate numbers of health workers in all categories available for RSWS and HUH, and their quality is good due to the high number of applicants and the ability to be very selective relating to qualifications and skills. As HUH is one of the top institutions of its kind in Indonesia, it has been able to train and attract high quality health professionals.

While adequate for the province as a whole, **the ratio of doctors is inadequate in terms of distribution within the regions**, especially specialist doctors for the six regional Class B hospitals. Doctors prefer to stay in the city. This lack is addressed through the Simulation Centre which arranges (a) diagnosis by video and transport to

HUH only for those requiring treatment in Makassar after assessment by specialist doctors, and (b) visits by specialist doctors to each regional hospital once a month.

There are enough nurses but inadequate midwives in regions. Richer districts can pay incentives to keep them, the poorer cannot.

There are gaps in terms of continuity of care in the community following hospitalisation, and no palliative care. Hospital liaison by community nurses and more home care is required.

HR planning is also related to the availability of HR in the job market. For certain professionals, e.g. medical engineers and bio-technicians, which are not usually available in the market, HUH has no plan to recruit this type of professional, but to contract them in as required for specific tasks.

3.6 Workforce Development Plans

3.6.1 University Education

There are detailed development plans for Clinical and Non-Clinical staff - health managers, nurses, medical doctors, and technical support staff. These plans, which relate to filling the gaps of quantity and quality (competency) within the existing units relating to the current practice of jobs in HUH, are shown in Annex 15. Costs are not included, as the courses are provided for any applicants through the University. The range is extensive, which is why HUH is able to attract high quality workers.

3.6.2 In-house Training

Training for all hospital staff (health professionals, managers, paramedics, admin and other support staff) in general skills is as follows, and is conducted by FoM trainers:

- Basic training: life support training (trauma & cardiac)
- Specialisation training: mostly for medical doctors and few for nurses
- Continuing Professional Education and Development (CPE) for health workers: This is mainly only done for doctors to gain credit related to accreditation for licensing renewal for doctors, and credentialing for nurses in the progression ladder.
- Equipment-based & standard operating procedure-based training: for example training for nurses who work in the Haemodialysis Centre.
- Mandatory training for all health personnel:
 - Administration training
 - Patient safety training
 - Emergency & evacuation training.

The above training is projected to decrease in cost as the major cost is in up-skilling new staff. As the hospital expands the training costs will decline, as estimated by HUH:

- IDR 4.069b in 2017,
- IDR 3,817b in 2018,
- IDR 3.519b in 2019,
- IDR 3.624b in 2020.

The total over the 4 years is IDR 15.029b, equivalent to approximately USD 1.156m.

Where the training skills are not available, staff are sent to Jakarta or elsewhere, e.g. in the case of technicians and cancer nurses. The projections for external training are as follows:

- External training projected for nurses 2016-2025, based on planned bed number increases and requirements for more specialty nurses, is 139 in 2017, 126 in 2018, 226 in 2019, 216 in 2020. That is 707 in the four years. Costs are provided by HUH for the ten years for 2,381 training episodes, which they estimate for the 4 years of project to be roughly 30%² of IDR 13.67 billion = IDR 4.10b (approx. USD 315,500).
- External training for technical staff is 24 in 2017, 20 in 2018, 23 in 2019 and 15 in 2020. The number reduces after that with only 14 in 2021 and 2 in 2023. This is approximately 84% of IDR 700b = IDR 588m over the 4 years (approx. USD 45,255).

Total projected cost for the 4 years 2017-2020 for all staff, including nurses/technicians is therefore USD 1,516,755.

Training is conducted by the MoHE for health professionals in other hospitals as requested, a number from other provinces, and also for Ministry of Health workers, who pay for the training. However, time for outreach by trainers is limited – there is a need for more trainers due to dual responsibility of trainers in management tasks. Doctors go to regional hospitals each month and diagnostics is conducted by video transfer, so training is much appreciated by provincial health personnel. However, the fact remains that although trainers have the qualifications and skills required, there are not sufficient specialists to do the training due to dual responsibilities of trainers.

3.7 Additional HR Requirements and Costs for Proposed Development Plan 2017-2020

3.7.1 HR Projections

Tables 7 and 8 in Annex 16 show the 2016 HR allocation according to job classification, and according to type of employment.

Overall staffing projections 2017-2020 have not been developed by the HR Unit for all staff, so a general assessment has been undertaken based on the 2010-2014 Business Plan projections, the bed increases, and the additional need especially for nurses, doctors and technicians. Regarding nurses they are currently 35 under the MoH ratio and with 497 new beds (from 204 to 721) this will take the number required to 532 additional nurses by the end of 2020. A 10% increase generally for other staff would take the other staff from 621 (with 62 additional) to 683. Added to the 686 nurses (189 for existing beds, including the missing 35 + 497 for the new beds) the total staffing projected for end 2020 is 1,369. Costings are not provided.

If 54 beds in the completed wards which just require equipment come on line in 2017, some staff will be required earlier, with the remainder required in 2018.

Details relating to each of the Centres' activities and costs follow.

3.7.2 Additional HR Requirements and Related Costings for 7 Centres of Clinical Excellence

A detailed indication of the additional staff required for the proposed new centres is shown in Annex 17, along with the training that will be needed, and the costs of such training.

² As the 707 staff to be trained in the 4 years are roughly 30% of the total 2,381 staff to be trained.

The Development Plan states that HR will be funded from the internal budget, not from the KfW loan, and that USD 123,430 will be for additional staff and USD 1,421,128 for Clinical Education – totalling USD 1,545,000.

- Training Cost for the Centres of Excellence: USD 537,393 – mid-Year 1 (2017) to end-Year 3 (2019) (i.e. 2.5 years).
 - This compares with the total HUH Training Budget prepared by HR Unit for 2017-2020 of USD 1,516,755 which allows for the additional beds planned (from 224 to 721 which is an additional 497). It includes some budget for training for the Centres of Excellence but not the additional requests..
 - The costs of education programmes at the University are excluded as they are funded directly by students, or through scholarships/secondments.
 - Total cost is: USD 2,054,148. Although a little of this cost would not be due to the project, due to the large number of additional beds and new staff required the whole amount is included.

- Staffing Cost for the Centres of Excellence: USD 633,950 – to begin mid-Year 2 (2018) to end-Year 4 (i.e. 2.5 years).
 - The staffing they request relates in most cases to the expansions of the specialist centres requiring additional long-term staff.
 - 40 short-term HMIS design staff for model application development is proposed to cost USD 200,400.
 - Costs have not been provided for total staff for the hospital but the projected number of total staff including the 497 additional beds (from 224 to 721) at end of 2020 is expected to be 1,369.

It should be noted that the amounts projected to be funded by the project - USD 2,054,148 and USD 633,950, respectively, are together **USD 2,688,098** (approx. 57% more than the internal budget proposed in the Green Book).

4 Buildings and Construction

4.1 History of HUH Development

The physical development of HUH began in 2008 with the design and construction of the first building, which is called 'Building A'. Since then a second building has been built and put into service, the building is called 'Building E,F'. At present a third building lies unfinished. This building is called 'Building B,C,D'. The HUH Development Plan projects services that will be delivered or supported by the three buildings, including the unfinished Building B,C,D. Each of the three buildings have either installed or planned connections to site technical services including power supply, emergency power supply, water supply, waste water treatment and disposal, stormwater drainage and communications.



Figure 4.1: HUH Site - showing the location of the three buildings.

As recounted today, the history of the construction activities since 2008 is somewhat complex but reveals the origins of several cross-cutting issues currently being confronted and jeopardising HUH continued development, including the proposals contained in the HUH Development Plan.

Building A and Building E,F have both been in use for several years and are fully functional, in good condition and can expect to have a useful lifespan of many years. They can be considered successful building projects adapted to the needs of the teaching hospital.

Building B,C,D is a relatively large building which has been underway for six years but still far from completion and commissioning. As it stands today it is still a valuable asset because of its potential and the amount of investment that has been expended, but there is a risk that it will not reach that potential if it is not expedited using appropriate building procurement methods.

4.1.1 Building A

Building A was built on a prestigious site at the corner of a major road, Jl. Perintis Kemerdekaan, and the university entrance road. It was planned that future expansion would occur to the south-west of Building A on land that was owned by the Indonesian

military. According to HUH, at that stage an agreement had been reached for the transfer of the necessary land.

Building A was built in two stages, the first, in FY 2008 through a funding allocation of IDR 31 billion, realised the building structure (foundations and superstructure), the second, in 2009, for the finishing works (external façade, internal walls, floors and ceilings, and internal installations).

4.1.2 Building E,F

Building E,F is currently the main operational building of HUH containing Administration, Diagnostic, Treatment, Inpatient and Support functional areas. It was originally designed to be contiguous with Building A.

The funding allocation in FY 2009 amounted to IDR 73 billion. It was planned to partly cover the building structure of Building E,F and for the finishing works to Building A (as mentioned above). When work was about to begin on site the military disputed the previous agreement that had been made and refused to transfer the required land. Rather than to get into a protracted dispute UNHAS decided to build the planned building elsewhere, on land that they owned about 200m from Building A. **Of the planned seven floors for Building E,F, due to financial constraints, five were built**, with the intention to build the additional two floors at a later date.

In FY 2010 funding of IDR 62 billion was allocated to completion of the structure and some finishing works of Building E,F. In FY 2011, out of total funding of IDR 103 billion, some IDR 50 billion was allocated to the completion of Building E,F.

4.1.3 Building B,C,D

The remaining IDR 53 billion of the FY 2011 funding was allocated to a new construction project, Building B,C. Funds would cover the structure and the roof. It was thought that the dispute over land adjacent to Building A had been resolved and the new Building B,C was to be built there.

The dispute was not resolved and it was decided to build the new building on HUH land adjacent to Building E,F. In the process of the relocation the new building design was modified and became Building B,C,D.

The first construction stage was undertaken in FY 2011 with available funding sufficient to cover the building structure to level 4. Due to the earlier delays and the constraint requiring funds to be expended in the allocated financial year not all of that work was completed and some funds (IDR 12 billion) were returned to Gol treasury.

Construction continued in FY 2012 with an allocation of IDR 40 billion to cover the remaining structural works and roof. Not all the works were completed and IDR 10 billion was returned.

In FY 2013 the allocation of IDR 29 billion was used to complete the roof and some revisions to the structure. All of the funds were expended.

The allocation of IDR 60 billion in FY 2014 was directed to areas of façade panels and finishing works to the wards on levels 3 to 6 on the east wing. The majority of funds were expended.

In FY 2015 the allocation of IDR 4 billion was used for a modified roof on the 'D' section of the building with some funds returned. Currently, the FY 2016 allocation of IDR 13 billion is being directed to brickwork and windows to some areas of external wall in order to make them water tight and to finishing of internal areas of level 1 including architectural, electrical and mechanical works.

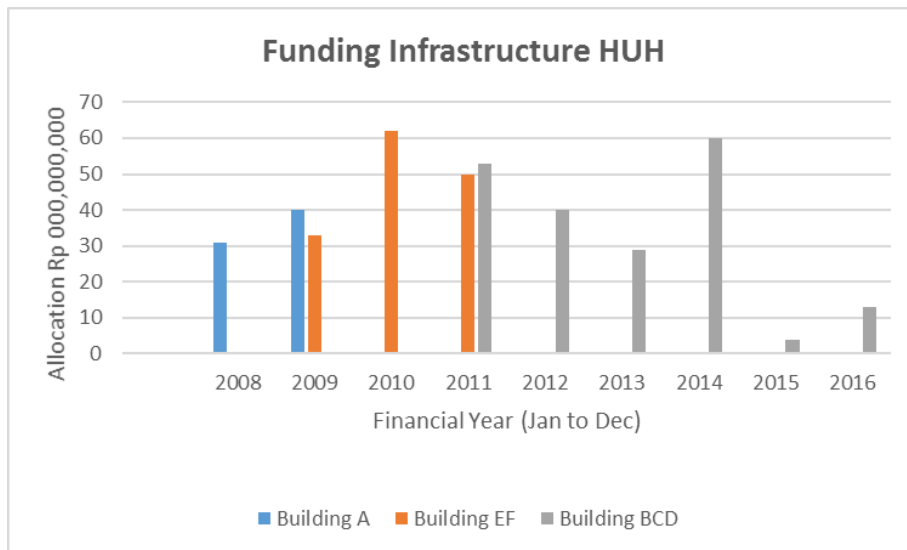


Figure 4.2: HUH infrastructure allocations

With the exception of FY 2104 the funding for infrastructure works at HUH has been in decline since the beginning of construction of Building B,C,D. The first building took two years to complete, the second three years to complete, while Building B,C,D has been underway for six years and is not yet complete. In discussions with HUH technical staff and local building professionals it was estimated that **Building B,C,D is somewhere between 55% and 60% complete** at present.

4.2 The HUH Complex

The three main buildings of HUH are located on university-owned land among peripheral buildings of RSWs. The land of the university campus is extensive (estimated 130Ha) and it was noted that the land for the construction of RSWs had been granted from university land. Inspections of the HUH buildings already completed and operational confirm one aspect of the stated vision of HUH to provide 'infrastructure for high quality clinical care delivery'.

4.2.1 The Site

Access to the site is good along Jl. Perintis Kemerdekaan which is the main axis from central Makassar city to the airport. The university is approximately equidistant from both. Entry to the site and the main distribution road are crowded as this is the one main entry to Hasanuddin University, Hasanuddin University Hospital and RSWs.

It is unfortunate that the three main buildings of HUH are not contiguous. Apparently it was the original concept but unachievable due to land ownership problems. However, it could be argued that the prominent location of Building A, with advantages of visibility and access, may have presented problems later for the construction of the additional buildings, access roads, parking and technical services - as the surrounds are quite congested. The location and juxtaposition of Building E,F and Building B,C,D are otherwise quite appropriate. There is a minor problem at present with the lower parts of the Building B,C,D site flooding which could be rectified with proper drainage and maintenance. Once Building B,C,D is complete there is scope for limited expansion to the north. Road access for patients, visitors, staff and emergency vehicles is good while road access around the buildings for maintenance, fire-fighting and delivery vehicles is appropriate.

4.2.2 Building A



Building A was completed in 2009 at an estimated cost of IDR 71 billion. The building is of reinforced concrete construction consisting of six levels with a central lift / stair core, central longitudinal corridor and rooms to each side. A staff dining room and kitchen are located on the roof level.

The building was originally designed solely for teaching activities but was later modified to contain limited clinical activities.

Figure 4.3: Building A

The building is in good condition with only minor maintenance repairs required to replace broken floor tiles, small areas of damaged ceiling and some re-painting to refresh it to a high standard. It was reported that the central fire alarm panel is faulty and has been provisionally disconnected. There is no central genset for emergency power although there is an appropriate genset room in the building.

One unusual aspect of the building is that part of the ground and first floors are utilised by the fire brigade. Apparently there was a municipality-owned fire brigade building on the site and the HUH Building A was built over it - retaining the fire brigade building in place.

L1 (Ground Floor) - Ophthalmology Clinic accessed by a dedicated entrance at the south end of the building. This unit contains several consultation and examination rooms and sees approximately 50 patients per day. It is a teaching unit and a base for outreach programs. The clinic contains two operating theatres in quite good condition with associated patient holding areas and recovery areas. Adjacent is a small sterilising unit which - although it also processes goods from the main surgical unit in Building E,F - has a less than satisfactory layout and standard of equipment. The ophthalmology surgical unit undertakes approximately 60 operations (mostly cataracts) per month.



Figure 4.4: Ophthalmology OT

The main building technical services are also located on L1, comprising of the transformer, main switch room, genset room, PABX, engineering control room, water storage tank, pressure pumps and fire hydrant pumps.

L2 - Dermatology Clinic in a relatively small space with several consultation rooms. It would appear that dermatology patients mostly attend Wahidin Hospital. On L2, directly above the Ophthalmology Clinic is the Ophthalmology inpatient unit with 1 x VIP bed, 6 x Class 1 beds, 8 x Class 2 beds and 6 x Class 3 beds, total 21 beds.

L3 - Teaching areas including the departments of Orthopaedics, Surgery, Obstetrics and Gynaecology, and Paediatrics.

L4 - Library, teaching areas for the departments of Psychiatry, Neurology, Dermatology and Ophthalmology. Also located on L4 is a Telemedicine Unit which is composed of an open-planned call centre and a simulation room. The unit is more health system and case management-oriented than standard telemedicine units in that it is networking primary and secondary health facilities to HUH.

L5 - Teaching areas including the departments of Anaesthesia, Nutrition, Internal Medicine, and Clinical Pathology.

L6 - Research Laboratory, Stem Cell Centre and Fertility Clinic. The Fertility Clinic is in an area of the building which has been recently reconfigured and renovated specifically for the clinic. The standard of the work is good and there are some large items of medical equipment in place but not yet in use. Currently the clinic has two staff and treat approximately 100 patients per year. Development of the Fertility Clinic is only in its early stage but the size, configuration and quality of the facility will support the planned 'centre of excellence' level.



Figure 4.5: Fertility Clinic Laboratory

4.2.3 Building E,F

Building E,F was completed in 2011 at an estimated cost of IDR 150 billion. The building contains five levels with the structure designed to take a further two levels of wards at a future date. The building was built in three stages over three financial years. The building contractor for the first and second stage was PP - an established national contractor and the contractor for the third stage was Adhi Karya - another established national contractor.

The building is a large podium structure for the lower three levels with two ward wings superimposed for the upper levels. It is a reinforced concrete structure with a central lift / stair core currently containing two lifts but with provision of another two lifts when the additional two floors are built.



Figure 4.6: Building E,F

The building currently contains the main user areas for HUH with a constant stream of patient, visitor and staff movement. The building is in good condition and presents well. The functional layout of the building and its supporting technical services are quite suitable for the activities - ranging from outpatient consultation to sophisticated diagnostic and treatment interventions. The plant areas and technical services are in equally as good condition as the more visible public areas.

Basement Level - The land falls away to the rear of the building which enables road access to the greater part of the basement. It contains the departments of Kitchen, Laundry, Mortuary and plant areas (medical gas, water tanks, fire booster pumps) to the west of the transverse corridor and lift core, with Medical Imaging and Radiotherapy to the east. Medical Imaging contains rooms designed for general X-Ray, CT Scan and MRI. At present there are general X-ray and fluoroscopy installations - no MRI or CT. The Radiotherapy Unit contains two bunkers for linear accelerators of which one is equipped, a CT Scan simulation room and a brachytherapy room.

L1 - Matching street level at the front of the building this is the main entrance level and public foyer to the building. It contains a retail outlet, bank, dispensing pharmacy, information / reception and Administration. On the other side of the transverse corridor is a Cancer Clinic, Laboratory and a further Administration area. There is an extension of the transverse corridor to form a link to L1 of the unfinished building, Building B,C,D.

L2 - This is the upper podium level for Building E,F and is again connected to Building B,C,D by an extension of the transverse corridor. The connection is quite generous in proportions and distances are short. This greatly advantages the functional relationships between both buildings, particularly on levels 1 and 2.

L2 contains a Chemotherapy unit with 22 bed spaces, a large auditorium and flexible teaching space / seminar rooms on one side of the main corridor with a Surgical Unit, Sterilising, Intensive Care and Dialysis Unit on the other side. The Surgical Unit contains four operating theatres (three of which are quite large at 50m²) and a 6 bed recovery area. The associated Sterilising Unit, which is well-designed and of a reasonable size, is poorly equipped with no large capacity pass-through sterilisers installed. The EPOS Team was advised that goods are sterilised in the small sterilising unit on L1 of Building A and transported in sealed boxes. This is not an ideal situation to ensure sterility and needs to be addressed.

In the original design the Intensive Care Unit contained a high care section and an intensive care section. The high care section has since been designated for use as the Dialysis Unit which presents a problem trying to maintain clean conditions. Access to the Dialysis Unit, who are mostly outpatients staying for treatment over several hours, is via the same corridor that links the OT Suite to the ICU. The Dialysis Unit contains 8 beds at present while the ICU contains 8 beds. There is no specific paediatrics ICU section, children are mixed with adults.



Figure 4.7: Building E,F; Intensive Care Unit

L3 & L4 - These are two ward levels with another two typical ward levels planned for the future. From the central lift / stair core there are two wings each with a 'race-track' ward design. The south wing designed as a ward for private patients with a mix of 1-bed and 2-bed rooms, while the north wing is designed for public patients with 4-bed and 6-bed rooms.

In reality the number of beds is somewhat lower as the hospital adapts to the demand for more single-bed rooms. In one private ward the 2-bed rooms were being used as 1-bed rooms giving a total of 18 beds available for the ward, reportedly with an 80% BOR. In the public ward some of the 6-bed and 4-bed rooms were being used as 1-bed rooms for private patients (The Indonesian health system designates room types as VIP = 1-bed, Class 1 = 2-bed, Class 2 = 4-bed and Class 3 = 6-bed). In the ward that was configured for public patients 39 of the available 54 beds were occupied and it was reported that they usually had an 80% BOR.

4.2.4 Building B,C,D



Figure 4.8: Building B,C,D

Building B,C,D is the unfinished building which was begun in 2011. It is a reinforced concrete structure composed of a podium with basement and two user levels followed by four levels of wards. Overall, including the basement, it contains seven floors. It is quite a large building with a gross floor area of over 36,000m². So far the building has been built in six construction stages corresponding to each financial year but with greatly varying FY funding allocations. After visual inspection a meeting of building professionals estimated it to be between 55 and 60% complete, while **calculations for the preparation of cost estimates in this report show it to be about 45% complete.**

The reinforced concrete foundations and superstructure were completed in 2011 and 2012. As it has been exposed to the elements in the interim period there has been some deterioration which will require rectification before being covered up by finishing works (refer to Structural Engineer's report in Chapter 4.4.3). The floor of the building basement is flooded by rainwater runoff to a depth of a few centimetres. It is thought that this could be quite easily fixed by either clearing out existing drainage lines or making better provision for drainage.

Some areas of the building have been completed either through hospital operational needs or to take advantage of available funding. At times funding constraints - both the amount of funds and the time limitations for spending the funds - have meant that the building procurement process is rushed, smaller contractors are employed and time to complete the work is too short.



Figure 4.9: Building B,C,D; South side

On level 1 of the building, which corresponds to street level at the front, the Emergency Department is complete and operational (although only operational to a limited degree due to lack of equipment). On levels 3,4,5 and 6 the ward block on the south side is complete but not operational. The lifts have not been installed to transport patients between floors and sewer drainage has not been connected.

Extensive areas of building façade treatment have been installed, some with windows incorporated, some without. From the outside this gives the impression that the building is more complete than it really is. Installed façade includes levels 1,2 and 3 at the front and levels 3,4,5 and 6 at the rear. Some of the façade treatment has deteriorated and will require rectification.

Currently works are underway to finish approximately half of level 1 which includes Medical Imaging, Laboratory, Clinical Pharmacy and the Neuro Cebero Vascular Unit. The work is valued at about IDR 15 billion. It is unlikely that it will be finished before the end of the financial year (end December).

A more detailed Functional Overview of the buildings is given in Annex 18.

4.3 Technical and Environmental Services

The hospital has two departments responsible for the provision of technical and environmental services such as water supply, electrical supply, waste water treatment, solid waste disposal, fire protection, medical gases and communications. The Environment and Safety Department, with a departmental head and two staff, are responsible for establishing quality standards and monitoring their ongoing compliance. The Engineering and Maintenance Department, with a departmental head and thirty staff, are responsible for the operation and maintenance of the hospitals technical installations, bio-medical engineering, cleaning services, security services and transport.

4.3.1 Electricity Supply

Each of the three main buildings is supplied from the PLN power grid by different medium voltage lines from different feeders. Building A has a transformer adjacent to the main switch room on L1, Building E,F is supplied to its nearby power house which contains two 1000kVA and switch room, Building B,C,D is supplied to its power house at

some distance from the building. It contains one 1000kVA transformer with another planned, and some switchgear.

The power house for Building B,C,D has not been constructed in the location recommended by the building consultants. It is in a less than satisfactory location beneath high voltage PLN power lines. The distance from the building means that cable diameter will need to be greatly increased and it may be a more economical option in the long term to re-build the power house in its designed location. The power house is not well built, there are leaks, the acoustic treatment is insufficient and there is inadequate ventilation.

4.3.2 Emergency Power Supply

Although Building A has a room constructed to take an emergency generator it was not installed. There is a small semi-portable generator (about 50 kVA) located outside the main entrance to the building. It serves the Ophthalmology operating theatres. There is no central UPS (uninterruptable power supply) each computer is connected to its own UPS.

Building E,F is supplied emergency power from its power house where two 1000 kVA diesel generators are installed in well-designed conditions. The gensets have automatic switchgear for startup and load transfer. Also located in the power house are two 300kVA UPS with associated battery banks. Uninterrupted power is provided to the COT, ICU, Medical imaging, Radiotherapy and Laboratory.

Building B,C,D power house contains one 850kVA diesel generator and switchgear. There is no UPS at present but there is a room planned for it in the basement of the building.

4.3.3 Water Supply

Water supply for the hospital comes from three different sources which are managed according to supply and available budget. The main water source is from the water authority (PDAM) supply which is considered to be of good quality and reliable. The two other water supplies are from the lake system on the university grounds via a water treatment plant to each building and from two deep wells near the hospital buildings.

Each of Building A (level 1) and Building E,F (basement) contain water storage tanks which provide domestic water supply and fire-fighting supply. Water is pumped to overhead tanks on the roofs of the buildings to provide constant pressure for domestic supply. A similar system is designed for Building B,C,D. Water quality is tested monthly in accordance with Indonesian regulations. Hot water is produced by a boiler in Building E,F which is distributed to the Kitchen, Laundry and wards. A similar system is designed for Building B,C,D.

4.3.4 Waste Water Treatment

A new waste water treatment plant has recently been designed and constructed by the hospital's Environmental Services Dept. It is a multi-chamber mixed aerobic / anaerobic treatment plant contained in an underground tank. Treated water discharges to a nearby drainage channel.

Building A waste water is piped directly to the new underground waste water treatment plant. Building E,F has pre-treatment of Laboratory waste water to remove heavy metals and neutralise chemicals. Generally waste water is pumped to the original packaged wastewater treatment plant located just outside the building. Now, rather than being discharged the waste, after this initial treatment, is pumped to the new under-

ground plant for further treatment. Waste water from Building B,C,D will be collected in pits and pumped to the underground plant.

4.3.5 Solid Waste Disposal

The hospital, through their Environmental Services Dept., have a policy in place for the collection of waste which is separated at source for domestic waste, sharps and clinical waste (health care waste). Containers are provided within each user area which meet Indonesian standards for health care waste management, staff are trained in the proper handling of waste and specific staff are allocated to the transport and treatment of the waste. These staff are provided with protective clothing.

Domestic waste is bagged, collected and transported to large waste collection bins at the periphery of the hospital site. From here it is collected by the municipality for disposal. The hospital has a syringe crusher and an incinerator for the treatment of clinical waste. The incinerator is a dual-chamber with smokeless (stach scrubber) technology. It has a capacity of 150kg. Average daily clinical waste collected is 115kg. The hospital has a contract with a specialist sub-contractor for the collection and disposal of incinerator ash.

The hospital advise that they have a policy to minimize cytotoxic waste, it is stored and collected in dedicated containers, transported by trained staff and incinerated at their waste management facility. The hospital have also advised that they do not produce any radioactive waste. The hospital have confirmed that their waste management facilities and procedures comply fully with current Indonesian (both Ministry of the Environment and Ministry of Health) regulations and standards

4.3.6 Fire Protection

Water storage in each building includes dedicated fire-fighting water storage. Each building contains fire hydrants and hose reels. Each building is sprinklered in accordance with Indonesian regulations (for buildings over 4 levels). Water for fire-fighting is kept under pressure through a system of jockey pumps, main booster pumps and standby diesel booster pumps. The systems are tested monthly. Each building also has a system of automatic fire detection sensors and manual fire alarms which relay to a central control room manned 24/7. Externally fire hydrants are located at regular intervals for use by the fire brigade.

The Environmental Services Dept. are responsible for fire safety and occupational health and safety. They undertake monthly inspections and testing of the buildings to ensure compliance and regularly train staff through fire awareness and evacuation drills.

4.3.7 Medical Gases

The operating theatres of Building A are provided with medical gases from bottled supply via manifolds for nitrous oxide and oxygen. Suction is provided by portable suction machines.

There is a central medical gas plant located in the basement of Building E,F which produces medical compressed air and suction. Oxygen is provided from a bulk oxygen tank (capacity 5 cu.m.) located between Building B,C,D and Building E,F. Nitrous oxide is provided from bottled supply via an automatic manifold, also located in the basement of Building E,F. A standby oxygen supply from bottles on an automatic manifold ensure uninterrupted supply. The gases are piped to the main clinical areas and wards. The

installation includes monitoring controls and alarms in accordance with Indonesian regulations.

4.3.8 Communications

Each hospital building has its own PABX with telephone points in every user area. All areas of the building are covered by various hospital wi-fi internet connections with a cable connection to the main university data network. Each bed space in the wards has a nurse-call point with annunciator panels at the nurses' stations. These days mobile phones are used more commonly than fixed phones and the major Indonesian cellular networks work well both inside and outside the buildings.

Generally the technical systems and building installations are well maintained and in good serviceable condition. The hospital engineering section is obviously organised and well run with competent staff and sufficient budget to cover the needs of spare parts and maintenance. It is commendable that the hospital has an Environmental Services Department to maintain environmental controls, fire safety and occupational health and safety. This is a real working unit who are aware of the health and safety aspects on issues such as health care waste, water quality and waste water treatment. They have actively participated in the design and construction of the current waste water treatment plant, are aware of its operational needs and any limitations and are planning for future improvements in line with the construction of the new building.

4.4 Building B,C,D – the unfinished building

The design of Building B,C,D began in 2009 on a site behind Building A. That development could not go ahead and so a series of planning and re-planning options were adopted. This led to the construction of Building E,F on land further afield and then the beginning of construction of Building B,C,D adjacent to it. There have been several design changes over this period, some of which have been incorporated into the final documents, some are still pending.



Figure 4.11: Unfinished area interior I



Figure 4.10: Unfinished area interior II

The original design and some of the design changes were carried out by a large firm of established Indonesian hospital architects, some were decisions initiated by the hospital and did not involve the architects. Generally the design documents are can be considered to be accurate.

See Annex 19 for the Current B,C,D Building plans.

4.4.1 Design Review

Basement Level - The basement is open on three sides with a naturally-ventilated car park for 95 vehicles. It also includes the main plant rooms for the building including the medical gas plant, water tanks, pump room, electrical switch room, UPS room and maintenance department workshops. The basement also contains a prayer room, hospital stores, the Kitchen and a staff dining room. The basement is unfinished, currently in a state of disrepair and flooded to a depth of a few centimetres in the parking area. The design is suitable and, if required, could be modified to include more user areas at the expense of parking spaces.

L1 - Level 1 corresponds to street level at the front of the building and, on the street side of the transverse corridor, contains the completed Emergency Dept., the unfinished Delivery Suite and Neonatal Intensive Care. On the other side of the corridor work is currently underway to finish the area which contains Medical Imaging, Clinical Pharmacy, Neuro Cerebro Vascular Unit and Dispensing Pharmacy. Funding amounting to Rp13 billion was made available for this work during FY 2016. It is doubtful that the work will be fully completed by the end of December.

The location of the Delivery Suite and the Neonatal Intensive Care was a recent change in order to comply with an MoH directive that units such as these had to be located adjacent to the hospital Emergency Department. Previously, Polyclinics had been planned in this part of the building.

(The Polyclinics are now located on Level 2 which make them a little less easily accessible for the public. This is not a major concern as levels 1 and 2 are not only connected by stairs and lifts but also by escalators - like in a shopping mall. So far only the layout plans have been done for this change in the design and final design, including electrical and mechanical design, will need to be completed before work can start.)

The Delivery unit on L1 contains 3 delivery rooms, 3 observation beds and an isolation room while the Neonatal ICU contains 14 cots in open bays and an isolation room. The Neonatal ICU appears to be disproportionate with the Delivery Unit perhaps because neonates are referred here by other facilities.

The main block of diagnostic and treatment services is grouped on this level of the building with Medical Imaging, Clinical Pharmacy, Laboratory, Neuro Cerebro Vascular Unit and Dispensing Pharmacy. At present Medical Imaging contains fluoroscopy, ultrasound and 2 general X-Ray rooms. There are suggestions that a CT Scan may be substituted for one of the general rooms which would support imaging options for the adjacent Emergency Dept.

The Neuro Cerebro Vascular Unit has a shared entry and waiting area. Patients are then streamed to cardiac or neuro wings. Cardio contains 2 catheter labs while Neuro contains a single catheter lab. The combined unit has been designed to facilitate the collaboration of the specialties for patient care such as in the treatment of stroke patients.

This being a part of the building containing sophisticated technology and rooms for invasive treatment options it is of concern that the building works are being undertaken by a small contractor with little or no experience in hospital building construction. It is of further concern that the work may not be completed by the end of this financial year and may be left partially complete for several years. An example is the air-conditioning ductwork being installed. If left open it will become dirty and very difficult to clean.

L2 - Level 2 contains the main surgical unit of the building. It is located on the same level, and linked to the surgical level of Building E,F. This will enable both units to operate cooperatively. L2 contains the Operating Theatre Suite of 8 theatres, one of which is a hybrid theatre with advanced imaging for cardiovascular, neuro and orthopaedic surgery to advanced standards. The theatres are of generous proportions and well-

suited to evolutions in medical technology. The layout of the theatres is based on the principal of a 'dirty' return corridor from theatre direct to CSSD.

Within the theatre suite is a recovery room containing 12 beds. An interesting feature of the surgical unit is the co-location of Day Surgery for patients being treated under minimally-invasive techniques in the same theatre block. This would tend to optimise the use of the theatres. The day surgery unit has an 8 bed primary recovery room, a 9 bed secondary recovery room and 4 private rooms. There are ample waiting rooms for family attendants with the unit accessed directly from the main hospital corridor. A well-sized Sterilising Unit with two pass-through sterilisers completes the surgical unit.

At present sterilising is a weak point in the functioning of the hospital. The existing theatre suite in Building E,F includes its own sterilising unit but it is not equipped with proper sterilising equipment even though there is space for pass-through sterilisers.

On the other side of the transverse corridor of L2 are two types of functional units - those accessed directly by the public - Dialysis Unit and Polyclinics, and those restricted to access by staff and patients under treatment - Cardiac Intensive Care, General Intensive Care and Paediatric Intensive Care. It may have been preferable to give more separation to these differing zones but it is still a workable and reasonable configuration.

As it is currently planned the Dialysis Unit contains 12 chairs and 18 beds in open bays with a further 2 isolation rooms, giving a total capacity of 32 patients at any one time. The Polyclinic contains 17 generic consultation rooms. It is questionable that there are no associated testing or treatment rooms other than a sample-taking room.

The three intensive care units are co-located and accessed by a public internal corridor which doubles as a waiting zone, presumably for patient's relatives. The Coronary Intensive Care Unit contains 12 beds in open bed bays, the General intensive Care contains 10 beds in open bed bays while the Paediatrics Intensive Care contains 4 beds in single rooms. The space allocation for each bed is adequate with bed spacings at 3.3m. There may be some improvements to be made with the layout. Consideration could be given to better separation between public accessible areas and the intensive care unit, providing air-locks and change rooms at the entrance to each unit, the provision of some single rooms in the adult ICU and the provision of a patient bathroom in the coronary ICU.

L3 - Level 3 of the building contains the Medical Rehabilitation Unit, the proposed Skills laboratory and the first of four levels of typical wards. In this location the Rehabilitation unit is more oriented to inpatient treatment although still accessible to the public for outpatient use. It contains a physiotherapy treatment room, gymnasium, prosthetics workshop, occupational therapy room and hydrotherapy pool.

The Skills lab, for the teaching of medical students, is not as well-defined on the current plans although the hospital did provide an impressive presentation of their vision for the unit and its contents. The concept is for a 'simulation centre' with real or realistic installations covering emergency medicine, surgery, diagnostic services, interventional practices, nursing, geriatric care, disaster response and home care. The facility will include realistic hospital spaces such as emergency, delivery and operating rooms, teaching mannequins, medical equipment and observation and teaching spaces. This area of the building is yet to be fully designed.

The wards on L3 are arranged in two wings with a total of 57 beds each, giving a total of 114 beds per floor. There are four levels of wards all based on the typical plan, giving a total bed number for wards in Building B,C,D of 456 beds.

L3, 4, 5, 6. - The wards are a 'racetrack' design with the patient room around the perimeter and service rooms placed centrally. The configuration is for 2nd class and 3rd class (public) patients with a mix of 6-bed rooms and 4-bed rooms. The hospital have

advised that it is their intention to accommodate public patients in the wards of Building B,C,D while accommodating private patients in the wards of Building E,F.

4.4.2 Design Assessment

The functional design of Building B,C,D is generally quite good. There are some functional relationships that have suffered a little through design changes over the years but not of sufficient concern to warrant any major redesign - particularly for a building which is half complete and which has had IDR 200 billion spent on it so far.

The Development Plan's centres of excellence - Ophthalmology, Oncology, Traumatology, Neurology and Fertility Clinic - are located in various buildings, some of which are already established. The Ophthalmology Unit and the Fertility Clinic are located in Building A and have reasonably good infrastructure. Oncology is well established in Building E,F with a cancer clinic, radio diagnostic and radio treatment units, chemotherapy unit and wards. Neurology and Traumatology will be mostly supported by the proposed facilities in Building B,C,D, these facilities include the Emergency Dept., Surgical Unit, Neuro Cerebro Vascular Unit, Medical Rehabilitation, Medical Imaging and the impatient units.

The layouts within the functional units are quite good. The zoning of activities, the space allocation and progression through the spaces is logical and conforms with basic principles of modern hospital design. There is no need to redefine the functional brief or to build up a revised preliminary design. The design is basically sound, meets the needs of HUH in the implementation of their Development Plan, and is achievable.

4.4.3 Structural Assessment

The structural engineers who assessed the building during the field visit have offered a preliminary report³ as follows:

"The hospital consists of a 4 storey building, of which the GF and L2 are occupied, and an unfinished/unoccupied building of 7 storeys + open basement (the basement is at ground level). The 4 storey building was built between 2009-2011 and the 7 storey building around 2012.

- The seismic system adopted in the design is intermediate moment frame which complies with the 2002 Indonesian seismic code, but does not comply with the current 2012 code (which is very similar to the US code ASCE 7). The implications of this will need to be discussed further between TTW and EPOS. Otherwise the design review has not revealed major problems with the building design as shown on the drawings.
- From inspection there is 1 beam in the typical floor which is in distress and will need to be remediated (not sure of cause, possibly construction). The structural separation between the 4 storey and 7 storey buildings is built at approx. 10mm wide. This does not comply with the requirements for structural separation and will need to be made wider. There is evidence that the concrete cover to reinforcement might be less than recommended by the codes, where brown lines appear to indicate the reinforcement beneath the surface. This may or may not need to be addressed.
- The roof steelwork is almost complete although there will be some completion works needed such as installing missing bolts and touching up the steel coatings.
- The external drainage has not yet been installed and/or needs maintenance but currently the "basement" floods. It seems that the nearby canal is at a

³ The complete and final structural assessment report is enclosed as Annex 28.

higher level than the ground level (and basement) of the hospital which presents flood risk in a severe flooding event."

4.4.4 Towards a "Green" Hospital

Many of the principles of 'green hospital design' are recognisable in the design of Building B,C,D as they are also basic tenants of competent modern hospital design.

Functional efficiency through consideration of the hospital care process, optimising circulation routes and placing diagnostic and treatment areas at the interface between outpatient and inpatient zones makes the building economical to operate and user friendly.

Inpatient rooms are located on the upper levels with less disturbance by noise and poor air quality. All patient rooms can be naturally lit and ventilated. Most patient rooms have a balcony which enables both patients and visitors to relax outdoors if desired.

The building is designed with flexibility in mind. Generic rooms allow for use by a range of activities and can be reconfigured to match changing needs. Even the building construction is conceived for flexibility with internal partition walls to be constructed from gypsum board on a lightweight steel frame, a material which can be very easily reconfigured to modify layouts.

The design has also considered staff wellness through the provision of adequate staff change rooms, prayer rooms and staff rest rooms.

Cleanliness and sanitation is a major consideration in the design of spaces which are regular-shaped and easily cleaned, materials selected for the type of environment - from medical walls and integral sheet vinyl in operating theatres to high resistant ceramic tiles to public areas. Compared to western standards some more consideration could be given to the provision of cleaners' rooms in each user area rather than one general cleaners' room per floor.

Mobility issues have been addressed with the provision of bed and passenger lifts to all building levels, wheelchair accessible doorways to all user areas and disabled toilet facilities at each main toilet block.

The hospital has an active maintenance unit responsible for the operation, preventive maintenance and corrective maintenance of the buildings and their supporting technical services. Buildings A and E,F are in good condition and have obviously been cared for. One concern for Building B,C,D is that the outcome may not match the quality standards of the first two buildings as works are carried out intermittently, the works are rushed and the contractors are small scale builders. If so it will be more difficult to maintain.

The technical services are designed to match the standards of Indonesian A and B class hospitals. The main energy supply is electricity from the supply authority, PLN, with emergency supply produced through diesel generators on site. The installations are laid out for ease of maintenance and safety. This is less so in the power house recently built for Building B,C,D which is in a poor location and is not a good quality building. The hospital is considering rebuilding to the design and in the location originally proposed by the building consultants.

The air-conditioning systems, which consume the majority of the hospital's energy, are designed for a balance of economy and performance. High quality conditioned air will be provided to the operating theatres, ICU, and most diagnostic and treatment areas. Usually one air handling plant per zone and each with a dedicated chiller. Cost effective 'variable refrigerant volume' air-conditioning systems with ducted fresh air supply are planned as the standard system throughout the building.

Water supply to Building B,C,D will be made available from three sources - the water supply authority (PDAM), the treated lake water and a deep well. Waste water treatment will be via the multi-tank treatment plant designed and constructed by the hospital's Environmental Services Dept. both closely monitored to ensure safety and quality.

Solid waste is separated and contained at source. The containers are compliant to international standards and the staff are trained in waste management techniques. Domestic waste is bagged and stored ready for collection by the municipality while health care waste is transported in sealed containers by trained staff to be incinerated on site. Monitoring and quality control again comes under the Environmental Services Dept.

4.4.5 Completion of the Building Works

Construction of Building B,C,D was started in 2011 and is approximately 50% complete. If the building process had been properly-funded and managed it should not have taken more than two or three years to complete. Even in its present state it is a valuable asset with great potential. Approximately Rp 200 billion (USD 15 million) has been spent on it so far.

4.4.6 The Challenges

Building B,C,D - this large unfinished building - is deteriorating. The structural inspection has flagged several areas where the concrete structure is suffering or could be suffering corrosion of reinforcing steel because of ponding water. The basement parking areas is continually flooded by several centimetres of water. This could be alleviated if the drainage was cleared or if measures were taken to pump out any water.

Some of the work carried out to date has been done in a piecemeal fashion, out-of-sequence and some is unfinished. It is becoming damaged, open to theft and vandalism and not protected. There is insufficient security and the site is dangerous with regards to standards of occupational health and safety.

It is a complex problem and there does not appear to be enough 'ownership' or responsibility for the unfinished building. Some decisions to carry out particular works appear to have been made to expedite spending, not with due regard to the whole of the building process.

In most cases the reason given is the limited amount of funding in recent years, tenuous funding commitments and the requirement that funding be disbursed within the financial year.

This has led to multiple, unfinished, overlapping contracts by small scale builders, a process which can be wasteful and difficult to ensure quality control.



Figure 4.12: Unfinished Building B,C,D Exterior

4.4.7 Cost Estimate to Complete

The cost estimate to complete Building B,C,D (see Annex 22a) has been calculated to be IDP 200 billion, the equivalent of USD 15.4 million. The cost estimate appears in Annex 22a. It is in two parts. Firstly, there is a cost estimate for the entire Building B,C,D if it were to be built from scratch in today's prices. This estimate was calculated using the standard MoH procedure for hospital cost estimates. It gives a figure of IDP 347 billion - for the whole of Building B,C,D at today's prices. This is the equivalent of USD 738 / m².

A quick check comparison was done with known figures for the construction of the new hospital in Banda Aceh which was completed in 2009 funded by KfW. That hospital costed the equivalent of USD 528 /m². Considering cost escalation over the intervening period between the two projects the estimate for Building B,C,D at Makassar was considered to be reasonably accurate.

The second part of the estimate takes the cost for the whole Building B,C,D and factors in the degree of completion floor by floor. This indicates that the value of the works completed so far in Building B,C,D amounts to IDP 165 billion and that the value of work outstanding is IDP 182 billion.

As the estimate is calculated in today's prices and it is likely that some minor design changes will occur an allowance of 10% was added for cost escalation and contingencies which gave a **cost estimate to complete of approx. IDP 200 billion**.

4.4.8 Recommendations Regarding Construction Issues

It is unhealthy for a building to remain unfinished for such a long period of time. This building has deteriorated and will continue to do so. The answer is not in piecemeal, intermittent funding and engagement of small contractors. Building B,C,D is a valuable asset with great potential. It is time to undertake the project professionally and expeditiously. We recommend:

- Prepare for a professional, well-funded final stage. There are two possibilities for funding, either the Government of Indonesia or KfW. Funding must be assured so that pre-planning can be carried out with confidence.
- Carry out an audit of the previous works so that the project status is clear and so that the design documents for the final stage are accurate in what works need to be done.
- Undertake one final 'design review' to assimilate any design requirements of the client that have not yet been picked up by the building consultants and to give a last opportunity for any suggested improvements or modifications. The current design of Building B,C,D is quite suitable to be followed for completion but there are areas where it needs to be updated. Then freeze the design so that the documentation and contracting can proceed unhindered.
- Tender the project with a large national contractor in mind. With an estimated project cost of IDP 200 billion this is easily achievable. An established, experienced contractor will help to ensure a successful construction stage as they can mobilize the necessary resources in manpower, equipment and materials.
- Establish a 'steering committee' from hospital (and perhaps university) staff to support the project, keep abreast of progress and make strategic decisions.
- Engage strong building consultants (architects, quantity surveyor, electrical and mechanical engineers, medical equipment expert) who are experienced in hospital projects, to act as project managers.
- There are approximately 50 beds in the wards which have been completed, and these could be brought into use relatively quickly. However, HUH repre-

representatives told the EPOS Team that one idea was to use this area as a storage area for the new equipment they hoped KfW would be funding, so that it could be purchased before the building was finished. The EPOS Team would not recommend this as this is (i) a potentially valuable asset which is standing idle currently and (ii) it is unlikely KfW would agree to such an approach. There may be a clinical use for these wards even without all the operating theatres and other technical services being finished yet, and the EPOS team recommend that the hospital management should draw up plans for how the wards might be put to good use while the rest of the building is being completed. The wards would need some minor refurbishment but this and resolving the drainage and elevator issues would be a better use of the annual budgets received by HUH from the MoHE, which are comparatively small and arrive so late in the financial year that it is hard to disburse them effectively. Getting these wards into use would benefit local people, raise staff morale, and might be seen as a phased approach which would allow KfW to make a start with the training and equipping aspects of the proposed loan without waiting for Building B,C,D to be completed.

- The earlier attempts to complete the building using MoHE annual disbursements have apparently not been audited yet and this is a barrier to further budgetary allocations. It is recommended that these audits are carried out as soon as possible in order to facilitate agreement of how the building can be funded and completed.

4.5 Project Proposal and Timeline

4.5.1 Scenarios

Two scenarios have been put forward and were discussed in meetings with the key stakeholders during the study. The first, 'Option 1' was for the completion of Building B,C,D to be financed by the Government of Indonesia through the Ministry of Research, Technology and Higher Education. It was stressed that the funding needed to be sufficient for the completion of Building B,C,D by a national builder in one construction stage with the project managed by an experienced construction manager. The second scenario, 'Option 2', is for the KfW loan to be extended to cover the completion of Building B,C,D. It is estimated that a 12 month construction period will be required to complete the building.

In both cases a loan agreement will need to be negotiated and enacted. For Option 1 the funding from the loan will need to be available for the procurement of medical equipment and for the accompanying measures. For Option 2 the loan funds will be required for the building works, the procurement of medical equipment and for the accompanying measures. See Annex 20a and 20b. Project Implementation Schedule Options 1 and 2.

4.5.2 Loan Agreement

The first step to establish a loan agreement will be the decision by the Indonesian stakeholders - BAPPENAS, MoF, RISTEK and HUH on the choice of funding for the completion of the building works.

This needs to be written following the indications in KfW Jakarta's outline schedule shared with the team (Annex 20c).

Option 1 - Construction Financed by the Gol

There are several major constraints associated with this option. There are strong indications that the amount of funding required, IDR 200 billion, will not be available in the immediate future. Such a level of funding is not likely to be available in one financial year and, if spread over two years, may not be guaranteed in the second year.

To best meet current Gol procedures the remaining building works need to be planned with a construction period matching the financial year – that is, start construction at the beginning of January with completion due at the end of December.

Option 2 - Construction Financed by the KfW Loan

Option 2 will overcome the constraints of available Gol funding and matching the construction period to the financial year, but poses its own constraints. They include the willingness or ability of the Gol to take on a greater loan amount, the time it will take to negotiate the loan agreement and the time required to comply with the KfW approval process.

For both the Implementation Schedules the engagement of project management consultants has, in the interests of expediency, been fast-tracked to occur before the loan agreement has been concluded.

4.5.3 Project Management

The degree of project management required will vary between the two options. For Option 1, with the building works financed by the Gol, it would be possible to only require international project management consultants for the expenditures out of the KfW loan, that is, the procurement of medical equipment and the administration of the accompanying measures. This would mean leaving the design, documentation and supervision of the building works to national consultants engaged by HUH (or RISTEK).

If Option 2 is to be pursued the KfW funding would extend to the building works as well. International project management consultants would be required for building works, medical equipment and accompanying measures. The international project management consultants would necessarily sub-contract to national building consultants for the bulk of the construction-related activities.

With the history of the intermittent building works to date and the need to coordinate the building works with the delivery and installation of the medical equipment, even if the building works are financed by the Gol **some degree of oversight should be invested in the project management consultants over the works.**

It is recommended that HUH create a project steering committee as the responsible body for liaison with the project manager. The steering committee should be composed of authoritative staff from differing disciplines – such as medical practitioners, nursing, hospital administration and engineering services.

4.6 Preparatory Phase

Both options contain a preparatory phase to securely establish the project. A clear differentiation needs to be made between the project and any preceding construction activities. This has two aspects – a **financial reconciliation** of the previous investments, and a **physical stock take** of what has been built, its condition and usefulness. This audit of the previous works is required for both transparency and accuracy.

For Option 1 it will be necessary for HUH to engage building consultants as the funding for the construction works is provided by the Gol. Similarly, the building works pro-

curement process should adhere to GoI procedures. As it is a large disjointed project, consideration should be given to the engagement of a specialist building consultant team (architect, structural engineer, electrical engineer, mechanical engineer, quantity surveyor) to carry out a final design review and update the existing documentation, assist HUH to tender the building works and to supervise the construction activities.

Commonly, for GoI projects the design / documentation and the supervision are done by different building consultants. This would be disadvantageous for the completion of Building B,C,D because of its complexity.

During the preparatory phase, based on the information gathered during the audit of the previous works, a review of the design can be done in collaboration with HUH. There are clearly some areas of the building design that are either not yet designed (the 'Skills Lab' on L3), are open to revision (Medical Imaging on L1) or not yet fully detailed (Intensive Care on L1). Once agreed the design needs to be frozen so that the work of the architects and engineers can proceed effectively and without delay. This team of building consultants will prepare drawings, specifications, bills of quantities and administrative tender documents to suit the tender process – matching GoI guidelines for Option1, and KfW guidelines for Option 2.

4.7 Tendering and Contracting

The main consideration for tendering is to have complete and accurate tender documents which fully describe the works in standards of quality and performance. With an estimate value of work approaching USD 15 million a 'national level' contractor will be required, preferably one who has previous hospital building experience, the capacity to mobilise quickly, safe and efficient work practices, and a high standard of quality control.

Under Option 2 the tender documents will be submitted to KfW for their non-objection prior to their release. An adequate period of time will be allowed for the tenderers to accurately price the work. The tender period will begin with an on-site pre-bid meeting. The administration of the tender process will be the responsibility of HUH with assistance from the project manager.

When planning the works it might be beneficial if a **construction management approach** is adopted whereby several specific contracts are tendered and coordinated, rather than one general contract. This tends to match specialist contractors with their particular work. For example there could be three separate contracts tendered – one for building works, one for electrical services and one for mechanical services. This approach tends to give a better standard of work and more competitive pricing but the project management contract would need to be extended to cover construction management services such as coordination between trades.

4.8 Construction Phase

During construction the building consultants will administer the building contract or contracts, supervise the works to ensure accuracy and compliance with the contract documents, initiate any necessary change orders, keep site records and hold regular site meetings. Under Option 2 the building consultants will come under the responsibility of the project manager who will be in a position to report regularly with KfW. A high level of coordination will be required prior to the delivery of the medical equipment so that all necessary pre-installation conditions are met.

When the building works are finished and able to be used for their intended purpose the contractor will be issued with a certificate of completion. This begins the defects liability period which is 6 months for a Gol contract and minimum 12 months under KfW guidelines. Any defects arising during the defects liability period will be corrected by the contractor. At the end of the defects liability period the contractor will be released from his contract with the issue of a final certificate and the release of any retention monies.

It is important to engage with the hospital staff and plan for the commissioning of the building well before the actual building works are complete. Experience has shown that the creation of a 'commissioning team' composed of hospital staff with adequate resources can streamline the start up or transition of services to a new building.

5 Procurement of Equipment

Equipment planning to cover the needs of the HUH Development Plan has been underway for some time through an in-house equipment planning committee working with management, educators and clinicians to establish and refine the list of required medical equipment. It was on the basis of this list that the estimates were generated for medical equipment contained in the Gol 'Green Book 2016'. The Green Book entry for HUH allocated USD 26,044,000 for the procurement of equipment.

In close collaboration with the HUH equipment planning committee each function area of the existing hospital was visited to make a visual assessment of the currently available equipment and its general state of repair. Time limitations prevented a full inventory being performed but the overall impression was that the **existing equipment was appropriate and in good condition**. The bulk of the equipment was purchased after 2011 when the main clinical block, Building E,F was completed, and so should remain serviceable for quite some time.

The main items of existing equipment consists of:

No	Department	Condition
1	Emergency department : <ul style="list-style-type: none"> • Little equipment installed as yet, <ul style="list-style-type: none"> ○ 2 Transport stretcher ○ 5 unit Patient Bed 	Good condition Good condition
2	2 Emergency Operating Theatres are fully equipped but not functioning yet <ul style="list-style-type: none"> • 2 units Anaesthesia machine • 2 Units Operating Lamp • 2 units Operating Table • 2 units Electric Cauteriser 	Not functioning because no Intensive Care Unit and no Ward, all surgery is done in Building E,F.
3	CSSD Department Building B,C,D: CSSD Department Building E,F	This part of the Building is not complete. No large capacity steriliser.
4	Radiology Department <ul style="list-style-type: none"> • 1 units General Radiology • 1 unit mobile X ray 	
5	Radio Therapy <ul style="list-style-type: none"> • 1 unit Linear Accelerator • 1 unit CT Scan for diagnostic 	Not working, awaiting spare parts Is Working
6	Laboratory Department and equipment * Main unit is in joint operation with third party (supplier of the equipment) revenue sharing	Working well

5.1 Equipment Maintenance

The biomedical engineering division, under the hospital's Engineering and Maintenance Department, is responsible for the servicing, calibration and repair of medical equipment. It is staffed by four bio-med engineers with a main workshop located adjacent to the theatre suite on L2 of Building E,F. A larger workshop is planned in the basement of Building B,C,D.

All main equipment installed at the Hospital is maintained by the supplier of the equipment / agent under service contracts. In case of breakdown the user will inform hospital's Maintenance and, after checking, they send a maintenance report to Management and call the supplier for repairs.

The maintenance budget for medical equipment is based on the costs of the service contracts by the suppliers and is prepared each fiscal year.

5.2 Equipment Planning

The medical equipment planned for inclusion in the HUH Development Plan covers the five centres of excellence - Ophthalmology, Oncology, Traumatology, Neurology and Fertility Clinic and the general fit-out of Building B,C,D as it is completed.

Existing Ophthalmology diagnostic and treatment equipment will be enhanced with optical coherence tomography, retinal imaging and laser treatment.

The Oncology unit will receive additional surgery sets for general surgery and mastectomy, to be supported by general equipment to the ICU, Clinical Pharmacy and wards.

Traumatology will benefit from extensive equipment for the eight operating theatres in Building B,C,D. This includes basic theatre fixtures such as the theatre lamps and tables, together with anaesthetic machines, instrument sets, microscopes, trolleys, chairs and accessories. Associated with the theatres the CSSD will be equipped with ultrasonic cleaner, washer disinfectors and steam autoclaves.

The consultation / examination areas of the Neurology unit will be equipped with EEG and ECG while the Neuro Cerebro Vascular unit in Building B,C,D will be equipped with a dedicated neuro Cath lab. Associated facilities supporting the Neurology unit include the Medical Rehabilitation unit, the surgical unit and the wards.

The recently-established Fertility Clinic, which has been partially equipped, will receive an additional ultrasound, clean lab fixtures and general examination and treatment items.

An allowance has been made in the equipment lists to fit out 130 beds in the wards of Building B,C,D with beds, furniture, oxygen and suction equipment.

The full list of planned equipment and costs can be found in Annex 21a.

At the wrap up meeting in Jakarta there was some concerns that the initial revised equipment costs presented were significantly higher than originally proposed (see slides in Annex 3). Subsequently, the assumptions and data being worked on were reconsidered and the difference is now considerably reduced in this report.

6 Social, Poverty, Gender and Environmental Impact of Proposed Project

Such a major development at HUH will have a positive effect on the local economy through accelerator effects of construction jobs initially and health workers over the longer term. Patient visitors from elsewhere will contribute to the local hospitality economy. The new services will enhance UNHAS' reputation and attract students and good staff, as well as contributing to the community's wellbeing.



Figure 6.1: Women are active in the community and at risk of trauma

Within the city there are clear signs that despite general economic growth poverty still exists. Given current attitudes and practices the proposed development plan appears to provide **better access and services for the poor**. The national health insurance system (BPJS) makes provision for those unable to pay the cost-sharing element of treatment and the HUH business model assumes the VVIP and VIP services would cross-subsidize the poor. However, this constitutes a risk in that cross-subsidization cannot be guaranteed and the KfW loan could be used later to improve services for the well off, and enrich the service providers, but leave the poor behind. The new clinical services would address diseases, and the risk of trauma, from which the poor would benefit, assuming they are able to access them, although not addressing on-going communicable disease problems which disproportionately affect the poorer members of society, or the on-going relatively high rate of maternal and perinatal mortality. For this reason the EPOS Team have recommended that **improved research capacity around public health issues should be included**. The proposed improvements to obstetrics and gynaecological services, as well as infertility services and cancer services, would benefit women in all strata, again, assuming the poor can access them.

Women visibly play a very active role in the economic life of the community, and female workers are well represented throughout the health workforce including senior management and clinical roles, as well as in training programmes (where there is supposed to be 50-50 allocation of places). The project should, therefore, give women more employment and educational opportunities.

Environmentally, there is no doubt that any construction work will have a short term negative impact, and that the current traffic jams and parking problems can only get worse. In the longer term the design and operational parameters of the project should not cause undue problems other than traffic related (see previous section). With the economic advancement being seen it is likely that the high motorbike ownership will shift towards greater car ownership (especially given the benefits of increased safety and air-conditioning). For this reason the EPOS Team would encourage any longer term further development to include a major car parking element.

7 Risks and Assumptions

The biggest risk to the success of the development plan is the inability to complete the construction elements. At the wrap up meeting in Jakarta BAPPENAS and the MoHE **agreed to consider whether existing rules could be waived i.e. regulations which apparently forbid a project started with Indonesian funds being finished with foreign funding.** This would allow KfW, for example, to increase the loan to cover the construction element.

The second biggest risk is whether the proposed developments are sustainable economically e.g. employing sufficient people to staff the new facilities, the maintenance of buildings and equipment, the cost of consumables, and the ability to treat when insurance tariffs do not cover the whole cost of treatment. If insurance tariffs do not keep pace with health inflation; if there is a significant economic downturn so that people cannot afford the out-of-pocket element of their treatment; or if central ministries cut allocations for currently supported programmes, operations and management costs and staff salaries, then these could be significant challenges. It is noted that services at HUH are provided at the more expensive class A level but are only reimbursed at a class B tariff. This represents a considerable gap in resources over the longer period. **An up-to-date and detailed business plan is required as soon as possible.** Currently, despite economic difficulties and dependency on commodity production trading, overall the Indonesian economy is growing well and there is evidence of strong demand for VVIP and VIP services to make use of the proposed new services and produce sufficient revenue to allow cross subsidisation, but this will need careful monitoring.

Linked to these risks to sustainability is the growing competition from private hospitals. As long as the current high reputation of HUH and RSWS are maintained (e.g. through accreditation and providing outreach support) this is not a problem, and MoH and BPJS can exercise control through the developments authorised elsewhere. More of a problem would be possible loss of staff to other hospitals. This risk could be addressed through better employment practices (see section 3) to give greater job security. Also senior management staff need to be dedicated positions not shared with training if the hospital is to be managed effectively as it expands. An up to date and robust workforce plan is also required.

There is a risk that HUH will fail to gain BLU status and KARS accreditation. At present the EPOS Team only saw evidence of 60% completion of standard operating procedures, for example, which would lead to failure.

The area is prone to natural disasters but earthquake and flooding issues have been designed into the buildings, and training for coping with disasters is actively carried out. Business continuity planning should be updated regularly.

Political instability, civil unrest and inter-community strife are not features of Indonesia, and it is assumed there will be a stable policy environment within which UNHAS and HUH can operate and plan for the future.

The EPOS Team considered that greater local capacity for biomedical equipment maintenance is required, and noted, for example, that the very expensive linear accelerator at RSWS has been out of use for about 18 months. A list of other operational risk is given in Annex 23.

8 Conclusions and Recommendations

The EPOS Team consider that the BAPPENAS readiness criteria (Annex 24) are sufficiently well met that the project could go ahead, and formed a very positive impression of the enthusiasm and energy of those sponsoring and leading this proposed project locally. The existing building commissioned in the past few years are full of activity, are maintained well, and form an attractive and welcoming appearance to patients. Staff exhibit a high level of professionalism and discipline, and there are manifest signs of high quality throughout the system. External stakeholders spoke highly of the RSWS/HUH facilities and the proposed developments, seeing them as enhancing their own capacities. The close working of RSWS, UNHAS and HUH is demonstrated by the credentialing of doctors to work across all three institutions as clinicians and teachers.

The proposed developments fit well within the current regional health economy, are congruent with previous investments in the site and with the wider UNHAS-RSWS campus missions, and address many of the demand trends. Drivers for increased demand include increased awareness of the need for early diagnosis and treatment, and urbanisation induced consequences such as stress related diseases, traffic related trauma, and cardio-vascular disease and related strokes and heart attacks. From a public health perspective the project would contribute to addressing the epidemiological shift towards non-communicable diseases, although developments such as medical genetics and epi-genetics should probably be included in developments at HUH. Improvements in control of communicable diseases and better health services means that the population is aging and the traditional pyramid is becoming more rectangular. This will inevitably lead to age related degenerative diseases and more complex comorbidity problems. **Geriatric medicine, therefore, should also be considered for development.** Cancers will increase with age and although cancer services are included in the project, palliative care has not been. The growing wealth and industrialisation will see a growth in diabetes due to dietary and physical activity behaviour changes. Diabetes is an expensive burden on society and has not been sufficiently well planned for. It also reinforces the need for more preventative disease control and public health measures which HUH's research could support.

Although there is good support to peripheral institutions and areas for advice on treatment, there is a need for better community support services and for palliative care services. For that reason the EPOS Team would recommend that **future developments should consider a hospice and more on-going community support for post-acute care.** Other developments to be considered are capacity for transplants, especially kidney transplants, tertiary level laboratories and developments in the fields of nano-technology and robotics.

Given HUH's growing role as a referral centre for the whole of eastern Indonesia it is further recommended to consider hostel accommodation for patients' relatives, not just as a service but as a possible source of revenue.

The simulation (training), telemedicine and referral systems already developed show great initiative and local commitment and further development should certainly be encouraged.

The original plans have **underestimated costs for staffing, training and equipment** as indicated in the relevant sections above. Decisions are required to address the shortfall and the options are:

- Increase the size of the loan
- Reduce the scope of the services to be included

- Prune the staff and equipment needed by focusing on essential minimum standards rather than current ambitions
- More use of local maintenance and installation contractors
- Keep some facilities in mothballs until additional equipment and staff can be phased in as the hospital begins to show a revenue surplus or central and provisional authorities can allocate more money.

Recommendations already included in the previous sections include:

- Inclusion of an MoH representative (e.g. the Provincial Health Officer) on the governing board.
- Appointment of full time managers and planners rather than relying on overburdened clinical teaching staff.
- Although IT systems have been developed for clinical management, IT for hospital management purposes have not been equally well progressed and this needs attention, especially for financial management and asset management.
- Staffing levels, especially nursing, should be at least at MoH levels.
- BLU and KARS accreditation should be pursued actively – RSWS could assist with JCI accreditation. This will require, among other things, completing the standard operating procedures for all departments.
- Completion of the block B,C,D as soon as possible using one multi-year tendered contract with a reputable construction company. (see section 4.3 for more detail).
- Use any smaller sums of money which MoHE might make available for smaller activities, particularly drainage and elevator installation in the already nearly finished areas of B,C,D and bring them into operation as soon as possible.
- Phasing of the training and equipment elements step-wise with achieving the previous bullet point so that early progress and learning can take place.
- Set up the necessary project planning, monitoring and evaluation and commissioning committees and task-groups needed sooner rather than later (experience at Banda Aceh could be used to inform this process).
- Up-to-date business and business continuity plans and workforce plans, including succession planning, should be prepared.
- Future developments should consider the demands of an aging population, patients and their relatives travelling from great distances, support to better community services, palliative care, and the chronic traffic congestion and parking the site faces.

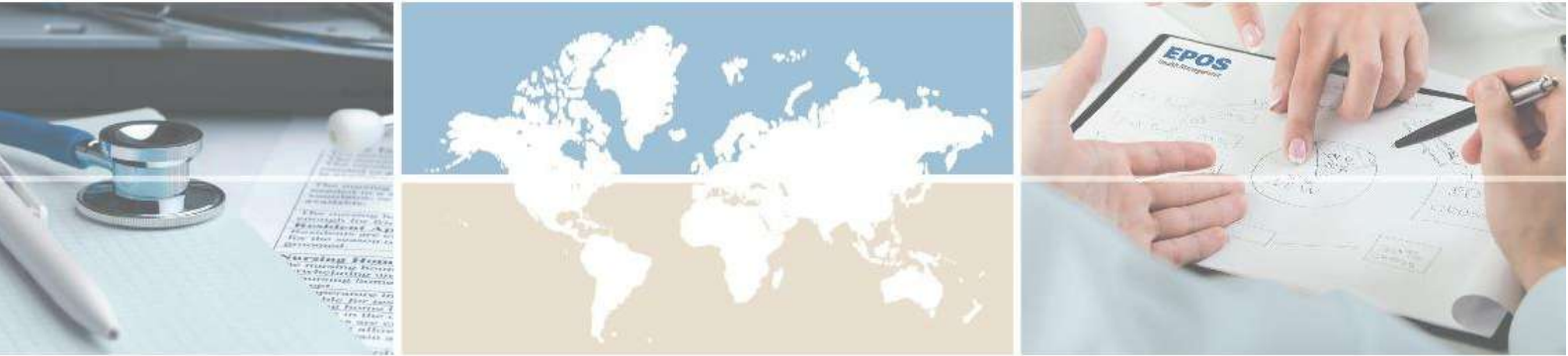
The preliminary logical framework can be found in Annex 25.

8.1 Postscript

On 07.11.2016 KfW Development Bank was informed that that the Government of Indonesia had agreed that HUH could receive external funding to complete the construction of Buildings B,C,D as well as assistance towards the aims set out in the Green Book. However, the original resource envelope shown in the Green book application had to be adhered to. At a meeting on the same day at KfW Frankfurt, the EPOS Team were asked to give an indication of how the construction and non-construction elements could be prioritised in order to achieve this, with the prioritised activities to be termed a Phase 1 intervention which may either be executed as a stand-alone project, or be a precursor to a potential Phase 2 as part of which activities and investments currently excluded could be implemented. As the visit of the EPOS Team to HUH had already concluded, the prioritisation could not be discussed in detail with the HUH counterparts. In line with the Paris Declaration and Accra Agenda for Action on Aid Effectiveness the EPOS Team would therefore be hesitant to offer more than a possible way forward. Their thoughts on how the prioritisation could be achieved within the resource constraints are set out in Annexes 21b, Annex 22b and Annex 27 (the revised costings and justification). It is suggested that these ideas be used to assess the feasibility of the loan/project going forward, and that further fine tuning should take place at later stages in discussion with stakeholders in Makassar.



Annexes



Annex 1: Members of EPOS Team

Annex 2: List of key stakeholders met by EPOS Team

Annex 3: Presentation delivered by EPOS team at wrap-up sessions

Annex 4: Proposed use of KfW promotional loan (Green Book extract)

Annex 5: Proposed budget expenditure by activity

Annex 6: Epidemiological and demographic data

Annex 7: Referral system

Annex 8: Status report on accreditation documents

Annex 9: Organisation structure of HUH

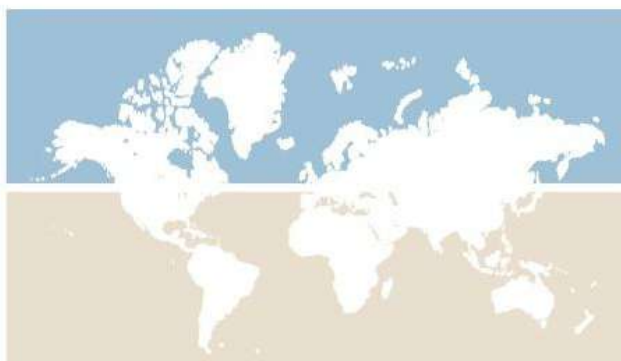
Annex 10: Financial management, funding & financial performance

Annex 11: HUH Realisation of funding

Annex 12: Organisation structure of RSWS

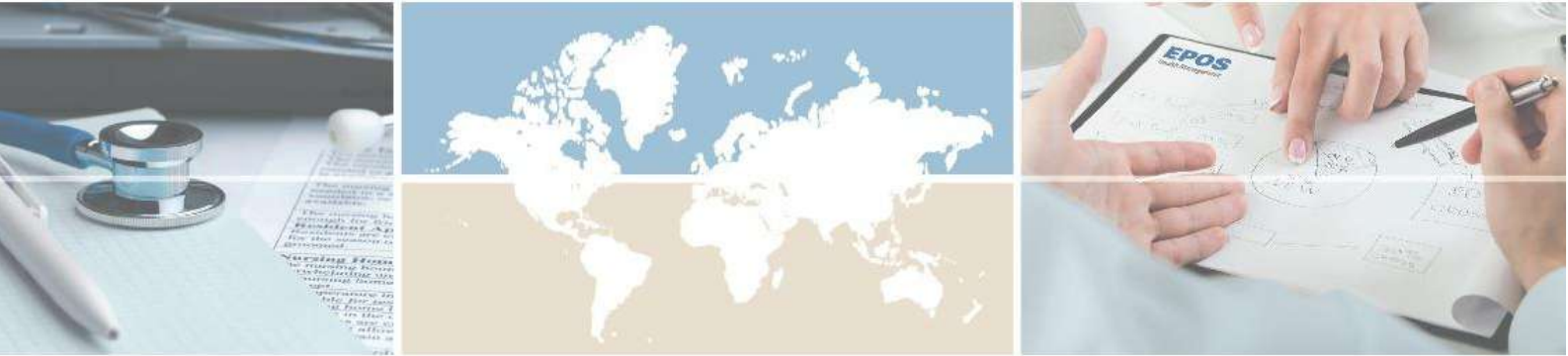
Annex 13: Tripartite MOU

Annex 14: Complementarity of HUH and RSWS



- Annex 15: University level education plans
- Annex 16: 2016 HR allocation by job classification
- Annex 17: Staff needed for 5 proposed new centres of clinical excellence
- Annex 18: Functional overview of buildings
- Annex 19: Current B,C,D Building plans
- Annex 20: Timeline options
- Annex 21a: Equipment Schedules & Estimates
- Annex 21b: Revised Equipment Schedules & Estimates
- Annex 22a: Building Cost Estimates
- Annex 22b: Revised Building Cost Estimates
- Annex 23: Operational risks
- Annex 24: BAPPENAS readiness criteria
- Annex 25: Logframe
- Annex 26: Minutes of Meeting 07.11.2016
- Annex 27: Justification for Indicative Prioritisation
- Annex 28: Annex 28: Structural Assessment Report, authored by TTW

Annex 1



Members of EPOS Team

ANNEX 1

EPOS FIELD MISSION TEAM TO JAKARTA & MAKASSAR

27th September – 7th October, 2016.

Christopher Potter	Team Leader
John Kornie	Architect
Joy Hanjoyo	Architect
Caroline Fitzwarryne	Human Resources
Andrastai Meliala	Human Resources
Philip Stokoe	Public Health & hospital management
Ravindram Shanmugam	Institutional management
Soegianto Chandra	Medical equipment

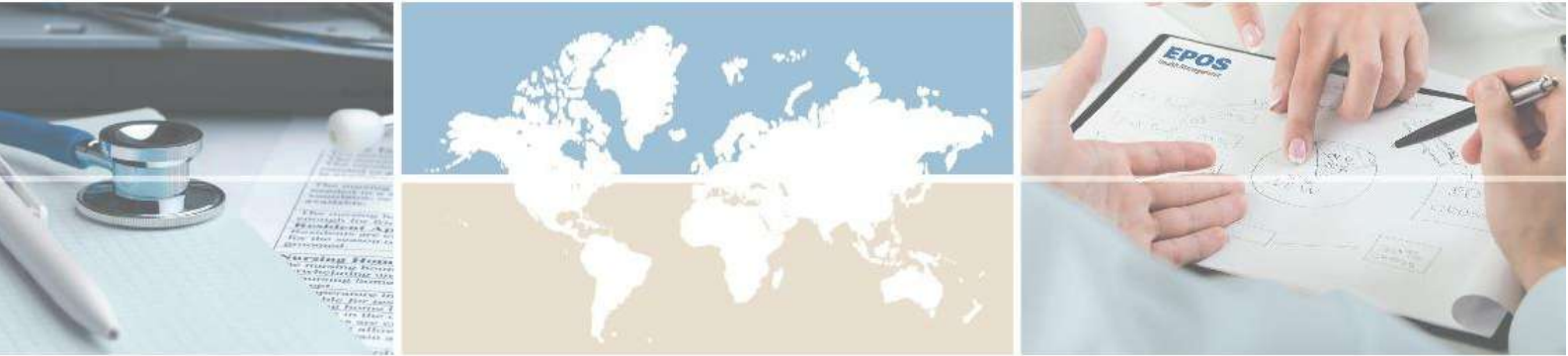
Back-stop management EPOS HQ Milena Beyene-Kuehnl

KfW representatives Jakarta

Jochen Saleth

Esther Hutabarat

Annex 2



List of key stakeholders met by EPOS Team

ANNEX 2

People Met – Result

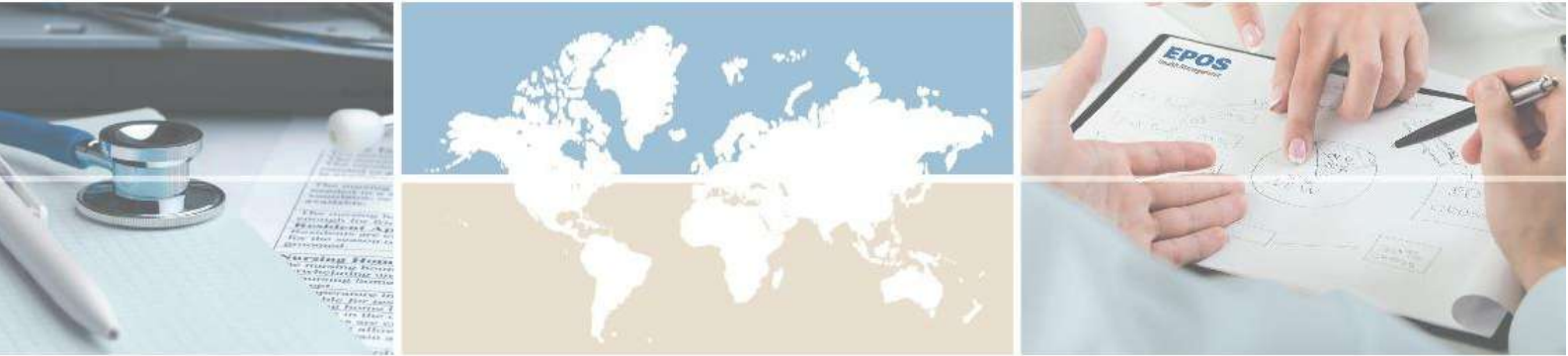
No	Name	Designation
1	Prof. Dr. dr. Idrus A. Paturusi, Sp.B., Sp.Bo	HUH Supervisory Board
2	Dr Andi Fachruddin Benyamin, MD, PhD	Director HUH
3	Dr. dr. Idar Mappangara, Sp.PD, Sp.JP	HUH Medical Care & Nursing Director
4	Dr. dr. Hasyim Kasim, Sp.PD-KGH	HUH Medical Support Services Advice and Cooperation Director
5	Dr. dr. Sitti Maisuri Tadjuddin Chalid, Sp.OG (K)	HUH Education, Training and Research Director
6	dr. Sitti Wahyuni, Ph.D	HUH Research Department Head
7	Dr. dr. Saidah Syamsuddin, Sp.KJ	HUH Public Administration & HR Department Head
8	Dr. dr. A. Indahwaty Sidin, MHSM	HUH Planning & Evaluation Department Head
9	Misfani, SE., M.SI	HUH Finance Department Head
10	Andi Iqbal Sinrang, ST, MM	HUH Equipment Department Head
11	dr. Ayu Fitriani, MARS	HUH Medical Department Staff
12	dr. Andi Nirmalasari	HUH Medical Department Staff
13	Wahyu Ikra Wirawan, A.Md.TEM	HUH Equipment Department Staff
14	Nur Alam, SKM	HUH Human Resourch Department Head
15	Muh, Irsan, ST	HUH Engineering Staff
16	Andi Asadul Islam MD, PhD, FICS	Dean UNHAS and Professor of Neurosurgery
17	Andi Darwin	Official Commitment Makers of Hasanuddin University
18	Choiruddin	Head of Infrastructure Development, Bappenas
19	Hadi	Planning & Budgeting Berau, Ministry Research, Technology & higher education
20	Nurul Huda	Planning Berau of Ministry Research, Technology & higher education
21	Hanifah Umi Haryati	Directorate of Higher Education, Science and Technology and Cultural Affairs – Bappenas
22	Dr Kalid Saleh, Sp.PD-KKV, FINASIM, MARS.	Director RSWS
23	Professor Dr Manysur Arif PhD, Sp. PK(K)	Medical & Nursing Director RSWS
24	dr. Thomas	President Cirector of Stella Maris Hospital
25	Muhammad Ichsan	South Sulawesi provincial health department
26	drg. A. Ermy Nurdin	Head of Tamalanrea health centers
27	Sudarmi Junaedi, SKM	Tamalanrea health centers staff
28	Hj. Yudiyana S.Kep	Tamalanrea health centers staff
29	Hj. A. Rasmawaty R	Head of Turikale health centers, Maros
30	Vera Ivona	Bappenas
31	Rya R.Setiadi	Bappenas
32	Muhammad Rusly	President Director of Daya Hospital
33	Professor Dr Dwia A. Tina Pulubuhu, MA	Rector UNHAS
34	Dr Indrianty Sudirman S.E, M.Si.	Director General Adminstrative, Human Resources & Financial
35	Ibu Werna	Head of Nursing Department
36	Dr Idar Mappangara	HMIS, Telemedicine and Simulation Centre
37	Dr Ashari Bahar	Neuro-intervention
38	Dr Wily SpBS	i/c operating theatres and two centres of excellence
39	Drg. Unting Patri	BPJS Kesehatan / Head of Main Office, Makassar
40	Letiza Sampoetoding	Quality Assurance Dept, RSWS
41	Dr Aslim Taslim	Emergency Dept Doctor / Case Mix Unit Head
42	Dr. Agus Sulaeman	Director Of PT.KunTelemedika Nusantara

HUH Taskforce assigned to the EPOS Pre-Feasibility Study Team

Pre-Feasibility Study on Hasanuddin University Development Plan

No	Scope	Taskforce Pre-Feasibility Study on HUH Development	EPOS Health Management Team
1	Team Leader	Dr. dr. A. Fachruddin, Sp.PD-K.HOM	Dr Chris Potter
2	Health Services Management	a. Dr.dr.Idar Mappangara,Sp.PD,Sp.JP b. dr. Ayu Fitriani, MARS c. dr. Andi Nirmalasari	Dr Philip Stokoe
3	Medical Equipment	a. Dr. dr. Hasyim Kasim, Sp.PD-KGH b. Iqbal Sinrang, ST, MT c. Wahyu Ikra Wirawan, A.Md.TEM	Soegianto Chandra
4	Health Human Resources	a. Dr. dr. Saidah Syamsuddin, Sp.KJ b. Nur Alam, SKM	1. Caroline Fitzwarryne 2. Dr Andre Meliala
5	Hospital Architect	a. Iqbal Sinrang, ST, MT b. dr. Willy Adhimarta, Sp.BS	1. John Kornie 2. Joy Hanjoyo
6	Hospital Management	a. Dr.Indrianty Sudirman SE, M.Si b. Dr. dr. A. Indahwaty Sidin, MHSM c. Misfani, SE., M.SI	Ravindran Shanmugan
7	Structural Engineers	Muh. Irsan, ST	

Annex 3



Presentation delivered by EPOS team
at wrap-up sessions

RS HASANUDDIN UNIVERSITY (HUH) MAKASSAR DEVELOPMENT PLAN

Pre-feasibility Study Initial findings
Thursday 6 October 2016

EPOS Health Management

1

Experience of the team in Makassar

- Excellent co-operation
- Generous hospitality
- Encouraging enthusiasm and creativity

2

Overall message

- The EPOS team are generally positive about the proposed development plan:
 - It addresses growing demand
 - Meets a need within the wider health economy
 - It is congruent within the wider University - RS Wahiddin – UNHAS campus
 - Past developments indicate likely future success
 - Dynamic, enthusiastic network of senior staff
 - Largely sustainable
 - Consolidates & enhances previous investment

3

Growing demand

- Growing and aging population
 - Obgyn demand (including relatively high MMR)
 - Degenerative diseases with co-morbidity
- Urbanization and life style
 - Stress
 - Cardio-vascular disease and CVAs
 - RTAs
 - Diabetes
- Growing awareness of need for early diagnosis and intervention.

4

Wider health economy

- HUH & RSWS top of a referral hierarchy for
 - Makassar
 - South Sulawesi
 - Eastern Indonesia
- Service referral through IT system and telemedicine, as well as physical referrals.
- Provides training, and ultimately staff, for other hospitals including private sector, with good reputation and relationships.

5

Tri-partite relationship

- “Spheres of agreement” MoU with RSWS is rational and shows complementarity rather than competition or duplication.
- Joint licensing of doctors, faculty (and other resource) sharing.
- Support of Medical Faculty and University leadership.
- Fits educational and research agenda
- Enhances campus reputation with proposed centres of excellence and supports those developing at RSMH e.g cardiology

6

Past developments indicate future success

- Generally impressed with building maintenance, appearance, standards and activity levels at UNHAS and RSWS.
- Development of the IT based referral system within South Sulawesi.
- Development of telemedicine for cardiology and OBGYN in Makassar – including 46 primary health care clinics and support to 24 hour homecare service.
- Development of strong, co-operative networks with rest of health economy including private sector.

7

Dynamic staff

- See last slide!
- Crosses institutional borders.

8

Generally sustainable

- We have some concerns about financial and human resource issues but overall believe development plan is sustainable for foreseeable future assuming:
 - Stable economic climate for
 - Health insurance earnings
 - Government support for salaries (and some other programmes and O&M)
 - Out-of-pocket
 - Demand for VIP services
 - Stable policy environment

9

Concerns, issues and suggestions

- We have identified a few issues concerning specialties, HR, maintenance, equipment proposals and finance.
- There are risks we need to consider
- We also have some suggestions to make progress and mitigate problems and risks.

10

The elephant in the room!

- The team has some worries, mainly about the new building construction, including manner and auditing of previous spending.
- KfW can not consider purchasing equipment, agreeing to HR proposals, and so on unless and until the construction is complete
 - Cannot buy equipment and use the existing space as a warehouse.
- Construction cannot be completed without the availability of a large sum of money over at least 2 contiguous financial years (i.e. under a multi-year contract).
- Multi-year contract and internal or external funding are strategic decisions for BAPENAS and Min of Higher Edn.
 - Some local money available (university and medical faculty)
 - Private and foreign capital available as loans.

11

Need a triage approach?

- In clinical medicine if faced with 18 cases hard decision have to be made about using scarce resources.
- Focus on those who will benefit most.
- In making investment decisions we appreciate that M of HE have many other sites that need teaching hospitals – but we would urge you to consider finishing this site to be an exemplar for elsewhere.

12

HUH Achievement so far is commendable

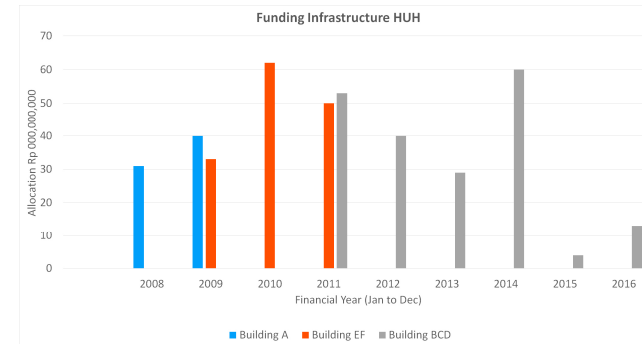


Building A
2008 - 2009



Building E,F
2009 - 2011

Funding Graph tells a story



Building B,C,D is not finished after 6 years

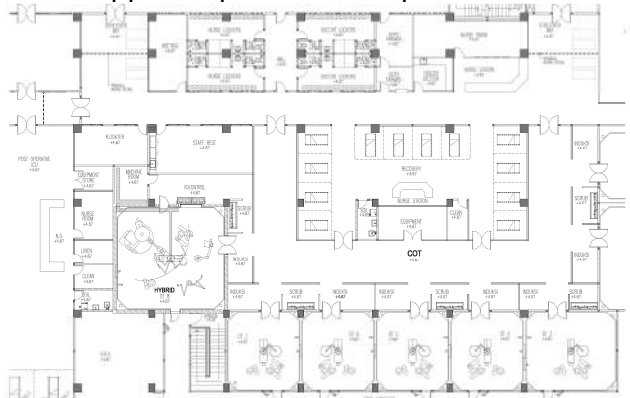


Problems to overcome.....

- Building is deteriorating
- Small contractors = poor quality control
- Repetitive, overlapping contracts wasteful
- Responsibility / 'ownership' not apparent
- Laisser-faire project management
- Decision-making on the run

EPOS
Health Management Unit

But it is a valuable asset
approx. Rp 200 billion spent so far



17

EPOS
Health Management Unit

Recommendations

- Prepare for a professional, well-funded finalisation stage.
- Audit past works.
- Review once, then 'freeze' the design.
- Use a large, established contractor.
- Establish a hospital 'steering committee' and commissioning unit.
- Use experienced and strong consultants as project managers.

18

EPOS
Health Management Unit

Suggestions

- Commission completed wards part of Block B,C,D. Keeps the building 'healthy' and builds momentum to finish the project.
- Spend locally-sourced funds on associated works such as the power house, emergency generators, site drainage, car parking....or even for medical equipment.

19

EPOS
Health Management Unit

Cost estimates

- Cost to build Building B,C,D
new to MoH standards **Rp 347 billion**
- Value of work done so far **Rp 165 billion**
- Value of work to finish **Rp 182 billion**
- Add 10% for cost escalation
and contingencies **Rp 18 billion**
- Required Funding** **Rp 200 billion**

20

Construction suggestions

- Commission Block almost complete part of Block BC. Keeps the building 'healthy' and builds momentum to finish the project.
- Spend locally-sourced funds on associated works such as the power house, emergency generators, site drainage, car parking....or even for medical equipment.

HR Findings & Recommendations

- **Professional Standards:** These are generally of a high standard due to:
 - the high level of education provided by the University
 - the ability to recruit highly qualified staff.
- **Training** by Faculty of Medicine trainers of HUH staff in-house, and health workers in provincial hospitals/health centres on a user-pays basis is excellent.

Human Resources Unit:

- Recruitment, performance appraisal, rewards and incentives, career development and CPE are generally managed well generally - but better for doctors and nurses.
- As there is no updated Business Plan* since the one for 2010-2014, Workforce Planning and projections are limited.
- The HRMIS system is not sufficient as there are so many categories and multi-tasking.
 - **Recommendations:** HRMIS needs to be re-constructed, and a hospital workload-based workforce plan should be developed.

*Current business plan framework being developed.

Employment conditions:

- Many trainers have dual employment as managers of service areas within HuH, and receive payment from several sources , with very high workloads.
 - About 50% of staff, including many highly skilled health professionals, are contracted for up to one year due to university autonomy (PTN-BH) zero growth policy.
 - Leads to staff losses to hospitals with more secure employment and compromises efficient and sustainable health service.
 - -Particular problem for admin/ management staff
- Recommendation:** Management staff should be singly employed as permanent employees of PTN-BH, as should full-time health professionals.

Centre of Excellence Training and Staffing Plans:

- Sensible & based on rigorous analysis by Centre Heads, and align in general terms with the Green book monetary framework.
 - **Recommendation:** Project funds of \$1,515,005 for training, and \$200,400 for additional short-term contract staff.
 - **5-10% more than Blue Book**
 - Either borrow more
 - Reduce staff needed
 - Reduce specialties/ activities

Staff Numbers and Revenue:

- Concerns about inadequate revenue have resulted in insufficient numbers of some staff categories being employed. E.g. There are 35 less nurses than documented to meet the MoH requirement for a Class B hospital.
- This can result in sub-optimal care.
 - **Recommendation:** MoH allocations should be adhered to for all staff categories.

HR Projections for 2017-2020:

- A workload analysis was undertaken in 2015 but no further workforce plan since. HR preparing for our final report.
- For this presentation projections have been estimated as to be in the order of 1369 based on number of beds by the end of the 4-year project, up from 810 in 2016.

Preliminary Equipment Cost

• Budget in the Blue Book	Usd. 34.000.000
• Proposal by Consultant :	
1. Equipment Budget proposal	Usd. 40.000.000
2. Incidental Services (Installation, handling and Transport)	Usd. 4.400.000
3 Years Maintenance & Spare parts	Usd. 5.100.000
Total Preliminary for Equipment	Usd. 49.500.000

4 basic options to address deficit in equipment budget

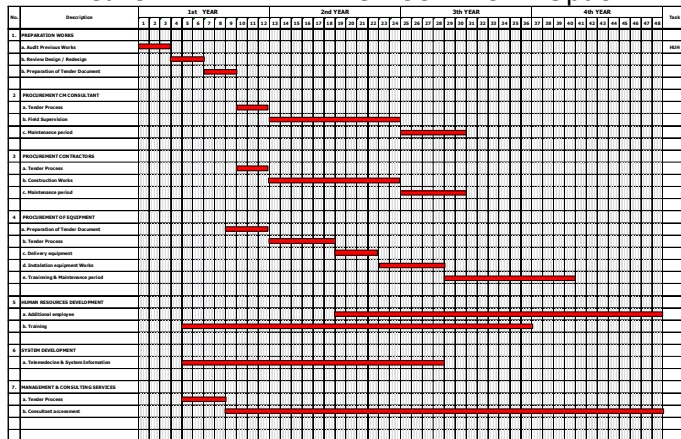
- Reduce equipment requested?
- Reduce specialties?
- Borrow more money?
- Phased purchasing?
- Local maintenance and installation budget?

Time frame

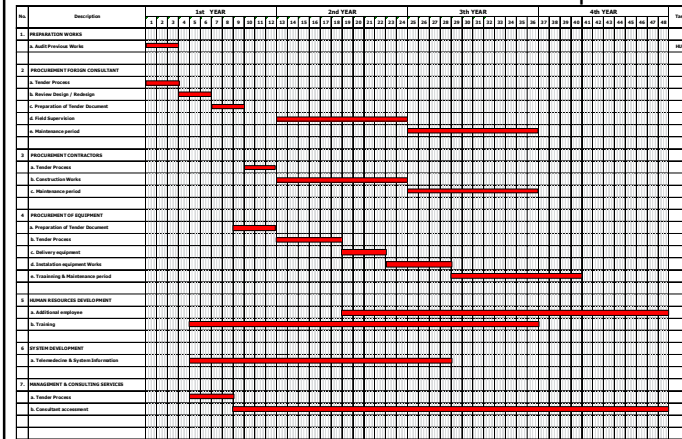
- We have prepared two options depending on whether domestic or foreign financing is used.
- Not significant differences but there are some.

(Apologies that next two slides will be hard to read!)

PROJECT IMPLEMENTATION SCHEDULE: Option 1



PROJECT IMPLEMENTATION SCHEDULE: Option 2



GOVERNANCE

- **SUPERVISORY COUNCIL (DEWAN PENGAWAS)**
 - Needs wider (especially MoH) representation
- **BLU STATUS**
 - Currently control still at UNHAS: HUH just another faculty.
- **CLASS B & TEACHING HOSPITAL**
 - KARS Credentialing as per MOH requirement in order to retain Class B status (although actually providing Class A services).

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MANAGEMENT & ADMINISTRATION

- **Standard Operating Procedures for all Departments**
 - Only approx. 60% complete and part of HUH's Strategic Plan 2015-2019.
 - Requires completion for credentialing.
- **Management Reports**
 - Reporting limited to only data obtained within the Hospital's Operations ie. Revenue & Expenditure, Operational Statistics
 - Requires more sophisticated financial management information systems e.g to understand sustainability.

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MANAGEMENT & ADMINISTRATION

- **HUH Treasury Functions** - limited in its usage of funds which is controlled at the Rector's Office.
 - < **Rp 200,000,000 threshold** – this is the maximum amount that the HUH Finance Director (PPK) can sign off on any single transaction.
 - > **Rp 200,000,000** – this amount requires the Rector's Office authorised signatory
- **BPJS**
 - largest source of revenue for the Hospital
 - Inconsistencies in the billing items
- **Various committees to be set up for the project management** – Project Executing Agency, Project Implementation Unit, Steering Committee, Tender Committees

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HMIS /IT

- **HMIS (SIM)**
 - limited for patient medical records and Billing Purposes.
 - certain enhancements to be made (earlier deficiencies in the system)
 - Costing of services in the system have been found to be high resulting in high differences between the BPJS (National Insurance Scheme) and Hospital's charges.
 - Management should closely monitor the Hospital pricing system is in place in order to have a realistic picture of the Income generated to its related expenditure.
- **The Fixed Asset Register and the Physical Assets Management System (SIMAK)**
 - government's MIS which is a stand alone system linked ultimately to MOF through the Rector's Office

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Management, admin, governance, IT,

- There are many obstacles faced by HUH due to the nature of the activity, complexity of the problems, speed in decision-making, and monitoring of the performance of each unit in the hospital.
- Requires professional full time managers
 - NB UNHAS has a health administration programme and should practice what it preaches!
- Enhancement of management capacity of senior staff

Risks and mitigation

- Adverse strategic decisions regarding construction financing.
- Failure to successfully complete audits of past expenditure.
- Deterioration of existing infrastructure investments
- Breakdown of equipment due to lack of maintenance
- Economic downturn
- Change of key staff – strong governance structure

Risks continued

- Failure to achieve KARS/ JCI accreditation
- Failure of HUH to achieve BLU status
- Natural disaster – training, preparedness (equipment, business continuity planning, etc) and good design (construction, back-up contingency plans, holding essential stocks).
- Failure to attract and retain essential staff due to employment practices.
- Gap between BPJS funding HUH as a B class hospital and providing A class services.

Environmental impact

- Healthcare waste management appears to be well organised:
 - contracted out to 3rd party (including radioactive) appears to be OK as do arrangements for handling cytotoxic material.
 - Effective waste water treatment plant
 - Effective large incinerator
- Traffic congestion on site.

Gender impact

- **Gender impact positive**
 - Women employees at all levels
 - Training is 50-50
 - Younger female population benefit from OBGYN and new reproductive health/fertility specialty
 - Women benefit from cancer services

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Social and poverty impact

- **Social**
 - Major contribution to local health economy especially through outreach (for diagnosis if not continuing care).
 - Some additional employment
 - Regional impact of improved training & quality
- **Poverty**
 - BPJS health insurance coverage covers many poorer patients so improved access and equity for poor and vulnerable
 - For very poor uninsured cross-subsidization of from VIPs

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Comments on specialties and possible others

- Geriatrics
- Genetics and epigenetics
- Palliative care
- Public health especially regarding infectious and emerging diseases, and non-communicable disease prevention.
- Robotics and nanotechnology

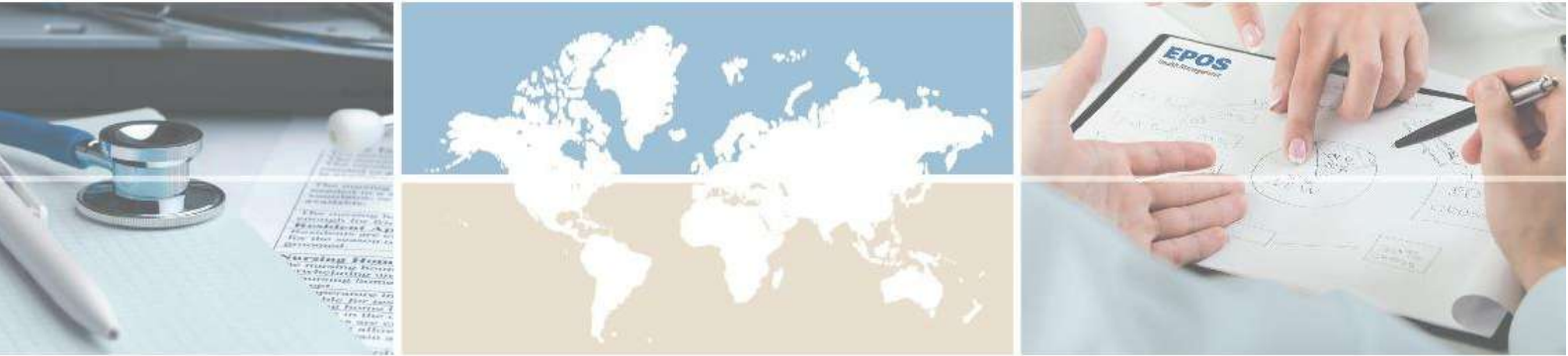
43

Possible long term site developments

- Hostels
- Car parking
- Kidney transplant
- Palliative care unit
- Tertiary level 3-4 laboratories

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Annex 4



Proposed use of KfW promotional loan (Green Book extract)



REPUBLIC OF INDONESIA

**LIST OF PLANNED PRIORITY
EXTERNAL LOANS
(DRPPLN)
2016**

Ministry of National Development Planning/
National Development Planning Agency

- 2016 -

*Kementerian Riset, Teknologi, dan
Perguruan Tinggi/*
**Ministry of Research, Technology, and
Higher Education**

-
1. **Project Title** : **The Plan of Hasanuddin University Hospital Development**
 2. **Program Title** : Improving Access, Quality, Relevance, and Competitiveness of Higher Education Program
 3. **Executing Agency** : Ministry of Research, Technology and Higher Education
 4. **Implementing Agency** : Ministry of Research, Technology and Higher Education
 5. **Duration** : 48 months
 6. **Location** : Makassar City
-

7. Objectives

To improve the medical education quality in Hasanuddin University through medical science and technology development by integrating education research and health care service with international standards.

8. Scope of Project

- a. Procurement of equipment, covers:
 - i. Mandatory equipment for B Class Hospital accreditation;
 - ii. Five centers of excellence;
 - iii. Radiology and clinical pharmacy;
 - iv. Simulation center; and
 - v. Research laboratory.
- b. Human resources development;
- c. Development of telemedicine and management information system; and
- d. Management and consulting services.

9. Activities

Activities	Implementation Location	Project Implementation Unit
a. Procurement of equipment; b. Human resources development; c. System development; d. Management and consulting services.	Hasanuddin University, South Sulawesi	Ministry of Research, Technology and Higher Education

10. Funding Source

Implementing Agency	Funding (US \$ 000)				Source
	Loan	Grant	Local	Total	
Ministry of Research, Technology and Higher Education	31,566		2,586	34,152	Germany (KfW)
Total	31,566		2,586	34,152	

11. Disbursement Plan

Disbursement Plan (US \$ 000)			Total
1 st	2 nd	3 rd	
25,866	7,634	652	34,152

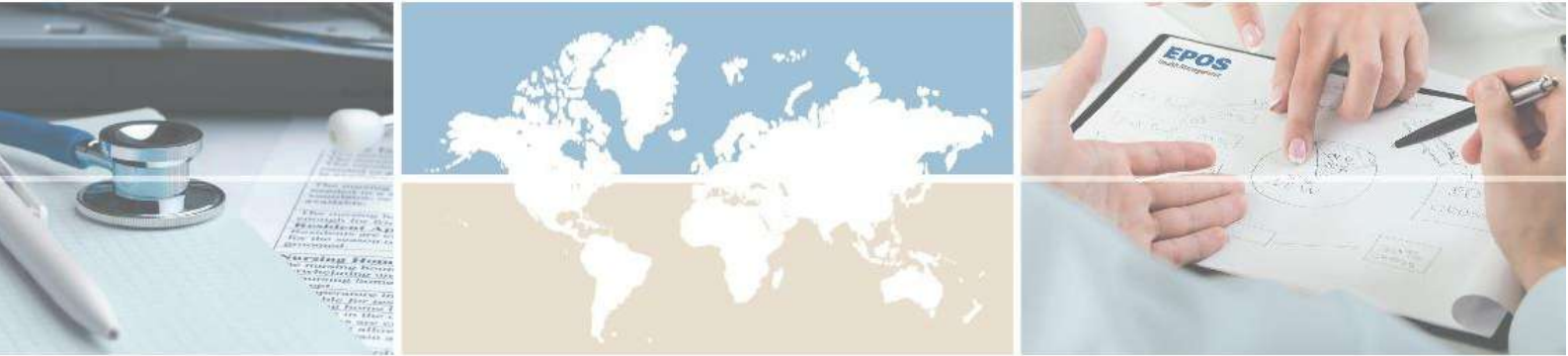
12. Funding Allocation

Activities	Category (US \$ 000)				
	Services	Constructions	Goods	Trainings	Other
a. Procurement of equipment			26,044		
b. Human resources development				1,545	
c. System development	4,019				
d. Management and consulting services	918				
e. Contingency					1,626
Total	4,937		26,044	1,545	1,626

13. Program Reference

BB-ID: BB-1519-R0-17

Annex 5



Proposed budget expenditure by activity

ANNEX 5 Details of the proposed Budget Expenditure by Activity Type

No	Activities	Cost (USD)			Budget (IDR)
		1 USD = 13,950 IDR			Total Project Budget
		Loan	Counterpart Funding	Total Cost	
I.	Hospital Equipment				
	Standardized Equipment for profession education of medical doctors	6,907,032	-	6,907,032	Rp 96.353.096.400
	Improving the Five Service Centers of Excellences	4,943,662	-	4,943,662	Rp 68.964.084.900
	Development of Diagnostics Services (Radiology), Clinical Pharmacy/ Improving Diagnostic Centre and Clinical Pharmacy	4,227,887	-	4,227,887	Rp 58.979.023.650
	Internship Training Centre (Simulation Centre)	8,823,665	-	8,823,665	Rp 123.090.126.750
	Improving Hospital Research Laboratory	1,141,751	-	1,141,751	Rp 15.927.426.450
	Subtotal I	26,043,997		26,043,997	Rp 363.313.758.150
II.	Human Resources Development				
	Training for Human Resources in improve their competencies in hospital		123,430	123,430	Rp 1.721.848.500
	Professional Education		1,421,128	1,421,128	Rp 19.824.735.600
	Subtotal II		1,544,558	1,544,558	Rp 21.546.584.100
III.	System Development				
	Clinical and Management Information System(MIS and Telemedicine)	4,018,647	-	4,018,647	Rp 56.060.125.650
	Subtotal III	4,018,647	-	4,018,647	Rp 56.060.125.650
	Total (I+II+III)	30,062,644	1,544,558	31,607,202	Rp 440.920.467.900
IV.	Project Management Consultant		918,456	918,456	Rp 12.812.461.200

No	Activities	Cost (USD)			Budget (IDR)
		1 USD = 13,950 IDR			Total Project Budget
		Loan	Counterpart Funding	Total Cost	
	(3% x Total I+II+III)				
IV.	Contingency 5%	1,503,132.2	123,150.7	1.626.282,6	Rp 22.686.646.455
Total Project (I+II+III+IV)		30,062,644	2,463,014	32,525,658	Rp 453.732.929.100
Total Project + Contingency		31,565,776	2,586,165	34,151,941	Rp 476.419.575.555
Total (Rounded)				34,151,900	Rp 476.419.005.000

Details Budget
Development of Clinical Information Systems and Telemedicine
Hasanuddin University Hospital

A. Clinical Hospital Information System

No.	Component Activity	Amount	Cost
<i>A. Software</i>			
1	Polyclinics	22 modules	Rp. 1.237.500.000
2	Inpatient	19 modules	Rp. 1.068.750.000
3	Emergency Unit	2 modules	Rp. 112.500.000
4	Measures of Medical & Support Services	148 modules	Rp. 8.325.000.000
6	Dictionary of Medical Terms	26 modules	Rp. 1.462.500.000
7	Clinical pharmacy	6 modules	Rp. 337.500.000
	SUB-TOTAL	223 modules	Rp. 12.543.750.000
<i>B. Training & Human Resource Development</i>			
1	Implementation Training for Doctor	129 people	Rp. 217.687.500

2	Implementation Training for Nurses	129 people	Rp. 217.687.500
3	Implementation Training for Pharmacists	6 people	Rp. 10.125.000
4	Implementation Training for Medical Others	148 people	Rp. 249.750.000
	SUB-TOTAL	412 people	Rp. 695.250.000

AMOUNT Rp. 13.239.000.000

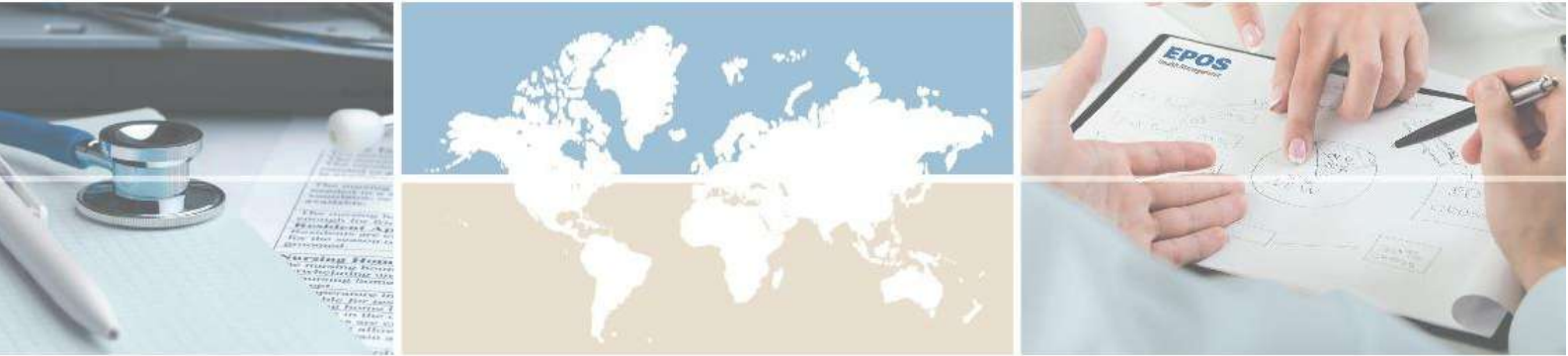
B. Telemedicine in East Indonesia

No.	Component Activity	Amount	Cost
A. Software (Software) / Module Telemedicine Clinic			
1	<i>Tele-consultation</i>	14 modules	Rp. 787.500.000
2	<i>Tele-monitoring</i>	16 modules	Rp. 900.000.000
3	<i>Tele-radiology</i>	8 modules	Rp. 450.000.000
4	<i>Tele-pathology</i>	17 modules	Rp.956.250.000
5	<i>Tele-cardiology</i>	4 modules	Rp. 225.000.000
6	<i>Tele-pulmonology</i>	1 modules	Rp. 56.250.000
7	<i>Tele-neurology</i>	1 modules	Rp. 56.250.000
	TOTAL	61 modules	Rp. 3.431.250.000
B. Technical Devices			
1	<i>Data-Call Centre (build up)</i>	1 set	Rp. 7.828.588.900
2	<i>Medical audio-video broadcast (multiple)</i>	60 unit	Rp. 5.062.500.000
3	<i>Medical audio-video broadcast (single)</i>	206 unit	Rp. 6.952.500.000
	SUB-TOTAL		Rp. 19.843.588.000
C. Training & Human Resource Development (13 provinces)			
1	Implementation Training for Doctor	169 people	Rp. 570.375.000
2	Implementation Training for Nurses	247 people	Rp. 833.625.000
3	Implementation Training for Call Centre Officers	39 people	Rp. 131.625.000
	SUB-TOTAL	455 people	Rp. 1.535.625.000
		Amount	Rp. 24.810.463.900

Development of Clinical Information Systems and Telemedicine **Total Budget: Rp. 38.049.463.900**

(Thirty-eight billion, forty-nine million four hundred and sixty three thousand nine hundred rupiah)

Annex 6



Epidemiological and demographic
data

ANNEX 6 Epidemiological and demographic statistics

1. Population		2004	7,379,370
		2014	8,432,163
2. Population pyramid – shows widening of the top of the pyramid indicating increase in the elderly			
3. Male / Female ratio		Male	54,79 %
		Female	45,21 %
4. Senior citizens	F > M	402,792 Female to 303,610 Male	
5. High risk amongst elderly	F > M	163,111 Female to 115,192 Male	
6. Life expectancy		2005	68,70
		2013	70,60
7. Neonatal Death	(2014)	762 Cass or 5,22 / 1,000 Live Birth	
MoH Projection		26,89 / 1,000 Live Birth	
8. Child Mortality	1986	111 / 1,000 Live Birth	
National	2001	42,16 / 1,000 (Susenas Data)	
Sulawesi Selatan	2014	52 / 1,000 Live Birth	
9. Causes of Child Mortality according to Incidence :		(Risksedes 2007)	
a. Diarrhoea	25,2 %		
b. Pneumonia	15,5 %		
c. Acute Gastro-Enteritis	10,7 %		
d. Meningitis	8,8 %		
e. Dengue	6,8 %		
f. Drowning	4,9 %		
g. TB	3,9 %		
h. Malaria	2,9 %		
i. Leukemia	2,9 %		
10. MMR	1986 (National)	425 / 100,000 Live Birth	
	2010	125 / 100,000 Live Birth	
Sulawesi Selatan	2014	94,51 / 100,000 Live Birth	
11. HIV – AIDS (Dinkes Data)	2009	HIV = 410	
		AIDS = 118	
	2011	HIV = 874	
		AIDS = 687	
12. TB		9,325 Cases of Pul TB	
13. Leprosy		1,059 / 10,000 (Population Cases)	
14. Measles	2014	978 Cases	
Diphtheria		5 Cases	
Hepatitis		19,8 % (Hepatitis A)	
		15,1 % (Hepatitis B)	

APPENDIX II

15. Immunization Coverage

BCG	100 %
Polio 4	99,28 %
DPT 1 + HB 1	100 %
DPT 3 + HB 3	100 %
Measles	99,4 %

16. Malaria 0,12 per 1,000 Population

17. Dengue 17,1 per 100,000 Population

18. Filaric 0,83 per 100,000 Population

19. DM (2014) Diabetes 27,470 (New Cases)
66,780 (Old Cases)
747 (Dead)

20. Coronary Heart Disease 1,151 (New Cases)
1,654 (Old Cases)
15 (Dead)

21. Stroke 3,512 (New Cases)
1,811 (Old Cases)
160 (Dead)

22. Hypertension (2011) 2,081 (New Cases)
2,082 (Old Cases)
18 (Dead)

23. Low Bith Weight 4,376 Cases out of 148,062 Live Birth

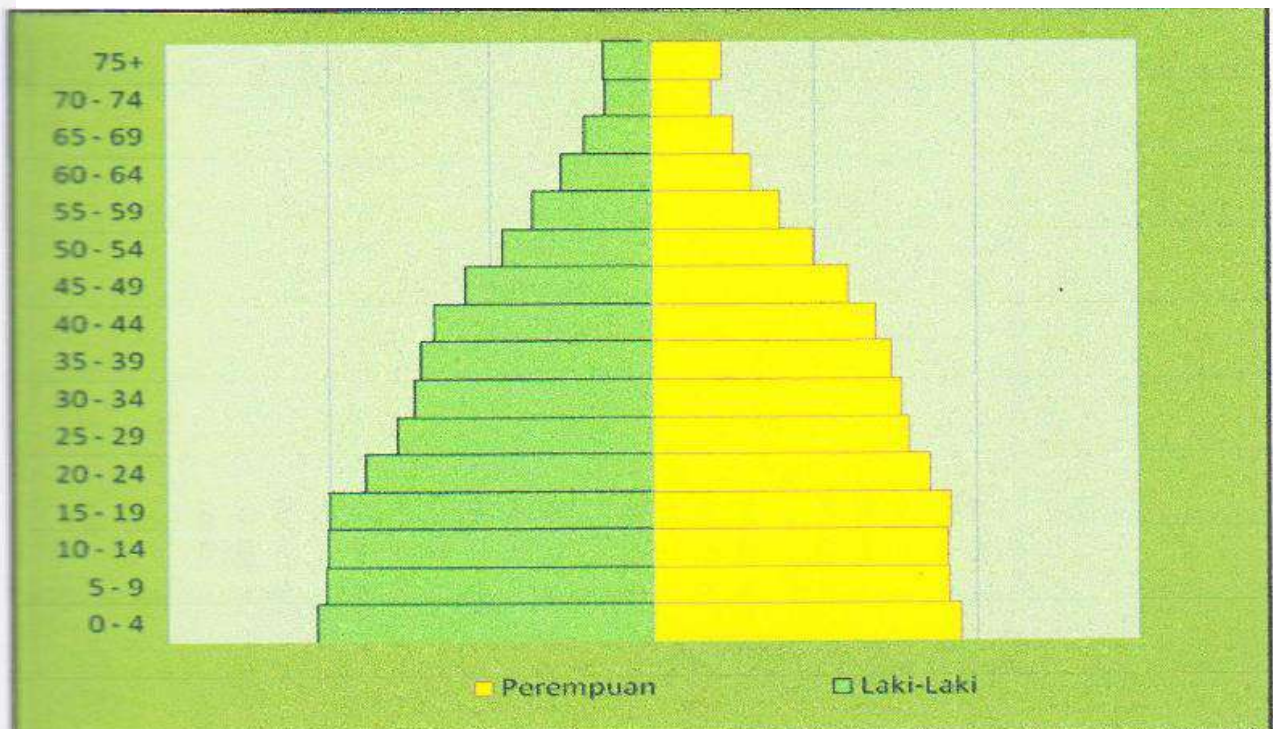
24. Mal Nutrition 2,962 (0,71%) out of 587,987 Weighed Cases

**Number and Population Growth Rate in
South Sulawesi 2004 – 2014**

Tahun	Jumlah Penduduk	% Laju Pertumbuhan Penduduk per Tahun	Sumber
1	2	3	4
2004	7.379.370	1,45	BPS Sulawesi Selatan
2005	7.495.705	1,56	BPS Sulawesi Selatan
2006	7.629.689	1,77	BPS Sulawesi Selatan
2007	7.675.893	0,60	BPS Sulawesi Selatan
2008	7.771.671	1,32	BPS Sulawesi Selatan
2009	8.328.957	6,69	Kependudukan
2010	8.034.776	3,66	BPS Pusat
2011	8.607.135	6,64	Kependudukan
2012	8.190.222	5,09	BPS Sulawesi Selatan
2013	8.342.000	2,01	BPS Sulawesi Selatan
2014	8.432.163	2,01	BPS Sulawesi Selatan

Sumber: BPS, & Kependudukan Sulawesi Selatan

**Number of Population by Gender and Age Group in
South Sulawesi on 2014**



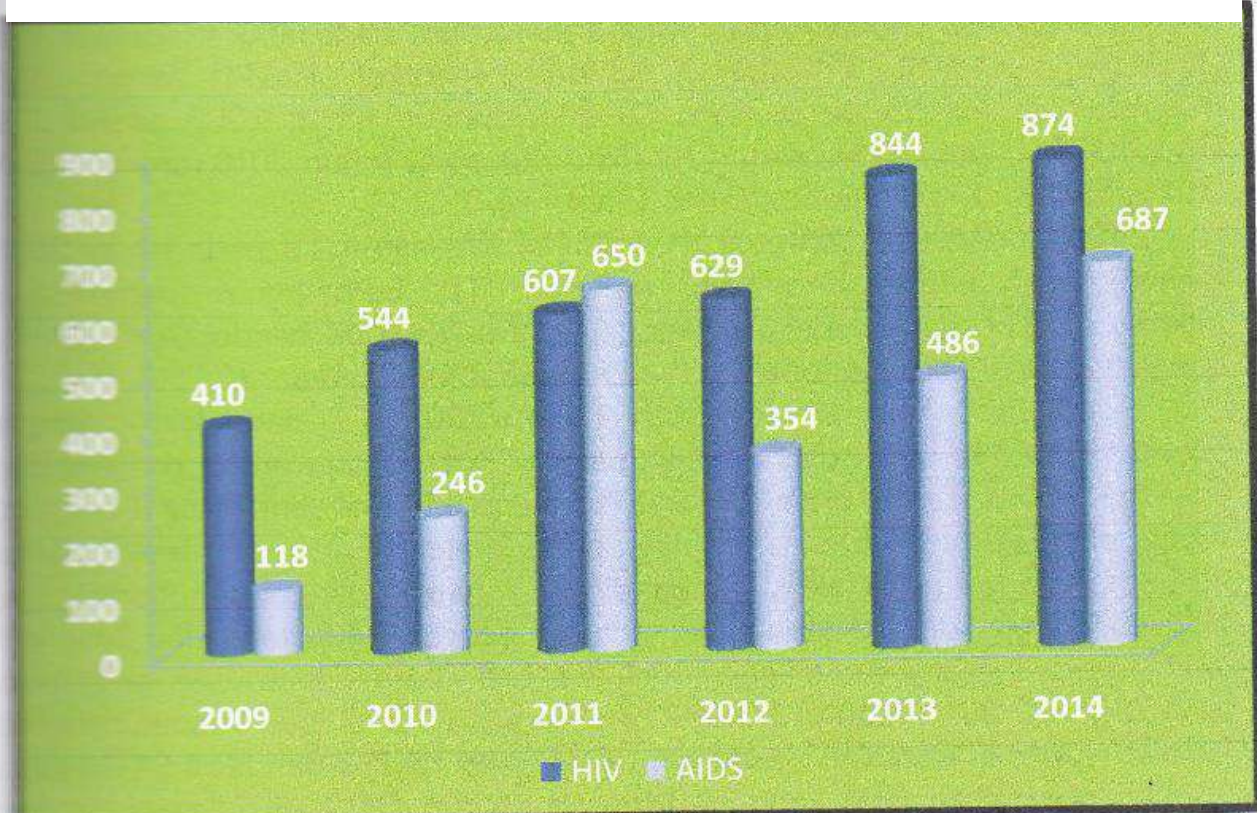
Sumber : BPS Provinsi Sulawesi Selatan Tahun 2014

**Proportion of Infant Mortality in Indonesia
Based on Riskesdes 2007**

No	Penyebab kematian	%
1	Diare	25,2
2	Pneumonia	15,5
3	Nicroticans Entero Collitis (NEC)	10,7
4	Meningitis/Encefalitis	8,8
5	Demam Berdarah Dengue	6,8
6	Campak	5,8
7	Tenggelam	4,9
8	TB	3,9
9	Malaria	2,9
10	Leukemia	2,9

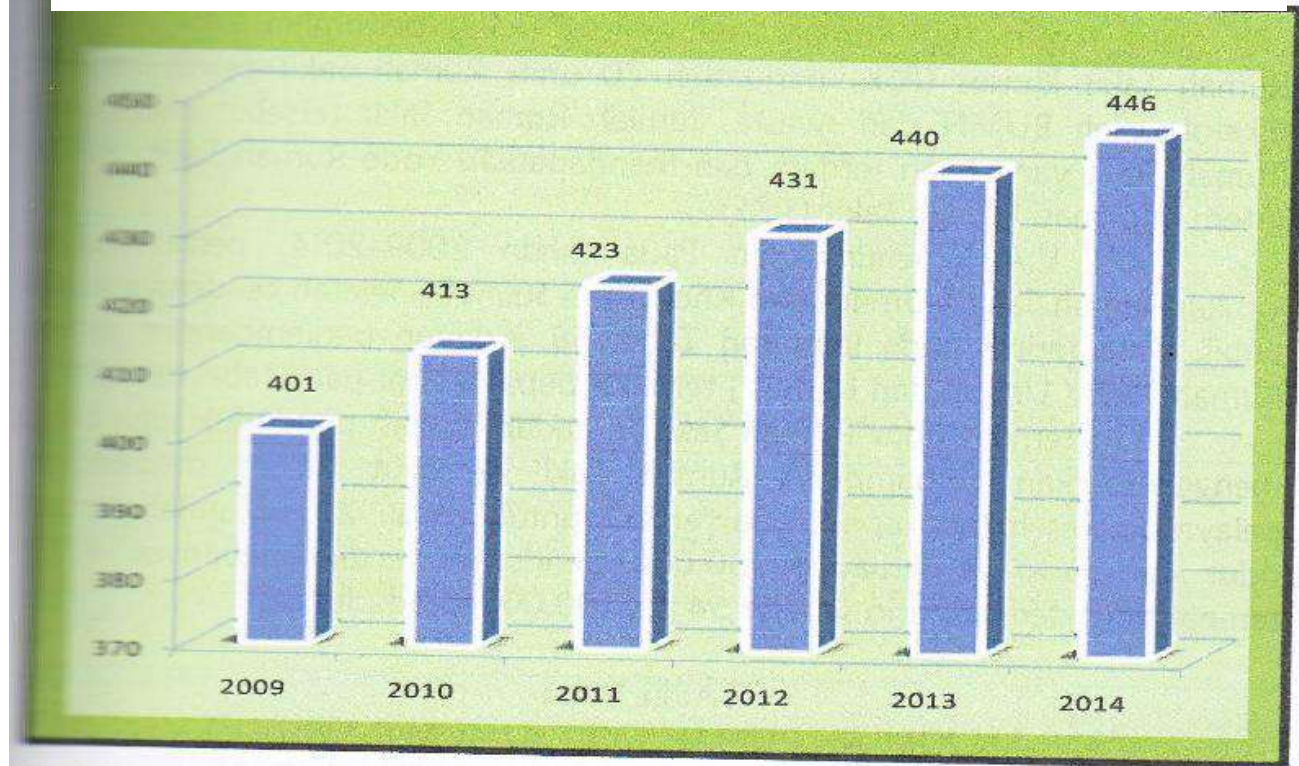
Sumber : Riskesdas 2007

**Number of HIV/AIDS Cases in
South Sulawesi 2008 - 2014**



Sumber : Bidang P2PL Dinkes Prov.Sulsel Tahun 2014

Development of Health Center in South Sulawesi for 2009 - 2014



Sumber : Profil Kesehatan Kabupaten / Kota Tahun 2014

Development of Hospital (General & Special) by Ownership in South Sulawesi for 2009 - 2014

No	Pengelola / Kepemilikan	2009	2010	2011	2012	2013	2014
1	Kementerian Kesehatan	1	2	2	2	2	2
2	Pemerintah Prov/Kab/Kota	38	38	37	37	37	37
3	TNI/POLRI	7	7	7	7	7	7
4	BUMN/Departemen Lain	1	1	1	1	1	1
5	Swasta	39	39	39	39	48	48
Jumlah		85	86	86	86	95	87

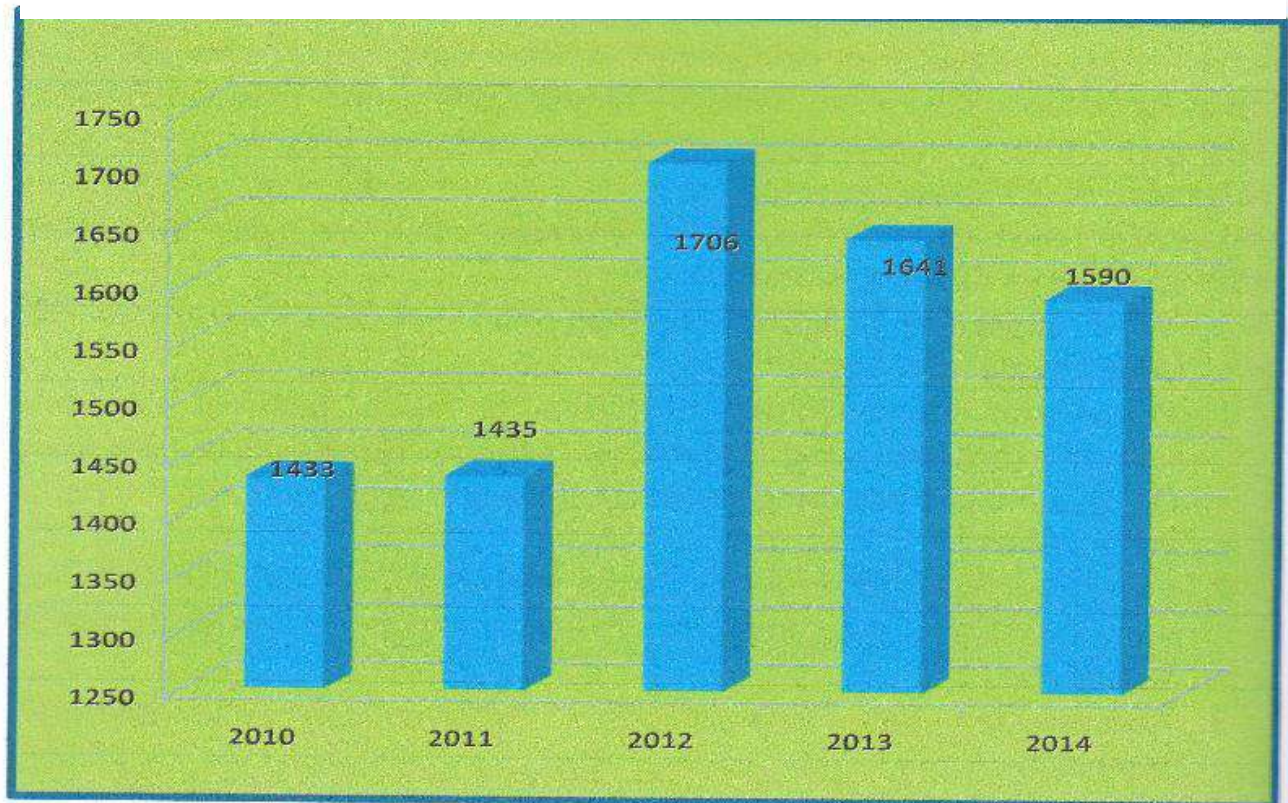
Sumber: Profil Kesehatan Sulawesi Selatan Tahun 2009-2014

Scope of Integrated Health Services Center Active per District/City in South Sulawesi 2014



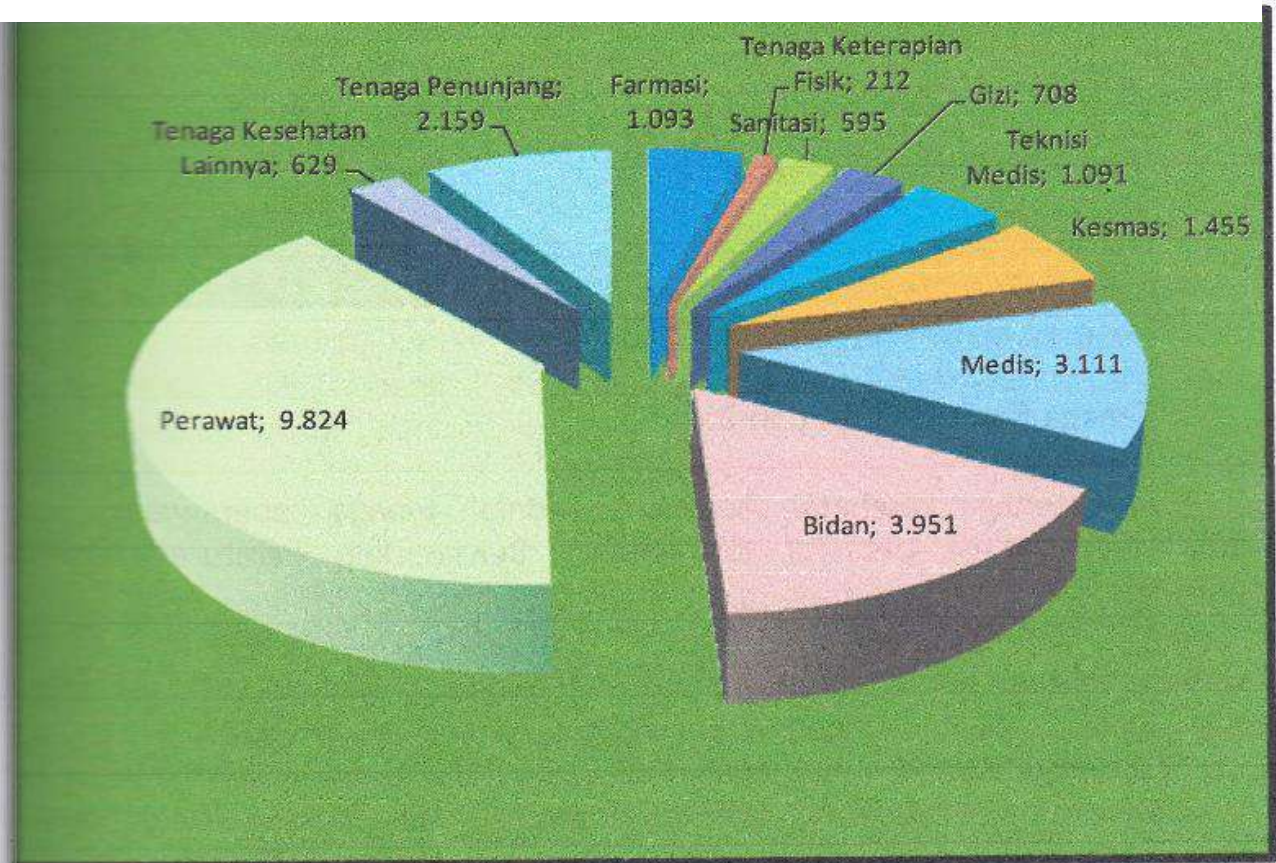
Sumber : Profil Kesehatan Kabupaten / Kota Tahun 2014

Development of Village Health Center in South Sulawesi 2014



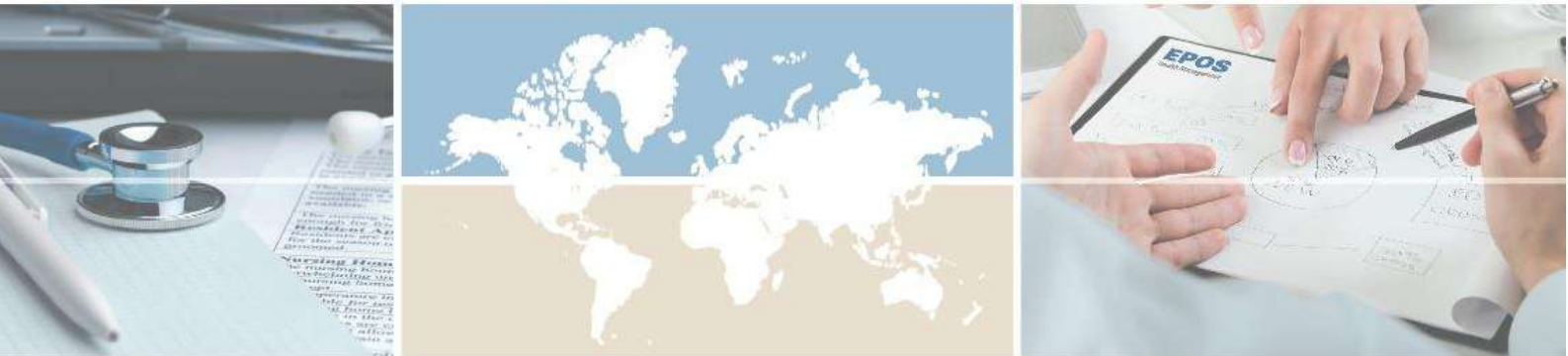
Sumber : Profil Dinas Kesehatan Kabupaten / Kota tahun 2014

Number of Health Worker by Type of Worker in South Sulawesi 2014



Sumber : Profil Kesehatan Kabupaten / Kota Tahun 2014

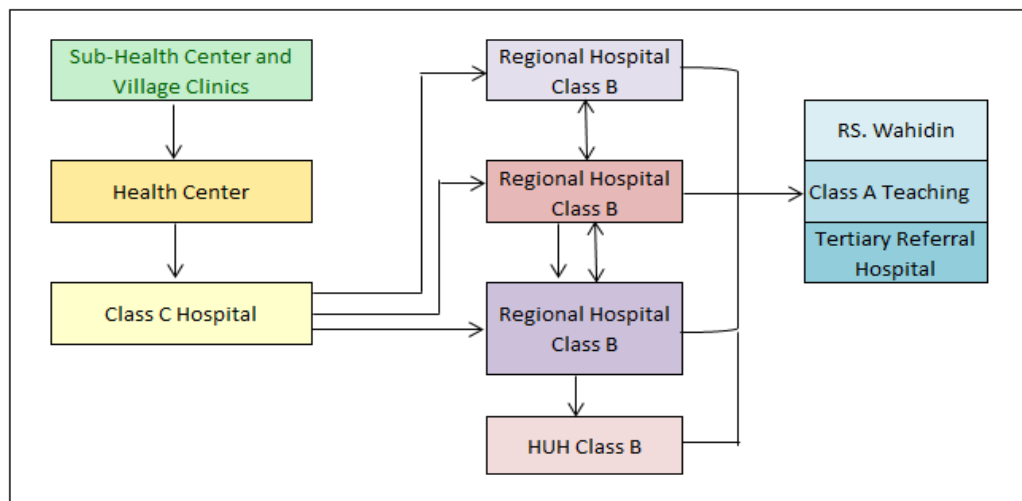
Annex 7



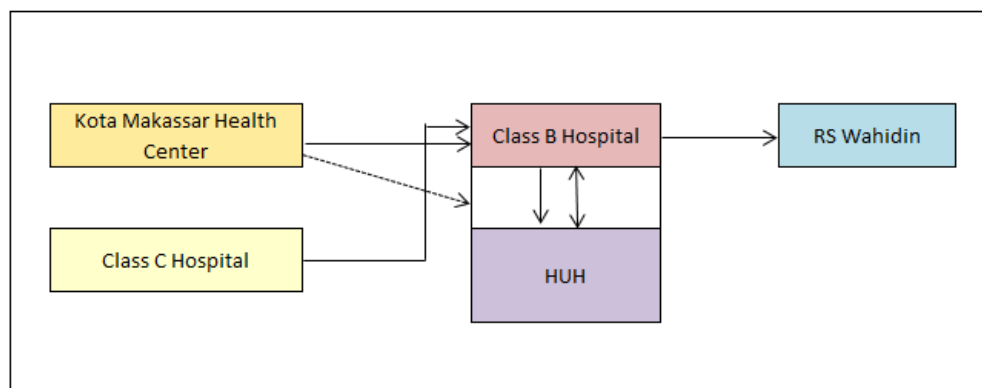
Referral system

Annex 7 Referral system operating in Makassar and the surrounding region.

Makassar Regional Referral System



Kota Makassar Hospital

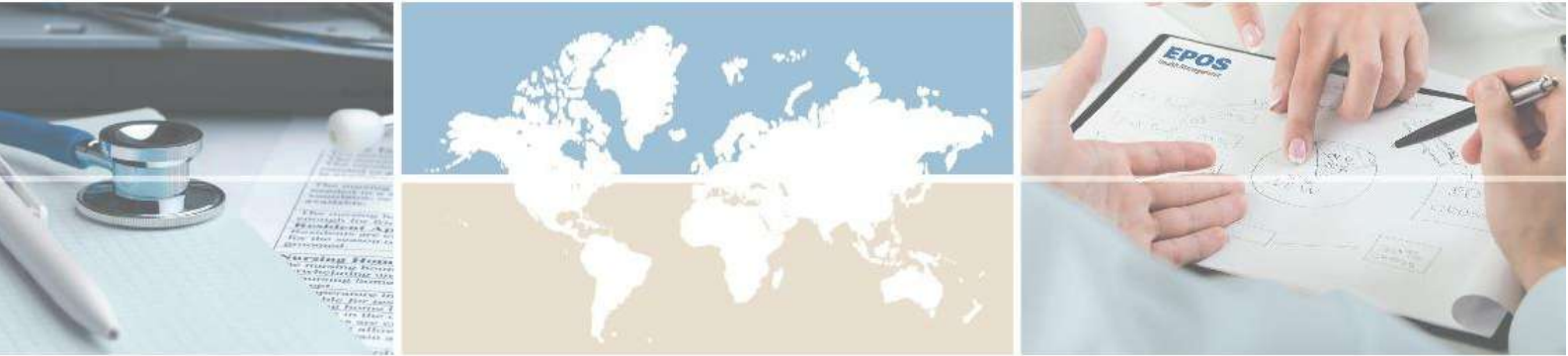


Referral hospital software developed allows referring hospitals and health centers to connect on-line using user-friendly software. Facilities are able to send information about patients and at the same see the availability of space and consulting services to receive and treat the patient. As soon the confirmation is received the patient is stabilized and transferred with an escort to the referral hospital. The software has a unique follow-up portion of software to transmit receipt, condition and treatment of patient to referring hospital.

Impact/Outcome:

- Improving service out comes in five center of excellence
- Striving for excellence of training of medical and support personnel
- Efficient working of essential / specialized equipment
- Improved hospital management systems
- Cutting edge surgical / cancer / trauma services
- Improving patient health
- Contribution to public / community health
- HMIS /telemedicine working system

Annex 8



Status report on accreditation documents



ANNEX

KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN
RUMAH SAKIT UNIVERSITAS HASANUDDIN
 Sekretariat: Jl. Perintis Kemerdekaan Km. 10 Tamalanrea, Makassar 90245
 Website: www.rs.unhas.ac.id Telp: (0411) 591 331 Fax: (0411) 591332

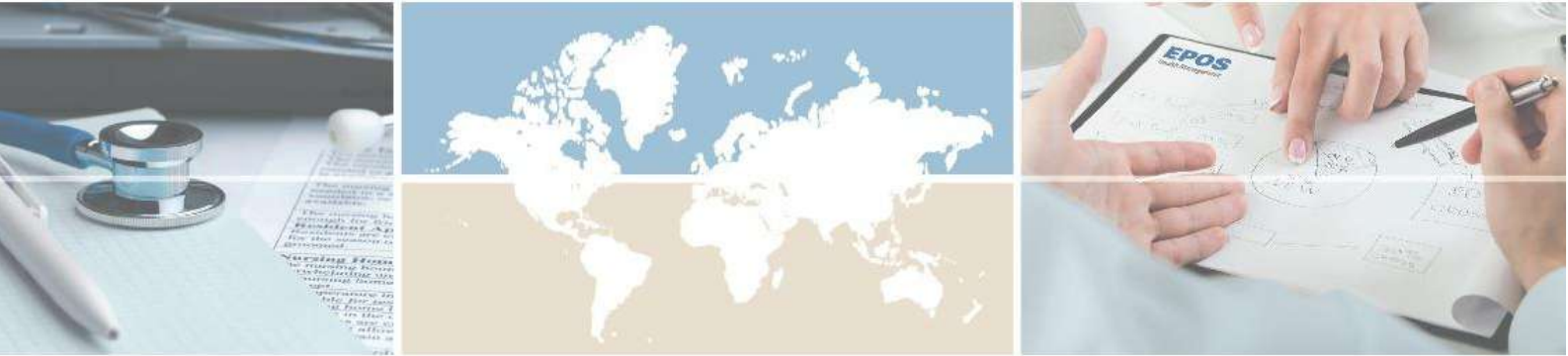
**TABLE OF ACHIEVEMENTS OF ACCREDITATION DOCUMENTS IN
 HASANUDDIN UNIVERSITY HOSPITAL IN OCTOBER 3rd, 2016**

NU.	STANDARD REQUIREMENTS	STANDARD QUANTITY	ACHIEVEMENT	PERCENTAGE OF ACHIEVEMENT (%)
1	Access to Care and Continuity of Care (ACC)	65	46	70,8
2	Patient and Family Rights (PFR)	57	41	71,9
3	Assessment of Patients (AOP)	19	16	84,2
4	Care of Patients (COP)	1.082	752	69,5
5	Anesthesia and Surgical Care (ASC)	68	67	98,5
6	Medication Management and Use (MMU)	123	123	100,0
7	Patient and Family Education (PFE)	22	22	100,0
8	International Patient Safety Goals (IPSG)	32	32	100,0
9	Quality Improvement and Patient Safety (QPS)	64	55	85,9
10	Prevention and Control of Infections (PCI)	84	66	78,6
11	Governance, Leadership, and Direction (GLD)	66	36	54,5
12	Facility Management and Safety (FMS)	433	314	72,5
13	Staff Qualifications and Education (SQE)	49	31	63,3
14	Management of Communication and Information (MCI)	105	85	81,0
15	Millenium Development Goal's (MDG'S)	81	68	84,0
16	Medical Professional Education (MPE)	17	10	58,8
17	Human Subjects Research Programs (HRP)	30	19	63,3
	TOTAL	2.397	1.783	74,4
	GAP		-614	-25,6

Makassar, October 5th, 2016
Core Steering of Accreditation

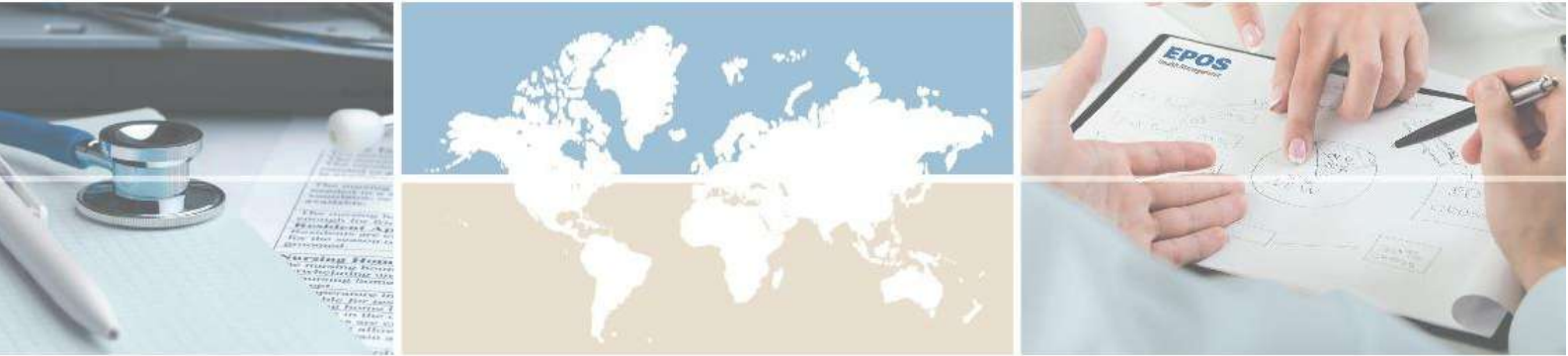
Dr. dr.Idar Mappangara, Sp.PD., Sp.JP(K), FIHA

Annex 9



Organisation structure of HUH

Annex 10



Financial management, funding & financial performance

ANNEX 10 Financial management, funding and financial performance of HUH

Financial management.

The Finance Department is divided into two functions namely Accounting and Treasury Divisions. The Accounts Division is subdivided into an Accounts Entry Unit and a Verification Unit which does the keying and verification of the Patients Bills generated. The Verification of Bills is under the work scope of a Case mix Unit to ensure that all items billed are in order before issuing the final Bill to patients for payment/ insurance claim purposes. The Case mix Unit reports directly to the Director of General Administration, Human Resources and Finance and is headed by a Medical Doctor (Dr.Aslim Taslim) who is also attached to the Emergency Department of the Hospital. The Case mix Unit also ensures that all services and related costs rendered to the patient is billed and is within the BPJS insurance coverage entitled to the patient. The BPJS coverage is limited according to the entitlement package under the various insurance plans accorded to Indonesian nationals. The Cashiers come under the jurisdiction of the Treasury Division.

The Finance Department conducts a weekly meeting (every Tuesday) with its Director to discuss on matters related to this Unit and the other Departments are allocated different days for their meetings with the same Director. The dates are scheduled every quarterly. The Directors and HODs meet every two weeks to discuss on operational issues and Reports are prepared for the Directors. Other Staff are invited on a need to basis depending on the matter that needs attention or for reporting purposes. Revenue and Expenditure Reports are prepared for the Directors every month and also quarterly achievement reports on the Strategic Plan (2015-2019) is prepared for the Directors. The Monthly Revenue and Expenditure Reports are also submitted to the Rector's Office. However, Management Reports are limited to the data available within the Hospital system as the proper Profit & Loss Statements and Balance Sheet preparation is done under the Rector's Office in accordance to the requirements of the Ministry of Finance.

The treasury responsibility of the Director at HUH (also referred to as PPK meaning Pejabat Pembuat Komitmen) is limited and is only authorised to sign off payments for operational items like Pharmaceuticals , Disposables, Transport, Equipment , Building maintenance, ,etc. The authorisation limit for cheque signing is:-

- **IDR 200,000,000 and below - can be signed by the Finance Director of HUH**
- **> IDR 200,000,000 – sent to the Rector's Office for signature where the PPK for UNHAS has a higher signing authority**

HUH maintains only one bank account where the Rector's Office is also a signatory to the account.

HUH being a government organisation has to adhere to the MOF guidelines in terms of procurement.. For small valued items, a comparison is done with at least three suppliers. For more expensive Capital item procurement such as medical equipment and building contractors, tenders are carried out from the Rector's Office based on the MOF tender guidelines.

The Physical Assets Registry is a stand alone computerised system which is provided by MOF. Data entry of the asset is keyed in at HUH and is an online system linked to the Rector's Office and ultimately to MOF. Once the data has been accepted in the system no changes can be made except by application to MOF. This system is referred to as SIMAK (Sistem Informasi Manajemen Asset Keuangan). Even if the Asset is broken and cannot be used it has to be stored. The Sale of assets to be disposed is done collectively and is conducted by MOF which is by bid tender to third parties.

c) HMIS/ SIM (Hospital Management Information System / Sistem Informasi Manajemen)

The HMIS system in HUH is not being used in the decision support system and is presently limited to a Billing System for the purposes of generating a patient's bill. Payments received are matched to the patients' bills to close the account. There had been shortfalls in the system that was purchased from an IT Vender (PT. Intersolutions). This IT Vendor had done the HMIS for RS. Haji in Jakarta. For maintenance purposes a one year contract has been signed with this IT Vendor. Further development on the system has been stopped. Hence the HMIS system cannot generate proper management reports. It was informed that there is a Consultant (PT.ABC) hired by HUH to revamp the Unit cost of items/ services that was entered into the system. It was found that the Unit Costs entered were high and there was a high difference in the bills generated from the system against the BPJS medical insurance packages. This had resulted in certain bills being not paid by BPJS because of the differential pricing for the same items used for the patient. This exercise is expected to be completed by the end of this year.

The promotional loan applied for by HUH will partly be applied to develop a HMIS that can support both the administrative and clinical services in the hospital. The intention is to develop proprietary software specifically for HUH which is a bottom up approach in developing the software. At the same time HUH will also develop a HMIS that can be integrated with the Healthcare Insurer such as BPJS and also in fulfilling the MOH requirements in terms of reporting. This will then be linked to developing the telemedicine system as indicted in HUH's development plan. From the Vice Director of HUH it was revealed that HUH has already on 31 March 2016 entered into an MOU with PT.Kun Telemedika Nusantara for developing the telemedicine infrastructure. (Annex 5 – Telemedicine MOU of 31 March 2016).

In reviewing the budget requirement (USD 4,018,647) for the development of the clinical Information Systems and Telemedicine and the items that it will be spent on (**Annex 6 – Detail Budget of IT Development**), it is seen that much will be spent in developing the software. It also assumes that all existing computers and hardware within HUH will still be used to download the software upon its completion. However it should be cautioned that for implementation purposes HUH should have an IT expert in hand to follow through this software development. Further, for the training element in this project HUH has to ensure that the staffs are qualified and competent to undergo this training.

Financial Management The revenue for HUH is from two sources. This is to cover the operations of HUH. The first is classified as PNBPN (Penerimaan Negara Bukan Pajak). This is from the actual revenue earned by HUH as patient income. This is derived from Cash Payments, Corporate Payments and from BPJS Kesehatan, the National Medical Insurance Scheme. All patient revenue collections are banked in. The second source is BOPTN (Biaya Operasional Perguruan Tinggi Negara) which is the Government budget allocation (APBN). HUH had been receiving BOPTN since 2015.

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Table 7. Revenue Data of HUH (IDR)

YEAR	BPJS	CASH	CORPORATE	TOTAL REVENUE
2010	-	-	-	226,699,982
2011	-	-	-	5,901,729,312
2012	-	-	-	19,965,406,443
2013	24,212,529,031	15,629,215,463	1,547,295,078	41,389,039,572
2014	19,148,541,696	6,853,233,796	683,925,070	26,685,690,562
2015	51,317,696,588	12,073,076,581	2,551,144,829	65,941,917,998
2016	42,020,578,733	7,106,518,212	1,088,136,341	50,215,233,286 (till august)

Looking at revenue figures, the financial situation of HUH appears stable though there was a reduction in 2014 compared to 2013. However revenue generated by the hospital increased by 147% from 2014 to 2015.

Annex 11 shows the HUH Realisation of Funding for the Years 2010 to 2016 depicts the amounts received in government funding and its application to expenditure items. In comparison to the above table on actual patient revenue received, the government funds provided are higher. However, for year 2016 it is projected that the actual patient revenue received will be higher than the government funds received. The patient revenue as at August 2016 stands at IDR 50,215,233,286 where else the government funds allocated for the year is IDR 55,776,600,000.

The increase in revenue came from different sources mainly due to an increase in outpatient and inpatient visits. An important reason for satisfactory results in the financial management of the hospital is that there was no significant budget overrun. In almost every year since 2011, expenditures have been maintained at about the budgeted level.

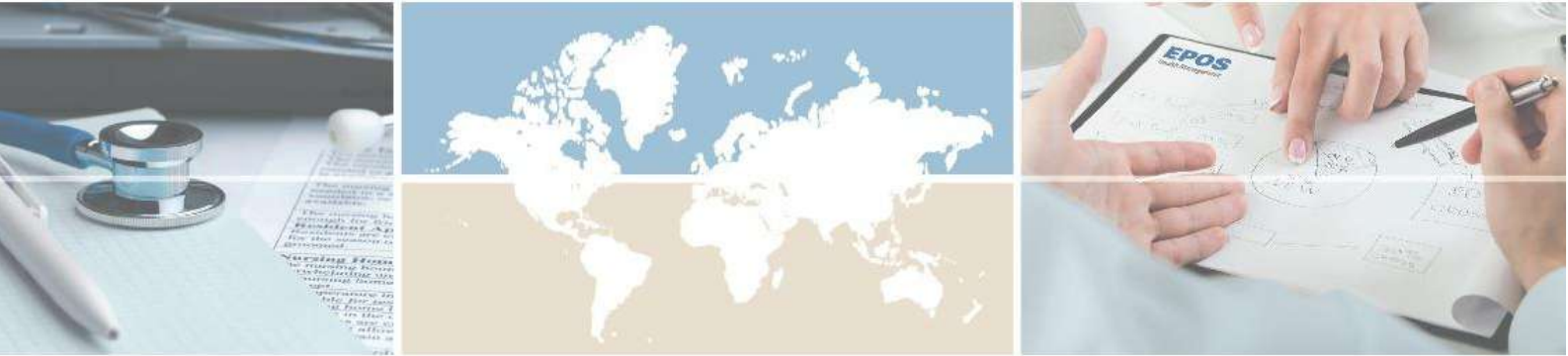
Strategic Plans were developed for the period 2015 to 2019 for HUH and it is noted that there has been a serious attempt to monitor and evaluate the implementation. Meetings are held every month at Board level to assess their status towards achieving their strategic plan. However, there has been no Business Plan for the same period though there was one that ended in 2014. A Business Plan is relevant at this stage as HUH is embarking on taking on a loan to support its expansion plans. It was informed by the Head of the Planning Division that they are currently working on it.

BPJS Kesehatan (Badan Penyelenggara Jaminan Sosial)

BPJS is the national medical insurer for all Indonesian citizens which had absorbed the earlier provider ASKES and all other co-insurers. BPJS has set up a counter with a staffing of 3 within HUH to facilitate the approval process for patients with the Hospital in order to ensure that they are covered for the treatment sought. (In RSWS there is also a similar structure with a staffing of 9 due to the number of patients seeking treatment at their hospital). A walk through of both the outpatient and inpatient registration was conducted with the Emergency Department Doctor of HUH to analyse the issues that may arise in the process of ensuring that the patient is covered for the treatment and that HUH is covered for the payment of services rendered. A meeting was also held with the Head of the BPJS Makassar Main Office to discuss on the cooperation of the hospitals with the Insurer. BPJS was also discussed with the Directors from HUH and RSWS. Some salient points that were mentioned were:-

- Patients need to be verified with BPJS on their medical package entitlement so that the Hospitals can provide services within limits of the amount guaranteed. At times due to the medical condition of the patient additional treatment needs to be given which needs to be conveyed to the patient so that a difference is paid by the patient when the bill is issued.
- During the period where BPJS had taken over all other insurers, it was also a requirement that the members of other insurers need to be registered with BPJS. There were many patients who did not and this created problems for the Hospitals. Some of the medical treatment and services rendered are now bad debts due to this matter.
- HUH's Case Mix Team has targeted a two year deadline for solving all the backlog of problem bills with BPJS. With their ongoing verification of patient bills there are lesser incidences of conflicting items raised by BPJS.
- Though under the agreement of BPJS and hospitals, payment is made within 15 days of submitting the signed bills to the insurer subject to the condition that the bill is within the guaranteed limits of the patient.. HUH records do indicate payments are made after 60 days by the Insurer.
- Response from both RSWS and HUH was positive for patients that are transferred between facilities to seek further treatment as RSWS is a Class A hospital and HUH is a Class B Hospital. Different Class hospitals are paid accordingly by BPJS because differing tariffs are applied based on its classification status.

Annex 11

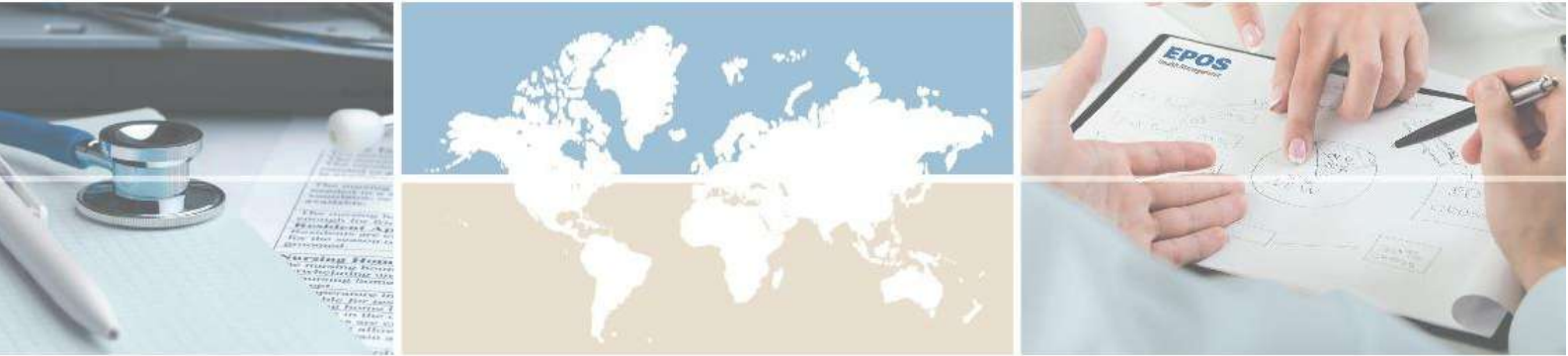


HUH Realisation of funding

REKAPITULASI PENERIMAAN DAN PENGELUARAN
RS. UNIVERSITAS HASANUDDIN
TAHUN 2010 s/d 2016

NO	MAK	URAIAN	2010		2011		2012		2013		2014		2015		2016	
			ANGGARAN (Rp)	REALISASI (Rp)	ANGGARAN (Rp)	REALISASI (Rp)	ANGGARAN (Rp)	REALISASI (Rp)	ANGGARAN (Rp)	REALISASI (Rp)	ANGGARAN (Rp)	REALISASI (Rp)	ANGGARAN (Rp)	REALISASI (Rp)	ANGGARAN (Rp)	REALISASI (Rp)
ALOKASI ANGGARAAN PNBPN																
1	525111	Belanja Gaji & Tunjangan		141.870.894	3.828.819.950	3.864.397.868	9.539.050.000	9.535.025.161	19.471.355.000	19.467.036.668	35.007.022.615	34.972.487.817	39.083.806.000	38.112.140.700		
2	537112	Belanja Modal Peralatan dan Mesin			3.864.788.600	3.864.397.868	3.304.898.000	3.303.633.351	2.678.159.460	2.678.077.066	3.808.770.000	3.807.469.196	2.546.337.810	2.546.337.810	7.914.000.000	1.338.706.875
3	525112	Belanja Barang		221.448.049	3.510.457.050	3.509.998.763	7.454.817.000	7.449.197.173	17.759.607.820	17.455.506.024	25.288.828.320	25.247.628.374	25.674.296.200	25.608.146.602	12.983.000.000	12.792.710.933
4	525113	Belanja Jasa		7.878.703	103.950.000	103.878.233	94.494.000	93.800.973	236.460.000	22.000.000	231.134.000	228.307.715	1.128.985.424	253.139.018	1.152.000.000	215.395.043
5	525114	Belanja Pemeliharaan		7.878.703	203.809.000	203.449.688	300.000.000	285.388.031	487.967.720	303.555.761	1.632.695.522	1.524.265.208	3.030.052.136	2.240.490.056	4.948.500.000	1.571.374.605
6	525115	Belanja Perjalanan		21.495.800	295.175.400	294.971.200	373.950.000	370.937.559	558.000.000		510.000.000	507.101.076	235.000.000	211.705.762	1.039.635.000	124.207.015
7	525119	Belanja Penyediaan Barang & Jasa Lainnya			787.150.000	787.101.145	1.858.024.000	1.854.564.154	3.789.200.000	2.978.150.114	4.425.460.000	4.414.596.994	4.763.878.000	4.762.433.190	6.741.465.000	6.423.188.108
8	537113	Belanja Modal Gedung dan Bangunan			94.000.000	89.197.756	70.180.000	70.180.000					3.299.750.000	3.299.750.000	1.000.000.000	77.300.024
9	537115	Belanja Modal Fisik Lainnya			18.000.000	17.037.625	4.000.000	3.999.930								
JUMLAH				400.572.149	12.706.150.000	12.734.430.146	22.999.413.000	22.966.726.332	44.980.750.000	42.904.325.633	70.903.910.457	70.701.856.380	79.762.105.570	77.034.143.138	35.778.600.000	22.542.882.603
ALOKASI ANGGARAAN BOPTN																
1	521211	Belanja Bahan/Obat											2.800.000.000	2.798.951.409	10.682.127.000	9.163.925.065
2	521213	Belanja Honor											13.337.602.000	13.245.092.275	9.317.873.000	7.624.275.870
3	521219	Belanja Registrasi											1.250.000.000	1.174.003.640		
4	522119	Belanja Langganan Daya dan Jasa											500.000.000	480.932.325		
5	523119	Belanja Pemeliharaan Gedung dan Bangunan											2.000.000.000	1.933.738.882		
6	524111	Belanja Perjalanan											112.400.000	112.304.360		
JUMLAH													20.000.002.000	19.745.022.891	20.000.000.000	16.788.200.935

Annex 12



Organisation structure of RSWS

ANNEX 12 Organisation structure of RSWS

LAMPIRAN PERATURAN MENTERI KESEHATAN
 NOMOR : 1677/Menkes/Per/XII/2005
 TANGGAL : 27 Desember 2005

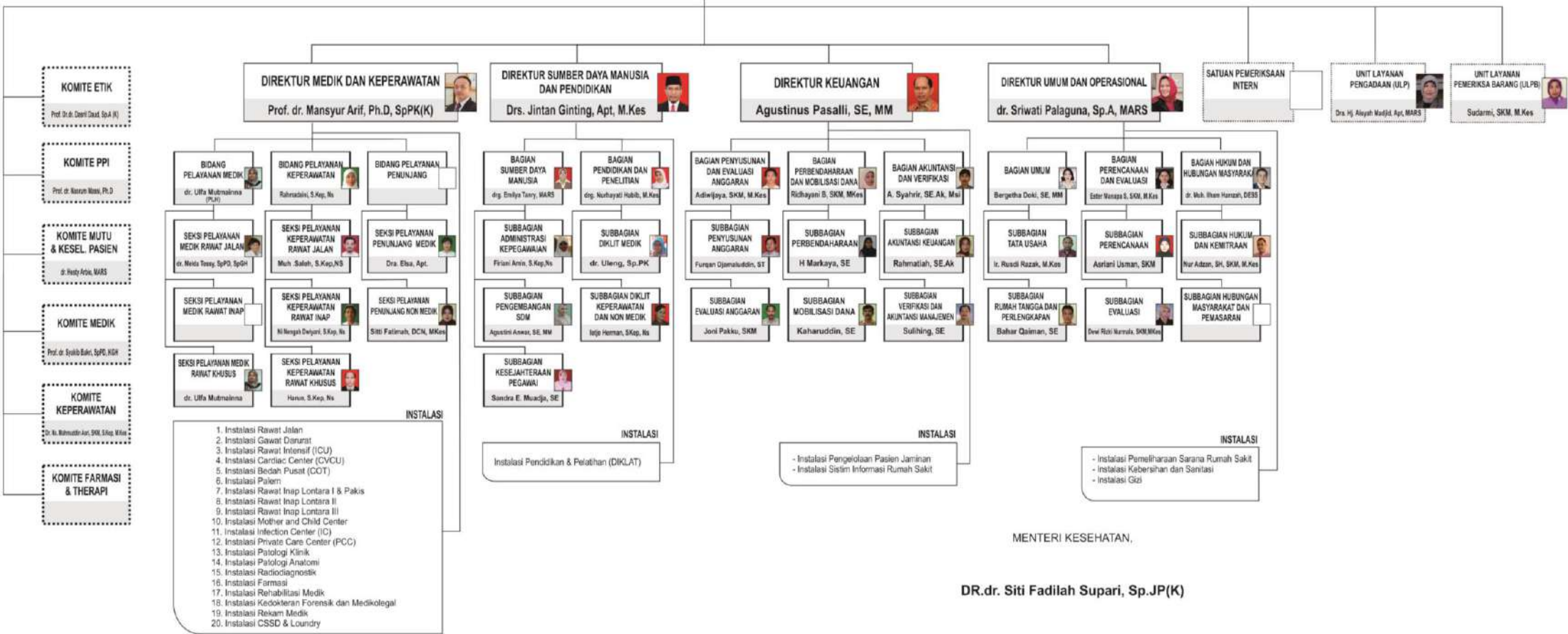


STRUKTUR ORGANISASI RSUP DR WAHIDIN SUDIROHUSODO MAKASSAR



Dr. dr. Khalid Saleh, Sp.PD-KKV, FINASIM, MARS

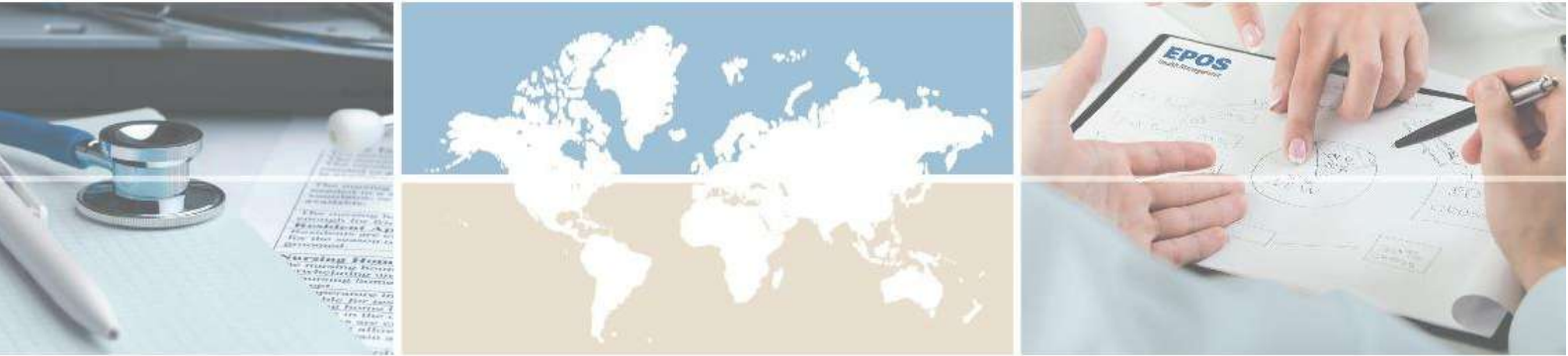
DEWAN PENGAWAS
 Dra. Maura Linda Sitanggang, Apt, Ph.D



MENTERI KESEHATAN,

DR.dr. Siti Fadilah Supari, Sp.JP(K)

Annex 13



Tripartite MOU



**MEMORANDUM OF UNDERSTANDING
AMONG
MEDICAL SCHOOL OF HASANUDDIN UNIVERSITY
AND
Dr. WAHIDIN SUDIROHUSODO HOSPITAL MAKASSAR
AND
HASANUDDIN UNIVERSITY HOSPITAL MAKASSAR
ON
Cooperation in Academic and Research-related Activities**

No :

No :

No :

We undersigned below on Wednesday, 20th January 2016:

1. **Prof. Dr.dr.A.Asadul Islam, Sp.BS :** Dean of Medical School in Hasanuddin University based on Decree Letter of Rector of Hasanuddin University No. 10257/UNH/KP.04/2014 in Makassar is **THE FIRST PARTY**

2. **Dr .dr. Khalid Saleh, Sp.PD-KKV,FINASIM,MARS :** President of Dr.Wahidin Sudirohusodo Hospital based on Decree Letter of Minister of Health of Indonesia No. No.KP.03.01/Menkes/438/2015 at Perintis Kemerdekaan Km.11 Street Tamalanrea Makassar, is **THE SECOND PARTY**

3. **Dr. Dr. Andi Fachruddin Benyamin, SpPD, KHOM:** President of Hasanuddin University Hospital based on Decree Letter of Rector of Hasanuddin University No. 25821/UN4/KP.04/2014 in Makassar is **THE THIRD PARTY**

All the three parties affirmed that they would be called all parties. Under cooperative certificate No.....in, all parties agreed that Medical School of Hasanuddin University, Dr. Wahidin Sudirohusodo hospital and Hasanuddin University Hospital determined their mutual interest in the development of academic and research-related activities, with prerequisites as regarding as:

ARTICLE 1

Paragraph 1

GENERAL REGULATIONS

The undersigned in this Memorandum of Understanding as below:

- (1) Medical School of Hasanuddin University in Makassar focuses on education, research and community empowerment for lecturers and students in Medical School of Hasanuddin University.
- (2) Dr. Wahidin Sudirohusodo Hospital is government-owned general hospital in Makassar under Minister of Health which focuses not only in health care services, but also in education for all education levels in medical science, nursing science and non medical sciences.
- (3) Hasanuddin University Hospital is academic-networking hospital under Minister of Education in Makassar, focuses on not only in health care services, but also in education for all education levels in medical science, nursing science and non medical sciences.
- (4) Dean of Medical School is responsible for education activities in medical and nursing school and reported directly to rector of Hasanuddin University.
- (5) President of Dr. Wahidin Sudirohusodo Hospital is the highest hierarchy in the hospital who is responsible for all hospital-related activities.
- (6) Vice dean are managers who are assistance of Dean of Medical School and reported education activities directly to Dean of Medical School.
- (7) Senior managers of Dr. Wahidin Sudirohusodo Hospital are managers who are assistants and responsible directly to President of Dr. Wahidin Sudirohusodo Hospital
- (8) Senior managers of Hasanuddin University Hospital are managers who are assistants and responsible directly to President of Hasanuddin University Hospital.
- (9) Medical Committee is a unit in the hospital which is responsible for implementation of clinical governance in order to keep medical staff working in professionalism through credentialing, medical profession standard and medical ethics and discipline. Medical Committee is responsible directly to President of the hospital.
- (10) Head of department, Head of Study Program and Coordinator of Medical Student Education are responsible for education, research and community empowerment.
- (11) Functional Medical Group consisted of physician, dentists, specialists, subspecialists which are responsible to diagnose, treatment, prevention, rehabilitation, education, research, improvement, education and training.
- (12) Clinical Work Group lead by head of department in each department in medical school and responsible to the president of hospital in correlation with health care. However, if it is related with responsible for education and community empowerment, it is responsible to the dean of medical school.
- (13) Unit is non structural unit which facilitate medical and non medical education and researchserta penelitian. It is lead by a head of unit, who is appointed and dismissed by president of the hospital.

- (14) Lecturers in medical school are people who are educating and teaching and appointed or dismissed by dean of medical school of Hasanuddin University.
- (15) Clinical supervisor are organic physicians owned by Ministry of Health and appointed by dean of Medical School to teach in hospital and approved by president of hospital.
- (16) Residents are students from all programs such as general, residents, physiotherapy, nursing who are registered and study in Medical School.

ARTICLE II

BACKGROUND, GOAL AND POSITION OF COOPERATION AGREEMENT

Paragraph 2

Background of Cooperation Agreement

1. Cooperation agreement among medical school of Hasanuddin University, Dr Wahidin Sudirohusodo Hospital and Hasanuddin University Hospital is based on Dr Wahidin Sudirohusodo Hospital as a main academic hospital and Hasanuddin University hospital as an affiliating academic hospital which are in cooperation based on this document.
2. This cooperation arranged based on mutual interests and their desire to cooperate to achieve better goal..

Paragraph 3

Goal of Cooperation Agreement

1. Goal of this cooperation is to arrange organizational, personnel and job description, facilitation and infrastructure, activities and management to achieve efficiency and effectivity in dealing with main goal such as community health improvement.
2. Scope this cooperation such as education, research, community empowerment and health care services.

Paragraph 4

Positioning of Cooperation Agreement

1. This cooperation agreement is the guidance to publish any policies from three parties both in separate or together in relation with scope of this cooperation..
2. Any policies except of scope of cooperation would be rights and authorities of each party.

ARTICLE III

FORM AND MATERIAL OF COOPERATION

Part One

Organization and Governance

Paragraph 5

Organization

1. Medical School is under Hasanuddin University which Dean is responsible directly to Rector of Hasanuddin University
2. Dr. Wahidin Sudirohusodo Hospital is under Ministry of Health which President of the hospital is responsible directly to Minister of health of Indonesia

3. Hasanuddin University Hospital is under Hasanuddin University which president of the hospital is responsible directly to Rector of Hasanuddin University
4. This cooperation agreement committed to implement this agreement included all units under three parties.
5. Regarding og this agreement, Dean and staff, both structural and funtional staff of medical school implement this agreement as Decree of Minister of Research and higher education.
6. Regarding og this agreement, President of Dr.Wahidin Sudirohusoso hospital and staff, implement this agreement as Decree of Minister of Health.
7. Regarding og this agreement, President of Hasanuddin University hospital and staff, implement this agreement as Decree of Rector of Hasanuddin University

Pasal 6

Governance

1. Scope of this agreement included eduaction, research and community empowermentin all units under three parties.
2. Heads of units in three parties included education, research and community empowerment. Moreover, health care services are under control of President of Dr. Wahidin Sudirohusodo Hospital amd Hasanuddin University.
3. Each head of Clinical work Group in Dr. Wahidin Sudirohusodo Hospital is also ex-officio of Head of Department in Medical School and is appointed by President of the Hospital, with period of working is three years.
4. Each head of Clinical work Group in education-affiliating hospitals is appointed by President of Hasanuddin University Hospital
5. Head of Medical Committee is appointed by President of the hospital within 3 years under recommendation from stakeholders and it could be re-elected.
6. Classification and number of Clinical work Group are based on need and development of the hospital as decree of President of hospital.

Part Two

Job description, Responsibility and Authority of Three Parties

Paragrapgh 7

Job Description

1. The main job of the first party is responsible for education, research and community empowerment in all level to medical school students. The first party is also responsible to provide personnel who could deliver health care services under the scope of this agreement.
2. The main job of the second and the third parties are responsible for health care services and provide personnel and facilities to support education process to medical students included in the scope of this cooperation.
3. The three parties would coordinate to provide personnel and facilities to conduct health care svices to community, medical students of Hasanuddin University and health-related research in effecctive, efficiency and qualified.

Paragraph 8

Responsibility and Accountability

1. The first party would conduct policies of Ministry of research and higher education and Rector Hasanuddin University and be responsible for education and research in the scope of this agreement
2. The second party would conduct policies of Ministry of Health and be responsible for health care services of Dr. Wahidin Sudirohusodo hospital.
3. The third party conduct policies of Ministry of research and higher education and Rector of Hasanuddin University and be responsible for health care services as national regulation applied.

Paragrapgh 9

Authority

1. The first party has authority arranging on lecturers of medical school as regulation of medical school applied.
2. The second party has authority arranging personnel of medical school in health care services in Dr. Wahidin Sudirohusodo.
3. The third party has authority arranging personnel of medical school in health care services in Hasanuddin University
4. The first party has authority setting up a guideline of evaluation consisted of requirements and evaluation method for medical students in the main academic hospital/ affiliated hospital.
5. The second and the third party have authorities in conducting reserach and health development included job description and finance as regualtion applied and suggestion of medical committee has taken into account.

Part Three

Personnel, Facility and Equipment

Paragraph 10

Personnel

1. Personnel of the first party who assigned working in the second and the third party as main or affiliated hospital would be based on agreement of three parties.
2. Personnel of the second/third party who assigned working in the first party would be based on agreement of three parties.
3. Assignment and discharge of personnel of the first party who assigned working in the hospital would be appointed by President of the hospital with recommendation of Dean of Medical School in advance.

4. Assignment and discharge of personnel of the second party who assigned working in the medical school would be appointed by Dean of Medical School with recommendation of President of the Hospital in advance.
5. Any policies on need assessment of staff would be based on agreement of three parties as authority, ability and interests of each party.
6. Any personnel from three parties who incurred scholarship from the second/third party attending advanced clinical training and placement of personnel in the hospital would be fully under control of President of the hospital administratively in certain of time.

Paragraph 11

Facilities, Equipment and Consumables

1. Facilities in this agreement means included building and its accessories in the hospital to have education-related activities both in the main/affiliated hospital and medical school.
2. Equipment in this agreement means any equipment bought by three parties and used for education-related activities of main/affiliated hospital and medical school.
3. Consumables in this agreement means any material or consumables used for education-related activities of main/affiliated hospital and medical school.
4. Three parties attempt to provide any facilities and equipment for education-related activities for medical students, nursing students, residents and for health care services
5. Any facilities and equipment owned by the first party in the main/affiliated hospital would be registered as property of the first party. However, maintenance costs of the property would be agreement of three parties.
6. Consumables used for education-related activities for medical students would be burnt by the first party. However, consumables used for health care services in the hospital would be burnt by the second/third party. Moreover, consumables for research would be burnt by researcher itself or research group.
7. The second/third party provide patients and their medical record for the sake of education and research in the main/affiliated hospital unless ethical clearance is kept in mind.

Paras 12

Inventory and Maintenance

1. Facilities, equipment and consumables used in activities under the scope of this agreement would be from any of three parties.
2. Facilities, equipment and consumables are from the second/third party which are approved by the first party, would be registered as property of the second/third party.
3. Facilities, equipment and consumables are from the first party which are approved by the second/third party, would be registered as property of the first party.
4. Facilities, equipment and consumables owned by stakeholders, not yet to any of three parties, those are approved by three parties to decide the ownership.
5. Maintenance of facilities, equipment and consumables in this agreement would be responsibility of the three parties.

Paragraph 13

Use and Operationalization

1. Facilities, equipment and consumables in the scope of this agreement used for development and enhancement of each party.
2. Facilities, equipment and consumables owned by the first party and used in delivery of health care services in the hospital would be approved by three parties and be responsibility of the second/third party.
3. Facilities, equipment and consumables owned by the second/third party and used in education-related activities in the hospital would be approved by three parties.

Part Four

Education, Research, Community Empowerment and Health Care Services

Paragraph 14

Education

1. Clinical education for medical students in main/affiliated hospital would be arranged and monitored as regarding of regulations of three parties.
2. The second/third party has authority to arrange medical students in main/affiliated and the students must have obey the regulation of the hospital.
3. The first party has authority to determine requirements and evaluation method of education of medical school with recommendation of the second/third party has taken to be account.
4. Administrative procedure for medical student would be conducted by the first party, while general administrative procedure and staff development would be conducted by the first party, the third party and certain institutions.
5. Technology-related education (such as workshop etc) with local or foreign speakers in the main/affiliated hospital must have acknowledged by the first party.
6. Lecturers of Medical School of Hasanuddin University who conducted health care service and education in hospital must have medical licenses in the main hospital (Dr. Wahidin Sudirohusodo hospital)
7. Every lecturer must work in two affiliated hospital, which one of those is working in Hasanuddin University Hospital.
8. Affiliated hospital assigned by Dean of Medical School of Hasanuddin University together with the President of hospital with recommendations of Head of Clinical work Group have been taken be accounted.
9. Any costs incurred during education process for medical students in the main/affiliated hospital would be responsibility of three parties.

Paragraph 15

Research

1. Any human subject research in the main/affiliated hospital must have registered in the hospital.
2. Submission of the research in the point 1 mentioned above, it must have recommendation/ethical approval letter issued by health ethical committee in Medical School of Hasanuddin University.

3. Researcher must submit on-going report during research in the main/affiliated hospital regularly to three parties (monthly report or quarterly report for more than one year research period).
4. On-going report and research results under scholarship of Ministry of research and higher education, Ministry of Health or other ministries/institutions must have been report to the three parties.
5. If *Adverse Event* atau unexpected event occurred in the research subject, the researcher must report the incidents to the three parties within 2x24 hours.
6. If the first party decide to conduct *continuous* review for the research, the recommendation would be issued to the second/third party.
7. Data and the results of the research would be owned by three parties.

Paragraph 16

Community Empowerment

1. Community empowerment would be conducted on behalf of three parties.
2. Use of facilities and equipment in the main/affiliated hospital as registered inventory of the second/third party for the sake of community empowerment activities would have been permitted by the second/third party and approved by the first party.
3. Use of facilities and equipment in the main/affiliated hospital as registered inventory of the first party for the sake of community empowerment activities would have been permitted by the first party and approved by the second/third party.

Paragraph 17

Health Care Services

1. Health care services in the main/affiliated hospital included promotive, preventive, curative and rehabilitative services in medical care, supported care and nursing care.
2. Health care services in the main/affiliated hospital to medical students would be approved by three parties as regulation in the hospital.

Part Five

Paragraph 18

Administration and Finance

1. Education-related administrative and finance activities must be approved by the first party.
2. Operational activities in related with administration in the main/affiliated hospital must be approved by the second/third party
3. Budgetting in related iwth operational activities in the main/affiliated hospital would be burnt by the second/third party.
4. Management of finance and its adminstration in the main/affiliated hospital would be responsibility of the second/third party.
5. Any activities conducted by three parties or the activities of the first party in the main/affiliated hospital must be approved by three parties in written.

Part Six

Paragraph 19

Referral of Health Care Services

1. Any unhandled cases in the affiliated hospital must be referred to Dr. Wahidin Sudirohusoso Hospital Makassar.
2. Any affiliated hospital expected to use equipment owned by Dr. Wahidin Sudirohusoso Hospital effectively as hospital regulation applied.

ARTICLE IV

Closing

Paragraph 20

Additional Regulation

The agreement Document between Medical School of Hasanuddin University and Dr. Wahidin Sudirohusodo Hospital Number: HK.05.01/Dirut.IV/816/2013 in 13rd March 2013 in Makassar would be a part of this agreement. yang ditandatangani pada tanggal 13 Maret 2013 di Makassar adalah bagian yang tidak terpisahkan dari perjanjian kerjasama ini.

Paragraph 21

Material Change, Cooperation Discharge and Others

1. If any party would change all or some part of this agreement, it would be informed in written to other parties.
2. Any proposed change would be discussed and approved by three parties.
3. If the proposed change approved, the change would be applied at least three months after proposing the document.
4. If disagreement on the proposed change occurred, any party would not allowed to change this agreement unless approved by three parties
5. Any perception differences in implementation of this agreement would be discussed and approved by three parties.
6. If approval of the perception difference in not occurred, the three parties would submit the problems to a General Secretary of Ministry of Research and Higher Education and a General Secretary of Ministry of Health through Rector of Hasanuddin University and General Director of Health Care Services in Ministry of Health in Indonesia.
7. Any decisions dealing between General Secretary of Ministry of Research and Higher Education and General Secretary of Ministry of Health would applied to the three parties.
8. This cooperation agreement applied since the date of assigned and it would be applied for two years since January 20th 2016 until January 20th 2018.
9. Regarding implementation of this agreement, it could propose and issue its manual procedures in detail. .

10. Any unwritten case in this agreement would be set up as adendum and must approved by three parties. These adendum would be a part of this agreement.

Approved in : Makassar
In January 20, 2016

The Second Party
President of Dr. Wahidin Sudirohusodo Hospital

The First Party
Dean of Medical School

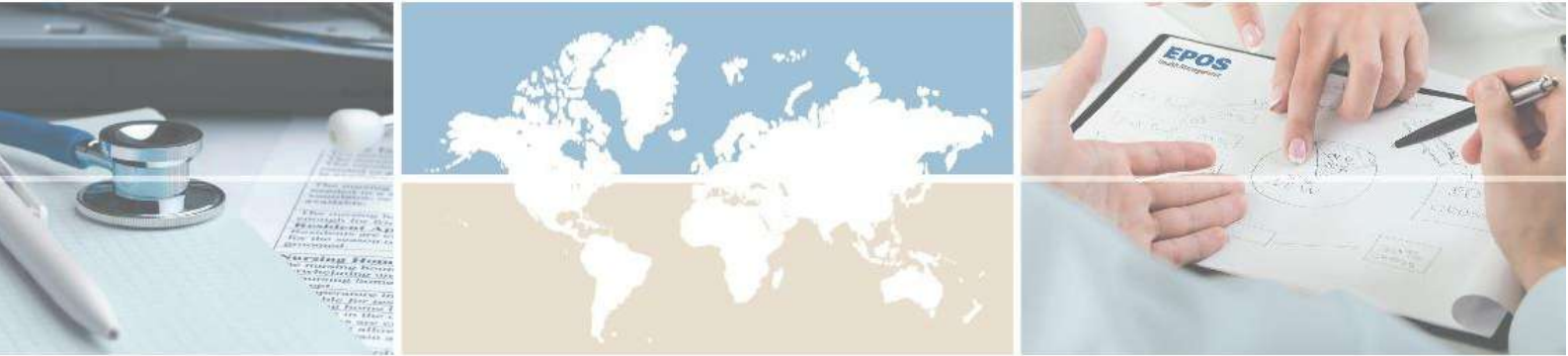
Dr.dr.Khalid Saleh,Sp.PD-KKV,FINASIM,MARS

Prof. Dr. dr. A. Asadul Islam, Sp.BS

The Third Party
President of Hasanuddin University Hospital

Prof. Dr. dr. H.M. Alimin Maidin, MPH

Annex 14



Complementarity of HUH and RSWS

ANNEX 14 Complementarity of HUH and RSWS

1. UNHAS Hospital and Wahidin Hospital

Initially, in 2009, when there was a decision to build a university hospital, and from the very beginning RS Wahidin and HUH leaders did not see eye-to-eye on the directions, services, staff and other important issues that affect large hospital. In 2003 when KFW considered granting a loan to RS Wahidin, one of its demands was that there should be no duplication of services, HUH should not take RS Wahidin staff especially nurses and other medical staff.

With the change of medical directors in RS Wahidin and UNHAS Hospital, we now have 2 directors and the dean of the medical school sitting down in one table discussing the following:

- Avoid duplication of services
- Allocate specialists/sub-specialists center of excellences to the two hospitals to avoid competition
- Sharing of specialized equipment instead of duplicating highly specialized expensive equipment
- Sharing of specialists where needed
- Equipping HUH with their own nurses and allied medical staff and avoid taking them from RS Wahidin
- Sharing the burden of medical education and training for graduates, post-graduates and residents
- Sharing information on epidemiological data so that a valid statistic could be produced for both hospitals
- RS Wahidin to share experiences on the implementation of BLUD status, national accreditation, and JCAH accreditation
- Sharing the program to help improve the referral system in Sulawesi and Eastern Indonesia
- Sharing bed space when needed by either hospital
- Sharing of ambulance services
- Specialists of HUH practice in RS Wahidin private wing hospital
- Both hospital will share clinical laboratory technologies, infectious disease diagnosis, virulological/biological and other specialized diagnostic tests

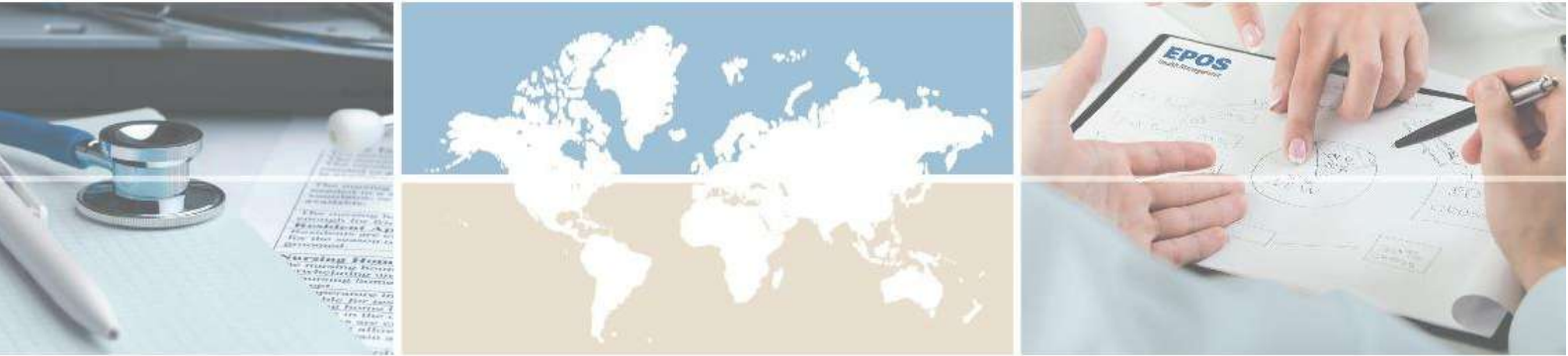
The below table shows the division of services:

Division of Services

NUH	RS Wahidin
Trauma Care/Centre and care of acute trauma patients:	Screening of trauma patients and referral to HUH trauma center
Outpatient Cardiac care and referral to RS Wahidin Cardiac Centre	- Cardiac speciality - Cardiac pulmonary
Preliminary and screening only	Mother and Child Centre

NUH	RS Wahidin
Lab testing for infectious diseases and referral to RS Wahidin	Infectious diseases center
NA	Occupational health
Eye Centre	Basic eye care and eye surgery for under graduate teaching purpose
Kidney centre and kidney transplant	Sharing of cases
Infertility clinic and in-utero fertilization research	Referral of infertility cases
Stem cell research and bone marrow transplant	Referral of cases for one-marrow transplant or stem cell therapy
Holistic cancer care	Initial diagnosis of cases and immediate referral

Annex 15



University level education plans

ANNEX 15 University level Training programmes for HUH staff

Table 3: Education Plan for Hospital Managers:

EDUCATION PLAN FOR HOSPITAL MANAGER						
RS UNIVERSITAS HASANUDDIN						
STUDY PROGRAM	THE SCHOOLS	NUMBER OF SEMESTER	YEAR			PARTICIPANTS
			2017	2018	2019	
Financial Management Master	Universitas Hasanuddin	4 Semester	2 orang	1 orang		3
Human Resource Management Master	Universitas Gajah Mada	4 Semester	1 orang	2 orang		3
State Administration Master	Universitas Hasanuddin	4 Semester	2 orang	1 orang		3
Hospital Management Master	Universitas Hasanuddin	4 Semester	27 orang	25 orang		52
Professional Accounting	Universitas Gajah Mada	4 Semester	2 orang	1 orang		3
Communication Master	Universitas Indonesia	4 Semester	2 orang	1 orang		3
TOTAL						67

Table 4: Specialist Nurses Education Plan:

EDUCATION PLAN FOR NURSES						
RS UNIVERSITAS HASANUDDIN						
Study Program	The Schools	Number of Semester	year			particip- pant
			2017	2018	2019	
specialist nurse maternity	UI/UNPAD/UNAIR	6 SEMESTER	3	2	0	5
specialist nurse pediatric	UI/UNPAD/UNAIR	6 SEMESTER	3	1	0	5
specialist nurse critical care	UNPAD	6 SEMESTER	3	2	0	5
specialist nurse psychiatry	UI/UNPAD/UNAIR	6 SEMESTER	1	1	0	2
specialist nure emergency & disaster	UNPAD	6 SEMESTER	4	1	0	5
specialist nurse oncology surgery	UNHAS/UI/UNPAD/UNAIR	6 SEMESTER	4	1	0	5
specialist nure orthopedic	UNHAS/UI/UNPAD/UNAIR	6 SEMESTER	2	1	0	3
specialist nurse rehabilitation	UNHAS/UI/UNPAD/UNAIR	6 SEMESTER	1	1	0	2
specialist nure urology	UNHAS/UI/UNPAD/UNAIR	6 SEMESTER	3	2	0	5
specialist nurse cardiology surgery	UNHAS/UI/UNPAD/UNAIR	6 SEMESTER	3	2	0	5
specialist nurse neuro surgery	UNHAS/UI/UNPAD/UNAIR	6 SEMESTER	3	2	0	5
specialist nurse ophthalmology intervention	UNHAS/UI/UNPAD/UNAIR	6 SEMESTER	2	1	0	3
specialist nurse endocrinology & metabolism	UNHAS/UI/UNPAD/UNAIR	6 SEMESTER	4	1	0	5
nuring management	UNHAS/UI/UNPAD/UNAIR	4 SEMESTER	1	1	0	2
PhD program	UI	10 SEMESTER	3	3	0	6
professional nurse	UNHAS	8 SEMESTER	9	0	0	9
professional midwivery	UNAIR/UB/UNHAS	8 SEMESTER	3	3	0	6
Total						78

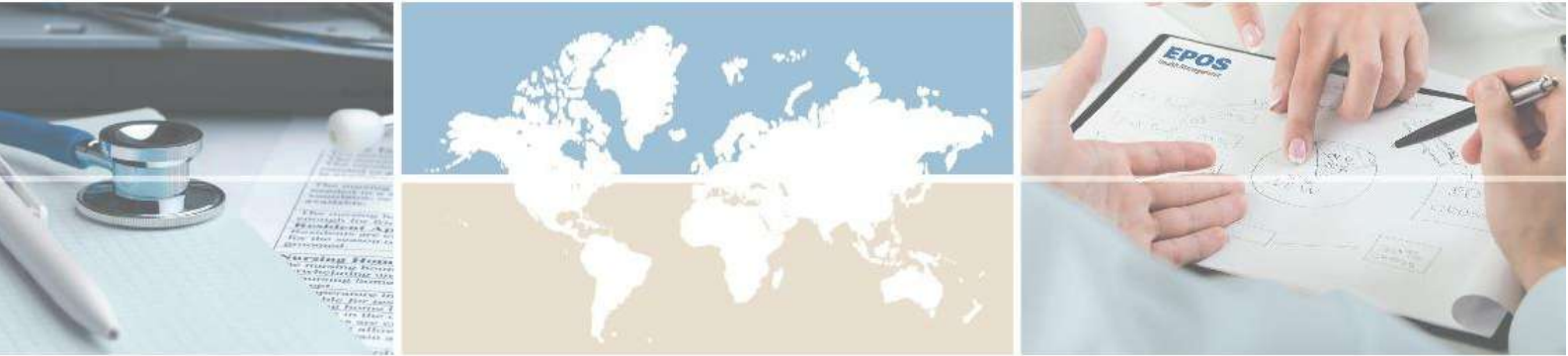
Table 5: Education Plan for Medical Doctors:

EDUCATION PLAN FOR MEDICAL DOCTORS RS UNIVERSITAS HASANUDDIN						
STUDY PROGRAM	THE SCHOOLS	NUMBER OF SEMESTER	YEAR			PARTICIPANT
			2017	2018	2019	
Medical rehabilitation	Hiroshima University Jepang	8 Semester	2 Orang (1.			2
medical nuclear	Unpad	8 Semester	1 Orang In Proses 2016 (dr. Sativani Hasanah)			1
internal medicine	Unhas	10 Semester	1 Orang (dr. Ayu Fitriani)			1
radiotherapy	Universitas Indonesia	8 Semester	1 Orang In Proses 2016 (dr. Aslim Taslim)			1
dermato-venerology	Undayana	8 Semester	1 Orang (dr. Irawati K)			1
	Unhas			1		1
Pulmonology	Unhas	8 Semester			1 Orang (dr. Firdaus)	1
clinical nutrition	Unhas	8 Semester			1 Orang (dr. Nirmalasari)	1
Radiology	Unhas	8 Semester	1 Orang On Going 2016 (dr. Alia Amalia)			1
Clinical Pathology	Unhas	8 Semester	1 Orang On Going 2016 (dr. Andi Munawirah)			1
TOTAL						11

Table 6: Plan for Technical Support Staff

EDUCATION PLAN FOR SUPPORTING STAFF							
RS UNIVERSITAS HASANUDDIN							
UNIT	Study Program	The Schools	Semester	Year			Number of Participant
				2017	2018	2019	
Radiology	Medical Physicis	UNIVERSITAS HASANUDDIN	5 SEMESTER	1 (Herdiansyah, A.Md.Rad)			1
	D-IV CT-SCAN	POLTEKES KEMENKES SEMARANG	2 SEMESTER		1 (Ahmad Zailani ZAT, A.Md.Rad)		1
	Hospital Management	UNHAS	4 SEMESTER	1 (Andi Pasingringi, S.Si)			1
	Radiology Management	POLTEKES KEMENKES SEMARANG	2 SEMESTER		1 (Hasniar, A.Md.Rad)		1
	Radiology Management	POLTEKES KEMENKES SEMARANG	2 SEMESTER			1 (Dian Tangkelangi, A.Md.Rad)	1
	Public Health	UNHAS	2 SEMESTER		1 (Hidayati, A.Md.Rad)		1
Facility Managemen	Biomedical technician	UNIVERSITAS INDONESIA/ UNIVERSITI TEKNOLOGI MALAYSIA (UTM)	6 SEMESTER	1 (A.Iqbal Sinrang, ST, MM)			1
	Electro Medica Technician	POLTEKES KEMENKES JAKARTA II / S1 TEKNIK INFORMATIKA UNHAS	4 SEMESTER	1 (Wahyu Ikhra Wirawan, A.Md, TEM)			1
	Electro Medica Technician	D4 TEKNIK ELEKTRO POLTEK MKS/ S1 TEKNIK ELKETRO UNHAS	4 SEMESTER	1 (Syamsuadi, A.Md, TEM)			1
clinical Pharmacy	Clinical Pharmacy (Master degeree)	UNIVERSITAS GAJAH MADA / UNIVERSITAS AIRLANGGA	4 SEMESTER	1 (Abdul Rakhmat Muzakkir. S.Si.,Apt)			1
	Clinical Pharmacy (Master degeree)	UNIVERSITAS AIRLANGGA	4 SEMESTER	1			1
Pharmacist	professional Pharmacist	UNHAS	2 SEMESTER	2			1

Annex 16



2016 HR allocation by job classification

ANNEX 16 2016 HR allocation by job classification

Table 7. Human Resource Allocation according to job category

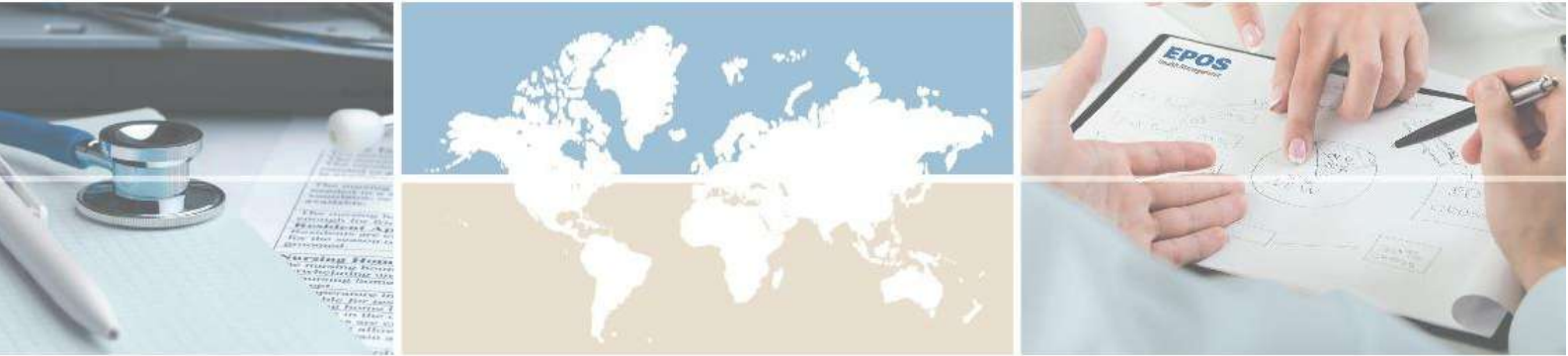
Type of HRH	2016
Medical Specialist	241
General Practitioner	7
Nurse (55% NN, 45% diploma)	189
Head of Installation	7
Midwife	12
Pharmacist	13
Assistant of Pharmacist	16
Clinical Pharmacy	0
Nutritionist	9
Radiographer	15
Optical Refractions	2
Physiotherapist	8
Evacuator	12
Medical record	19
Electro Medic	2
Clinical Pathology Technician	16
Pathology anatomy technician	3
Microbiology technician	9
Sterilization technician	18
Engineering staff	29
Financing staff	7
IT staff	5
General administrative staff	3
HR staff	3
Procurement staff	5
Logistic staff	1
Cashier staff	8
Security staff	27
Management (manager & staff)	32
Cleaning service staff	70
Equipment staff	12
Chef	8
Waitress	16
Driver	6

Type of HRH	2016
Projection and Evaluation Staff	2
Receptionist	15
Administration Unit	16
Customer care	1
Research staff	3
Laboran Bank Darah	4
Fertilisation Endokrin Technician	2
Pemulasaran jenazah	2
Pustakawan	1
Casemix	2
Verifikator	2
TOTAL	810

Table 8. Number of HRH according to type of employment

HRH Types & Status	2016
	236
Medical Specialist (redeployment from FoM)	236
Hospital Management (redeployment from FoM) – dual role with above	10
Full time Contracted (annual renewal) health workers paid from revenue	429
Civil Servants (paid by FoM)	103
Short term contracted (from revenue)	3
Redeployment from FoM (Rectorate office)	2
Security (contracting out) – from revenue	27
TOTAL	810

Annex 17



Staff needed for 5 proposed new centres of clinical excellence

ANNEX 17 Additional staff and training required for new clinical specialist centres

The following analysis summarises the plan for each Centre, the number of current staff who meet the standard required, and the needs for additional staff and training to obtain the objectives of each Centre. Cancer Centre

The Centre is the Hub for Eastern Indonesia. Although there are some surgical oncologists in regional hospitals they do not have skills, pathology or equipment for chemo or radiotherapy.

Current Staff	Additional Training Required	Cost
34 doctors in surgical oncology, medical oncology, ENT oncology, pathological oncology, radiotherapy, paediatric oncology. Have had adequate training for 7 of the 34 in laboratory, diagnostic, physiotherapy, radiology/oncology /surgery.	<ul style="list-style-type: none"> Training for 7 for 2 semesters each over 3 years in all specialities. Some training can be in Jakarta, but some in Vietnam and Japan Need training for all in nuclear radiology equipment. 	\$200,000 \$1000
16 nurses trained in chemotherapy	Need comprehensive nurse cancer training not just chemo. Bring trainer for 2 months so can train 15-20 rather than send one to Jakarta for 2 months	\$5000
Additional Staff (2.5 years)		
One doctor in radiology oncology		\$6810
Palliative care nurses/community liaison nurses (10)		10 x \$2004 x 2.5 = \$50,100
Cancer database staff (2)		2 x \$2004 x 2.5 = \$10,020
	TOTAL TRAINING COST	\$206,000
	TOTAL STAFF COST	\$66,930

1) Neuro-intervention Centre

What is required is a Neuro-intervention Centre (neuro-cath lab) that provides a 24 hour service

Current Staff	Additional Training Required	Cost
2 doctors (4 in neuro-vascular rehab department)	Need to send one doctor to India for 3 months Need to send one doctor to South Korea for 1.5 years	\$8,500 \$50,000
4 nurses – not trained in cath lab (6 are in neuro-vascular dept)	Need to send 3 nurses to National Brain Centre in Jakarta – 1 month	\$1,500
Additional Staff (2.5 YEARS)		
3 physiotherapists		\$2004 X 3 X 2.5 = \$15,030
	TOTAL TRAINING COST	\$60,000
	TOTAL STAFF COST	\$15,030

2) Fertility Endocrine Reproductive Centre (FER)

Current Staff	Additional Training Required	Cost
1 consultants in fertility	3 months in Vietnam	\$6,100
2 consultant in fertility	3 months in Jakarta	\$7,575
2 embryologists	3 months in India	\$11,667
2 pre-natal diagnostic doctors	3 months Singapore	\$11,667
2 neonatologists	3 months in Singapore	\$11,667
1 laparoscopic expert	Jakarta – training one month	\$1,500
Additional Staff (2.5 years)		
4 midwives		\$20,040
	TOTAL TRAINING	\$50,176
	TOTAL STAFF	\$20,040

3) Ophthalmology Centre

The Centre is the hub for E Indonesia and a referral hospital for complex cases. There are 20-24 ophthalmologists who spend half their time teaching in 15-16 MoH hospitals – 8 are employed by FoM the rest are under contract. It has an Ophthalmic Outpatient Clinic, Paediatric Eye Care Unit, Operating Theatre and Ward of 20 beds.

Current Staff	Additional Training Required	Cost
20-24 Ophthalmologists, most employed as contract staff, with 8 under FoM.	1 medical specialist to be trained in corneal transplant at LV Prasad Eye Institute, India – 3 months.	\$6,100
	1 medical specialist trained in complicated cataract and refractive surgery – Raghudeep Ey Hospital India, and RS Ciptomangunkusumo Hospital, Indonesia. 2 x 3 months.	\$11,667
	1 medical specialist, Eye Infection and Uveitis – Aravind Eye Hospital, India – 3 months.	\$6,100
Nurses	Ophthalmic nurse – Corneal Transplant Surgery – LV Prasad Eye Institute, India – 3 months.	\$6,100
	Ophthalmic nurse – Complicated cataract surgery and instrumentation – LV Prasad Eye Institute, India – 3 months.	\$6,100
	Head Ophthalmic Nurse – OR Management – Singapore National Eye Institute – 3 months.	\$6,100

Current Staff	Additional Training Required	Cost
Additional Staff (2.5 YEARS)		
4 Eye Bank Technicians	2 general training – One month 2 training in Singapore – One month	HR: \$26,000 \$5,000 \$10,000
Quality Assurance Manager and 4 staff	Benchmarking of Centre of Excellence in Eye Care – Shroff Charity Eye Hospital/Singapore Eye Institute – 3 months	HR \$30,000 5 x \$6,100 x 2.5 = \$76,250
	TOTAL TRAINING	\$133,417
	TOTAL STAFF	\$56,000

4) Trauma Centre

Centre is up-to-date. Is the 4th best out of 8 in Indonesia. 100 Alumni. It is the Centre for Board Examinations. Equipment up to date. Train ICU nurses – diagnostic centre is part of shared resources.

Current Staff	Additional Training Required	Cost
Have 15 nurses, 65 residents. 18 Faculty Members. 3 Professors. 3 Orthopaedic Surgeons.	2 orthopaedic surgeon for trauma course at Chicago – 2017 – 3 months 2 orthopaedic surgeons to Davos, Switzerland – 2018 and 2019 – 3 months each	\$15,000 x2 = \$30,000 \$15,000 X 2 = \$30,000
	Training in using equipment	\$3000
Additional Staff (2.5 years)		
Need 35 staff more according to bed numbers – contract staff.		35 x 167 x 12 x 2.5 = 175,350
	TOTAL TRAINING	\$63,000
	TOTAL STAFF	\$175,350

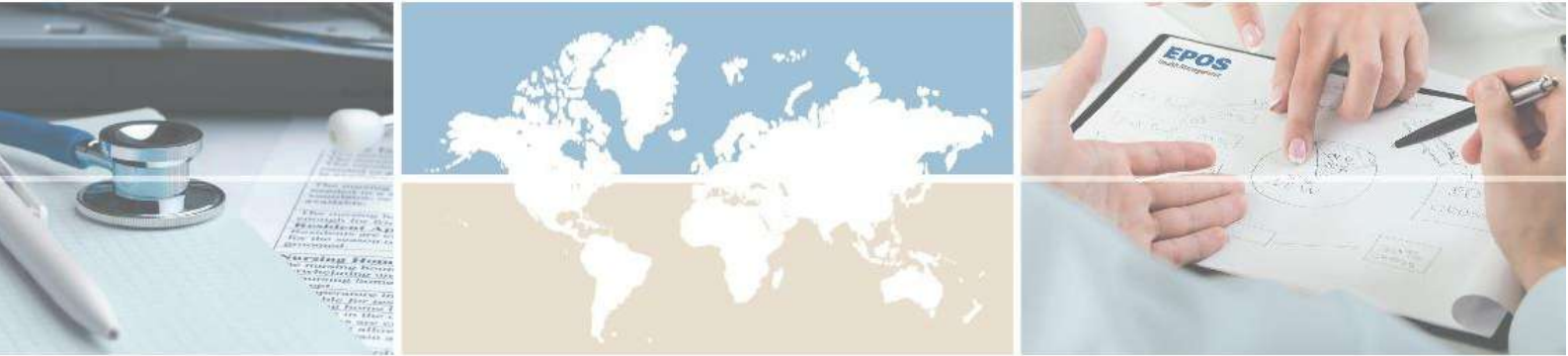
5) Clinical Pharmacology Centre (this is only included based on construction of facility for drug testing)

6) Health Management Centre

This includes the Training/Simulation Centre, Telemedicine, HMIS and the Research Laboratory. The Research Lab covers stem cells, animal lab, infection, molecular biology.

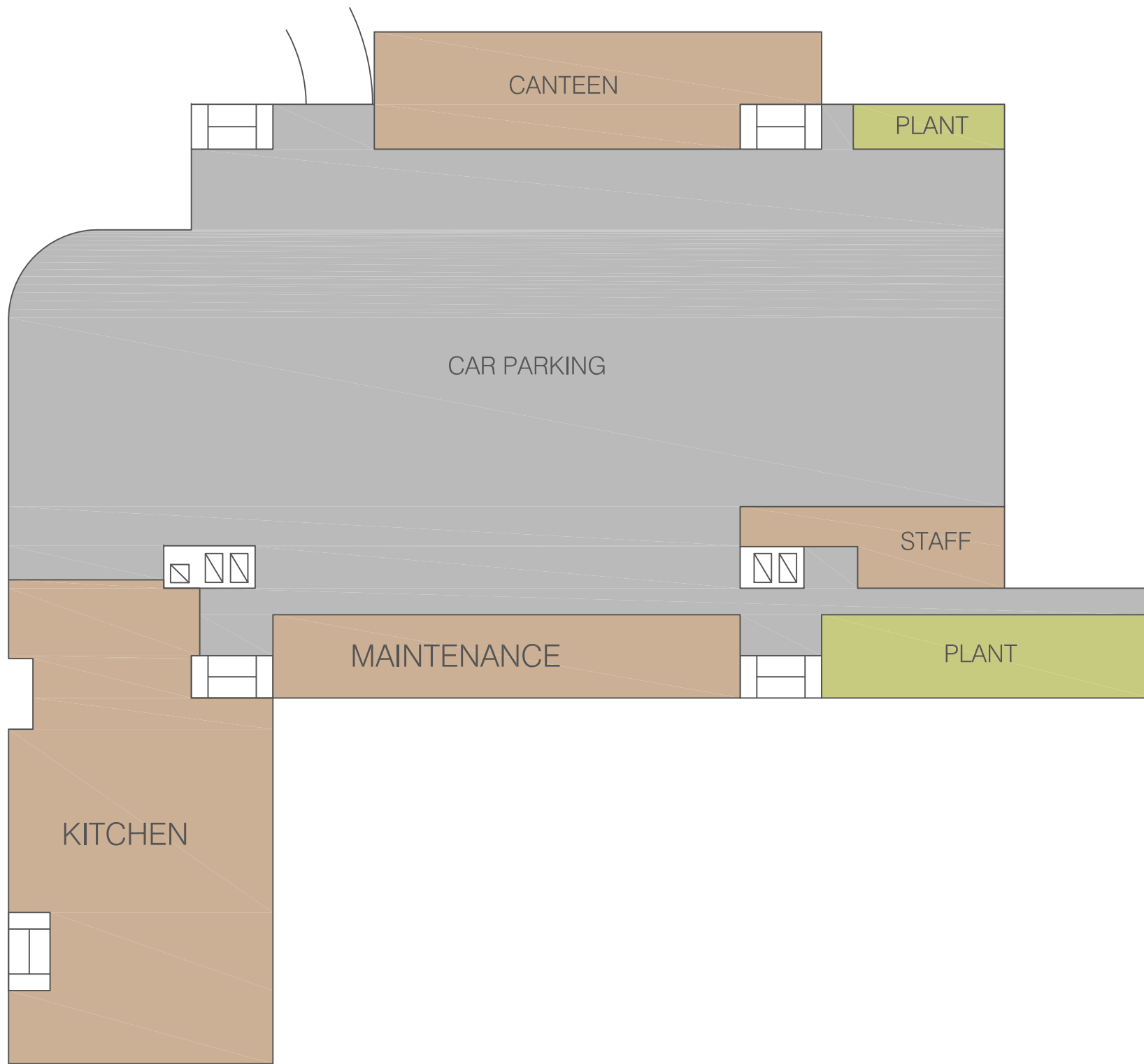
Current Staff	Additional Training Required	Cost
HMIS 25 contract employees	Outreach work to train 455 doctors, nurses, other health professionals 2016-2019.	\$12,000
4 Simulation training employees	16 hours training per year	\$800 x4 = 3,200
10 research – 2 HUH, 3 FoM, 5 TB research grant	16 hours training per year	\$3,200
Additional Staff (2.5 years)		
40 HMIS design staff for model application development (short-term only)		HR: \$200,400
10 for Simulation training	Training each year for 4 years	HR: \$50,100 \$800 x 4 = \$3,200.
10 research staff for laboratory analysis	Training each year for 4 years	HR: \$50,100 \$3,200
	TOTAL STAFF	\$300,600
	TOTAL TRAINING	\$24,800

Annex 18

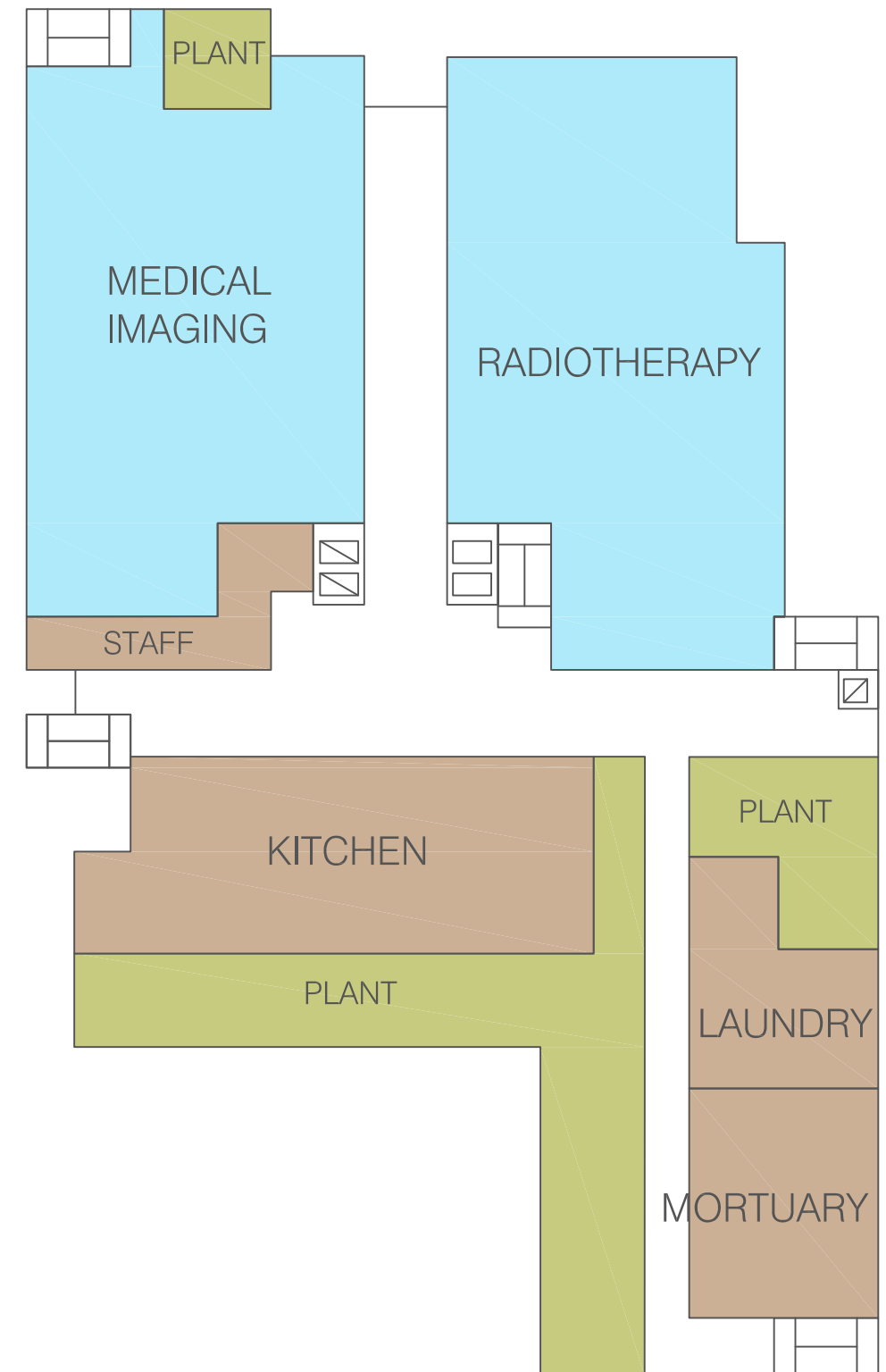


Functional overview of buildings

BUILDING B,C,D

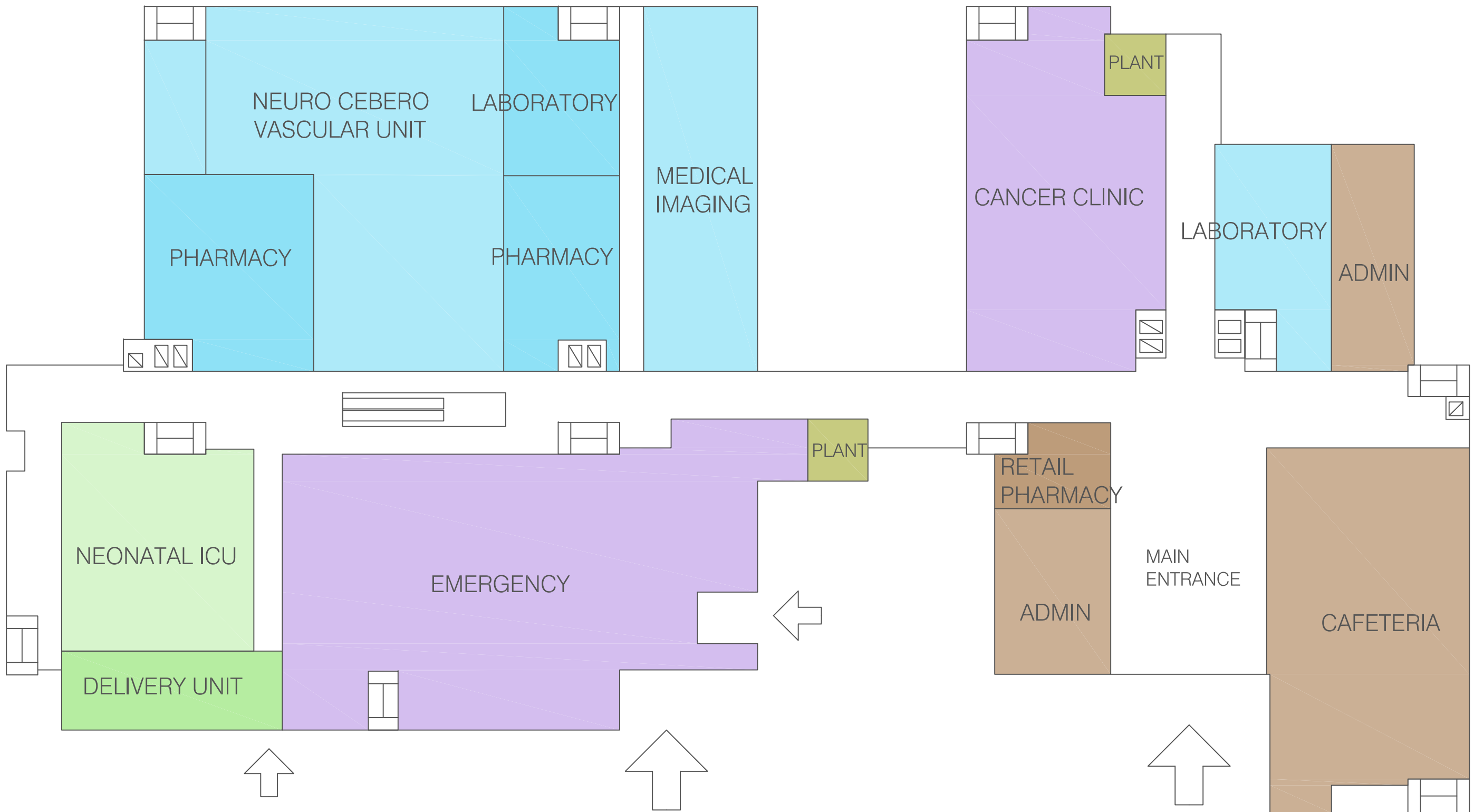


BUILDING E,F



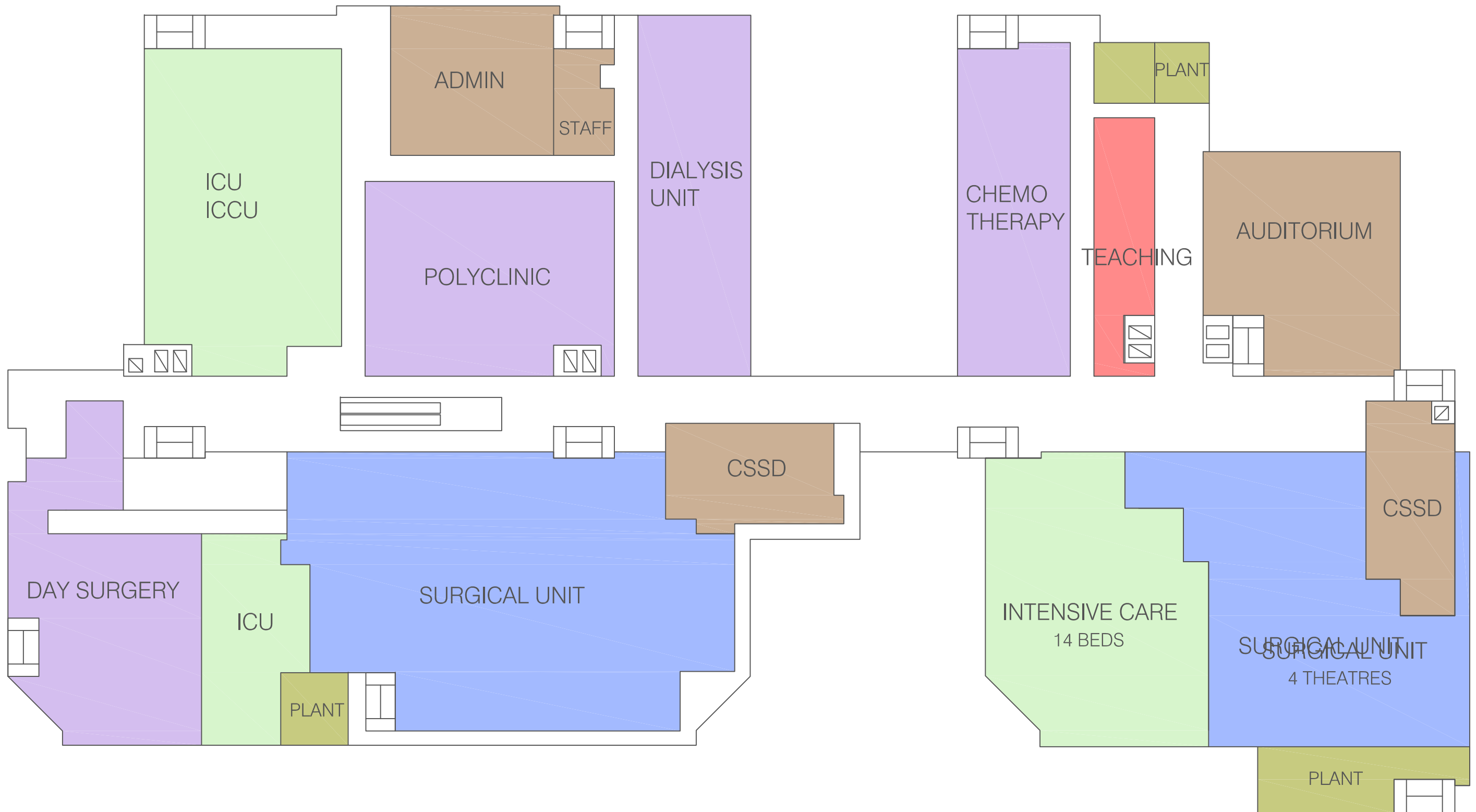
BUILDING B,C,D

BUILDING E,F

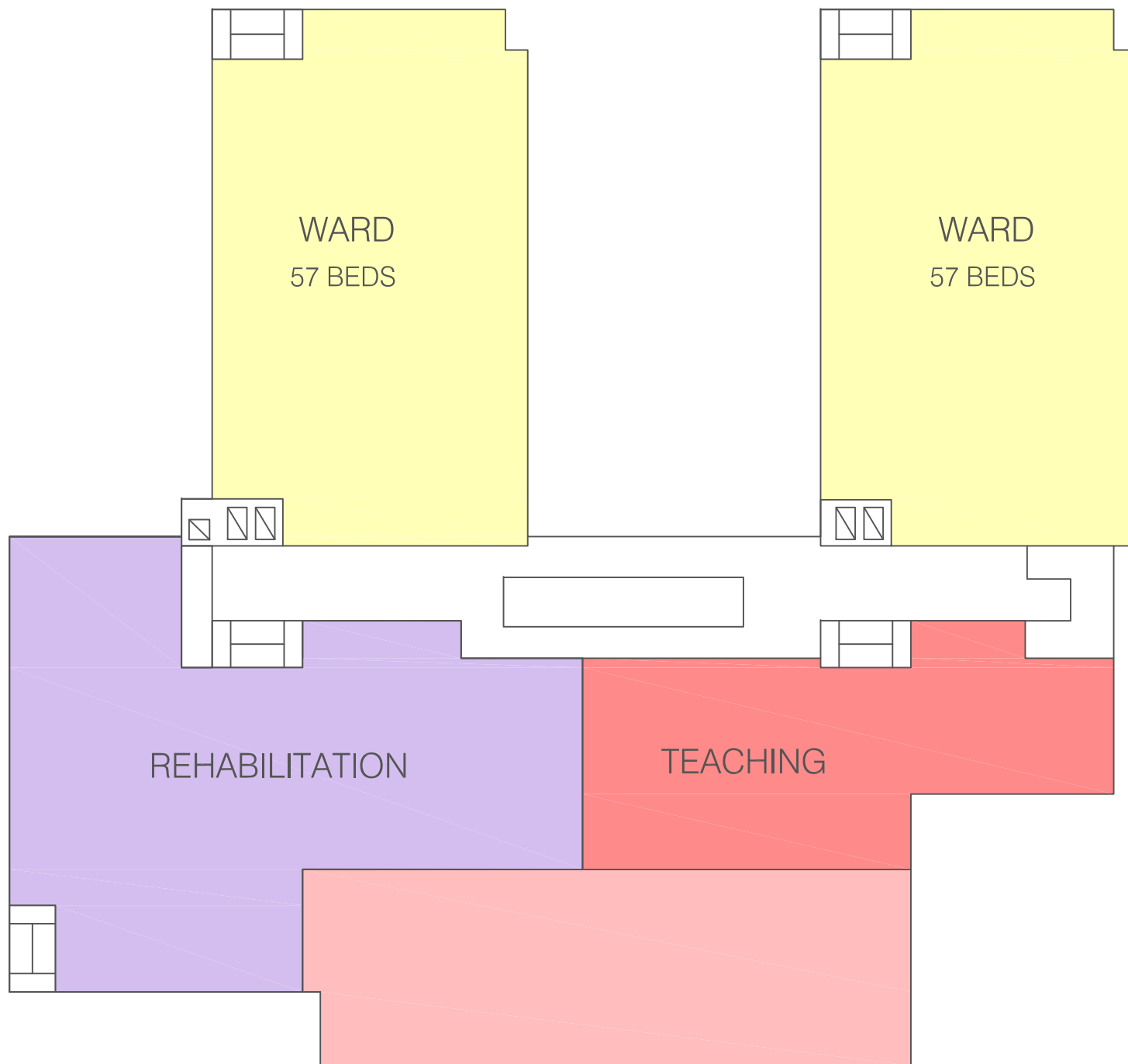


BUILDING B,C,D

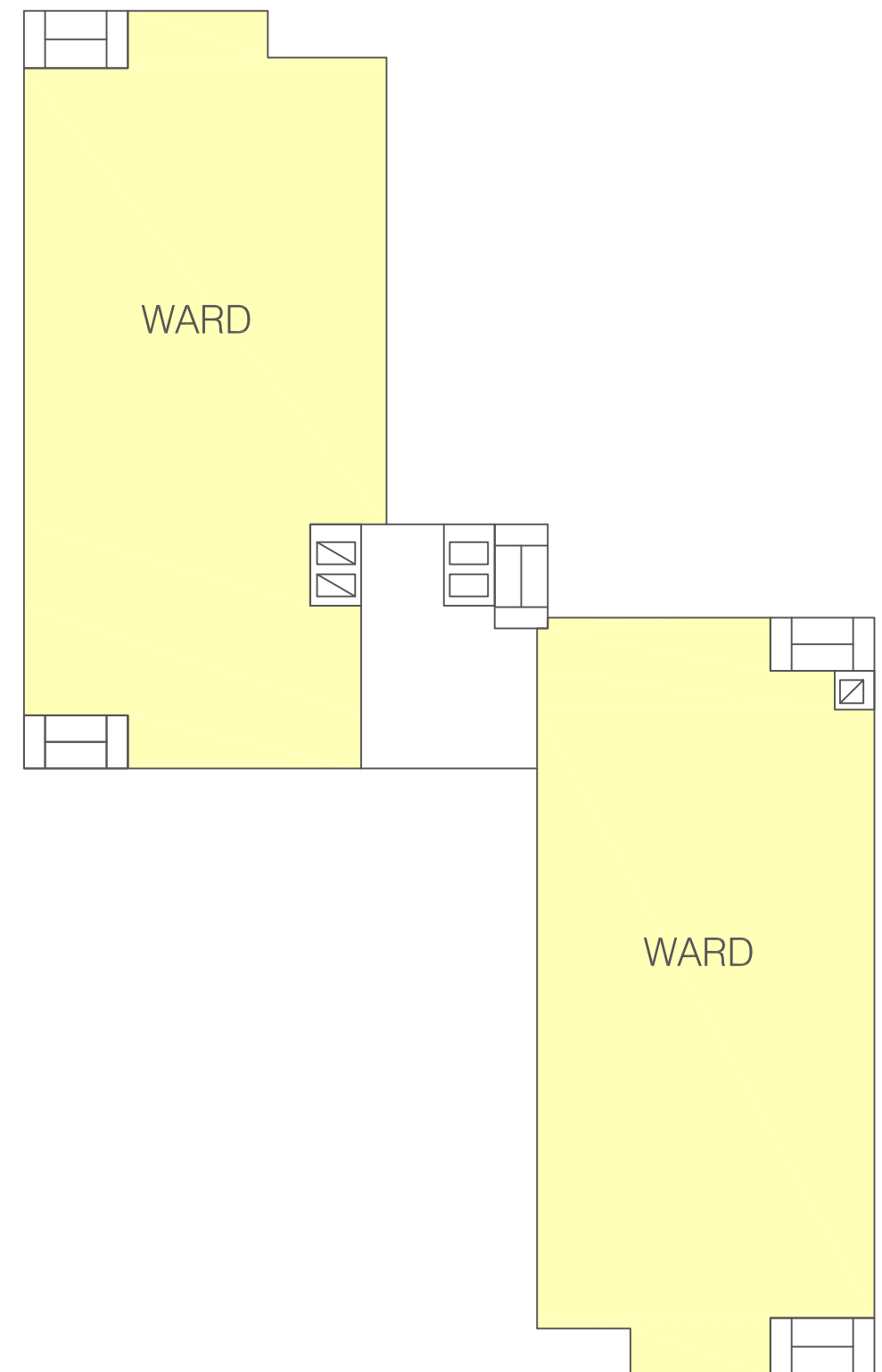
BUILDING E,F



BUILDING B,C,D

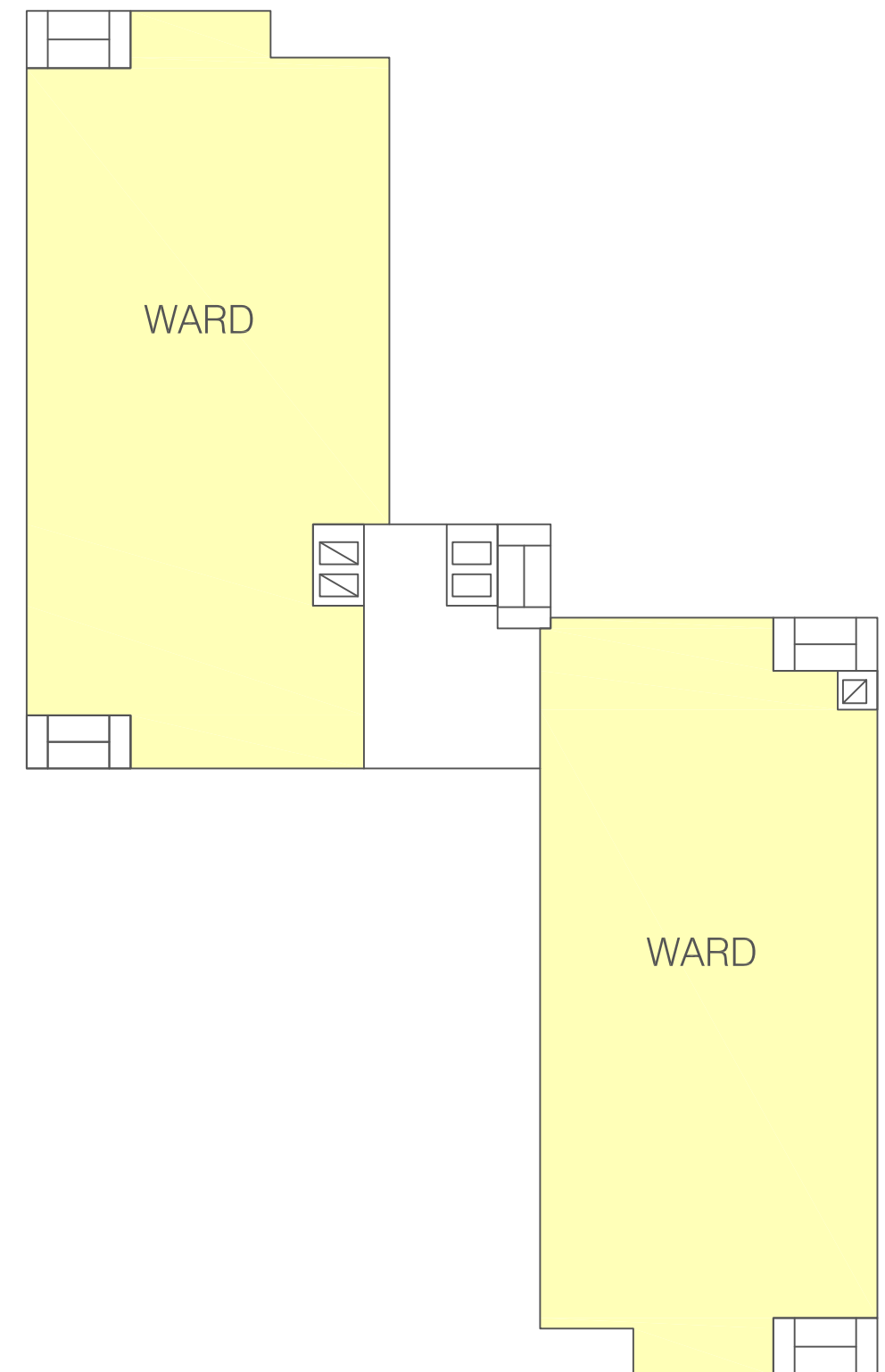
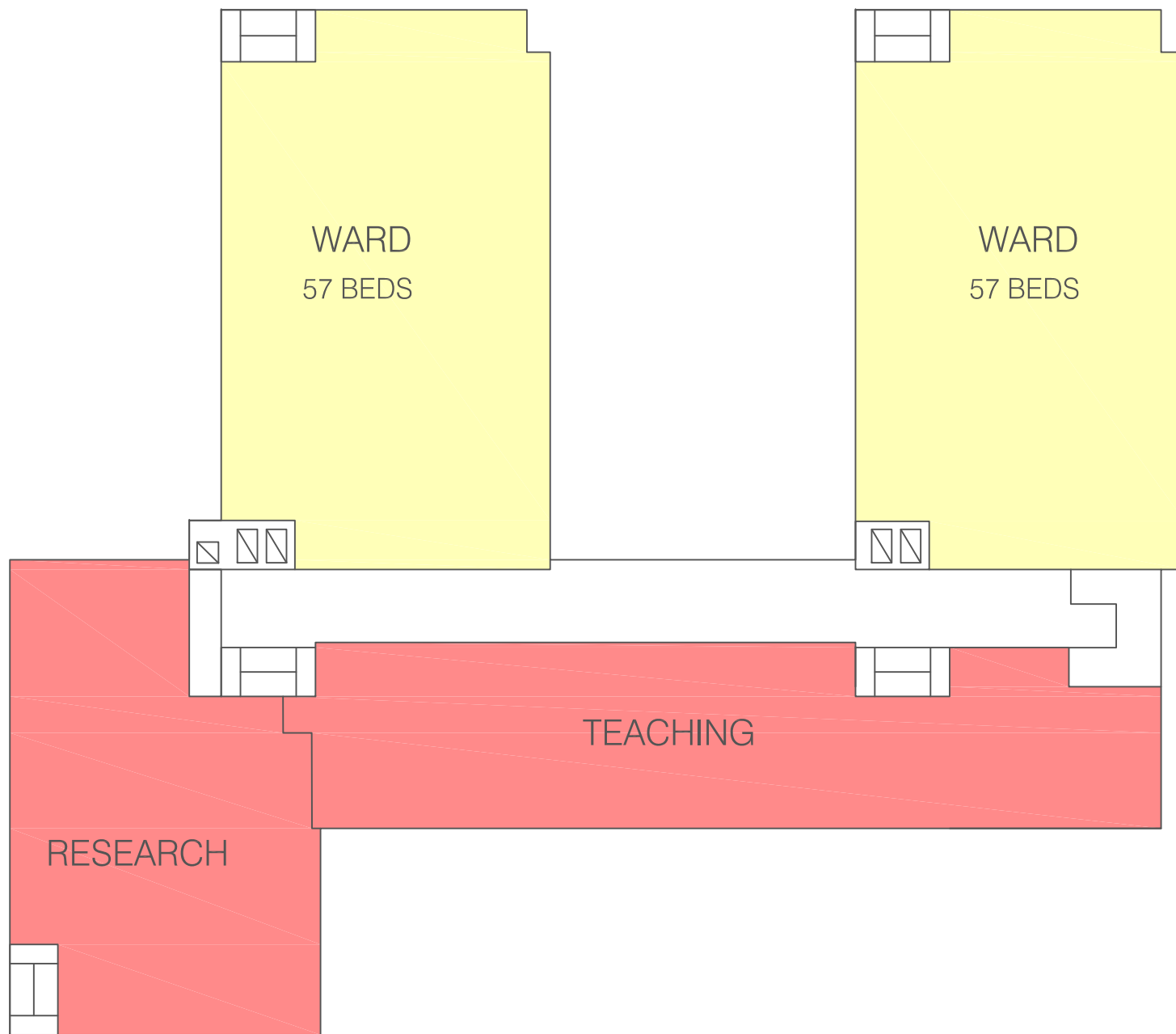


BUILDING E,F

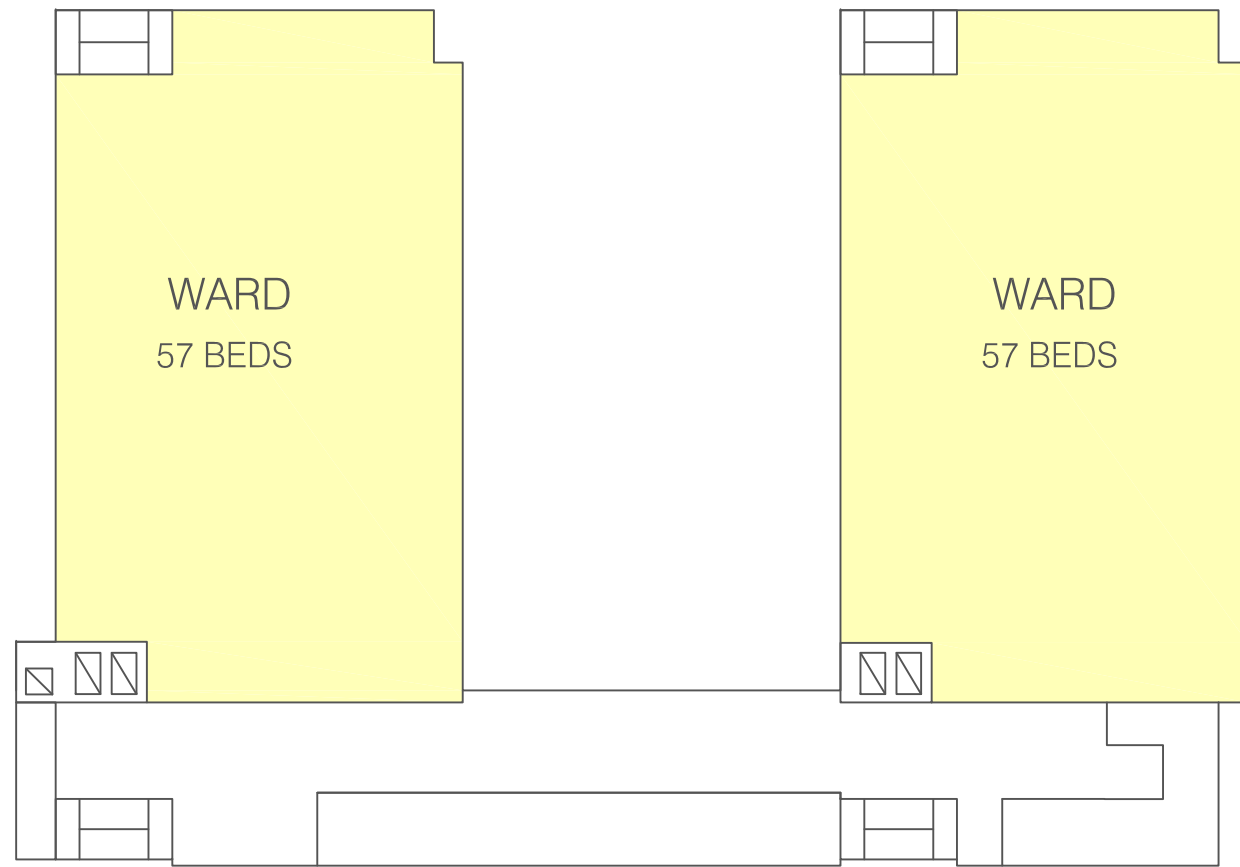


BUILDING B,C,D

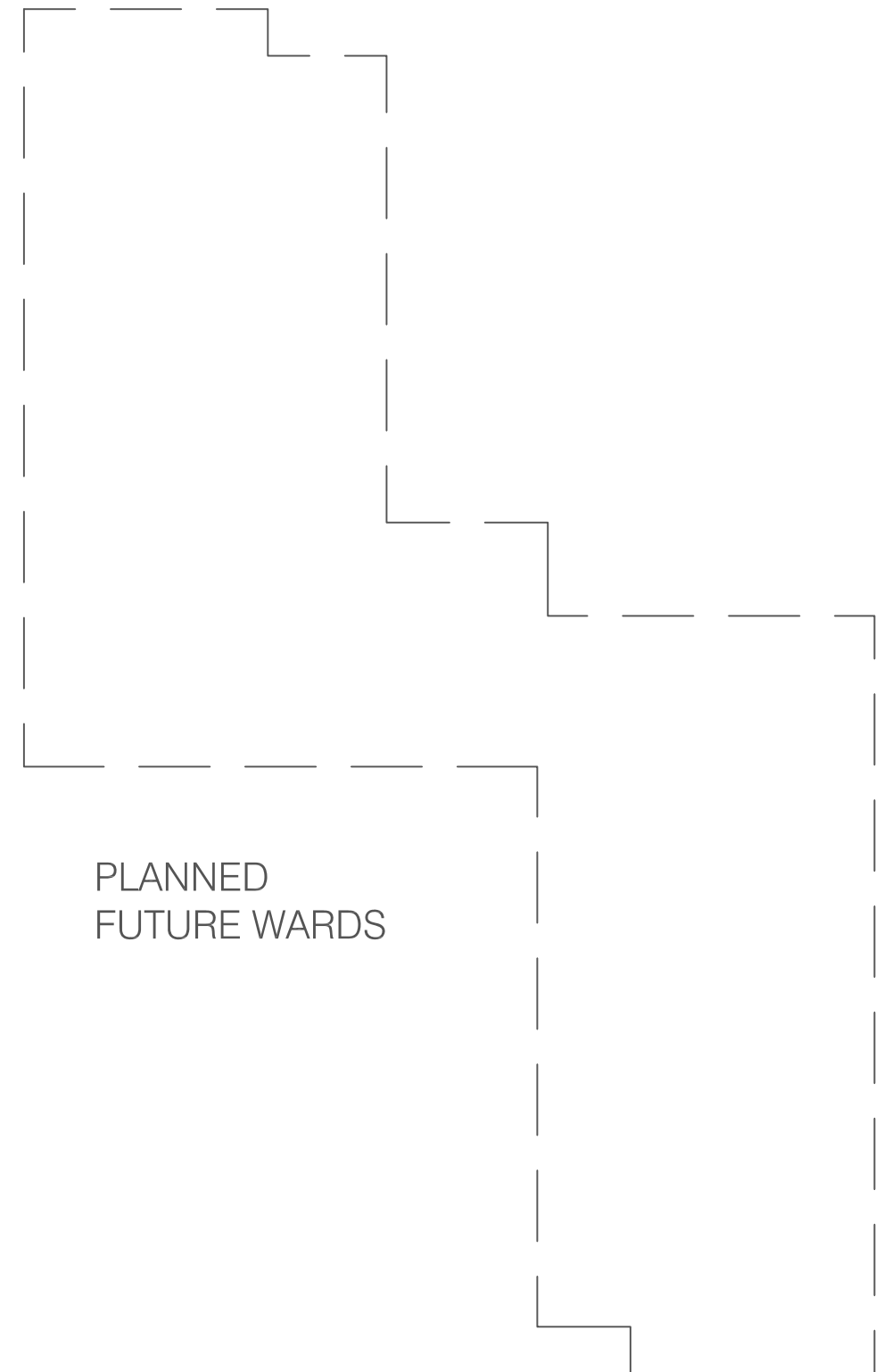
BUILDING E,F



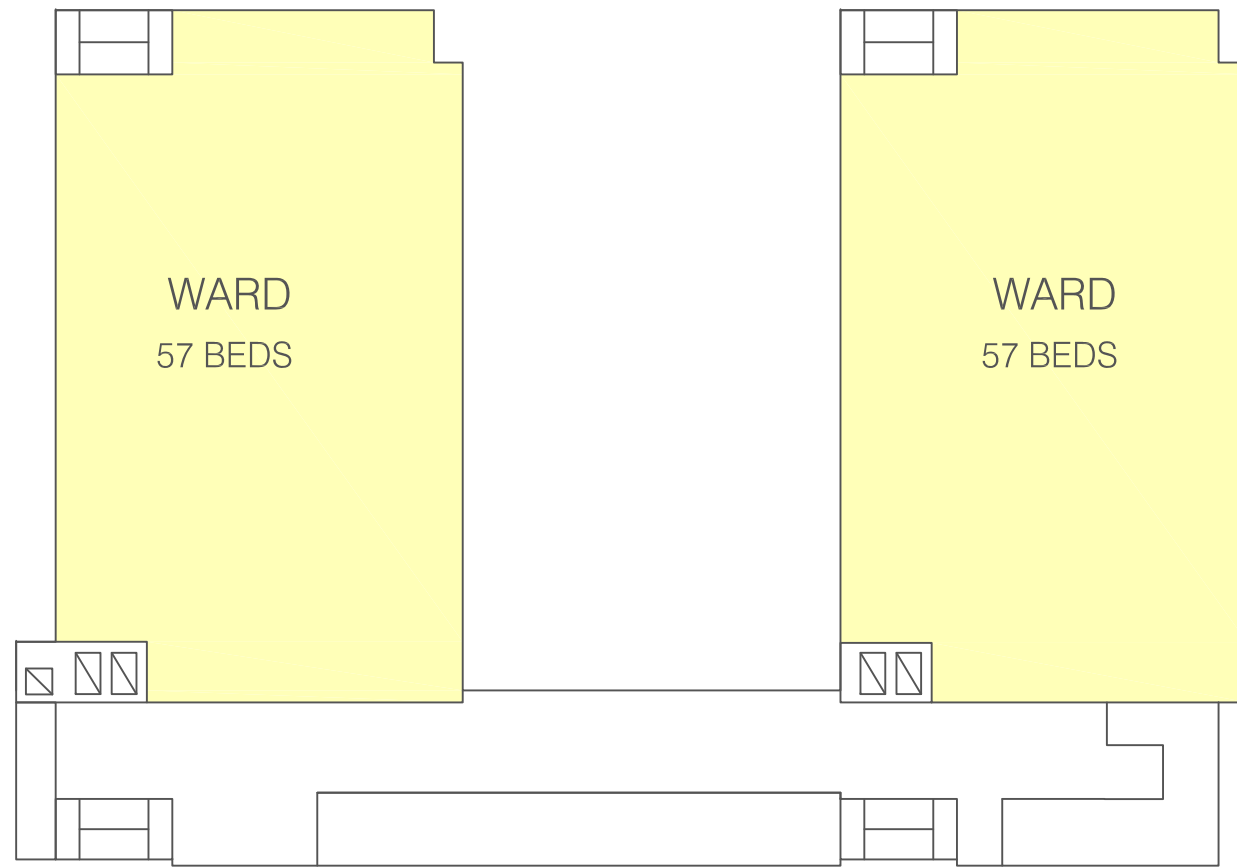
BUILDING B,C,D



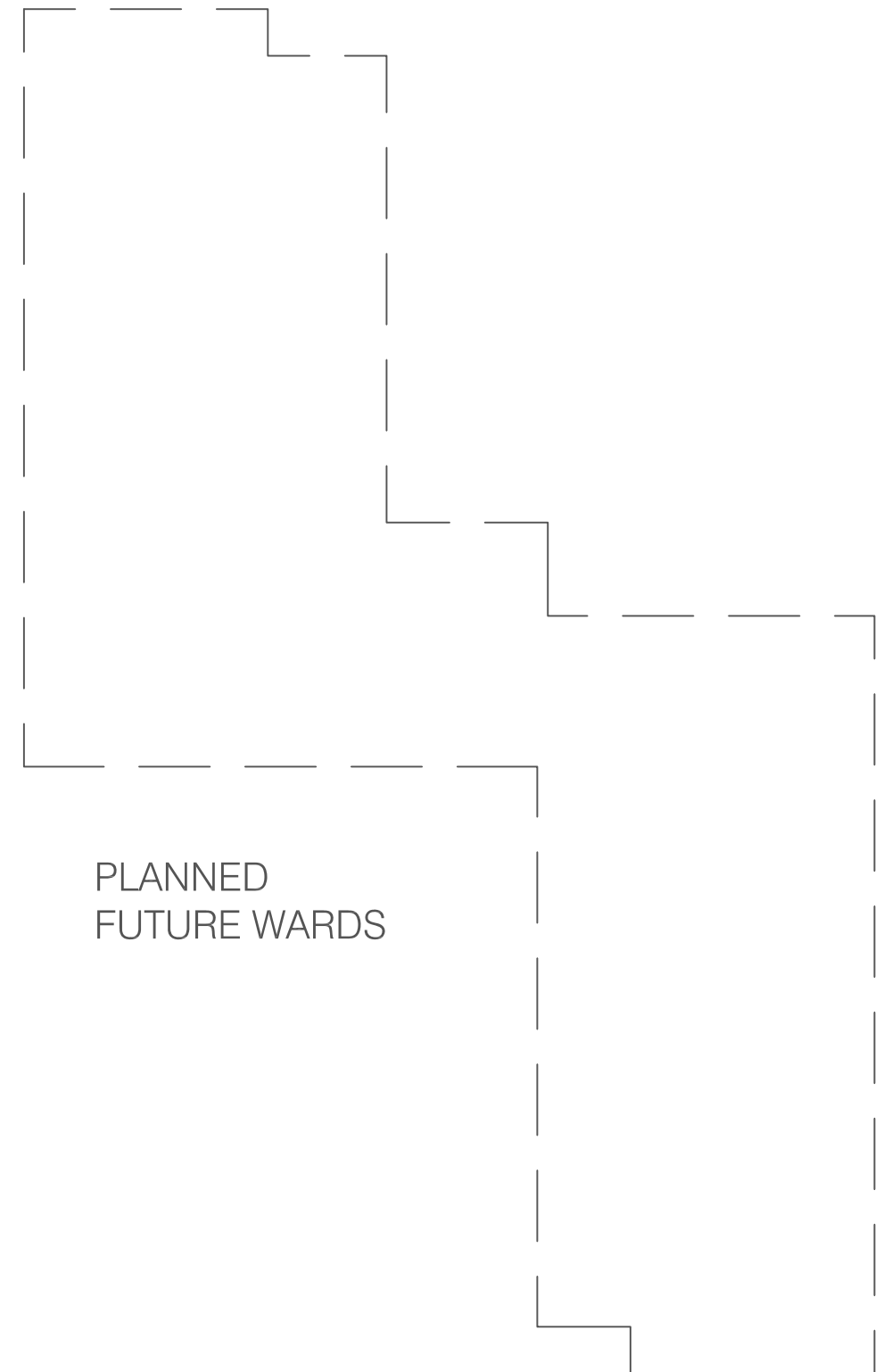
BUILDING E,F



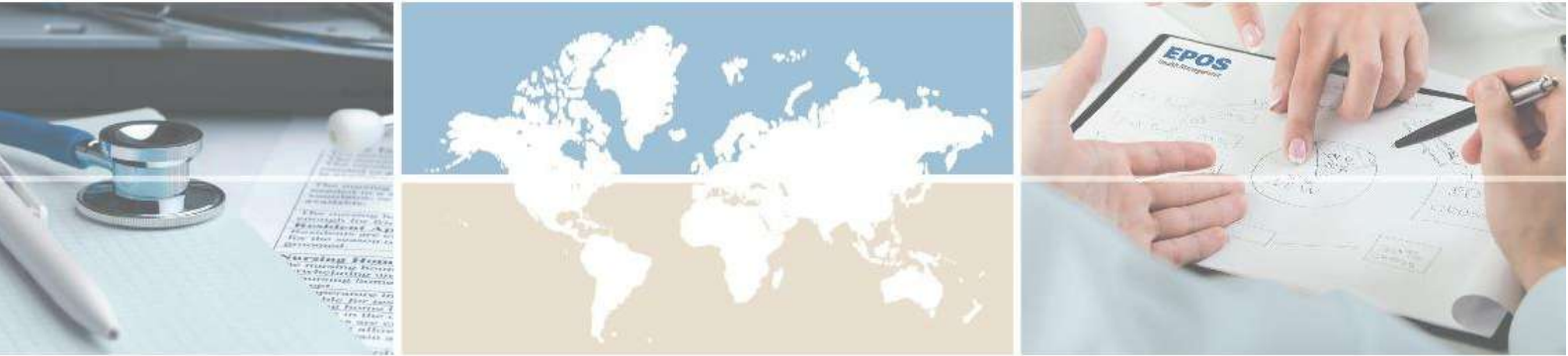
BUILDING B,C,D



BUILDING E,F

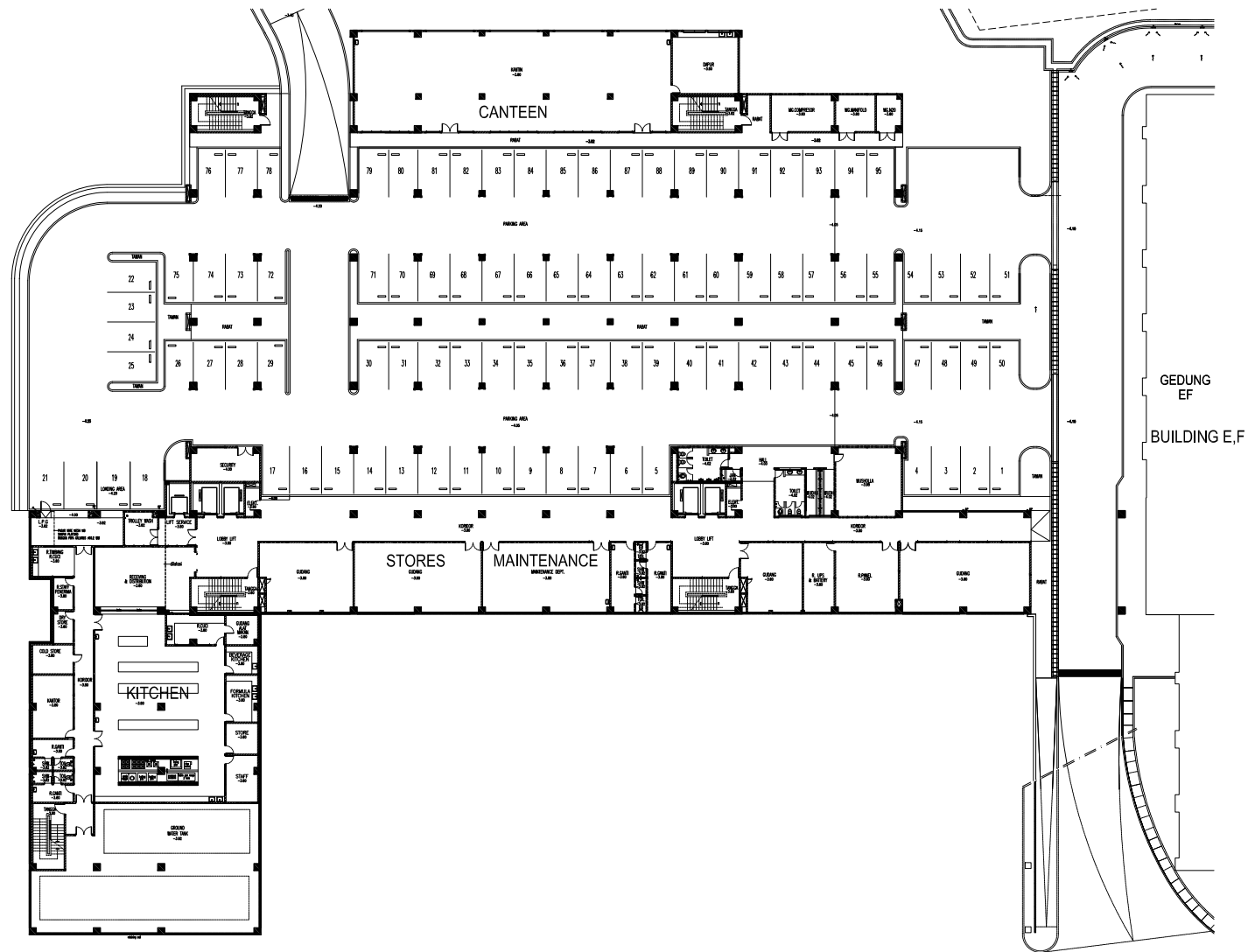


Annex 19

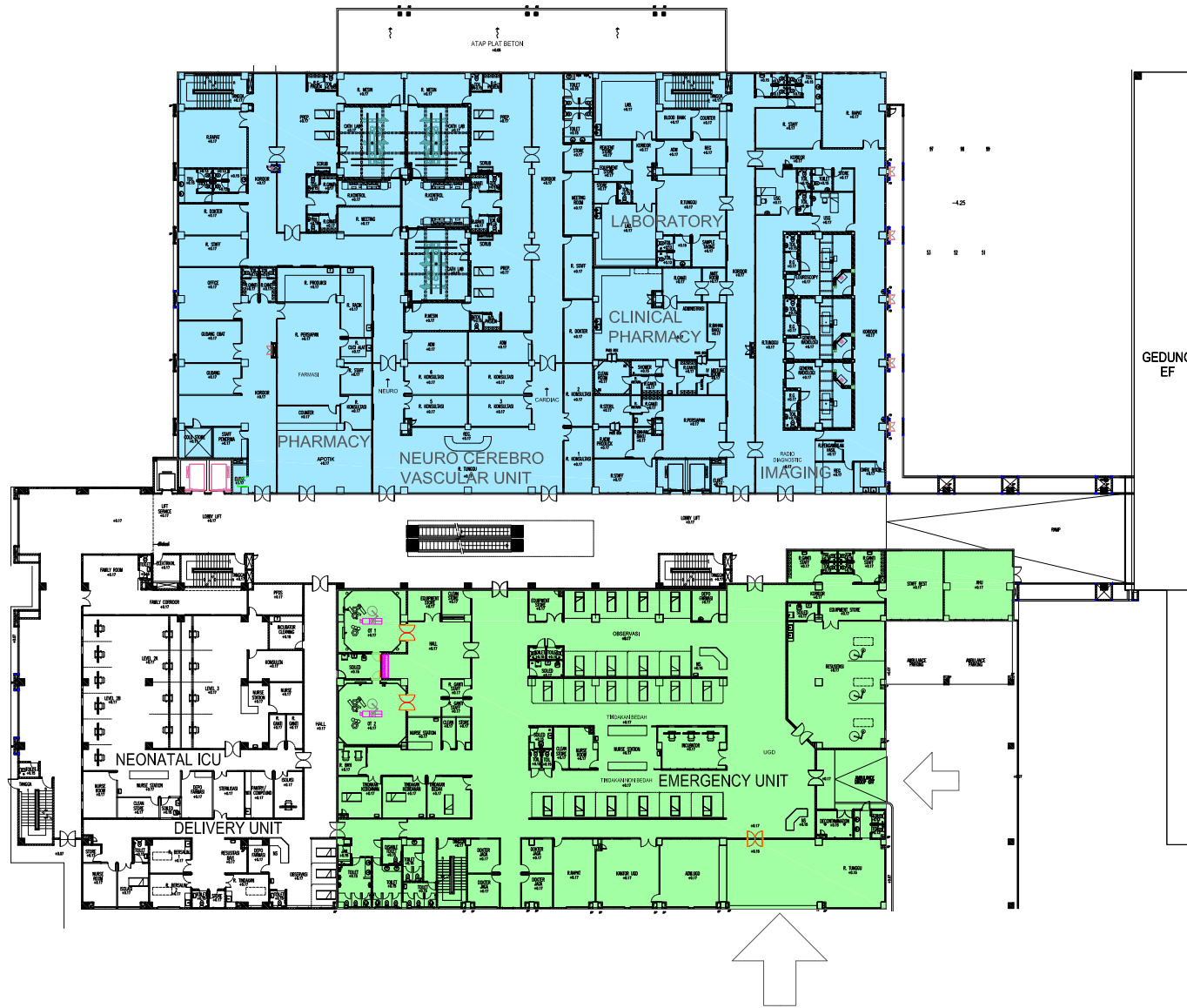


Current B,C,D Building plans

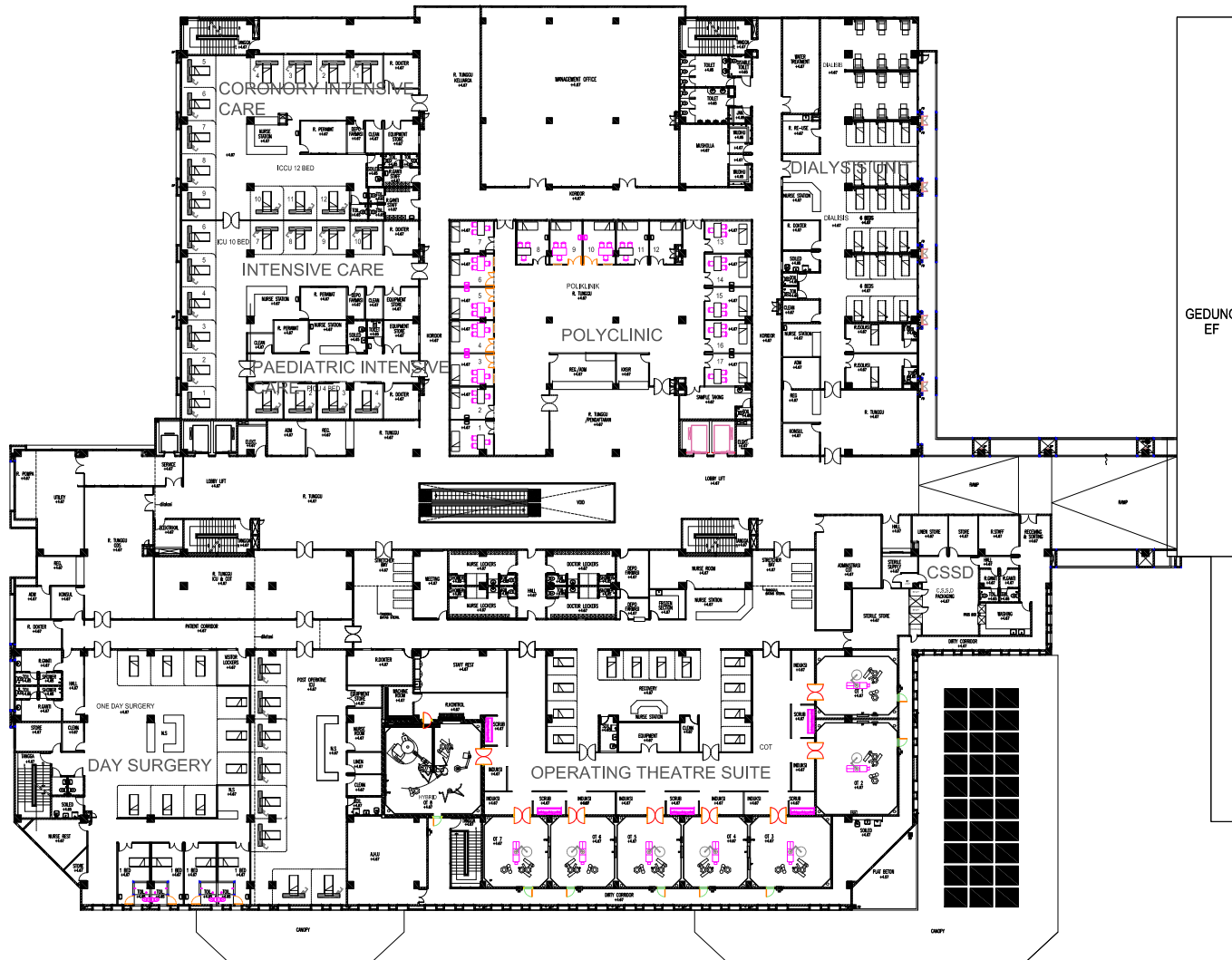
- BUILDING STRUCTURE ONLY
- WORKS UNDERWAY
- BUILDING FINISHED



- BUILDING STRUCTURE ONLY
- WORKS UNDERWAY
- BUILDING FINISHED



- BUILDING STRUCTURE ONLY
- WORKS UNDERWAY
- BUILDING FINISHED





- BUILDING STRUCTURE ONLY
- WORKS UNDERWAY
- BUILDING FINISHED



- BUILDING STRUCTURE ONLY
- WORKS UNDERWAY
- BUILDING FINISHED



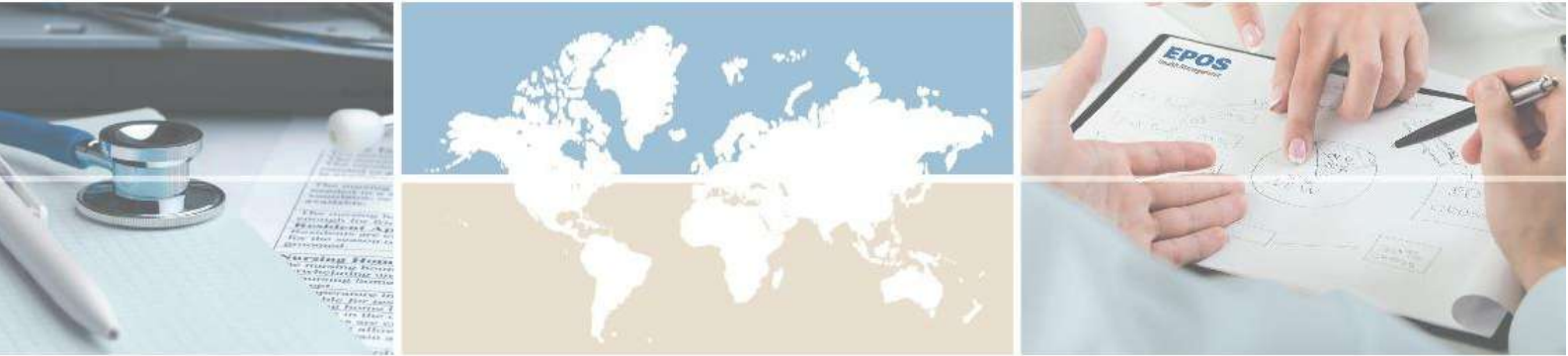
BUILDING B,C,D
CURRENT DESIGN HUH PRE-FEASIBILITY STUDY

5
 LEVEL

- BUILDING STRUCTURE ONLY
- WORKS UNDERWAY
- BUILDING FINISHED



Annex 20



Timeline options

20a: Project Implementation Schedule – Option 1

20b: Project Implementation Schedule – Option 2

20c: Indicative Time Schedule for administrative preparation of loan signing "UNHAS"

Project Implementation Schedule

Option 1 - Construction Financed by GoI

LOAN AGREEMENT	
Decision to Fund Building Works	
KfW Appraisal Mission & Follow-up	
GoI Readiness Process	
KfW Approval Process	
Loan Agreement	

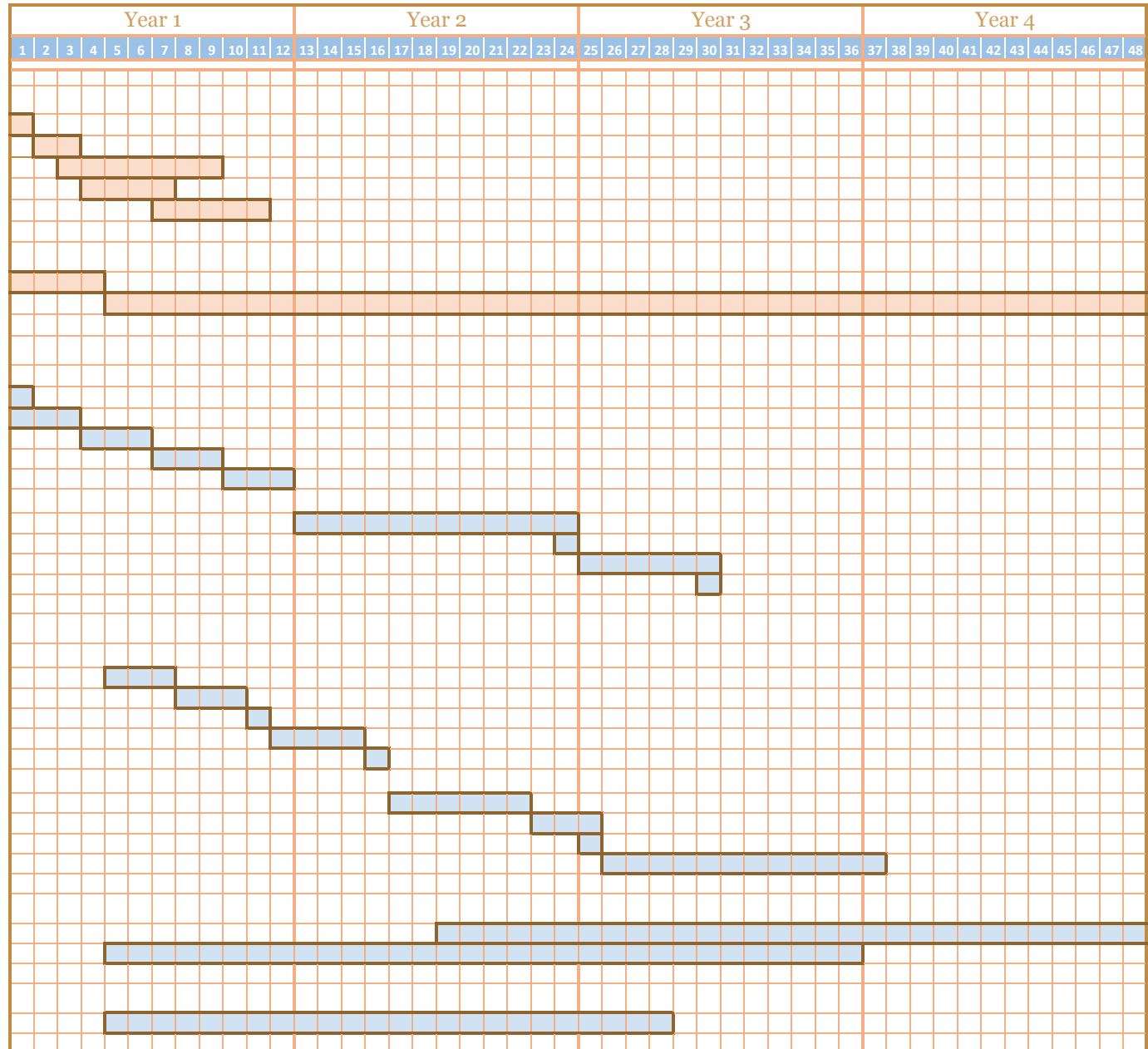
PROJECT MANAGEMENT	
Engage Consultants	
Medical Equipment, Accompanying Measures	

BUILDING WORKS	
Preparation Phase	
Engage Building Consultants	
Audit Previous Works	
Design Review	
Final Design / Tender Documents	
Tendering & Works Contracts	
Construction Phase	
Construction Works	
Provisional Acceptance	
Defects Liability Period	
Final Acceptance	

MEDICAL EQUIPMENT	
Preparation Phase	
Review Equipment List	
Tender Documents	
KfW Non-objection	
Tendering & Contracts	
KfW Non-objection	
Supply Phase	
Shipping & Delivery	
Installation, Testing & Commissioning	
Training	
Maintenance Period	

HUMAN RESOURCES DEVELOPMENT	
Additional Employees	
Training	

SYSTEM DEVELOPMENT	
Telemedicine & System Information	

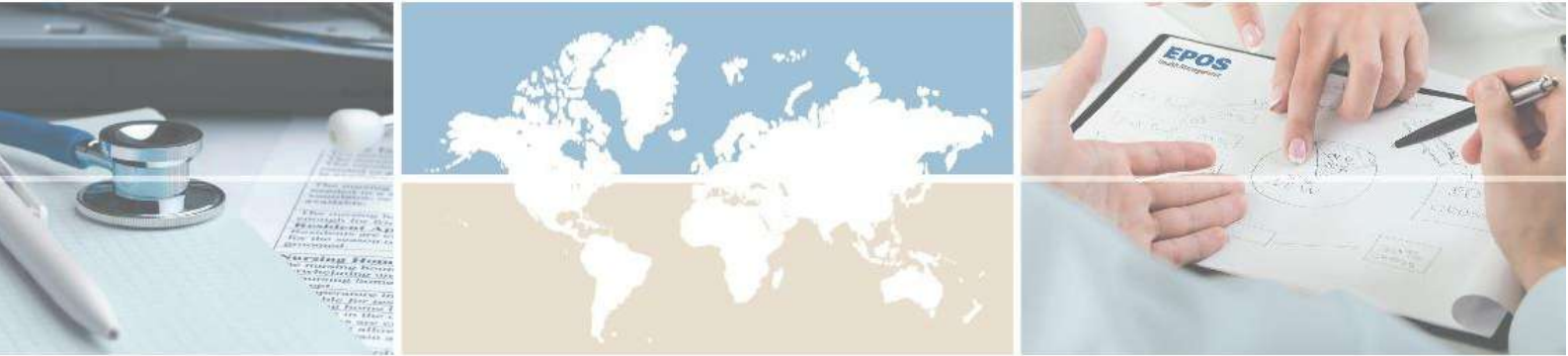


Indicative Time Schedule for administrative preparation of loan signing "UNHAS"

NO	DESCRIPTION	2016				2017												2018	
		9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2
1	Decision Making about Funding Structure for Building																		
	Wrap Up Meeting Bappenas																		
	High-level Meeting Bappenas, RISTEK, MoF, UNHAS		!																
2	KfW Appraisal Mission and Follow Up																		
	KfW Appraisal Mission (incl. signing Minutes of Meeting UNHAS/RISTEK/Bappenas/KfW)																		
	Finalisation project concept incl. cost and financing plan																		
3	UNHAS --> RISTEK --> BAPPENAS Readiness Process																		
	Update of Readiness Criteria (for Green Book Revision) from UNHAS to RISTEK																		
	Submission of Revised Readiness Criteria from RISTEK to Bappenas (incl. expected loan amount)																		
	Review of "Readiness" and Green Book revision (assuming Green Book 2017 launched in March or April)																		
	Submission of Readiness Criteria (full/Daftar kegiatan) from UNHAS/RISTEK to Bappenas																		
	Confirmation of Readiness by Bappenas to MoF																		
4	KfW Approval Process																		
	KfW Project Proposal to German Govt. (BMZ)																		
	Review and Approval process in German Govt. (BMZ)																		
	KfW Board Approval																		
5	Loan Agreement MoF + KfW																		
	Drafting and Submission of Loan Agreement to MoF																		
	Negotiation of Loan Agreement																		
	Signing of Loan Agreement																		
6	Project Implementation *																		

* project implementation schedule will be discussed and agreed during project appraisal mission, incl. possibility for advanced procurement procedure (ICB) for consulting services and goods/works

Annex 21a



Equipment Schedules & Estimates

Annex 21a Equipment Schedule Estimates

1. Medical Equipment Estimate - HUH Development Plan

1	Standard Equipment for doctor profesional in Hospital	2.600.000,00 €
2	Improving the five service of Excellences	
	TRAUMATOLOGY	
	Intensive Care Unit	1.762.164,00 €
	Operating Theatre Suite	2.115.018,00 €
	Psychiatry Facilities	38.270,00 €
	Central Sterile Supply Dept.	325.865,00 €
	NEUROLOGY	68.949,11 €
	OPHTHALMOLOGY	386.100,00 €
	REHABILITATION	318.275,00 €
	FERTILITY CLINIC	371.502,00 €
3	Improve Diagnostic Centre and Clinical Pharmacy	
	RADIODIAGNOSTICS	3.935.400,00 €
	CLINICAL PHARMACY	760.000,00 €
4	Internship Training Centre (Simulation Centre)	3.658.000,00 €
5	Improving Research Laboratory	2.357.000,00 €
6	Ward Equipment	925.874,00 €

Sub-Total for Medical Equipment 19.622.417,11 €

Convert to US\$ @ EUR 1 = US\$ 1.09 21.388.435 USD

Local Transport, Freight and Handling @ 6% 1.283.306 USD

Installation Incidental Services Costs @ 5% 1.069.422 USD

Warranty and maintenance 3yrs incl. Spare Parts @ 10% 2.138.843 USD

Grand Total Medical Equipment 25.880.006 USD

2. HMIS / Telemedicine Estimate - HUH Development Plan

1	HMIS and Telemedicine Systems	879.160 €
	Convert to US\$ @ EUR 1 = US\$ 1.09	958.284 USD
	Local Transport, Freight and Handling @ 6%	57.497 USD
	Installation Incidental Services Costs @ 5%	47.914 USD
	Warranty and maintenance 3yrs incl. Spare Parts @ 10%	95.828 USD
	Grand Total HMIS / Telemedicine	1.159.524 USD

3. Human Resources Development - HUH Development Plan

1	HRD	2.688.098 €
	Grand Total Human Resources Development	2.688.098 €

4. Completion of Building B,C,D - HUH Development Plan

Estimate value of Works Remaining	182.273.767.870 IDR
Allowance for Cost Escalation @ 5%	9.113.688.394 IDR
Contingency Allowance @ 5%	9.113.688.394 IDR
Total Estimate to Complete	200.501.144.657 IDR
Convert to US\$ @ US\$ 1 = IDR 13,000	15.423.165 USD
Estimate to Complete Building B,C,D	15.423.165 USD

Annex 21a Equipment Schedule Estimates

PROJECT SUMMARY	US\$
1 MEDICAL EQUIPMENT	25.880.006
2 HMIS / TELEMEDICINE	1.159.524
3 HUMAN RESOURCES DEVELOPMENT	2.688.098
4 COMPLETION OF BUILDING B,C,D	15.423.165
	<hr/>
	45.150.793
Project Consulting Costs @ 7%	3.160.556
	<hr/>
Project Total Cost	48.311.349

Annex 21a Equipment Schedule Estimates

No	Description		Qty		Budgett (Euro)	
	Department / Equipment Name				Unit Price	Total Price
A	OPERATING THEATER EQUIPMENT					
1	Operating lamp double, with camera		8	Unit	15.850	126.800
2	Electric, Automatic Operating table		8	Unit	27.600	220.800
3	Scrub station with UV 3 person		6	Unit	5.610	33.660
4	Anaesthesia machine with ventilator		8	Unit	75.500	604.000
5	Suction pump double bottle for operating room		8	Unit	2.350	18.800
6	Electro surgical cauter		8	Unit	24.500	196.000
7	Operating microscope with 2 observation		1	Unit	73.000	73.000
8	Table Mayo, operation		8	Unit	550	4.400
9	Bowl stand double bowl		8	Unit	210	1.680
10	Instrument trolley		8	Unit	520	4.160
11	Dressing trolley with drawers		8	Unit	610	4.880
12	Instrument Cabinet		8	Unit	710	5.680
13	Kick bucket		8	Unit	36	288
14	Chair surgeon		8	Unit	20	160
15	Chair anaesthetic		8	Unit	18	144
16	Portable UV. Sterilizer		8	Unit	74	592
17	Flow meter, regulator oxygen		8	set	148	1.184
18	Suction, double bottle for central vacuum		8	set	310	2.480
18	AntiDecubitus Mattreas		8	unit	2.570	20.560
20	Intra Aortic Ballon		1	unit	76.000	76.000
21	Resuscitation Bag, set		6	set	2.800	16.800
22	Arthroscope with Halogen Light source		1	Unit	42.000	42.000
23	Laparoscpy for surgery & TV monitor		1	Unit	127.000	127.000
24	Instrument set for general operation		2	set	32.800	65.600
25	Instrument set Obstetric & Gynaecology		1	set	16.700	16.700
26	Instrument set for Orthopaedic (upper & Lower)		1	set	23.000	23.000
27	Instrument set for general neuro surgery		1	set	21.000	21.000
28	Microscope For Neurosurgery		1	set	215.000	215.000
29	Instrument set for laparotomy		1	set	7.850	7.850
30	Instrument set for ophthamology surgery		1	set	14.800	14.800
31	Instrument set for Plastic Surgery		1	set	92.000	92.000
32	Instrument set for Heart & Vascular surgery		1	set	78.000	78.000
	TOTAL BUDGETT OPERATING ROOM					2.115.018

No	Description		Qty		Budgett (Euro)	
	Department / Equipment Name				Unit Price	Total Price
	Psychiatry Facilities					
1	Transcranial <agnetic Simulation		1	Unit	11.000	11.000
2	ECT Equipment		1	Unit	18.000	18.000
3	Phychiatry Tools set		1	Unit	9.270	9.270
	TOTAL BUDGETT PSYCHIATRY					38.270

No	Description		Qty		Budgett (Euro)	
	Department / Equipment Name				Unit Price	Total Price
B	CSSD					
1	Sink unit with pre rinse		1		620	620
2	Ultrasonic cleaner		1		2.000	2.000
3	Spray gun pistol		1		345	345
4	Washer disinfectant		2		34.300	68.600
5	Drying cabinet		2		22.300	44.600
6	Packing table		3		2.000	6.000
7	Working table		3		1.600	4.800
8	Sealing machine & cutting device		2		1.050	2.100
9	Steam Autoclave 600 lt with 2 doors		2		92.500	185.000
10	Loading & un Loading trolley		1		2.650	2.650
11	Set of instrument basket		3		825	2.475
12	Pass through window & cabinet		3		1.030	3.090
13	Sterile store shelves		3		370	1.110
14	Distribution trolley		3		825	2.475
	TOTAL BUDGETT CSSD					325.865

2.440.883

Annex 21a Equipment Schedule Estimates

No	Description	Qty	Budgett (Euro)	
	Department / Equipment Name		Unit Price	Total Price
c	INTENSIVE CARE UNIT			
1	ICU			
1	ICU bed elctric Hi/lo fowler	10	2.600	26.000
2	Patient monitor	10	8.220	82.200
3	Central monitor	1	16.150	16.150
4	Ventilator & monitor for Pediatric	10	21.950	219.500
5	Defibrillator	1	8.100	8.100
6	Bed side cabinet	10	309	3.090
7	Shelves for monitor	10	83	830
8	Syringe pump	15	3.100	46.500
9	Infusion Pump	15	2.200	33.000
10	Suction unit portable	6	1.050	6.300
11	Diagnostic set	6	275	1.650
12	Instrument trolley	6	310	1.860
13	Instrument cabinet	1	466	466
14	Flow meter for oxygen	6	210	1.260
15	Suction regulator wall mounted	6	360	2.160
2	CARDIAC INTENSIVE CARE UNIT (ICCU)			
1	ICCU bed elctric Hi/lo fowler	12	2.610	31.320
2	Patient monitor	12	8.220	98.640
3	Central monitor	1	16.150	16.150
4	Ventilator & monitor for Pediatric	12	21.950	263.400
5	Defibrillator	1	8.100	8.100
6	Bed side cabinet	2	310	620
7	Shelves for monitor	12	85	1.020
8	Syringe pump	20	3.100	62.000
9	Infusion Pump	20	2.200	44.000
10	Suction unit portable	12	1.050	12.600
11	Diagnostic set	3	275	825
12	Instrument trolley	3	310	930
13	Instrument cabinet	3	466	1.398
14	Flow meter for oxygen	12	210	2.520
15	Suction regulator wall mounted	12	360	4.320
16	Bed pan washer unit	1	8.775	8.775
3	PEDIATRIC INTENSIVE CARE UNIT (PICU)			
1	ICU bed for pediatric	10	2.610	26.100
2	Patient monitor	10	8.220	82.200
3	Central monitor	1	16.150	16.150
4	Ventilator & monitor for Pediatric	10	21.950	219.500
5	Defibrillator	1	8.100	8.100
6	Bed side cabinet	10	310	3.100
7	Shelves for monitor	10	85	850
8	Syringe pump	20	3.100	62.000
9	Infusion Pump	20	2.200	44.000
10	Suction unit portable	3	1.050	3.150
11	Diagnostic set	1	275	275
12	Instrument trolley	2	310	620
13	Instrument cabinet	2	466	932
14	Flow meter for oxygen	10	210	2.100
15	Suction regulator wall mounted	10	360	3.600
16	Bed pan washer unit	1	8.775	8.775

Annex 21a Equipment Schedule Estimates

4	NEONATAL INTENSIVE CARE UNIT (NICU)				
1	Infant incubator	4		9.950	39.800
2	Patient monitor for baby	4		8.250	33.000
3	Central monitor	1		16.150	16.150
4	Ventilator & monitor for neonatal	4		28.800	115.200
5	Bed side cabinet	4		310	1.240
6	Shelves for monitor	4		83	332
7	Syringe pump	10		3.100	31.000
8	Infusion Pump	10		2.200	22.000
9	Suction unit portable	4		1.050	4.200
10	Diagnostic set	1		275	275
11	Instrument trolley	1		310	310
12	Instrument cabinet	1		466	466
13	Flow meter for oxygen	4		210	840
14	Suction regulator wall mounted	4		360	1.440
15	Bed pan washer unit	1		8.775	8.775
				TOTAL BUDGETT INTENSIVE CARE UNIT	1.762.164

No	Description	Qty	Budgett (Euro)		
	Department / Equipment Name		Unit Price	Total Price	
	RADIOLOGY DEPARTMENT				
1	C - Arm Unit	2	Unit	240.000	480.000
2	Mobile X ray	3	Unit	78.100	234.300
3	Digital General radiology 800 mA	1	Unit	62.100	62.100
4	Digital Radiology with flouroscopy and bucky	1	Unit	110.000	110.000
5	MRI 3 Tesla	1	Unit	1.458.000	1.458.000
6	Multi Slice CT scan 16 Slice/ workstation & Injector	1	Unit	372.000	372.000
7	Digital Mammography	1	Unit	388.800	388.800
8	Digital X- Ray Panoramic	1	Unit	37.700	37.700
9	Ultra SonoGraphy color doppler 4 Dimension	2	Unit	220.000	440.000
10	Picture Archiving Communication System (PACS)	1	unit	285.000	285.000
11	Digital Printing	3	unit	22.500	67.500
				TOTAL BUDGETT RADIOLOGY	3.935.400

No	Description	Qty	Budgett (Euro)		
	Department / Equipment Name		Unit Price	Total Price	
	Clinical Pharmacy				
1	Drug Refrigerator	2	Unit	151.000	302.000
2	Vaccine Freezer	1	Unit	108.000	108.000
3	Laminar Air Flow Cabinet (LAF)	1	Unit	112.000	112.000
4	Aqua Bidest destilation Equipment	1	Unit	110.000	110.000
5	Set of the pharmacy tools (Mortir, scale, ext)	1	Unit	8.000	8.000
6	CytoGard Cytotoxic Drug Safety	1	Unit	120.000	120.000
				TOTAL BUDGETT PHARMACY	760.000

Annex 21a Equipment Schedule Estimates

No	Description	Qty		Budgett (Euro)	
	Department / Equipment Name			Unit Price	Total Price
	NEUROINTERVENTION Services Centre				
1	EMG	1	Unit	55.000	55.000
2	EEG 12 channel	1	Unit	10.700	10.700
3	Instrument trolley	1	Unit	310	310
4	Sphymomanometer	1	Unit	398	398
5	Stethoscope	1	Unit	195	195
6	Instrument Cabinet	1	Unit	466	466
7	Diagnostic set	1	Unit	275	275
8	Double bowl stand	1	Unit	192	192
9	Examination Bed	1	Unit	1.085	1.085
10	Consultation desk & Chair	1	Unit	328,11	328
TOTAL NEUROINTERVENTION					68.949

Annex 21a Equipment Schedule Estimates

No	Description	Qty		Budgett (Euro)	
	Department / Equipment Name			Unit Price	Total Price
E. OPHTHALMOLOGY CENTER EQUIPMENT					
1	Cataract Set	1	Unit	6.100	6.100
2	OCT	1	Unit	172.000	172.000
3	Ret Cam	1	Unit	136.000	136.000
4	Laser 532nm	1	Unit	72.000	72.000
				Total Ohthalmology	
				386.100	

Annex 21a Equipment Schedule Estimates

No	Description	Qty		Budgett (Euro)	
	Department / Equipment Name			Unit Price	Total Price
F. REHABILITATION SERVICES CENTER EQUIPMENT					
	Neurophysical Rehabilitation Device with 4 sensors motorized platform and motion control	1	Unit	120	120
a. Physical Modality					
1	Shortwave diathermy	1	Unit	12.000	12.000
2	Microwave diathermy	1	Unit	9.500	9.500
3	Ultrasound diathermy	1	Unit	5.500	5.500
4	TENS	1	Unit	7.100	7.100
5	Electrical stimulation	1	Unit	7.900	7.900
6	Infrared (Lamp 80)	1	Unit	3.800	3.800
7	Paraffin Bath	1	Unit	1.385	1.385
8	Vital Stim	1	Unit	10.300	10.300
b. Exercise- Gymnasium					
9	Overhead Pulley	1	Unit	1.700	1.700
10	BWS-Treadmil*	1	Unit	162.000	162.000
11	Quadricep Bench	1	Unit	2.150	2.150
12	Biofeedback Set*	1	Set	23.100	23.100
13	Parallel Bar	1	Unit	1.550	1.550
14	Pediatric Gym Set*	1	Set	15.000	15.000
15	Portable CPR Device	2	Unit	1.000	2.000
16	Leg Press	1	Unit	9.250	9.250
17	Exercise pulley weights	1	Unit	4.400	4.400
18	Shoulder abduction ladder	1	Unit	5.000	5.000
c. Occupation Therapy					
19	ADL Exercise set	1	Set	10.800	10.800
20	Hand Function Set	1	Set	5.300	5.300
21	Snoozelen Room Set	1	Set	9.500	9.500
d. Speech Therapy					
22	Speech Therapy	1	Unit	8.350	8.350
e. Ambulation Aid					
23	Cane, crutch, and walker tips and pads/Cane Set	2	Set	345	690
				TOTAL REHABILITATION	318.275

Annex 21a Equipment Schedule Estimates

No	Description		Qty	Total Budgett (Euro)	
	Department / Equipment Name				
FERTILITY ENDOCRINE REPRODUCTIVE SERVICE EQUIPMENT					
IUI and IVF. System					
1	Air conditioning Room with 3 step Filter system		1	set	170.000
	a	Out door cooling unit and Air Handling Unit capacity 10PK			
	b	Hepa Filter and humidifier system			
	c	Polyurethane Ducting suply and return			
2	UltrasonoGraphy 4D , with transducer abdomen		1	unit	48.000
3	Patient Monitor 6 channel with Trolley (IBP, Temp,)		1	unit	5.500
4	LED Mobile Examination Lamp		1	unit	240
5	Test Tube Heater with power suply		1	unit	3.450
6	Laminar Air Flow		1	unit	13.700
7	Electronic Automatic Gynaecology Examination table		1	unit	5.400
8	Laboratory Refrigerator		1	unit	700
9	Air Incubator		1	unit	17.500
10	Electric Microscope		2	unit	2.100
11	IVF Thermometer		1	unit	550
12	Instrument Trolley		1	unit	24
13	Digital Spyhgmomanometer		2	unit	240
14	Stethoscope		2	unit	137
15	Accessories/ Tools/ Instrument				
	a	Micropipettor	2	unit	1.370
	c	Laminar Air Flow	1	unit	13.700
	d	Pipetetro 10-100 ml	1	unit	685
	e	Pipetetro 20-100 ml	1	unit	685
	f	Pipetetro 100-1000 ml	1	unit	685
	g	Tampon Forceps	1	unit	11
	h	Speculum Grave (Large)	1	unit	7
	i	Spekulum Grave (Medium)	1	unit	7
	y	Spekulum Grave (Small)	1	unit	7
	k	Kidney Tray (Nierbeken)	3	unit	21
	l	Bowl Stainless Steel stand	3	unit	11
	m	Pean Forceps	2	unit	11
	n	Instrument basin (large)	2	unit	21
	o	Speculum SIMS (Large)	2	unit	240
	p	Hysterescopy Set	1	Set	28.000
	q	Histerektomi Instruments Set	1	set	31.000
	r	Sectio Cesarea Instruments Set	1	set	27.500
Summary / Total					371.502

Annex 21a Equipment Schedule Estimates

No	Description	Qty		Budgett (Euro)	
	Department / Equipment Name			Unit Price	Total Price
	General Ward				
1	Hospital bed Hi / lo	130	Unit	2.810	365.300
2	Bed side cabinet	130	Unit	310	40.300
3	Over bed table	130	Unit	220	28.600
4	Flow meter for oxygen	78	Unit	206	16.068
5	Suction Regulator wall mounted	78	Unit	357	27.846
6	Examination lamp	78	Unit	105	8.190
7	Television 16 inch	90	Unit	273	24.570
8	Nurse call system		Unit	by civil works	-
9	UV. Hand washing	35	Unit	9.500	332.500
10	Bed pan washer unit	10	Unit	8.250	82.500
		Total Budgett Ward			925.874

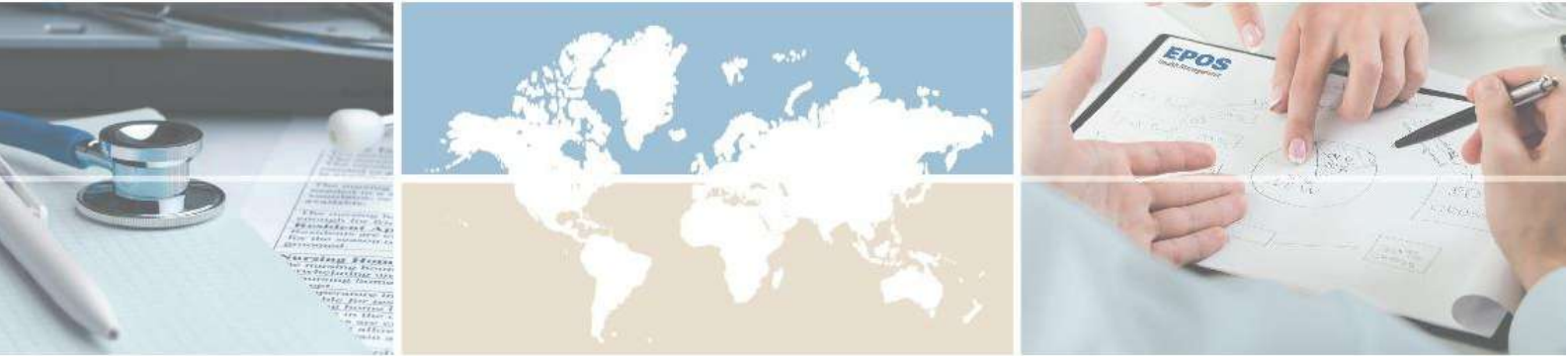
Annex 21a Equipment Schedule Estimates

No	Description	Qty	Budgett (Euro)		
	Department / Equipment Name		Unit Price	Total Price	
	Internsip Training Centre (Simulation Centre)				
1	Simulation Units Ob gyn department				
	* Ob Gyn Examination Table	1	Unit	11.540	11.540
	* Ultrasonogarfi 4 D with Ob Gyn Tranducer	1		235.000	235.000
	* Instrument Set For Obgyn	1		85.000	85.000
	* Dopler Unit	1		908.000	908.000
2	Simulation Units Operating Rooms				-
	* Operating Tables	1		8.220	8.220
	* Operating lamps	1		16.150	16.150
	* Suction Units	1		21.950	21.950
	* Anaesthesia units	1		8.100	8.100
	* Electro Cauter Unit	1			
3	Simulation Units For Intensive Care units				
	* Ventilator Equipment	1		21.950	21.950
	* Intensive care bed	1		2.610	2.610
	* Patient Monitor	1		8.220	8.220
	* Manikin Ful Body Complete	1		8.050	8.050
	* Intensive care Pendant Units	1		2.750	2.750
4	Electro Cardiac	1		434.600	434.600
5	Electro Magnetic	1		349.000	349.000
6	ATLS Training Set Unit	1		712.000	712.000
7	ACS Training Set Unit	1		808.114	808.114
8	Syringe pump	1		3.100	3.100
9	Infusion Pump	1		2.200	2.200
10	Suction unit portable	1		1.050	1.050
11	Diagnostic set	1		275	275
12	Instrument trolley	1		310	310
13	Instrument cabinet	1		466	466
14	Flow meter for oxygen	1		210	210
15	Suction regulator wall mounted	1		360	360
16	Bed pan washer unit	1		8.775	8.775
			Total Internship		3.658.000

Annex 21a Equipment Schedule Estimates

No	Description	Qty		Budgett (Euro)	
	Department / Equipment Name			Unit Price	Total Price
	Improving Research Laboratory University Hassanudin				
1	Research Laboratory of Chemistry				
1	Research Laboratory Of Patology Clinic	1	set	283.000	283.000
2	Research Laboratory of Microbiology	1	set	417.000	417.000
3	Research Laboratory of DNA	1	set	462.600	462.600
4	Research Laboratory of Nuclear Medic	1	set	378.000	378.000
5	Research Laboratory of Stem Cell	1	set	398.000	398.000
6	Research Laboratory of Pharmacology	1	set	127.400	127.400
7	Research Laboratory of Oncology	1	set	291.000	291.000
					2.357.000

Annex 21b



Revised Equipment Schedules & Estimates

1. Medical Equipment Estimate - HUH Development Plan

1	Standard Equipment for doctor profesional in Hospital	600.000,00 €
2	Improving the five service of Excellences	
	TRAUMATOLOGY	
	Intensive Care Unit	1.600.414,00 €
	Operating Theatre Suite	2.115.018,00 €
	Psychiatry Facilities	38.270,00 €
	Central Sterile Supply Dept.	325.865,00 €
	NEUROLOGY	68.949,11 €
	OPHTHALMOLOGY	386.100,00 €
	REHABILITATION	318.275,00 €
	FERTILITY CLINIC	371.502,00 €
3	Improve Diagnostic Centre and Clinical Pharmacy	
	RADIO DIAGNOSTICS	1.939.300 €
	CLINICAL PHARMACY	678.000 €
4	Internship Training Centre (Simulation Centre)	435.321 €
5	Improving Research Laboratory	753.000 €
6	Ward Equipment	385.415 €

Sub-Total for Medical Equipment 10.015.429 €

Convert to US\$ @ EUR 1 = US\$ 1.09 10.916.818 USD

Local Transport, Freight and Handling @ 6% 655.009 USD

Installation Incidental Services Costs @ 5% 545.841 USD

Warranty and maintenance 3yrs incl. Spare Parts @ 10% 1.091.682 USD

Grand Total Medical Equipment 13.209.349 USD

2. HMIS / Telemedicine Estimate - HUH Development Plan

1	HMIS and Telemedicine Systems	879.160 €
	Convert to US\$ @ EUR 1 = US\$ 1.09	958.284 USD
	Local Transport, Freight and Handling @ 6%	57.497 USD
	Installation Incidental Services Costs @ 5%	47.914 USD
	Warranty and maintenance 3yrs incl. Spare Parts @ 10%	95.828 USD
	Grand Total HMIS / Telemedicine	1.159.524 USD

3. Human Resources Development - HUH Development Plan

1	Training Improvement Human Resources	123.430 USD
2	Education Cost improvement Hospital Doctor	1.421.128 USD
	Sub-Total for Human Resources Development	1.544.558 USD
	Grand Total Human Resources Development	1.544.558 USD

4. Completion of Building B,C,D - HUH Development Plan

Estimate value of Works Remaining	161.837.022.295 IDR
Allowance for Cost Escalation @ 5%	8.091.851.115 IDR
<u>Contingency Allowance moved to Project Summary</u>	
Total Estimate to Complete	169.928.873.410 IDR
Convert to US\$ @ US\$ 1 = IDR 13,000	13.071.452 USD
Estimate to Complete Building B,C,D	13.071.452 USD

PROJECT SUMMARY	US\$	
	From Loan	Locally Funded
1 MEDICAL EQUIPMENT	13.209.349	
2 HMIS / TELEMEDICINE	1.159.524	
3 HUMAN RESOURCES DEVELOPMENT		1.544.558
4 COMPLETION OF BUILDING B,C,D	13.071.452	
	<hr/>	
	27.440.325	1.544.558
Contingency Allowance (lump sum)	1.800.000	
	<hr/>	
	30.784.883	
Project Consulting Costs @ 7,5%	2.308.866	
	<hr/>	
Project Total Cost	33.093.750	
	<hr/>	
Project Total Cost from Loan	31.549.192	
Available Budget KfW Loan	31.566.000	

Annex 21b Revised Equipment Schedule Estimates

No	Description		Qty		Budgett (Euro)	
	Department / Equipment Name				Unit Price	Total Price
A	OPERATING THEATER EQUIPMENT					
1	Operating lamp double, with camera		8	Unit	15.850	126.800
2	Electric, Automatic Operating table		8	Unit	27.600	220.800
3	Scrub station with UV 3 person		6	Unit	5.610	33.660
4	Anaesthesi machine with ventilator		8	Unit	75.500	604.000
5	Suction pump double bottle for operating room		8	Unit	2.350	18.800
6	Electro surgical cauter		8	Unit	24.500	196.000
7	Operating microscope with 2 observation		1	Unit	73.000	73.000
8	Table Mayo, operation		8	Unit	550	4.400
9	Bowl stand double bowl		8	Unit	210	1.680
10	Instrument trolley		8	Unit	520	4.160
11	Dressing trolley with drawers		8	Unit	610	4.880
12	Instrument Cabinet		8	Unit	710	5.680
13	Kick bucket		8	Unit	36	288
14	Chair surgeon		8	Unit	20	160
15	Chair anaesthetic		8	Unit	18	144
16	Portable UV. Sterilizer		8	Unit	74	592
17	Flow meter, regulator oxygen		8	set	148	1.184
18	Suction, double bottle for central vacuum		8	set	310	2.480
18	AntiDecubitus Mattreas		8	unit	2.570	20.560
20	Intra Aortic Ballon		1	unit	76.000	76.000
21	Resuscitation Bag, set		6	set	2.800	16.800
22	Arthroscope with Halogen Light source		1	Unit	42.000	42.000
23	Laparoscproy for surgery & TV monitor		1	Unit	127.000	127.000
24	Instrument set for general operation		2	set	32.800	65.600
25	Instrument set Obstetric & Gynaecology		1	set	16.700	16.700
26	Instrument set for Orthopaedic (upper & Lower)		1	set	23.000	23.000
27	Instrument set for general neuro surgery		1	set	21.000	21.000
28	Microscope For Neurosurgery		1	set	215.000	215.000
29	Instrument set for laparotomy		1	set	7.850	7.850
30	Instrument set for ophthamology surgery		1	set	14.800	14.800
31	Instrument set for Plastic Surgery		1	set	92.000	92.000
32	Instrument set for Heart & Vascular surgery		1	set	78.000	78.000
	TOTAL BUDGETT OPERATING ROOM					2.115.018

No	Description		Qty		Budgett (Euro)	
	Department / Equipment Name				Unit Price	Total Price
	Psychiatry Facilities					
1	Transcranial <agetic Simulation		1	Unit	11.000	11.000
2	ECT Equipment		1	Unit	18.000	18.000
3	Phychiatry Tools set		1	Unit	9.270	9.270
	TOTAL BUDGETT PHYCHIATRY					38.270

No	Description		Qty		Budgett (Euro)	
	Department / Equipment Name				Unit Price	Total Price
B	CSSD					
1	Sink unit with pre rinse		1		620	620
2	Ultrasonic cleaner		1		2.000	2.000
3	Spray gun pistol		1		345	345
4	Washer disinfecter		2		34.300	68.600
5	Drying cabinet		2		22.300	44.600
6	Packing table		3		2.000	6.000
7	Working table		3		1.600	4.800
8	Sealing machine & cutting device		2		1.050	2.100
9	Steam Autoclave 600 lt with 2 doors		2		92.500	185.000
10	Loading & un Loading trolley		1		2.650	2.650
11	Set of instrument basket		3		825	2.475
12	Pass through window & cabinet		3		1.030	3.090
13	Sterile store shelves		3		370	1.110
14	Distribution trolley		3		825	2.475
	TOTAL BUDGETT CSSD					325.865

2.440.883

Annex 21b Revised Equipment Schedule Estimates

No	Description	Qty	Budgett (Euro)	
	Department / Equipment Name		Unit Price	Total Price
C	INTENSIVE CARE UNIT			
1	ICU			
1	ICU bed elctric Hi/lo fowler	10	2.600	26.000
2	Patient monitor	10	8.220	82.200
3	Central monitor	1	16.150	16.150
4	Ventilator & monitor for Adult & Pediatric	10	21.950	219.500
5	Defibrillator	1	8.100	8.100
6	Bed side cabinet (already cover by Ward)	0		-
7	Shelves for monitor	10	83	830
8	Syringe pump	10	3.100	31.000
9	Infusion Pump	10	2.200	22.000
10	Suction unit portable	6	1.050	6.300
11	Diagnostic set	6	275	1.650
12	Instrument trolley	6	310	1.860
13	Instrument cabinet	1	466	466
14	Flow meter for oxygen	6	210	1.260
15	Suction regulator wall mounted	6	360	2.160
2	CARDIAC INTENSIVE CARE UNIT (ICCU)			
1	ICCU bed elctric Hi/lo fowler	12	2.610	31.320
2	Patient monitor	12	8.220	98.640
3	Central monitor	1	16.150	16.150
4	Ventilator & monitor for Pediatric	12	21.950	263.400
5	Defibrillator	1	8.100	8.100
6	Bed side cabinet (already cover by ward)	0		-
7	Shelves for monitor	12	85	1.020
8	Syringe pump	12	3.100	37.200
9	Infusion Pump	12	2.200	26.400
10	Suction unit portable	12	1.050	12.600
11	Diagnostic set	3	275	825
12	Instrument trolley	3	310	930
13	Instrument cabinet	3	466	1.398
14	Flow meter for oxygen	12	210	2.520
15	Suction regulator wall mounted	12	360	4.320
16	Bed pan washer unit	1	8.775	8.775
3	PEDIATRIC INTENSIVE CARE UNIT (PICU)			
1	ICU bed for pediatric	10	2.610	26.100
2	Patient monitor	10	8.220	82.200
3	Central monitor	1	16.150	16.150
4	Ventilator & monitor for Pediatric	10	21.950	219.500
5	Defibrillator	1	8.100	8.100
6	Bed side cabinet	10	-	-
7	Shelves for monitor	10	85	850
8	Syringe pump	10	3.100	31.000
9	Infusion Pump	10	2.200	22.000
10	Suction unit portable	3	1.050	3.150
11	Diagnostic set	1	275	275
12	Instrument trolley	2	310	620
13	Instrument cabinet	2	466	932
14	Flow meter for oxygen	10	210	2.100
15	Suction regulator wall mounted	10	360	3.600
16	Bed pan washer unit	1	8.775	8.775

Annex 21b Revised Equipment Schedule Estimates

No	Description	Qty	Unit Price	Total Price
4	NEONATAL INTENSIVE CARE UNIT (NICU)			
1	Infant incubator	4	9.950	39.800
2	Patient monitor for baby	4	8.250	33.000
3	Central monitor	1	16.150	16.150
4	Ventilator & monitor for neonatal	4	28.800	115.200
5	Bed side cabinet (Already cover by Ward)	0		-
6	Shelves for monitor	4	83	332
7	Syringe pump	4	3.100	12.400
8	Infusion Pump	4	2.200	8.800
9	Suction unit portable	4	1.050	4.200
10	Diagnostic set	1	275	275
11	Instrument trolley	1	310	310
12	Instrument cabinet	1	466	466
13	Flow meter for oxygen	4	210	840
14	Suction regulator wall mounted	4	360	1.440
15	Bed pan washer unit	1	8.775	8.775
	TOTAL BUDGETT INTENSIVE CARE UNIT			1.600.414

No	Description	Qty	Budgett (Euro)		
	Department / Equipment Name		Unit Price	Total Price	
	RADIOLOGY DEPARTMENT				
1	C - Arm Unit	1	Unit	240.000	240.000
2	Mobile X ray	2	Unit	78.100	156.200
3	Digital General radiology 800 mA	1	Unit	62.100	62.100
4	Digital Radiology with flouroscopy and bucky	1	Unit	110.000	110.000
5	MRI 3 Tesla	0	Unit	1.458.000	-
6	Multi Slice CT scan 16 Slice/ workstation & Injector	1	Unit	372.000	372.000
7	Digital Mammography	1	Unit	388.800	388.800
8	Digital X- Ray Panoramic	1	Unit	37.700	37.700
9	Ultra SonoGraphy color doppler 4 Dimension	1	Unit	220.000	220.000
10	Picture Archiving Communication System (PACS)	1	unit	285.000	285.000
11	Digital Printing	3	unit	22.500	67.500
	TOTAL BUDGETT RADIOLOGY				1.939.300

No	Description	Qty	Budgett (Euro)		
	Department / Equipment Name		Unit Price	Total Price	
	Clinical Pharmacy				
1	Drug Refrigerator	2	Unit	110.000	220.000
2	Vacine Freezer	1	Unit	108.000	108.000
3	Laminar Air Flow Cabinet (LAF)	1	Unit	112.000	112.000
4	Aqua Bidest destilation Equipment	1	Unit	110.000	110.000
5	Set of the pharmacy tools (Mortir, scale, ext)	1	Unit	8.000	8.000
6	CytoGard Cytotoxic Drug Safety	1	Unit	120.000	120.000
	TOTAL BUDGETT PHARMACY				678.000

Annex 21b Revised Equipment Schedule Estimates

No	Description		Qty		Budgett (Euro)	
	Department / Equipment Name				Unit Price	Total Price
	NEUROINTERVENTION Services Centre					
1	EMG		1	Unit	55.000	55.000
2	EEG 12 channel		1	Unit	10.700	10.700
3	Instrument trolley		1	Unit	310	310
4	Sphymomanometer		1	Unit	398	398
5	Stethoscope		1	Unit	195	195
6	Instrument Cabinet		1	Unit	466	466
7	Diagnostic set		1	Unit	275	275
8	Double bowl stand		1	Unit	192	192
9	Examination Bed		1	Unit	1.085	1.085
10	Consultation desk & Chair		1	Unit	328,11	328
TOTAL NEUROINTERVENTION						68.949

Annex 21b Revised Equipment Schedule Estimates

No	Description	Qty		Budgett (Euro)	
	Department / Equipment Name			Unit Price	Total Price
E. OPHTHALMOLOGY CENTER EQUIPMENT					
1	Cataract Set	1	Unit	6.100	6.100
2	OCT	1	Unit	172.000	172.000
3	Ret Cam	1	Unit	136.000	136.000
4	Laser 532nm	1	Unit	72.000	72.000
Total Ohthalmology					386.100

Annex 21b Revised Equipment Schedule Estimates

No	Description		Qty	Budgett (Euro)		
	Department / Equipment Name			Unit Price	Total Price	
F. REHABILITATION SERVICES CENTER EQUIPMENT						
	Neurophysical Rehabilitation Device with 4 sensors motorized platform and motion control		1	Unit	120	120
a. Physical Modality						
1	Shortwave diathermy		1	Unit	12.000	12.000
2	Microwave diathermy		1	Unit	9.500	9.500
3	Ultrasound diathermy		1	Unit	5.500	5.500
4	TENS		1	Unit	7.100	7.100
5	Electrical stimulation		1	Unit	7.900	7.900
6	Infrared (Lamp 80)		1	Unit	3.800	3.800
7	Paraffin Bath		1	Unit	1.385	1.385
8	Vital Stim		1	Unit	10.300	10.300
b. Exercise- Gymnasium						
9	Overhead Pulley		1	Unit	1.700	1.700
10	BWS-Treadmil*		1	Unit	162.000	162.000
11	Quadri-cep Bench		1	Unit	2.150	2.150
12	Biofeedback Set*		1	Set	23.100	23.100
13	Parallel Bar		1	Unit	1.550	1.550
14	Pediatric Gym Set*		1	Set	15.000	15.000
15	Portable CPR Device		2	Unit	1.000	2.000
16	Leg Press		1	Unit	9.250	9.250
17	Exercise pulley weights		1	Unit	4.400	4.400
18	Shoulder abduction ladder		1	Unit	5.000	5.000
c. Occupation Therapy						
19	ADL Exercise set		1	Set	10.800	10.800
20	Hand Function Set		1	Set	5.300	5.300
21	Snoozelen Room Set		1	Set	9.500	9.500
d. Speech Therapy						
22	Speech Therapy		1	Unit	8.350	8.350
e. Ambulation Aid						
23	Cane, crutch, and walker tips and pads/Cane Set		2	Set	345	690
TOTAL REHABILITATION					318.275	

Annex 21b Revised Equipment Schedule Estimates

No	Description		Qty		Total Budgett (Euro)
	Department / Equipment Name				
FERTILITY ENDOCRINE REPRODUCTIVE SERVICE EQUIPMENT					
IUI and IVF. System					
1	Air conditioning Room with 3 step Filter system		1	set	170.000
	a	Out door cooling unit and Air Handling Unit capacity 10PK			
	b	Hepa Filter and humdifier system			
	c	Polyurethane Ducting suply and return			
2	UltrasonoGraphy 4D , with transducer abdomen		1	unit	48.000
3	Patient Monitor 6 channel with Trolley (IBP, Tempt,)		1	unit	5.500
4	LED Mobile Examination Lamp		1	unit	240
5	Test Tube Heater with power suply		1	unit	3.450
6	Laminar Air Flow		1	unit	13.700
7	Electronic Automatic Gynaecology Examination table		1	unit	5.400
8	Laboratory Refrigerator		1	unit	700
9	Air Incubator		1	unit	17.500
10	Electric Microscope		2	unit	2.100
11	IVF Thermometer		1	unit	550
12	Instrument Trolley		1	unit	24
13	Digital Spyhgmomanometer		2	unit	240
14	Stethoscope		2	unit	137
15	Acessories/ Tools/ Instrument				
	a	Micropipettor	2	unit	1.370
	c	Laminar Air Flow	1	unit	13.700
	d	Pipetro 10-100 ml	1	unit	685
	e	Pipetro 20-100 ml	1	unit	685
	f	Pipetro 100-1000 ml	1	unit	685
	g	Tampon Forceps	1	unit	11
	h	Speculum Grave (Large)	1	unit	7
	i	Spekulum Grave (Medium)	1	unit	7
	y	Spekulum Grave (Small)	1	unit	7
	k	Kidney Tray (Nierbeken)	3	unit	21
	l	Bowl Stainless Steel stand	3	unit	11
	m	Pean Forceps	2	unit	11
	n	Instrument basin (large)	2	unit	21
	o	Speculum SIMS (Large)	2	unit	240
	p	Hysterescopy Set	1	Set	28.000
	q	Histerektomi Instruments Set	1	set	31.000
	r	Sectio Cesarea Instruments Set	1	set	27.500
Summary / Total					371.502

Annex 21b Revised Equipment Schedule Estimates

No	Description	Qty		Budgett (Euro)	
	Department / Equipment Name			Unit Price	Total Price
	General Ward				
1	Electrical Hospital bed Hi / lo	30	Unit	2.810	84.300
2	Manual Hospital Bed 3 crank section	35	Unit	1.100	38.500
2	Bed side cabinet	65	Unit	310	20.150
3	Over bed table	65	Unit	220	14.300
4	Flow meter for oxygen	25	Unit	206	5.150
5	Suction Regulator wall mounted	25	Unit	357	8.925
6	Examination lamp	30	Unit	105	3.150
7	Television 16 inch	30	Unit	273	8.190
8	Nurse call system		Unit	by civil works	-
9	UV. Hand washing	17	Unit	9.500	161.500
10	Bed pan washer unit	5	Unit	8.250	41.250
		Total Budgett Ward			385.415

Annex 21b Revised Equipment Schedule Estimates

No	Description	Qty		Budgett (Euro)	
	Department / Equipment Name			Unit Price	Total Price
	Internsip Training Centre (Simulation Centre)				
1	Simulation Units Ob gyn department				
	*Electrical Ob Gyn Examination Table with accesories	1	Unit	11.540	11.540
	*Portable Ultrasonogarfi color Doppler 3D with Ob Gyn	1		86.000	86.000
	* Standard Instrument Set For Obgyn	1		500	500
					-
2	Simulation Units Operating Rooms				-
	* Electric standard Operating Tables	1		8.220	8.220
	*single arm LED Operating lamps	1		16.150	16.150
	* Portable Suction Units 2 x 500 ml bottles	1		21.950	21.950
	* Anaesthesia units for adults and Pediatric	1		8.100	8.100
	* Electro Cauter Unit model 300	1		21.000	21.000
3	Simulation Units For Intensive Care units				
	*standard Ventilator Equipment	1		21.950	21.950
	* Electric Intensive care bed	1		2.610	2.610
	* 6 channel color Patient Monitor with central	1		8.220	8.220
	* Manikin Ful Body Complete with monitor	1		8.050	8.050
	* Intensive care Pendant Units	1		2.750	2.750
4	Electro Cardiagraphy 3 channel	1		3.500	3.500
5	EMG 12 Channel with Color monitor	1		56.000	56.000
6	ATLS standard Training Set Unit	1		70.000	70.000
7	ACS Standard Training Set Unit	1		80.810	80.810
8	Syringe pump	1		3.100	3.100
9	Infusion Pump	1		2.200	2.200
10	Suction unit portable	1		1.050	1.050
11	Diagnostic set	1		275	275
12	Instrument trolley	1		310	310
13	Instrument cabinet	1		466	466
14	Flow meter for oxygen	1		210	210
15	Suction regulator wall mounted	1		360	360
16	Bed pan washer unit	0		8.775	-
		Total Internship			435.321

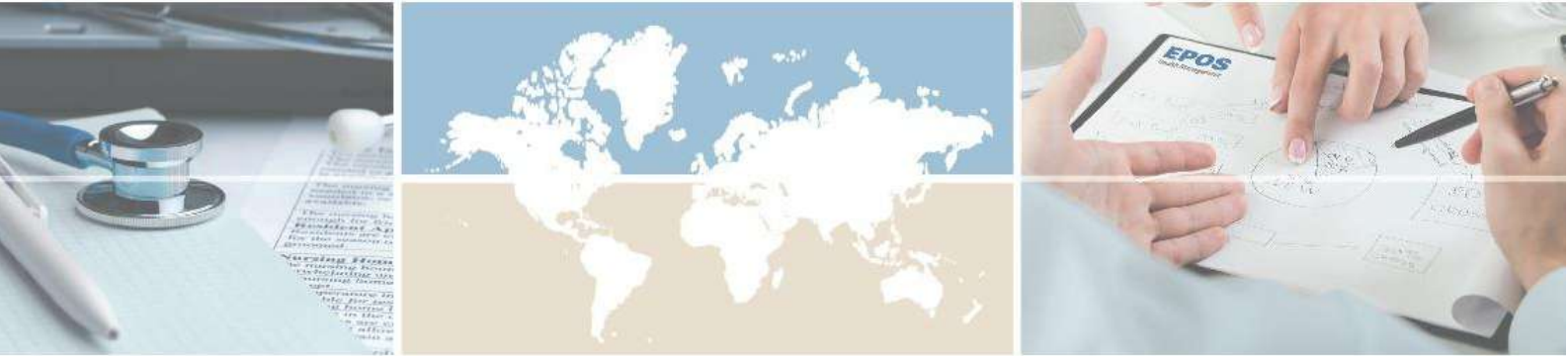
Annex 21b Revised Equipment Schedule Estimates

No	Description	Qty		Budgett (Euro)	
	Department / Equipment Name			Unit Price	Total Price
	Improving Research Laboratory University Hassanudin				
1	Standard Research Laboratory of Chemistry	1	set	93.000	
1	Standard Research Laboratory Of Patology Clinic	1	set	105.000	105.000
2	Standard Research Laboratory of Microbiology	1	set	102.000	102.000
3	Standard Research Laboratory of DNA	1	set	210.600	210.600
4	Standard Research Laboratory of Nuclear Medic	1	set	132.000	132.000
5	Standard Research Laboratory of Stem Cell	1	set	108.000	108.000
6	Standard Research Laboratory of Pharmacology	1	set	17.400	17.400
7	Standard Research Laboratory of Oncology	1	set	78.000	78.000
					753.000

Annex 21b Revised Equipment Schedule Estimates

No	Description	Qty		Budgett (Euro)	
				Unit Price	Total Price
	Hospital Management Information System (Telemedicine)				
1	Switch Hub System for 32 Channel LAN	5	set	138.000	690.000
1	Desk Top Computer Station	12	set	830	9.960
2	Yagi Antenna Booster	1	set	2.100	2.100
3	Lan System in the Hospital	60	point	285	17.100
4	Soft ware	1	set	110.000	110.000
5	Training Opeartor and Technician	1	set	50.000	50.000
					879.160

Annex 22a



Building Cost Estimates

Annex 22a - Building Cost Estimate

ESTIMATED COST TO CONSTRUCT BUILDING B,C,D UNHAS TEACHING HOSPITAL - MAKASSAR

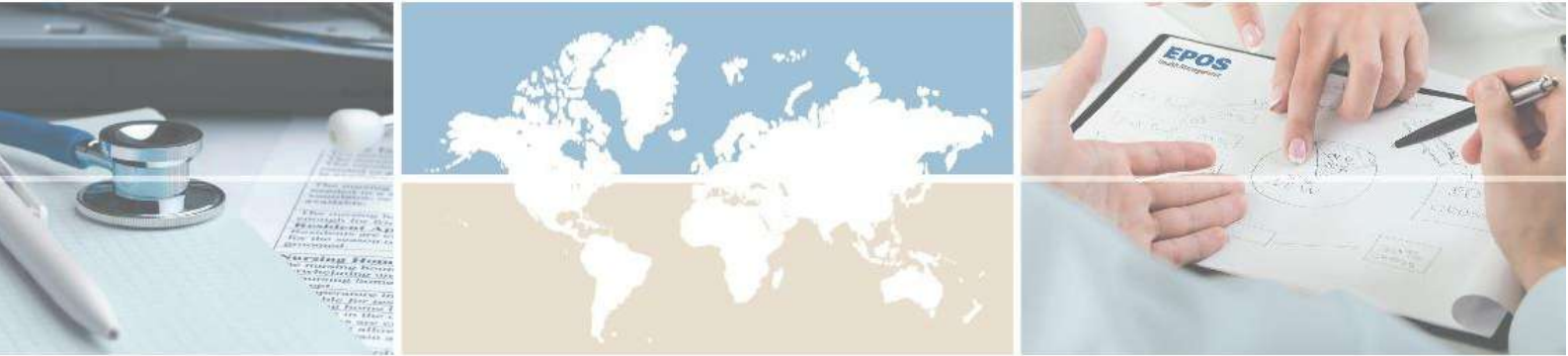
No.	Uraian Pekerjaan	Volume m ²	Harga Estimasi / M ²	Koefisien Lantai	Koefisien Fungsi	Jumlah																																								
	Works Description	Gross Floor Area m ²	Estimated Cost / m ²	Floor Level Coefficient	Function Coefficient	Total																																								
A PEKERJAAN SARANA FISIK GEDUNG																																														
GENERAL BUILDING WORKS																																														
1	Bangunan Gedung B, C, D :																																													
	• Basement	5,232 m ²	Rp. 5,550,000.00	1.000	1.000	Rp. 29,037,600,000.00																																								
	• Lantai - 1	7,270 m ²	Rp. 5,550,000.00	1.000	1.100	Rp. 44,383,350,000.00																																								
	• Lantai - 2	7,509 m ²	Rp. 5,550,000.00	1.090	1.100	Rp. 49,968,265,050.00																																								
	• Lantai - 3	5,439 m ²	Rp. 5,550,000.00	1.120	1.000	Rp. 33,808,824,000.00																																								
	• Lantai - 4	4,636 m ²	Rp. 5,550,000.00	1.135	1.000	Rp. 29,203,323,000.00																																								
	• Lantai - 5	2,910 m ²	Rp. 5,550,000.00	1.162	1.000	Rp. 18,766,881,000.00																																								
	• Lantai - 6	2,910 m ²	Rp. 5,550,000.00	1.197	1.000	Rp. 19,332,148,500.00																																								
	• Lantai - 7 (R. Mesin Lift)	252 m ²	Rp. 5,550,000.00	1.135	1.000	Rp. 1,587,411,000.00																																								
Sub Jumlah (A)						Rp. 226,087,802,550.00																																								
B PEKERJAAN NON STANDAR																																														
NON-STANDARD WORKS																																														
1	Pekerjaan non standar (estimasi 50% dari sub jumlah A)	1.00 lot	Rp. 113,043,901,275.00			Rp. 113,043,901,275.00																																								
Sub Jumlah (B)						Rp. 113,043,901,275.00																																								
C PEKERJAAN SARANA LUAR																																														
EXTERNAL WORKS																																														
1	Jalan & Parkir, ground landscap, drainage luar & penerangan luar (estimasi 3.5% dari sub jumlah A)	1.00 lot	Rp. 7,913,073,089.25			Rp. 7,913,073,089.25																																								
Sub Jumlah (C)						Rp. 7,913,073,089.25																																								
Sub Total						Rp. 347,044,776,914.25																																								
<p>Notes: Estimated cost to build Building B,C,D is for the complete new building based on current prices. The estimate is based on MoH standards for hospital construction cost estimates. Non-Standard works include specific electrical and mechanical services for hospitals.</p> <p>Comparison Check:</p> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Estimate HUH Building B,C,D - Gross Area m²</td> <td style="width: 10%;"></td> <td style="width: 10%; text-align: right;">36,158</td> <td style="width: 10%;"></td> <td style="width: 10%;"></td> </tr> <tr> <td>Estimate HUH Building B,C,D - Total Cost Rp.</td> <td></td> <td style="text-align: right;"><u>347,044,776,914.25</u></td> <td></td> <td></td> </tr> <tr> <td>Estimate HUH Building B,C,D - Cost Rp./ m² (2016)</td> <td></td> <td style="text-align: right;">9,598,008.10</td> <td></td> <td></td> </tr> <tr> <td>Convert to US\$ @ \$1 = Rp. 13,000</td> <td></td> <td></td> <td style="text-align: right;">738 US\$ / m²</td> <td></td> </tr> <tr> <td>RSUZA Banda Aceh - Gross Area m²</td> <td></td> <td style="text-align: right;">35,000</td> <td></td> <td></td> </tr> <tr> <td>RSUZA Banda Aceh - Total Cost Rp.</td> <td></td> <td style="text-align: right;"><u>240,201,935,110.38</u></td> <td></td> <td></td> </tr> <tr> <td>RSUZA Construction - Cost Rp./ m² (2008)</td> <td></td> <td style="text-align: right;">6,862,912.43</td> <td></td> <td></td> </tr> <tr> <td>Convert to US\$ @ \$1 = Rp. 13,000</td> <td></td> <td></td> <td style="text-align: right;">528 US\$ / m²</td> <td></td> </tr> </table>							Estimate HUH Building B,C,D - Gross Area m ²		36,158			Estimate HUH Building B,C,D - Total Cost Rp.		<u>347,044,776,914.25</u>			Estimate HUH Building B,C,D - Cost Rp./ m ² (2016)		9,598,008.10			Convert to US\$ @ \$1 = Rp. 13,000			738 US\$ / m ²		RSUZA Banda Aceh - Gross Area m ²		35,000			RSUZA Banda Aceh - Total Cost Rp.		<u>240,201,935,110.38</u>			RSUZA Construction - Cost Rp./ m ² (2008)		6,862,912.43			Convert to US\$ @ \$1 = Rp. 13,000			528 US\$ / m ²	
Estimate HUH Building B,C,D - Gross Area m ²		36,158																																												
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Convert to US\$ @ \$1 = Rp. 13,000			528 US\$ / m ²																																											

Annex 22a - Building Cost Estimate

ESTIMATED COST OF WORK SO FAR BUILDING B,C,D UNHAS TEACHING HOSPITAL - MAKASSAR

	Works Description	Gross Floor Area m ²	Estimated Cost / m ²	Floor Level Coefficient	Function Coefficient	Percentage Complete Coefficient	Total
A	PEKERJAAN SARANA FISIK GEDUNG						
	GENERAL BUILDING WORKS						
1	Bangunan Gedung B, C, D :						
	• Basement	5,232 m ²	Rp. 5,550,000.00	1.000	1.000	0.85	Rp. 24,681,960,000.00
	• Lantai - 1	7,270 m ²	Rp. 5,550,000.00	1.000	1.100	0.75	Rp. 33,287,512,500.00
	• Lantai - 2	7,509 m ²	Rp. 5,550,000.00	1.090	1.100	0.35	Rp. 17,488,892,767.50
	• Lantai - 3	5,439 m ²	Rp. 5,550,000.00	1.120	1.000	0.35	Rp. 11,833,088,400.00
	• Lantai - 4	4,636 m ²	Rp. 5,550,000.00	1.135	1.000	0.70	Rp. 20,442,326,100.00
	• Lantai - 5	2,910 m ²	Rp. 5,550,000.00	1.162	1.000	0.70	Rp. 13,136,816,700.00
	• Lantai - 6	2,910 m ²	Rp. 5,550,000.00	1.197	1.000	0.70	Rp. 13,532,503,950.00
	• Lantai - 7 (R. Mesin Lift)	252 m ²	Rp. 5,550,000.00	1.135	1.000	0.90	Rp. 1,428,669,900.00
		36,158 m ²					Sub Jumlah (A)
							Rp. 135,831,770,317.50
B	PEKERJAAN NON STANDAR						
	NON-STANDARD WORKS						
1	Pekerjaan non standar (estimasi 50% dari sub jumlah A)	1.00 lot	Rp. 113,043,901,275.00			0.20	Rp. 22,608,780,255.00
	Non-standard works estimated at 50%						Rp. -
							Sub Jumlah (B)
							Rp. 22,608,780,255.00
C	PEKERJAAN SARANA LUAR						
	EXTERNAL WORKS						
1	Jalan & Parkir, ground landscap, drainage luar & penerangan luar (estimasi 3.5% dari sub jumlah A)	1.00 lot	Rp. 7,913,073,089.25			0.80	Rp. 6,330,458,471.40
							Sub Jumlah (C)
							Rp. 6,330,458,471.40
							Rp. 164,771,009,043.90
	ESTIMATED COST OF COMPLETE BUILDING		Rp. 347,044,776,914				
	ESTIMATED VALUE OF WORK SO FAR		Rp. 164,771,009,044				
			Rp. 182,273,767,870				
	ALLOWANCE FOR COST ESCALATION	5%	Rp. 9,113,688,394				
	CONTINGENCY ALLOWANCE	5%	Rp. 9,113,688,394				
	ESTIMATED COST TO COMPLETE		Rp. 200,501,144,657				
	Convert to US\$ @ \$1 = Rp. 13,000						USD 15,423,165

Annex 22b



Revised Building Cost Estimates

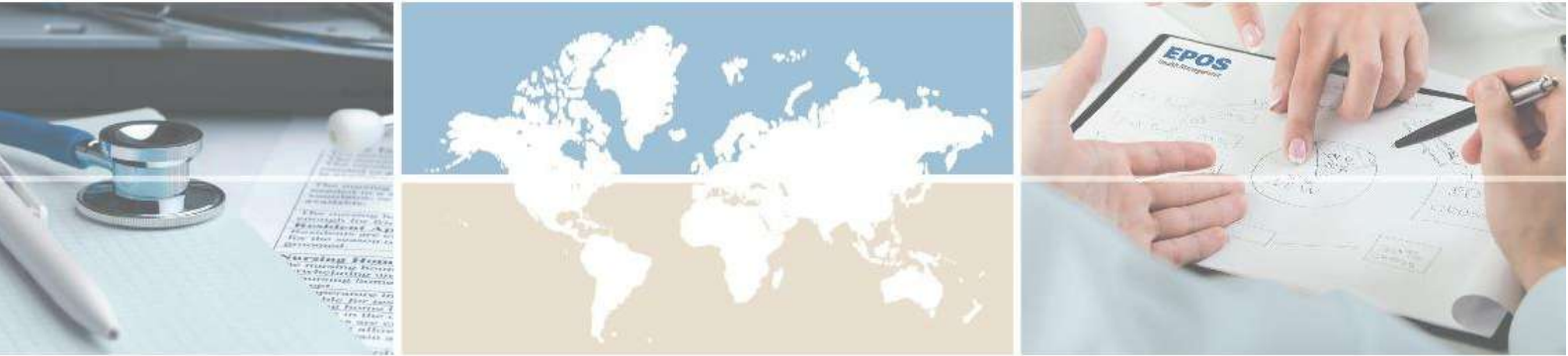
**ESTIMATED COST TO CONSTRUCT BUILDING B,C,D
UNHAS TEACHING HOSPITAL - MAKASSAR**

No.	Uraian Pekerjaan	Volume m ²	Harga Estimasi / M ²	Koefisien Lantai	Koefisien Fungsi	Jumlah																
	Works Description	Gross Floor Area m ²	Estimated Cost / m ²	Floor Level Coefficient	Function Coefficient	Total																
A	PEKERJAAN SARANA FISIK GEDUNG																					
	GENERAL BUILDING WORKS																					
1	Bangunan Gedung B, C, D :																					
	• Basement	5.232 m ²	Rp. 5.550.000,00	1,000	1,000	Rp. 29.037.600.000,00																
	• Lantai - 1	7.270 m ²	Rp. 5.550.000,00	1,000	1,100	Rp. 44.383.350.000,00																
	• Lantai - 2	7.509 m ²	Rp. 5.550.000,00	1,090	1,100	Rp. 49.968.265.050,00																
	• Lantai - 3	5.439 m ²	Rp. 5.550.000,00	1,120	1,000	Rp. 33.808.824.000,00																
	• Lantai - 4	4.636 m ²	Rp. 5.550.000,00	1,135	1,000	Rp. 29.203.323.000,00																
	• Lantai - 5	2.910 m ²	Rp. 5.550.000,00	1,162	1,000	Rp. 18.766.881.000,00																
	• Lantai - 6	2.910 m ²	Rp. 5.550.000,00	1,197	1,000	Rp. 19.332.148.500,00																
	• Lantai - 7 (R. Mesin Lift)	252 m ²	Rp. 5.550.000,00	1,135	1,000	Rp. 1.587.411.000,00																
		36.158 m ²			<i>Sub Jumlah (A)</i>	Rp. 226.087.802.550,00																
B	PEKERJAAN NON STANDAR																					
	NON-STANDARD WORKS																					
1	Pekerjaan non standar (estimasi 50% dari sub jumlah A)	1,00 lot	Rp. 113.043.901.275,00			Rp. 113.043.901.275,00																
	Non-standard works estimated at 50%																					
					<i>Sub Jumlah (B)</i>	Rp. 113.043.901.275,00																
C	PEKERJAAN SARANA LUAR																					
	EXTERNAL WORKS																					
1	Jalan & Parkir, ground landscap, drainage luar & penerangan luar (estimasi 3.5% dari sub jumlah A)	1,00 lot	Rp. 7.913.073.089,25			Rp. 7.913.073.089,25																
					<i>Sub Jumlah (C)</i>	Rp. 7.913.073.089,25																
						Rp. 347.044.776.914,25																
<p>Notes: Estimated cost to build Building B,C,D is for the complete new building based on current prices. The estimate is based on MoH standards for hospital construction cost estimates. Non-Standard works include specific electrical and mechanical services for hospitals.</p> <p>Comparison Check:</p> <table> <tr> <td>Estimate HUH Building B,C,D - Gross Area m²</td> <td>36.158</td> </tr> <tr> <td>Estimate HUH Building B,C,D - Total Cost Rp.</td> <td>347.044.776.914,25</td> </tr> <tr> <td>Estimate HUH Building B,C,D - Cost Rp./ m² (2016)</td> <td>9.598.008,10</td> </tr> <tr> <td>Convert to US\$ @ \$1 = Rp. 13.000</td> <td>738 US\$ / m²</td> </tr> <tr> <td>RSUZA Banda Aceh - Gross Area m²</td> <td>35.000</td> </tr> <tr> <td>RSUZA Banda Aceh - Total Cost Rp.</td> <td>240.201.935.110,38</td> </tr> <tr> <td>RSUZA Construction - Cost Rp./ m² (2008)</td> <td>6.862.912,43</td> </tr> <tr> <td>Convert to US\$ @ \$1 = Rp. 13.000</td> <td>528 US\$ / m²</td> </tr> </table>							Estimate HUH Building B,C,D - Gross Area m ²	36.158	Estimate HUH Building B,C,D - Total Cost Rp.	347.044.776.914,25	Estimate HUH Building B,C,D - Cost Rp./ m ² (2016)	9.598.008,10	Convert to US\$ @ \$1 = Rp. 13.000	738 US\$ / m ²	RSUZA Banda Aceh - Gross Area m ²	35.000	RSUZA Banda Aceh - Total Cost Rp.	240.201.935.110,38	RSUZA Construction - Cost Rp./ m ² (2008)	6.862.912,43	Convert to US\$ @ \$1 = Rp. 13.000	528 US\$ / m ²
Estimate HUH Building B,C,D - Gross Area m ²	36.158																					
Estimate HUH Building B,C,D - Total Cost Rp.	347.044.776.914,25																					
Estimate HUH Building B,C,D - Cost Rp./ m ² (2016)	9.598.008,10																					
Convert to US\$ @ \$1 = Rp. 13.000	738 US\$ / m ²																					
RSUZA Banda Aceh - Gross Area m ²	35.000																					
RSUZA Banda Aceh - Total Cost Rp.	240.201.935.110,38																					
RSUZA Construction - Cost Rp./ m ² (2008)	6.862.912,43																					
Convert to US\$ @ \$1 = Rp. 13.000	528 US\$ / m ²																					

**ESTIMATED COST OF WORK SO FAR BUILDING B,C,D
UNHAS TEACHING HOSPITAL - MAKASSAR**

	Works Description	Gross Floor Area m ²	Estimated Cost / m ²	Floor Level Coefficient	Function Coefficient	Percentage Complete Coefficient	Total
A	PEKERJAAN SARANA FISIK GEDUNG						
	GENERAL BUILDING WORKS						
1	Bangunan Gedung B, C, D :						
	• Basement	5.232 m ²	Rp. 5.550.000,00	1,000	1,000	0,85	Rp. 24.681.960.000,00
	• Lantai - 1	7.270 m ²	Rp. 5.550.000,00	1,000	1,100	0,75	Rp. 33.287.512.500,00
	• Lantai - 2	7.509 m ²	Rp. 5.550.000,00	1,090	1,100	0,35	Rp. 17.488.892.767,50
	• Lantai - 3	5.439 m ²	Rp. 5.550.000,00	1,120	1,000	0,35	Rp. 11.833.088.400,00
	• Lantai - 4	4.636 m ²	Rp. 5.550.000,00	1,135	1,000	0,70	Rp. 20.442.326.100,00
	• Lantai - 5	2.910 m ²	Rp. 5.550.000,00	1,162	1,000	0,70	Rp. 13.136.816.700,00
	• Lantai - 6	2.910 m ²	Rp. 5.550.000,00	1,197	1,000	0,70	Rp. 13.532.503.950,00
	• Lantai - 7 (R. Mesin Lift)	252 m ²	Rp. 5.550.000,00	1,135	1,000	0,90	Rp. 1.428.669.900,00
		36.158 m ²					Sub Jumlah (A)
							Rp. 135.831.770.317,50
B	PEKERJAAN NON STANDAR						
	NON-STANDARD WORKS						
1	Pekerjaan non standar (estimasi 50% dari sub jumlah A)	1,00 lot	Rp. 113.043.901.275,00			0,20	Rp. 22.608.780.255,00
	Non-standard works estimated at 50%						Rp. -
							Sub Jumlah (B)
							Rp. 22.608.780.255,00
C	PEKERJAAN SARANA LUAR						
	EXTERNAL WORKS						
1	Jalan & Parkir, ground landscap, drainage luar & penerangan luar (estimasi 3.5% dari sub jumlah A)	1,00 lot	Rp. 7.913.073.089,25			0,80	Rp. 6.330.458.471,40
							Sub Jumlah (C)
							Rp. 6.330.458.471,40
							Rp. 164.771.009.043,90
	SAVINGS						
D	Option 1 - Delete internal fitout of one ward block						
	• Lantai - 3	5.439 m ²	Rp. 5.550.000,00	1,120	1,000	0,15	Rp. 5.071.323.600,00
	• Lantai - 4	4.636 m ²	Rp. 5.550.000,00	1,135	1,000	0,20	Rp. 5.840.664.600,00
	• Lantai - 5	2.910 m ²	Rp. 5.550.000,00	1,162	1,000	0,25	Rp. 4.691.720.250,00
	• Lantai - 6	2.910 m ²	Rp. 5.550.000,00	1,197	1,000	0,25	Rp. 4.833.037.125,00
							Rp. 20.436.745.575,00
							Total
							Rp. 185.207.754.618,90
	ESTIMATED COST OF COMPLETE BUILDING		Rp. 347.044.776.914				
	ESTIMATED VALUE OF WORK SO FAR		Rp. 185.207.754.619				
	ESTIMATED COST TO COMPLETE		Rp. 161.837.022.295				

Annex 23



Operational risks

ANNEX 23 Risks, assumptions and possible mitigation activities

Risk/ Risk Mitigation (Assumptions)

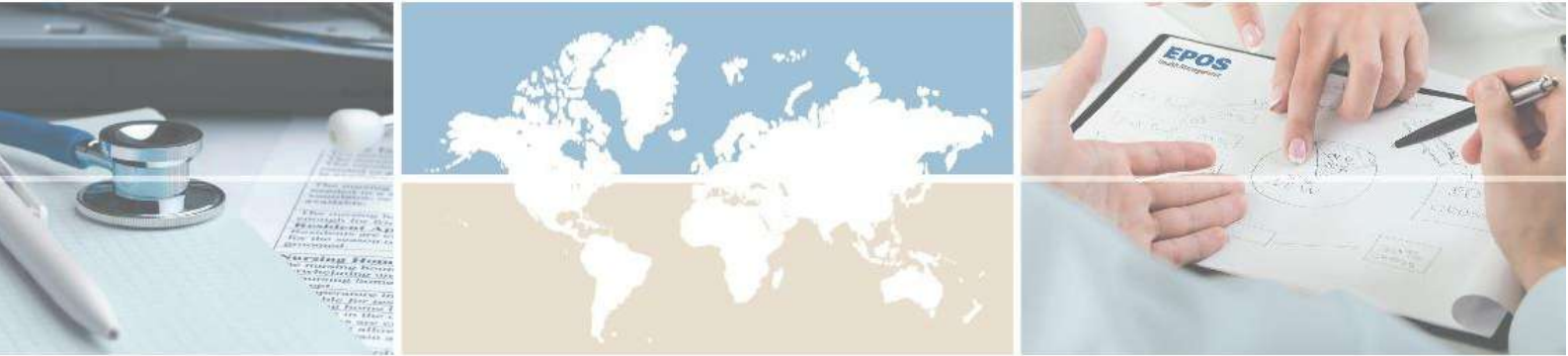
Potential risks	Possible risk mitigation activities
<ul style="list-style-type: none"> • Health is a low priority for local government and their leaders prompting low budgets for health activities 	<ul style="list-style-type: none"> • Good marketing plan and lobbying activities to get local politicians and parliament politicians to give health and education a higher priority
<ul style="list-style-type: none"> • Low understanding and practice of strategic planning and budgeting amongst HUH/PHO/DHO/ sub district health planner 	<ul style="list-style-type: none"> • Recurrent and frequent practiced (IHPB) training improves the KAP of health planners at all levels
<ul style="list-style-type: none"> • Significant number of poor/vulnerable of the population do not know about the JKA and thus are denied access to equitable services 	<ul style="list-style-type: none"> • Good market penetration and public relation campaigns to reach the poor in remote/poor areas thus increasing numbers of poor people using their JKA privileges
<ul style="list-style-type: none"> • Disasters: man-made or natural still occur regularly. 	<ul style="list-style-type: none"> • Updating of the disaster and emergency preparation plans to be socialized and implemented regularly as drills in various districts. • Natural disaster preparedness training (equipment, business continuity planning, etc.) and good design (construction, back-up contingency plans, holding essential stocks). •
<ul style="list-style-type: none"> • Insufficient or inadequate allocation of training funds 	<ul style="list-style-type: none"> • Development of local trainers/institutions to lower training costs and reduce reliance on outside teaching institutions for training activities
<ul style="list-style-type: none"> • Poor collection/quality/interpretation of data 	<ul style="list-style-type: none"> • Improve multi-level data collection and reliable user-friendly HMIS • Business Plan has to be prepared to provide a base for projections to be made realistically. Certain assumptions made in the projection does not consider the operations of the hospital. •

Potential risks	Possible risk mitigation activities
<ul style="list-style-type: none"> • Adverse strategic decisions regarding construction financing. • Failure to successfully complete audits of past expenditure. 	<ul style="list-style-type: none"> • Availability of Building Fund • Proper project management implementation plan with monitoring guidelines and sufficient monitoring funds, for required external monitors • Stepwise implementation of construction • Selection of experienced consultant/construction firm • Monthly payments for work completed according to work plan • Built-in incentives for completion on time and required quality construction • Give a special monitoring contract with an outside firm (sub-contract)
<ul style="list-style-type: none"> • Poor utilization of new equipment and breakdowns 	<ul style="list-style-type: none"> • Maintenance contracts for 1-3 years • Improve maintenance capacity at HUH • Extended insurance for unexplained or unplanned mishaps • Extended maintenance plan x 5 years • Recurrent frequent training of local maintenance personnel and equipment users • Ensure manuals are provided in accessible languages.
<ul style="list-style-type: none"> • Risk of corruption, collusion and nepotism 	<ul style="list-style-type: none"> • Institute and follow RI and KfW anti-corruption rules and guidelines. All contracts to follow KfW guidelines
<ul style="list-style-type: none"> • Risk of trained personnel receiving scholarships not to return to HUH • Risk of trained HUH specialists leaving their regional hospitals which are located in remote areas 	<ul style="list-style-type: none"> • Strict legal contracts and supervision that candidates fulfill their obligations. • Select candidates from area of need and then offer long term or government (PNS) contracts to retain them • Increasing financial and non-financial incentives by local government to retain hospital specialists in remote areas

Potential risks	Possible risk mitigation activities
<ul style="list-style-type: none"> • Failure to achieve KARS accreditation (and later JCI accreditation) • Failure to achieve BLU status 	<ul style="list-style-type: none"> • Co-operation with RSWS to use their experience. • Complete SOPs • Ensure MoH national minimum staff levels are achieved e.g. nursing levels • Increase essential equipment available to meet minimum standards
<ul style="list-style-type: none"> • Inadequate HMIS implementation which is the development of the self-proprietary software involving a number of modules. No assessment has been made on the hardware in place at the Hospital but it is assumed that no additional costs would be incurred for this purpose. 	<ul style="list-style-type: none"> • The implementation timeframe given needs to be monitored closely including the software developer who should be selected from a pool of IT Experts. It is seen that HUH has already contacted certain IT Experts to look into their requirements. In KfW projects there are tender requirements for selection purposes. •
<ul style="list-style-type: none"> • Loss of key staff • Although management and financial management staffing is sufficient under the present situation some of the HODs are also clinicians and lecturers. This will cause bottlenecks and capacity problems once serious progress starts to be made. 	<ul style="list-style-type: none"> • Achievement of BLU status and improved employment practices. • Professional managers need to be employed in some key positions.
<ul style="list-style-type: none"> • Failure of HUH to fully meet epidemiological and demographic needs of the community and keep abreast of technological changes in medicine. 	<ul style="list-style-type: none"> • Widen the membership of the governing body to include members such as a representative of the Provincial Health Department. • Consider developing new specialties to address needs such as palliative care, diabetes and geriatrics, perhaps as part of a longer term 10 year site development master plan. • Ensure research activities include attention to public health challenges still facing the community served.

Potential risks	Possible risk mitigation activities
<ul style="list-style-type: none">• Traffic density will increase, and relatives accompanying patients from further afield in eastern Indonesia will experience access difficulties.	<ul style="list-style-type: none">• A plan should be prepared for longer term developments to include multi storey car parking, and hostels for visitors (and possibly for staff).

Annex 24



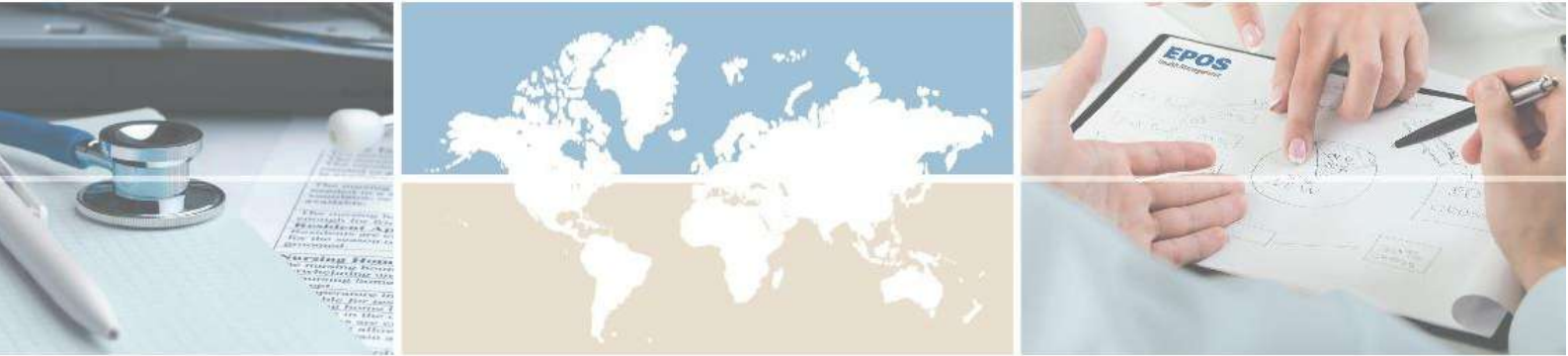
BAPPENAS readiness criteria

ANNEX 24 BAPPENAS readiness criteria

Annex: Checklist Readiness Criteria for Implementation for projects financed by External Fund

Name of Project	
ID Blue book	
Lender's indication	
Step Check list	Activity
	Improvement of Project Readiness
1. Activity Implementation Plan	
a. Detail Project Activity Plan	- Background, purpose and objective of the Project
	- Project location
	- Schedule of Project implementation and total time
	- Coverage and component of the Project
	- Target of output, results, and impact of the Project
	- Target group of the Project
	- Parties who will implement and/or relates to the Project
	- Operational and maintenance plan, if necessary
	- Environmental impact assesment Report, in case Project requires Environmental Impact assesment
b. Detail Financing Plan	- Amount of demand for loan, counterpart fund and/or supporting fund
	- Detail financing for each activity and/or component of Project
	- Budget allocation foe each implementation agency in term Project is implemented by more than one agency
	- Annual disbursement plan
	- Provision annual counterpart fund and/or supporting fund
c. General Procurement goods/ services	- General procurement of goods and services
2. Performance indicator for monitoring and evaluation	- Input indicator
	- Output indicator for each activity
3. Structure organization and management of the Project	- Structure organization
	- Distribution of works and responsibility of Project implementation
	- implementation mechanism
4. LARAP (Land Acquisition and Resettlement Plan)	- Size and location of required land
	- Estimation of population to be resettled
	- Procedure of land acquisition and resettlement
	- Period and schedule for land acquisition and/or resettlement
	- Parties who are responsible in land acquisition and resettlements process as well as role of each party
	- Budget allocation for land acquisition and resettlements

Annex 25



Logframe

Preliminary Results Matrix/ Logframe, HUH Makassar

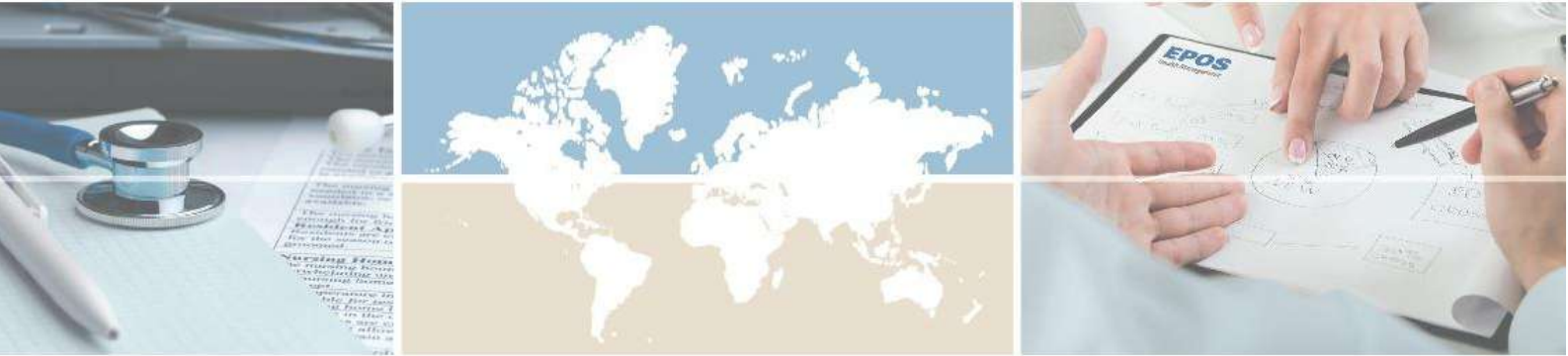
Summary	Success indicators	Verification sources	Assumptions / Risks
<p>Programme objective:</p> <p>(i) Originally, to provide staffing and equipment to operationalize construction going on at HUH and activate 5 new centres of clinical excellence according to the current development programme enhancing clinical and health academic services to Eastern Indonesia.</p> <p>(ii) Following pre-feasibility study, to enable the construction to be completed as soon as possible in parallel to phasing in the original proposal.</p>	<ol style="list-style-type: none"> 1. Increased numbers of patients from all income strata across using the new centres of excellence. 2. Increased number of students being trained in the specialties. 3. Income revenue sufficient to sustain the hospital. 4. Programme completed on time. 	<p>Institutional records.</p>	<ul style="list-style-type: none"> - To complete the construction: that GoI can agree to internal or external funding being made available to complete construction of the unfinished buildings in a timely manner. Without this none of the project could go ahead. - A consistent policy and economic environment to enable the institution to function as planned and maintain sustainability. - HUH achieving BLU status from MoHE and accreditation by MoH. - Continued good working relationships between HUH, UNHAS and RSWS - Baseline data available to measure project progress and success of service provision. - Manageable natural disasters.
<p>Objective 1 Completion of construction</p>	<ol style="list-style-type: none"> 1. Successful audit of previous construction activities within unfinished buildings. 2. Agreement on final design. 3. Tendering to reputable construction company to complete building in one multi-year operation. 4. Establishment of appropriate project management and commissioning mechanisms. 	<ul style="list-style-type: none"> - Inspection of documentation, including minutes of meetings. - Site reports. 	<ul style="list-style-type: none"> - Allocation by BAPPENAS & MoHE of sufficient funds and agreement on budget spreading over more than one financial year. - Delays in decision making.
<p>Output 1.i: Early commissioning of almost finished areas.</p>	<ol style="list-style-type: none"> 1. Basement drainage problems ameliorated 2. Elevator installed 3. Finished ward areas receive minor redecoration and alterations. 	<p>Documentation and site inspection.</p>	<ul style="list-style-type: none"> - Drainage is as straightforward as anticipated. - Elevator design and installation in current shaft non-problematic.

Summary	Success indicators	Verification sources	Assumptions / Risks
			<ul style="list-style-type: none"> - MoHE continue to provide construction funding to enable proposed activities. - Useful activity can occur in the completed wards before the planned OTs and other technical facilities are commissioned. - Phased start of staffing and equipping proposals agreed by KfW.
Output 1.ii: Completion of unfinished building B,C,D	<ul style="list-style-type: none"> - Agreed final design incorporated in tendered project within agreed budgetary envelope. - Project management capacity improved - Construction completed - Technical services installed and functional. 	Project management records and site visits.	<ul style="list-style-type: none"> - Funds being made available. - Local staff agree a final design brief. - Structural engineering amelioration takes place successfully. - Contractor found to complete work in timely manner within budget limits.
Objective 2: Equipping and staffing the new clinical specialty areas and supporting technical facilities.	-		
Output 2.i: All areas equipped with appropriate machinery, furniture, instrumentation and initial stocks of consumables and spares.	<ul style="list-style-type: none"> - Finalised agreed equipment schedules and budget. - Tendered supply contract(s) - Phased and timely arrival of equipment . - Equipment and required power, ventilation and similar services installed. - Maintenance capacity enhanced locally and maintenance contracts agreed as appropriate - Training provided to staff on safe and efficient use of new equipment. 	<ul style="list-style-type: none"> - Project management reports - Site visits 	<ul style="list-style-type: none"> - Agreement on equipment specifications within budgetary limits.4 - Availability of equipment on Indonesian market with appropriate documentation (e.g. operator manuals) and maintenance capacity.
Output 2.ii: Staff appointed to all new clinical specialty wards and technical departments	<ul style="list-style-type: none"> - Agreed schedule of staff appropriate to provide planned clinical care, university level training & education, and research. - Person and job specifications congruent with MoH and MoHE licensing requirements prepared and authorised. 	<ul style="list-style-type: none"> - Project management reports - Site visits 	<ul style="list-style-type: none"> - HUH maintains suitable employment practices to attract and retain staff. - Growth of private sector, for example, does not lead to “brain drain”

Summary	Success indicators	Verification sources	Assumptions / Risks
	<ul style="list-style-type: none"> - HR capacity enhanced (including improved HR IT system) - Recruitment schedules prepared - Posts advertised - Staff numbers at least equivalent to MoH minimum levels in post 		<ul style="list-style-type: none"> - Sufficient staff being produced by universities and colleges
Output 2.iii: Improved governance and management capacity	<ul style="list-style-type: none"> - Widening of governing body to include wider range of stakeholders who are intended beneficiaries of the services at HUH e.g. at least a representative of the MoH such as someone from Provincial Health department. - Recruitment of permanent high level hospital managers to release hard pressed staff already heavily committed to clinical and academic activities. - Enhanced HMIS and Financial MIS systems - Up to date business plans and similar documentation 	<ul style="list-style-type: none"> - Inspection of minutes and other documentation. - Verification visits. 	<ul style="list-style-type: none"> - Willingness of current senior staff to broaden governance arrangements - Willingness current staff to let go of what may be seen as high status and/or rewarding roles. - Availability of budgets for new managerial cadre. - Availability of budgets and expertise to design new MIS systems.
Objective 3: Increased clinical and academic services provided.			
Output 3.i Increased access by patients, higher rates of successful interventions, increased stakeholder satisfaction and maintained or improved clinical management indicators e.g. BOR.	<ul style="list-style-type: none"> - More patients accessing the new facilities from all social and economic strata, and all regions of Eastern Indonesia. - Improved survival rates for trauma and cancer patients - Improved ophthalmology performance - Reduction in avoidable/ premature deaths from CVAs and CVD. - Improved telemedicine support - Improved support to public health measures including disease prevention and health education, focussed on current and growing issues such as MMR, communicable diseases and diabetes. - Improved services for geriatrics and palliative care patients. 	<ul style="list-style-type: none"> - Hospital usage data - Provincial Health department annual reports - Patient and stakeholder satisfaction surveys 	<ul style="list-style-type: none"> - Hospital will focus on VVIPs and VIPs to maintain income, but neglect poor patients despite their high clinical needs. - Current disciplined referral system is maintained. - Needs of growing elderly population neglected. - Hi-tech oriented facilities neglect prevention role.

Summary	Success indicators	Verification sources	Assumptions / Risks
Output 3.ii. Increased training and education programme	<ul style="list-style-type: none"> - More training programmes available across disciplines and appropriate to epidemiological and employment requirements - More students qualifying and obtaining employment - Stakeholder satisfaction e.g. students themselves and potential employers of students 	<ul style="list-style-type: none"> - Programme schedules - Employment record of graduating students - Stakeholder surveys 	<ul style="list-style-type: none"> - Students are attracted to HUH - Economic accessibility of courses by potential students - Demand for training is maintained
Output 3.iii Improved research activities	<ul style="list-style-type: none"> - Enhanced contribution of HUH to tackling health issues in the region through improved knowledge accumulation, distribution and application. 	<ul style="list-style-type: none"> - Published papers - Research grants attracted - Research students active 	<ul style="list-style-type: none"> - Staff and students of sufficient calibre are recruited.

Annex 26



Minutes of Meeting 07.11.2016

Minutes of Meeting

Pre-Feasibility Study on Hasanuddin University Development Plan

Status of document	Confidential, Final
Date and time of meeting	07.11.2016, 11:00 – 12:15
Participants/In attendance	<u>KfW</u> : Andrea Godon, Dr Joachim Schüürmann <u>EPOS</u> : Dr Chris Potter (Team Leader), Susanne Wessel-Ellermann, Milena Beyene-Kuehnl
Purpose of meeting	Presentation of Findings of Pre-Feasibility Study
Place of meeting	KfW Frankfurt
Recipient List	<ul style="list-style-type: none"> • KfW • HUH in final form, subject to agreement of KfW
Author	Milena Beyene-Kuehnl
File Reference	G:\AD\3400 Indonesia Hasanuddin Univ Hosp Dev Pre-FS\05 Project Planning\Pre Feasibility Report

The meeting took place to discuss and agree salient points of the Draft feasibility Study Report submitted to KfW on 02.11.2016, summarising the findings of the mission which took place in Jakarta and Makassar 26.09.2016 – 07.10.2016.

- The Team Leader (TL) summarised main points as follows:
 - The ‘7-storey extension building’ (Building B,C,D) that was mentioned in the ToR is an issue that will have to be addressed early in any project planning, both as it is deteriorating in its semi-finished state and because it became apparent during the mission that there are four sets of wards within in that are completed to such a degree that, subject to outfitting with an elevator, equipment and furniture and fixing of drainage problems, it could be put to use immediately, adding approx. 50 beds to HUH’s capacity. Completion would, however, require a multi-year contract which is not possible if funded by Government of Indonesia (GoI). Furthermore, according to Indonesian law, construction begun with GoI funds cannot be completed using alternate funds.

KfW informed at this juncture that communication had been received the same morning that Bappenas is willing to have construction funded through the envisioned KfW loan. One pre-requisite is completion of audits of funds previously spent on the hospital.
 - The relationship & cooperation between HUH and RSWS is good, but needs to be institutionalised to minimise the impact of any changes to personnel who are currently instrumental to the good cooperation, and more use should be made of professional managers and planners rather than clinicians. The Management of HUH has made good and appropriate use of investment, and this combined with the effective referral role within E. Indonesia being played by HUH warrants further investment from KfW.
 - The planning for the Centres of Excellence is viable and appropriate, but a slight risk remains that the selection of specialisations, while being justifiable from the current demand and epidemiological profiles, may not meet all the catchment population’s most relevant needs related to its aging population; the growing, prevalence of diabetes; the ongoing relatively high MMR and death rate of under 5s from diarrhoeal diseases and pneumonia for example;

the lack of palliative care services which ought to go hand in hand with the proposed development of oncology services; emerging specialities such as epigenetics; advances in transplant technology and robotics in activities such as clinical pharmacy. Some of these might be considered should there be a further development of the campus, and may perhaps be the basis of discussion as the proposed loan is negotiated.

- HUH is reimbursed by the national insurance body at Class B rates although it offers Class A services; the planned work toward KAR accreditation and achievement of BLU status are therefore appropriate goals. The related strategy of offering VVIP and VIP services to cross-subsidised poorer patients is also appropriate but subject to risks such as a down-turn in the economy and competition from private health facilities. The TL suggested that inclusion of MoH (Provincial Health Office) and national health insurance company representatives into the board of the hospital may be a way to align interests.
- Regarding human resources (HR), the brevity of contracts was highlighted as an issue of concern, as well as multiple roles (clinical, teaching and management) demanded of overworked staff. In project implementation planning, use will have to be made of working groups for discreet deliverables, thus making available dedicated groups of people who will be given the time and resources to devote to project matters.
It was noted that some corrections to the Annex 5 of the submitted Draft Report are necessary and will be undertaken for the final version. The return of Dr Indrianty Sudirman and completion of the Business Plan (and workforce planning) of the hospital will go some way to filling in any data gaps.
- Appropriate seismic standards as applicable in Indonesia at the design stage were followed, although new standards have been introduced, but are nevertheless adequate. Disaster management planning for events such as earthquakes are available and appropriate.
- The discrepancy between equipment cost figures presented at the de-briefing meeting in Jakarta and what is contained in the Draft Final Report were elaborated upon: clarity on range of equipment required for envisaged specialisations, standardisation, and the duration of maintenance contracts has brought down the estimate considerably. It was noted that overall costs could be brought down by specifying 1 year maintenance contracts rather than 3 years, and it was noted that ideally KfW would prefer up to 5 years. It was noted that in-house maintenance management capacities need to be increased.
- All in all, the HUH merits further investment, (including to the currently set up and well-functioning telemedicine system), and the overall risk and adverse impact level is low.
- KfW stated that the currently envisaged loan amount of USD 31.566m cannot be exceeded at this time, according to Bappenas. There is theoretically a possibility that Bappenas/Gol may consider increasing the loan amount (KfW is open to this), but more likely at a later point (e.g. in a follow-on phase), rather than now. Keeping in mind this fact, therefore, EPOS should
 - Undertake a prioritisation of the suggested activities, slating for a 'Phase 1' activities and expenditures which do not exceed USD 31.566m and roughly follow the following breakdown:

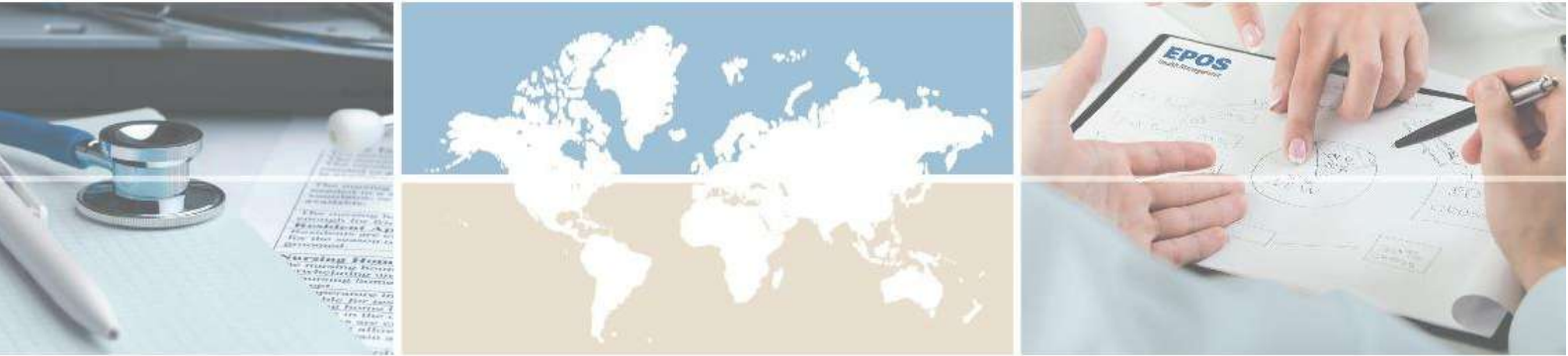
- USD 12-15m for equipment & maintenance (this cost category cannot be less than for 'construction')
- USD 12-14m for construction
- USD 2-3m for consulting services including system development
- USD 1-2m for contingencies

To fit this envelope, certain Centres of Excellence could be reconsidered, for example, or activities postponed to a 'Phase 2'. We should ensure that 'Phase 1' can be seen as a stand-alone project in case a Phase 2 (i.e. completion of the full current development plan) never materialises. However, The Draft Final Report's conclusions regarding a necessary expenditure of approx. USD 52m should remain in the report – this will assist KfW to make clear to Gol that a comprehensive approach would encompass more than what is possible with the current loan amount, and thus to frame the approach as being phased according to priorities. Therefore, only the addition of a concise overview of a phasing for 1) construction, 2) equipment, and 3) HR is necessary within the report (under Chapter 8 Conclusions and Recommendations, and an additional table under the existing one in the Executive Summary). Any related additional information regarding calculation bases etc. can be added as annexure. The TL suggested Phase 3 could even be considered later as part of a 10 year development plan for the campus, which could include for example; construction of a multi-story car park, inclusion of the specialisations referred to above, and construction of a hostel for patients' family.

- While Bappenas has on 07.11.16 stated that the KfW loan may be used for construction, the two timeline options included with Draft Final Report (i.e. with construction being funded by KfW, and by Gol) should continue to be included for the sake of chronological coherence, however, both can be updated to show a KfW appraisal mission taking place at end January 2017 with further steps taking this into account.
- KfW requested EPOS to submit the Final Report with the above adjustments latest by end December. In the meantime, KfW will submit any other comments/questions that emerge as a result of perusal of the Draft Report. Once KfW has approved the final version, a copy shall be submitted to Bappenas.

EPOS Health Management, Bad Homburg
08.11.2016

Annex 27



Justifications for Indicative Prioritisation

Annex 27 Justification for Indicative Prioritisation

Justification for indicative prioritisation of the proposed KfW loan for HUH to remain within the Green Book resource envelope

Annex 21b and Annex 22b set out the revised cost estimates for the different elements discussed and analysed in the main study report, reflecting the loan use conditions and constraints as stated by KfW during a meeting on 07.11.16. Specifically, as described in Chapter 8.1 Postscript in the report, KfW Development Bank has received on 07.11.2016 information from Indonesia indicating that although the GoI has approved an exception permitting the construction at HUH to be completed using external funds. However, any loan must remain within the overall parameters shown in the Green Book i.e. US\$31,566,000 with an additional local component of US\$2,586,000 giving an overall maximum cost of US\$34,152,000. The EPOS Team were, therefore, requested to make recommendations as to how the project described and costed in the main report could be prioritised so that essential aspects could be carried out within the life of the loan, and other elements delayed until a later date post-project.

Such a possibility had not been envisaged while on the field and the EPOS Team had not discussed such prioritisation with their local counterparts and other stakeholders. Consequently, the suggestions given here are indicative and only based on the team's professional judgement and knowledge gained during their comparatively short mission. The suggestions are designed to enable the feasibility of the loan going ahead in ways that would be justifiable from a public health benefit point of view, but would need to be the subject of further discussions and agreement with local stakeholders during later phases of the loan/project preparation. This would also be compliant with the spirit of the Paris Agreement, the Accra Agenda for Action and the recent Busan Partnership for Effective Development Co-operation.

In making these proposals the EPOS Team have kept in mind certain considerations if the loan is to:

- make a justifiable clinical contribution;
- be sustainable;
- not compromise the quality of the construction and services offered.
- Maximise effective and efficient use of resources.

Consideration 1: If nothing is done, the existing investment will deteriorate faster than local capacity to raise and expend money can occur. Morale of the hospital's staff and management will fall. Important clinical services will not be available to the population served.

Consideration 2: With the buildings completed, adequate medical equipment provided, and services available to be able to raise sufficient resources to be sustainable, HUH will increase its potential to serve the population.

Consideration 3: Not providing capacity to serve VIP and VVIP patients and focussing on ordinary patients will compromise sustainability in terms of cross-financing of services.

Annex 27 Justification for Indicative Prioritisation

Consideration 4: Although facilitating HUH's ability to attain sustainability is important, ethical considerations require that attention should be given to a range of services, not just those that focus on VIP/VVIP patients.

Consideration 5: The first call on the loan available should be completing construction as other elements of equipping and staffing are dependent on the facilities being available, and those elements could be more easily funded piecemeal over time.

Consideration 6: A solution is required which would facilitate project evolution, achieving a critical mass of building completion/ medical equipment/ staff capacity allowing HUH to operate along the lines of the Development Plan, serve the community (both public and private patients), generate revenue, and attract local funding or further loans later in order to reach its full potential.

Consideration 7: Merely cutting back on training, equipment specifications, or not developing some services immediately could compromise overall quality, so although we can make some suggestions these would need to be refined and tested later, facilitated by the strengthened management and planning capacity we have recommended.

Consideration 8: HUH should complement RSWs and the easy solution of encouraging less high tech specialities to address epidemiological and demographic challenges we identified (diabetes, geriatrics, palliative care) would not do this and may result in duplication of services offered at RSWs.

These considerations lead to the conclusion that:

- The building should be substantially completed so that it is weatherproof, all services are available, it can be maintained, existing finished wards can be brought on line, but some theatres, some wards and some technical areas are left as shells to be commissioned later as more domestic (grants or self funding from VIPs) or foreign funds become available.
- Some of the high tech equipment and services are ambitious given that the country is still developing and still experiences public health problems such as relatively high rates of MMR and childhood diarrhoeal deaths. High tech cancer services without low tech palliative care services, for example, are hard to justify. Palliative care would be community based, but cancer treatment should not run ahead of the community's capacity to develop a balanced service for the people served.
- Some of the training and the telemedicine/ simulation should be put on hold. The hospital may start providing services to the immediate region and expend resources reaching out to outlying facilities at a later date. Such a contribution is part of the justification for investing in HUH in the first place, but it can remain a middle to long term objective. Rather than high tech manikins, for example, a less ambitious range of training resources and methodologies could be adopted.
- Emphasis should be on bringing basic nurse numbers up to standard, for example, before spending a lot of money on sending a few people overseas for higher education.
- The beds available need to be a balance of ordinary and VIP/VVIP so that the latter can help cross subsidise the former, and facilitate some sustainability, as envisaged in the Development Plan.

Annex 27 Justification for Indicative Prioritisation

- Equipment specifications should be reduced to meet an 80:20 approach to the type of patients treated. In other words, 20% of patients are likely to create 80% of costs by requiring more sophisticated equipment, more expensive consumables, more intensive attention by specialist staff. Initial planning should be to assume such patients would be transferred abroad or be beyond HUH's capacity to treat. This sounds harsh but such triage/ rationing is a hard fact of medical life.

Building Costs

The estimates prepared for the pre-feasibility study gave construction costs for the completion of Building B,C,D as US\$ 14.72 (excluding contingencies). To reduce the construction costs in Phase 1 it will be necessary to reduce the scope of the Building B,C,D completion work.

The analysis of the HUH construction works so far shows that the large floor areas of clinical / diagnostic and treatment areas are difficult to fund locally. That is why they have been generally left unfinished while one ward block (part of the same building) has been completed (but left empty). These more complex and highly-serviced clinical areas should be constructed in one construction phase by an experienced national contractor for both building works and technical services.

At present HUH have two levels of wards operational in Building E,F and they are configured for a mix of both public and private patients. The total number of beds is 166 and they are reportedly running at around 80% bed occupancy.

In Building B,C,D the southern wing of wards has been completed but has been left empty. Minor works are necessary to bring it on line. This southern wing contains 228 beds. If these beds are commissioned, then the total available beds at HUH would be 394.

The recommendation for what might be called Phase 1, to produce a justifiable and viable contribution towards realising the aims of the current Development Plan but staying within the resource envelope shown in the Green Book, is to complete Building B,C,D including the minor works for the southern wards. Savings would be made by postponing the internal fit-out of the northern wing of wards. The northern wing also contains 228 beds, but they could be brought on line at a future date, the work within the scope of local funding and local contractors. At present this part of the building has its concrete structure, roof and part of the external façade complete. For the integrity of the building the external façade requires completion but the fit-out could be easily postponed.

In Annex 22b the building estimates have been adjusted to reflect the recommended deletion of the internal fit-out of the northern wards in Phase 1. It shows an overall cost for the building works of € 13,071,452, achieved by completing the Building B,C,D except for the internal fit-out of the wards of the north wing. That means that we open the wards that are already finished in Building B,C,D, but we only complete the external envelope of the other ward block wing – and make a saving.

Annex 27 Justification for Indicative Prioritisation

The logic is that HUH already have some degree of flexibility in the bed numbers and mix of private to public beds. If they are pressed they can put more beds into existing rooms. The one ward block wing to bring on line in Building B,C,D (the one that is already finished) can give a maximum of 171 beds. As the EPOS Team understand the situation, the problem with funding over the past few years was getting a large enough sum for the diagnostic and treatment floors. That is why, when faced with a limited budget, the local management decided to complete that ward block – there was insufficient money to do the diagnostic and treatment floors. However, with the KfW loan there is enough money to do the difficult bits, and it is possible to maintain flexibility in the use of the wards, so the reverse logic is applied. At present, in Building E,F, they are configured mostly as single or two-bed rooms, but they are designed as 4-bed rooms. There is spare capacity if required.

Cost escalation and contingency figures have been adjusted in line with the estimated cost reduction which would be achieved by adopting the Phase 1 approach.

Equipment Costs

As the use of some of the wards will not occur until a later stage, the amount of the equipment foreseen for this has been halved to reduce costs. The specifications for some of the equipment have been modified. Other reductions have been made, for example, unit numbers of infusion and syringe pumps for the ICU, Cardiac ICU, Paediatric ICU and Neonatal ICU have been reduced to match the number of beds in each department

It has been assumed that the clinical specialties proposed in the Development Plan will continue as they do make sense from the epidemiological and demand data, but they will develop on a smaller scale than currently envisaged. Equipment costs will have to be adjusted later in the light of further refinement by local stakeholders of what is proposed given the new resource constraints. However, this broad approach enables the estimated equipment costs to be reduced to € 13,209,349.

Telemedicine and HMIS Costs

As the EPOS Team believe that HMIS needs to be strengthened and that the telemedicine aspects of the Development Plan are an integral part of the justification for this loan, it is proposed that the activity be supported at a cost of €1,159,524.

Human Resource Costs

In the Green Book the HR estimates were shown as being funded by local contribution, with USD 1.545m set aside for this. It was clear to the EPOS team that this estimate was not sufficient to match the plans being described to them while in Makassar, and in the main report revised estimates have been provided, although it seemed that plans there are currently in a state a flux. The EPOS Team's estimate – based on the planning that was shared as valid by HUH during the mission - is that the real cost would be some 57% higher than that shown in the Green Book.

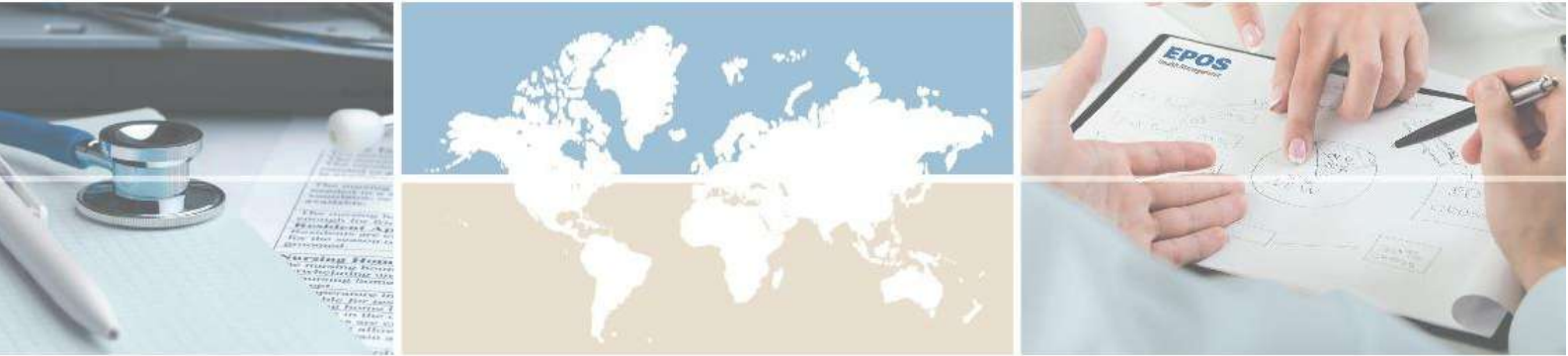
Annex 27 Justification for Indicative Prioritisation

However, since returning from the field the EPOS Team have been provided by HUH with a revised HR project cost estimate of US\$773,656. Given the proposals above to phase the coming on line of some of the wards and services this reduced sum may be adequate, but the EPOS Team are not in a position to make a detailed analysis at this juncture. The original sum shown in the Green Book, has, therefore, been retained i.e. USD1,544,558.

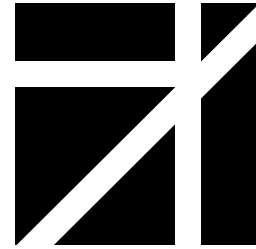
Project Management Costs

Initially, the EPOS Team had indicated a probable project management consultancy cost of 7% of the project cost estimate. However, analysis of experience with the KfW funded project in Banda Aceh, and in view of the more complex scope of the new project specification, it is estimated that realistically project management costs will be at least 7.5%.

Annex 28



Structural Assessment Report, authored by TTW



Structural

Structural Engineering Assessment of Hassanudin University, Makassar Hospital Building B,C,D

**for
EPOS Health Management**

Project No: 168020



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Structural Engineering Assessment of Hassanudin University, Makassar Hospital Building B,C,D

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Structural Engineering Assessment of Hassanudin University, Makassar Hospital Building B,C,D

for
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1.0 INTRODUCTION

The Hasanuddin University Hospital, located at Jl Perintis Kemerdekaan, Makassar is planning a future upgrade of its facilities and has engaged EPOS Health Management to conduct a pre-feasibility study in regard to this. Part of that study involves assessing the existing extension buildings B and C which are a 7 storey structure, and the adjacent 4 storey Podium, Building D. These structures are understood to have been built between 2010 and 2013, and the buildings are now partly occupied.

TTW Indonesia has been engaged by EPOS Health Management to provide structural engineering input to their pre-feasibility study. TTW scope is to carry out a visual inspection of the existing buildings and a design review of the major elements of the structure based on the information shown on the drawings. No material testing nor investigation of as-built structure has been carried out.

This report presents TTW Indonesia's structural engineering inspection and design review of the existing HUH extension buildings B,C,D.

2.0 BACKGROUND

2.1 Documents Received

The following documents were received from the client. Refer to Appendix A for drawing lists.

- Structural Engineering As-built drawings by PT Bumi Karsa dated 27 September (Appendix A).
- Structural Engineering Design drawings by PT Darena Prakasa Utama dated 27 September (Appendix A).
- Architectural drawings by PT Darena Prakasa Utama dated 27 September (Appendix A).
- Design calculation reports by PT Darena Prakasa Utama dated 27 September (Appendix A).
- No geotechnical report has been received.

2.2 Brief Description of Building

- The hospital building consists of 2 separate building structures: Building B & C, a u-shaped building of 7 stories level (one building structure), and a 4 storey podium, Building D.
- The structure is a reinforced concrete frame structure, with a beam and slab floor system. The seismic resistance system was designed as intermediate moment resisting frame.
- There is structural separation between the Building B&C structure and the Building D podium building (see comments on the separation width at section 3).
- The floor slabs are permanent formwork smartdek type reinforced concrete slabs, with total thickness 145mm. Some folded slabs are conventional reinforced concrete.
- There is a steel roof over level 7 at Building B&C and Building D level 4.
- The foundations are reinforced concrete bored piles of diameter 1000mm and 1200mm, 0.9m and 1.2m deep. The bored pile allowable compression capacities shown on the drawings and in the calculation report are 2,350kN and 3,400kN respectively, and 3,570kN and 5,160kN for short-term and/or seismic loads.
- The basement is more a semi basement. There is no basement wall, and the basement floor is close to the external ground level.
- The façade is of masonry, aluminium composite panel and glass.
- Interior partitions to the occupied parts are light weight partitions generally, except in the toilet and stair area which are solid masonry.
- The external in-ground stormwater drainage has not yet been built. There is an existing batu kali drain at the boundary.
- Selected drawings and a location plan are included at Appendix B.

3.0 INSPECTION OF BUILDING

A walk-through inspection of Building B and C and the Podium was carried out on Mon-Tues 3rd and 4th October 2016 by Ryan Rakhmat Setiadi and Vera Ivona of TTW. An inspection report was issued to Mr John Kornie of EPOS dated 5 October 2016, and is included at Appendix C of this report. Refer to Appendix D for photographs.

Key observations are:

- The building structures are substantially complete.
- The existing structure does not exactly match the as-built drawings, particularly around grids P/11, P/20-23 and grid 24-25. Some columns at grids 19-20 are not reflected on the drawings.
- The building separation between Building B-C and the Podium has been built with effectively no clear space (10mm maximum). The larger of 75mm or 0.025 x floor height is the minimum required under the 2002 SNI seismic code.
- The basement (at just below external Ground level) floods. This is probably partly related to the external drainage having not been completed, and sump pumps not working.
- The structure soffits in some areas appeared to have no concrete cover to reinforcement. This may present a durability problem in future and may require ongoing patch repair maintenance to parts of the structure.
- One reinforced concrete beam at Level 3 G-H/15-16 appears to have failed. The cause is not known, possibly construction related. This beam will need repair or replacement.
- Other cracks observed to the structure do not necessarily indicate an underlying structure problem (concrete structures tend to crack).
- One beam at Level 4, grid G-F/18 and another at K/12-13 appear to have deflected more than other surrounding beams. This may or may not indicate an underlying problem. No structure distress was seen so it is likely that this reflects how the beams were built. This should be monitored during the upgrade/completion project.
- Concrete honeycombing was observed in some locations, indicating poor compaction of concrete. Honeycombing will need to be patch repaired to preserve longevity of the structure.
- Access to see some areas of structure was not possible due to basement flooding, and fixed ceilings in other areas.
- Water ponding was observed in some areas.
- The roof steelwork was in generally reasonable condition, but the coatings will need to be remediated in some areas.

With regard to differences with the drawings against the existing structures no additional as-built drawings have been received.

4.0 DESIGN REVIEWS

4.1 Material Properties

The following material properties for the building structure were used in the design review, as indicated on the structure drawings:

- Concrete grade K-350 generally (29MPa 28 day cylinder strength)
- Steel reinforcement $f_y = 400$ MPa for deformed bar, 240MPa plain bar.
- Permanent metal formwork – assumed to be Bluescope Smartdek or similar, with 450MPa yield strength and 0.7mm base metal thickness.

Capacity reduction factors (phi factors) were adopted based on SNI concrete code as follows:

Reinforced concrete flexure	$\phi = 0.8$ (where design is controlled by reinforcement tension)
Reinforced concrete shear	$\phi = 0.75$
Reinforced concrete strut and tie	$\phi = 0.75$
Structural steel generally:	$\phi = 0.9$
Structural steel bolts:	$\phi = 0.8$

4.2 Building Codes

Design reviews were based on the following building codes:

- SNI 1727_2013 Beban Minimum untuk perancangan bangunan gedung dan struktur lain (Indonesian Loading Code).
- SNI-1726-2012, Standar Perencanaan Ketahanan Gempa Untuk Struktur Bangunan Gedung (Indonesian Earthquake Code).
- SNI 03-2847-2013, Persyaratan Beton Struktural untuk Bangunan Gedung (Indonesian Concrete Code).
- SKBI -1.3.53.1987, Pedoman Pembebanan Indonesia untuk Gedung (Indonesian Loading Code, superseded).
- SNI-1726-2002, Standar Perencanaan Ketahanan Gempa Untuk Struktur Bangunan Gedung (Indonesian Earthquake Code, superseded).
- SNI 03-1736-2000, Tata cara perencanaan dan sistem proteksi pasif untuk pencegahan bahaya kebakaran pada bangunan gedung (Indonesian fire code, based on a prior edition of the Building Code of Australia).

With reference to:

- ASCE 7-2010, American Loading Code (which is the basis for the SNI Seismic code).
- ACI 318-2011, American Concrete Code (which is the basis for the SNI concrete code).
- NCC 2016, Building Code of Australia - Volume One.
- AS 3600-2001, Australian Concrete Code.

4.3 Design Loads

The following structure loads were adopted in the design reviews based on the calculation report by PT Darena, and are in addition to structure self-weight. $1.0\text{kPa} = 100\text{kg/m}^2$.

Superimposed Load (SDL):	1.25kPa typically, for 50mm toppings + suspended ceiling under.
Live Load (LL):	2.5kPa for typical area of hospital 3.0kPa for corridors and stairs 3.0kPa for machine rooms 2.0kPa for roof areas
Partition Load (PL):	1.0kPa for dry wall partitions. 4.0kPa for masonry partition in toilets & stairs (average on plan area).
Façade Load (FL):	4.5kN/m (450kg/m) for facades which consist of masonry, ACP and large glazed windows.

Code based live load reductions were used for column design.

The above live loads do not comply with the latest loading code, but are reasonably consistent with common load allowances in Indonesia. All proposed heavy loads including hospital equipment and other plant, equipment and tanks etc should be reviewed against the structure before instalation. The load allowances for masonry should also be considered in the selection of masonry type and distribution. It is not clear what allowances were made by the design engineer for masonry, and the allowances noted above were decided on by TTW for this review only. It may be necessary to adopt hebel masonry with thin render in order to achieve these loads.

Seismic loads (E) were included in review of the building structures based on SNI-1726-2002 with the following parameters:

Seismic zone	: Zone 2.
Seismic Reduction Factor (R)	: 5.5 (Intermediate moment frame)
Important Factor (I)	: 1.4 (Hospital)
Overstrength Factor (Ω)	: 2.8
Seismic Analysis Method	: Response Spectrum Method
Deformation amplification	: 3.85

The loads were combined in the following combinations for the ultimate limit state and service limit state, where SW is concrete self weight, SDL is all other dead loads, LL is live load (reduced by factor as per SNI 1723-2013), and Ex and Ey are earthquake reactions due to seismic in the x and y directions respectively, and include a vertical earthquake component.

Ultimate Limit State (ULS):

1. $1.4 (SW+SDL+PL+FL)$
2. $1.2 (SW+SDL+PL+FL) + 1.6 (LL)$
3. $1.275 (SW+SDL+PL+FL) + 0.5 LL \pm (Ex \pm 0.3Ey)$
4. $1.275 (SW+SDL+PL+FL) + 0.5 LL \pm (0.3Ex \pm Ey)$
5. $0.825 (SW+DL+PL+FL) \pm (Ex \pm 0.3Ey)$
6. $0.825 (SW+DL+PL+FL) \pm (0.3Ex \pm Ey)$

Service Limit State (SLS):

1. $1.0 (SW+SDL+PL+FL) + 0.7 (LL)$

Allowable Stress Combinations (for Geotechnical Pile checks under severe earthquake):

1. $1.075 (SW+SDL+PL+FL) \pm 0.7 \times 2.8 (Ex \pm 0.3Ey)$
2. $1.075 (SW+SDL+PL+FL) \pm 0.7 \times 2.8 (0.3Ex \pm Ey)$
3. $1.075 (SW+SDL+PL+FL) + 0.75 (LL) \pm 0.75 \times 0.7 \times 2.8 (Ex \pm 0.3Ey)$
4. $1.075 (SW+SDL+PL+FL) + 0.75 (LL) \pm 0.75 \times 0.7 \times 2.8 (0.3Ex \pm Ey)$
5. $0.6 (SW+SDL+PL+FL) \pm 0.7 \times 2.8 (Ex \pm 0.3Ey)$
6. $0.6 (SW+SDL+PL+FL) \pm 0.7 \times 2.8 (0.3Ex \pm Ey)$

4.4 Design Reviews

1. Piled Foundations

The foundations were checked against gravity and seismic loads (seismic load multiplied by the code overstrength factor). For the Building D podium 1000mm diameter piles were adopted, and the maximum pile loads were 2,220kN under gravity (working load) and 2,710kN for the seismic case. For building B&C 1200mm diameter piles were adopted with a maximum gravity working load of 2,000kN and a maximum seismic load of 2,800kN. These loads are all within the limits described at section 2.2. It is not clear why Building B&C has used larger piles.

No geotechnical engineering information was available. Our experience in other parts of Makassar is that the surface soils are typically clays and/or sands and often soft or medium dense. The 0.9m and 1.2m deep piles shown on the drawings here would appear to be based on rock properties (requiring around 3MPa bearing capacity). No rock was seen during our inspection of the surrounding area but we understand from Darena that the subsoil conditions are a type of rock. The lateral load capacity of the piles also cannot be checked because we have no geotechnical engineering advice in regard to this. It seems that 0.9m and 1.2m deep piles would again depend on socketing into high strength soil or rock. These pile designs should be confirmed by the geotechnical engineer.

2. Column and Beam Frames

The column and beam frames were checked for all limit state load combinations, using ETABS software. For the columns, maximum ratio of demand vs existing column capacity was 0.78 in the grid J-19 for compression load and moments due to gravity and seismic, which indicates the existing geometry and reinforcement is adequate.

Under the 2002 seismic code requirements for intermediate moment frames the columns were found to comply generally with the 2002 requirements for intermediate moment frames, except for column confinement reinforcement. There are 2 key requirements:

- A minimum quantity of ties/spirals is required to prevent sudden collapse in the event of concrete cover spalling off. Most columns to Building B&C comply with this (except the columns supporting the steel roof), but no columns in the Building D Podium (based on the drawings).
- The arrangement of column ties is required to provide lateral support to at least every alternate bar. Most columns to Building B&C comply with this, but no columns in the Building D Podium.
- The Building B&C columns are therefore generally considered to be adequate. The Building D Podium columns do not comply, and would suffer premature sudden failure under severe conditions such as overload under compression or seismic. There seems to be some overdesign in these columns, but probably not sufficient to compensate. This could be studied further. The design engineer should be asked to comment. It may be necessary to design strengthening, such as by column jacketing.

The beams were checked for both strength and serviceability criteria, and were generally found to satisfy code requirements. The Podium structure at levels 2 to 4 has not been built as per the drawings – the beams at grids M-O/20-22, beam types D2B16, D3B16, and D4B16 have been built as single spans, not continuous. The bottom reinforcement shown on the drawings in this case would not be adequate (by approx. 15%), but the as-built details should be reviewed when available.

The 2002 seismic code was superseded by SNI-1726-2012 which was released in 2014. Under the current seismic code the intermediate moment frame system is not permitted for buildings of seismic design category D, such as for this hospital in Makassar. The key differences are:

- a higher ductility system would now be required, eg special moment frames and/or ductile shear walls.
- the IMF system however is designed for a larger base shear which somewhat compensates for the lower ductility.
- Many buildings of all types and sizes have been designed as IMF in Indonesia prior to the current code.

3. Slabs

The slabs are generally composite metal deck slabs of 145mm thickness in most areas of the building, except in some areas at the perimeter and at slab setdowns where conventional 120mm slabs were adopted. The slabs were found to be adequate for the design loads. The type of metal deck formwork should be confirmed – as noted above this review assumed Bluescope Smartdek or equal.

Fire design criteria were also assessed as described below.

4. Roof steel structures

The WF350x175x7x11 main rafters for the gable roofs satisfy strength and serviceability criteria for gravity and wind actions (seismic does not govern for this roof). Purlins are double CNP150x65x20x2.3 and are adequate. Vertical bracing is also adequate.

During the inspection some missing bolts were identified which will need to be replaced. Some baseplates had not been grouted. Some steel shows signs of corrosion. These items will need to be addressed.

5. Structure Separation

The purpose of the structure separation between the Building D Podium and Buildings B&C is to prevent the buildings impacting against each other in a large earthquake. Based on the seismic analysis the minimum separation required between Building B&C and the Podium would be 170mm, calculated by adding the maximum lateral deformations of each building. The minimum requirement however is 2.5% of the height of separation which requires 325mm at L4 (13m above ground). It might be possible to justify a smaller separation based on detailed analysis under the current code. Narrower separations could be justified at the lower levels (approx. 100mm at L2).

From inspection we expect that widening of the separation would be relatively simple structurally. There would be the cost of suitable trafficable covers at each floor (possibly not all areas require a trafficable joint), and all MEP services that cross the joint would require suitable jointing also.

6. Fire

Based on the abovementioned codes the following building classification and type was adopted for this review. If alternative classifications were used for the architectural or other reviews then please let us know.

Building Class	9a
Construction Type:	A
Fire rating required:	120 minutes. (120/ - / - for the columns and beams, and 120/120/120 for slabs).

These criteria were only used for the purpose of assessing the reinforced concrete dimensions and concrete covers shown on the drawings and observed on site against those recommended for fire rating in AS 3600-2001, as follows.

- Columns:** Min 400x400 which requires minimum 35 mm clear cover to main bars.
In some cases there is no cover to ties, so potentially 10mm clear cover to main bars.
At least some columns are unlikely to comply with requirements for 120 minute fire.
- Beams:** Min 400 width which requires min 20mm clear cover to main bars for continuous beams (ie most beams), or 40mm for simply supported beams.
In some cases there is no cover to ties, so potentially 10mm clear cover to main bars.
At least some beams are unlikely to comply with requirements for 120 minute fire.
- Slabs:** Min 120mm required, with 15mm bottom cover for continuous spans.
120mm conventional slabs are likely to comply with requirements for 120 minute fire, subject to confirming existing cover.
145mm smartdek slabs (95mm between ribs) + 50mm topping would comply based on the top reinforcement shown on the drawings, but the unprotected Smartdek would not comply at end spans and would require fire protection.
- Steel Roofs:** Fire requirements for steel roofs will need to be separately assessed with the architect. The steelwork is not currently protected.

Concrete covers are not shown on the drawings so the assumed dimensions from face of concrete to bar centreline are as explained above, based on common experience. Actual concrete covers should be confirmed on site.

5.0 CONCLUSIONS AND RECOMMENDATIONS

A structural engineering inspection and design review has been carried out for the existing Building B,C and D (Podium) at Hassanudin University Hospital, Makassar. The review was intended to identify structural engineering risks and other items to be addressed during the hospital upgrade project.

The preceding sections describe our review in more detail. Our conclusions and recommendations from the inspection and design review are summarized as follows:

- i. The structures generally appeared to be in sound condition and the design review suggests the structures are generally adequate for the intended purpose. Only the major elements were reviewed. The as-built structure was not verified against the drawings and some areas do not match the drawings (section 3). We note that the building was not previously completed and has never been subjected to the design load conditions.

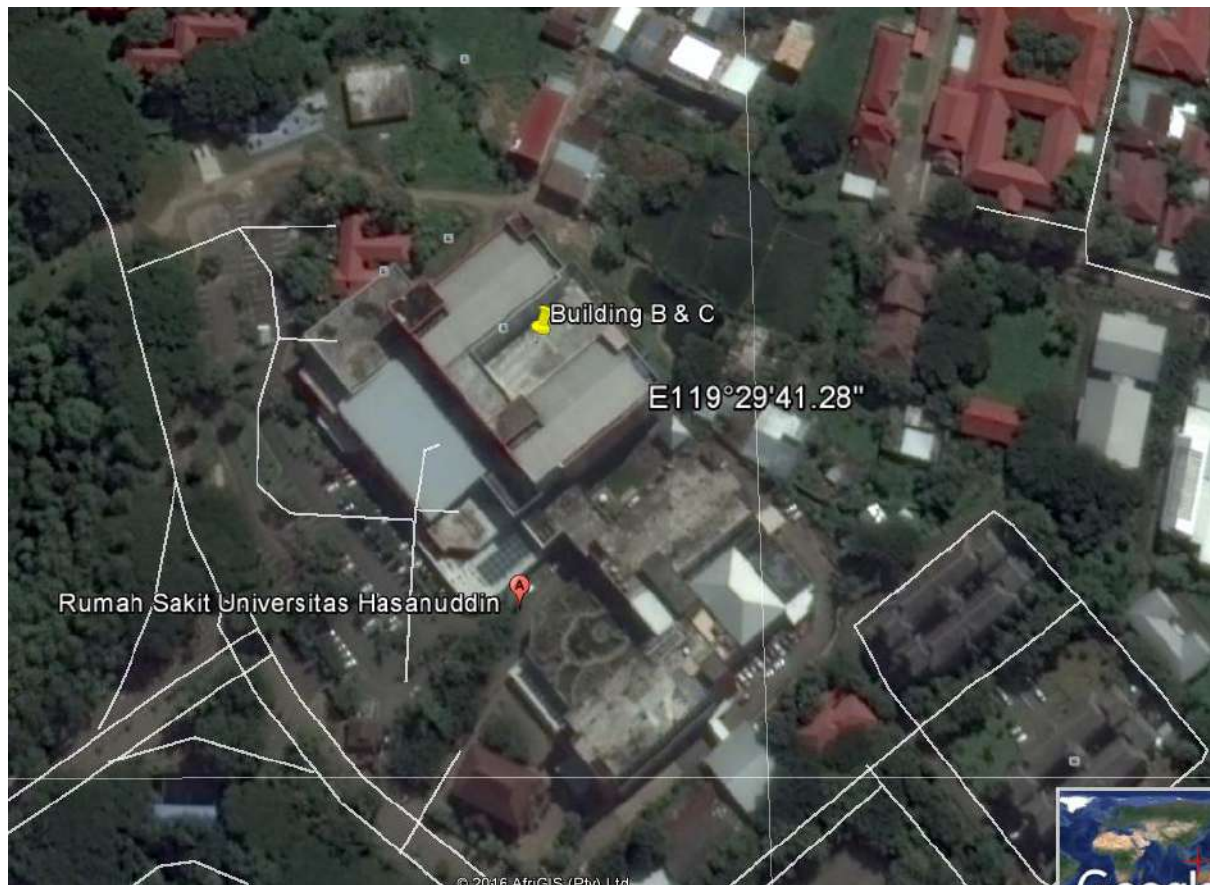
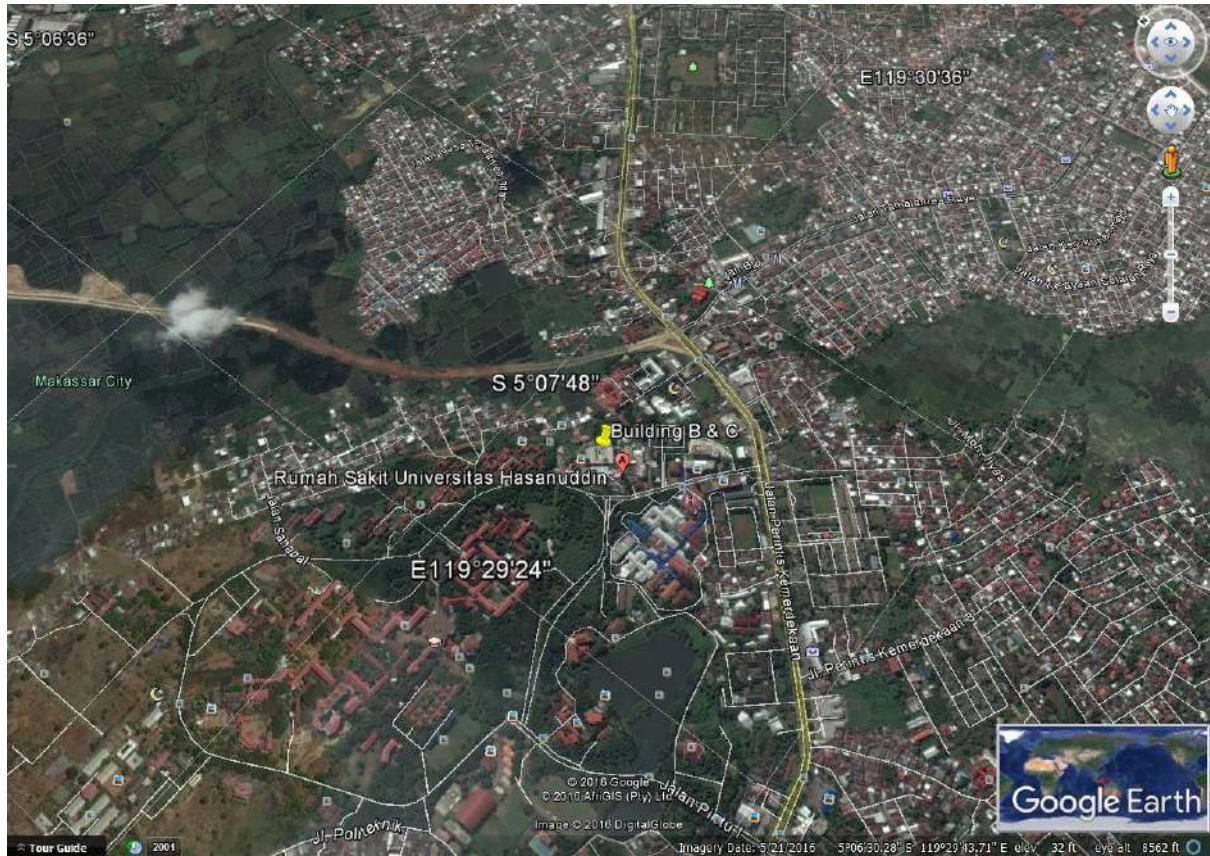
Structure distress was observed to 1 beam at Level 3 G-H/15-16 as described at section 3, and will need to be repaired. Other parts of the structure may need confirmation of as-built detail.

The design and this design review were based on the 2002 codes. The implications of this are discussed at section 4.3.

- ii. The live loads described at section 4.1 do not in all cases comply with the latest loading code, but are reasonably consistent with common load allowances in Indonesia. All proposed heavy loads including hospital equipment and other plant, equipment and tanks etc should be reviewed before instalation. The load allowances for masonry should also be considered in the selection of masonry, for example 4.5kN/m would only be sufficient for hebel block with thin render, and 2.5kPa for toilets and stairs is also a light allowance.
- iii. The geotechnical engineering recommendations for the pile design should be provided for review, as explained at 4.4.1. Alternatively a geotechnical engineering review is recommended.
- iv. The Podium columns as shown on the drawings do not comply with code requirements for column detailing, and may need to be enhanced unless the designer or contractor can provide more information. Refer to 4.4.2.
- v. The structure separation between the Building D Podium and Building B&C effectively has no separation gap. It is recommended that the gap be widened to comply with the codes, as described at 4.4.5.
- vi. Parts of the concrete structure do not have concrete cover to the reinforcement, and/or code-recommended concrete covers. The impacts of this are that parts of the concrete structures are likely to need ongoing patch repair maintenance during the serviceable life of the building, and that parts of the structure do not have the appropriate fire resistance. Fire resistance is discussed at section 4.4.6. Honeycombing of concrete and exposed reinforcement will need to be patch repaired to preserve longevity of the structure.
- vii. The concrete structures were almost completed in 2012 and much of the building has been left in an unfinished state since then. Consequently the concrete structures which would have been designed for interior exposure conditions have now been exposed to weather for more than 4 years. The structures appear to be in reasonable condition but there may be a need during the completion works to carry out more repairs than are immediately obvious..

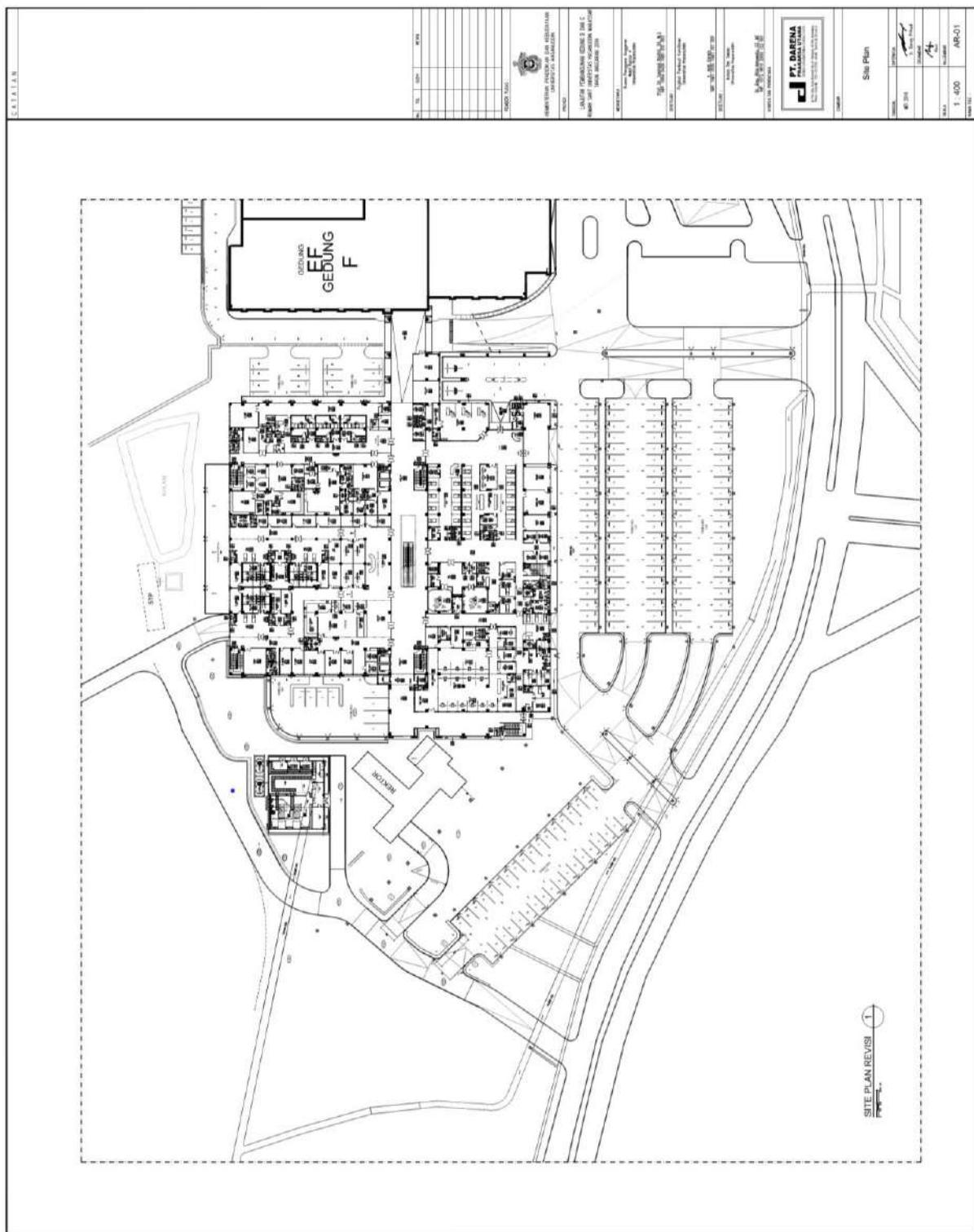
- viii. The roof steelwork was in generally reasonable condition, but the coatings will need to be remediated in some areas. Missing bolts must be replaced and grouting must be installed.
- ix. The open drainage in the perimeter building basement not have been build, so it make the water flooded in the basement. All of drainage system (perimeter drainage, sump pit, pump, etc) must be build so the drainage can be work.

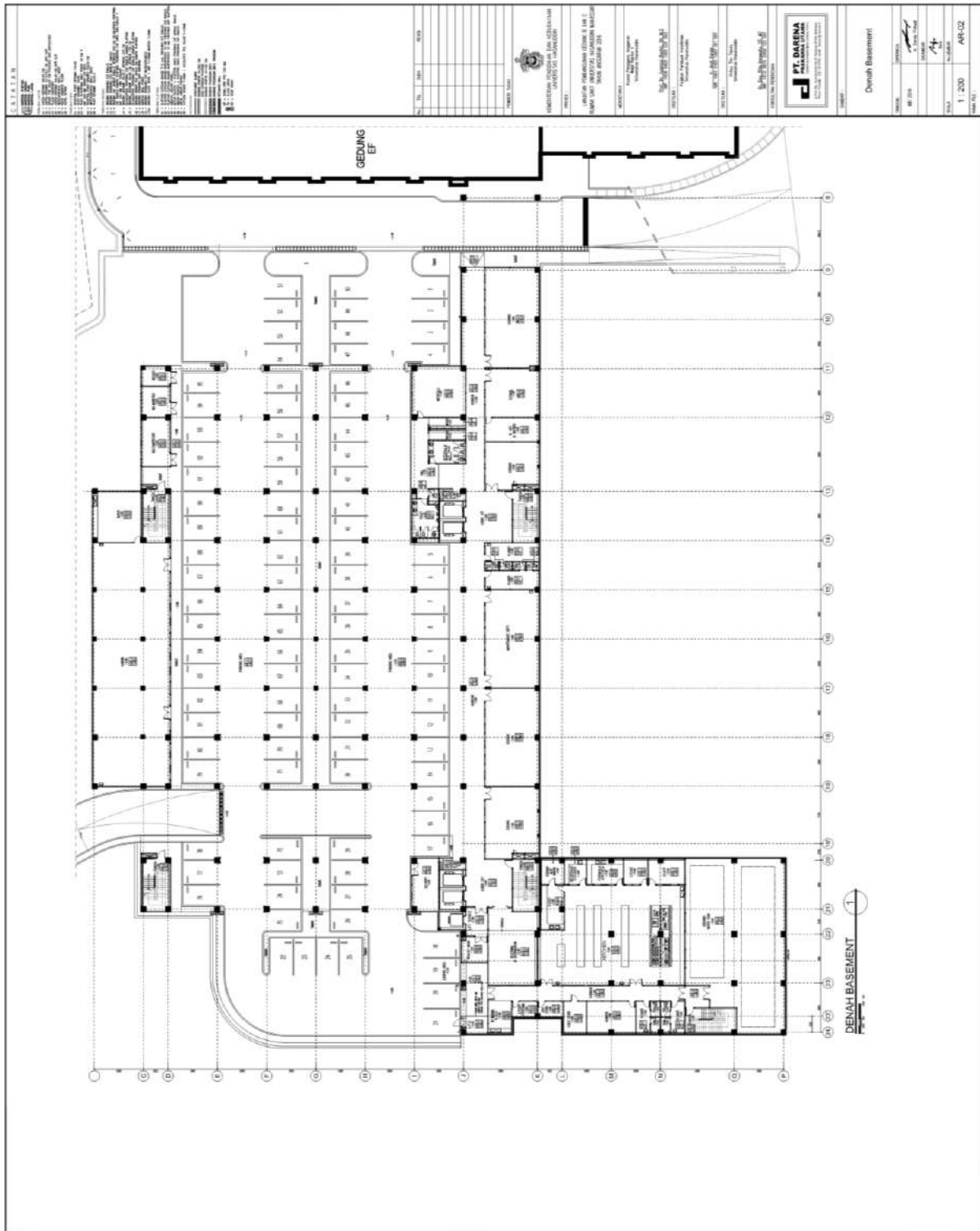
APPENDIX A
SITE PLAN FROM GOOGLE EARTH

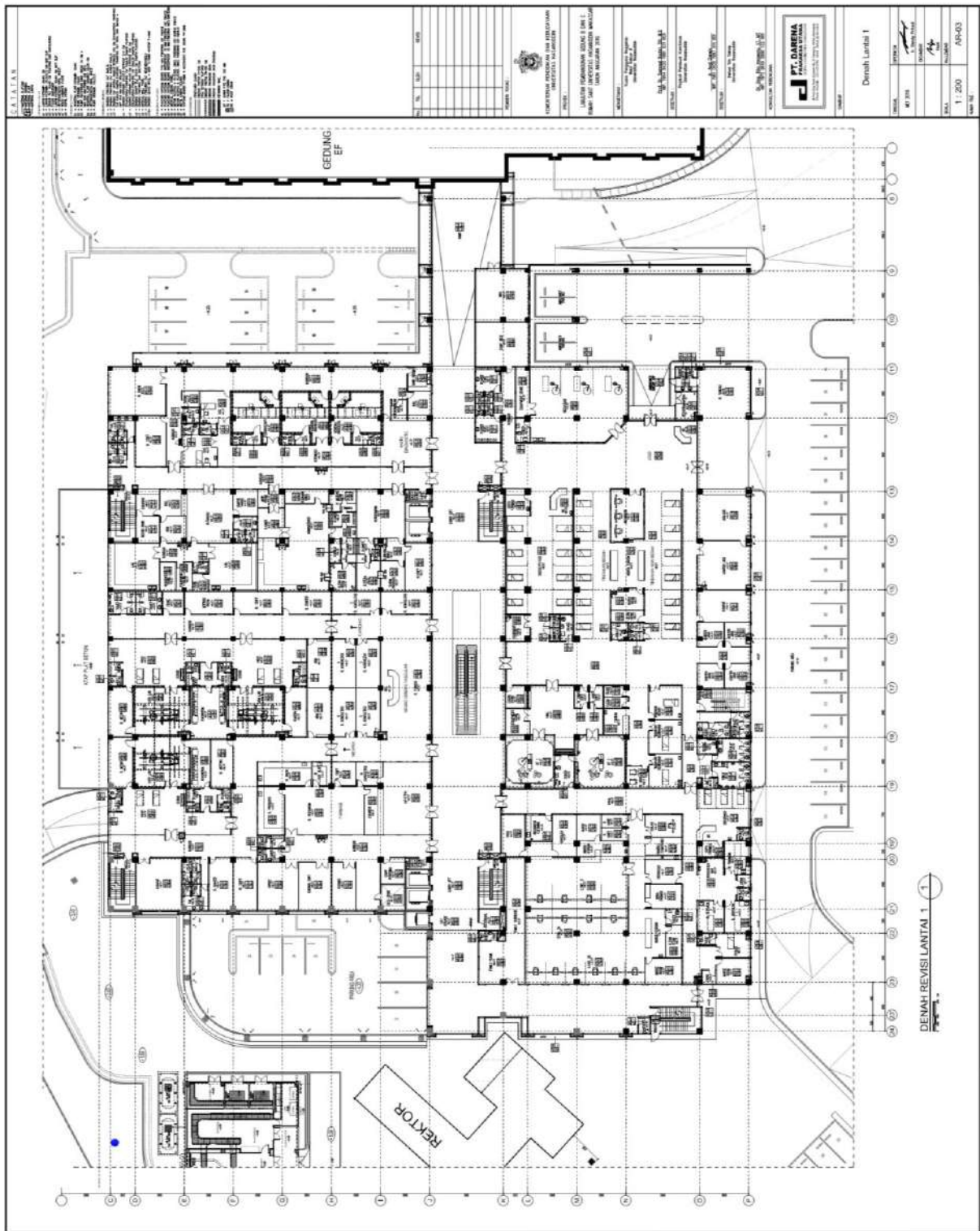


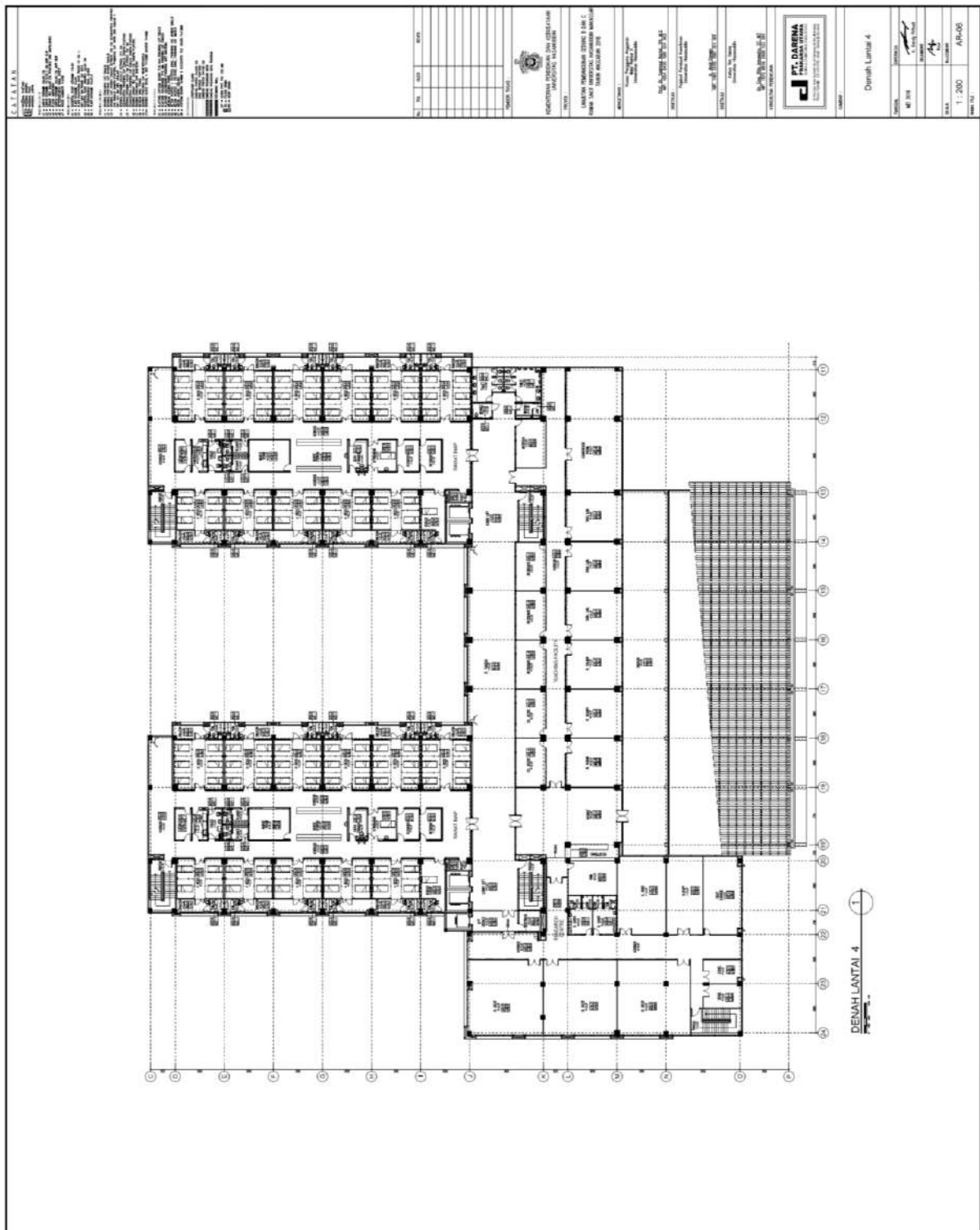
APPENDIX B
SELECTED STRUCTURE DRAWINGS

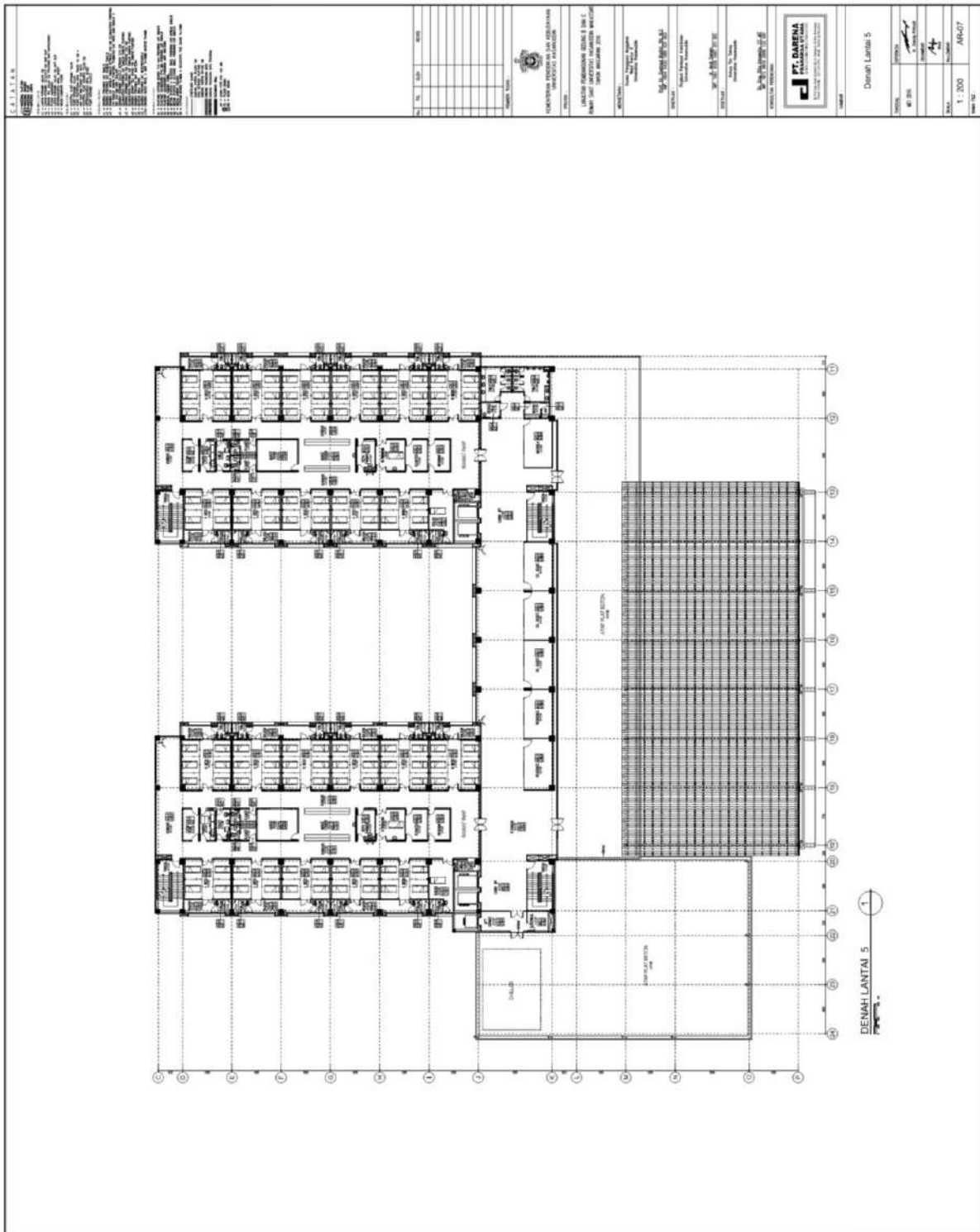
ARCHITECTURAL DRAWINGS

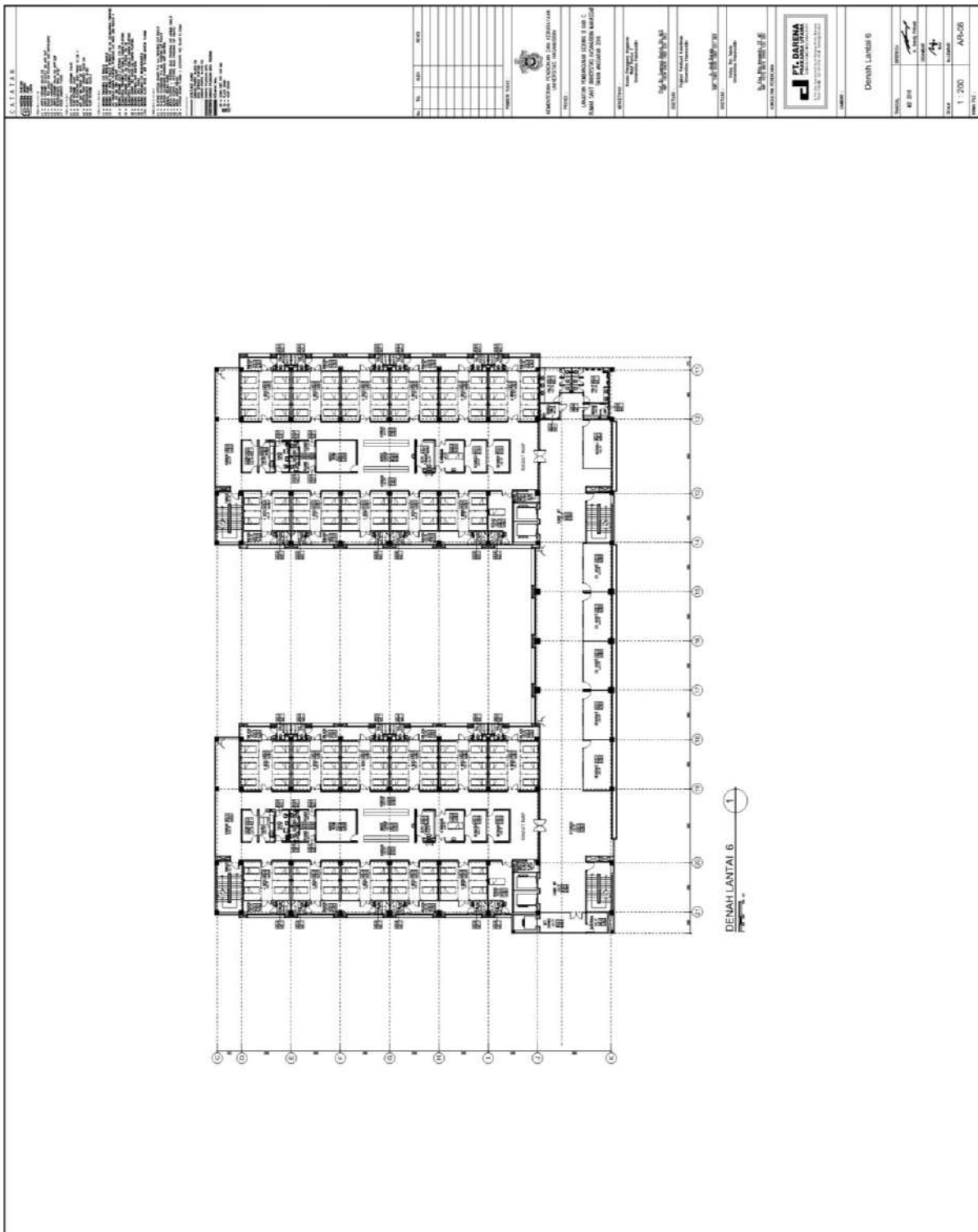


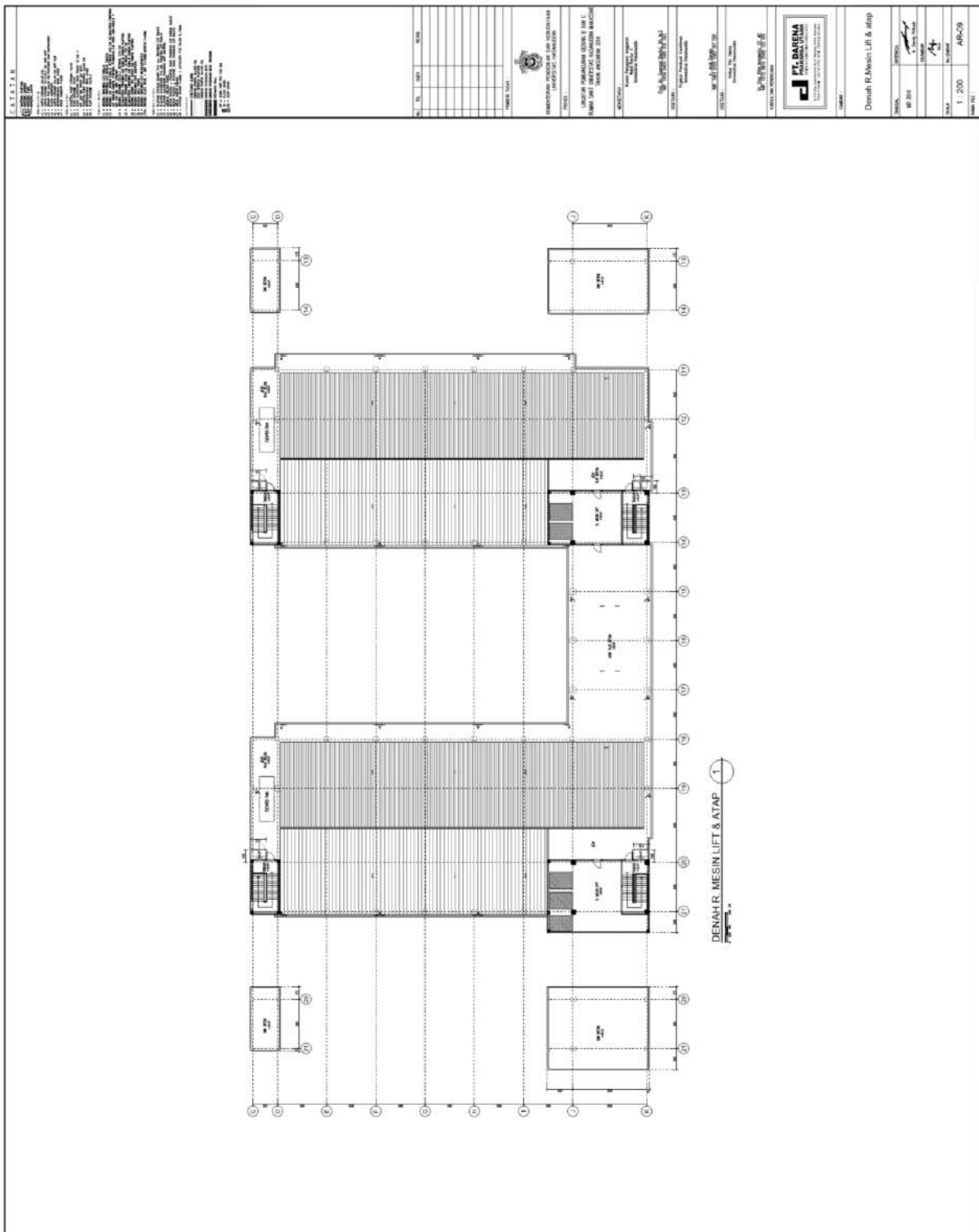




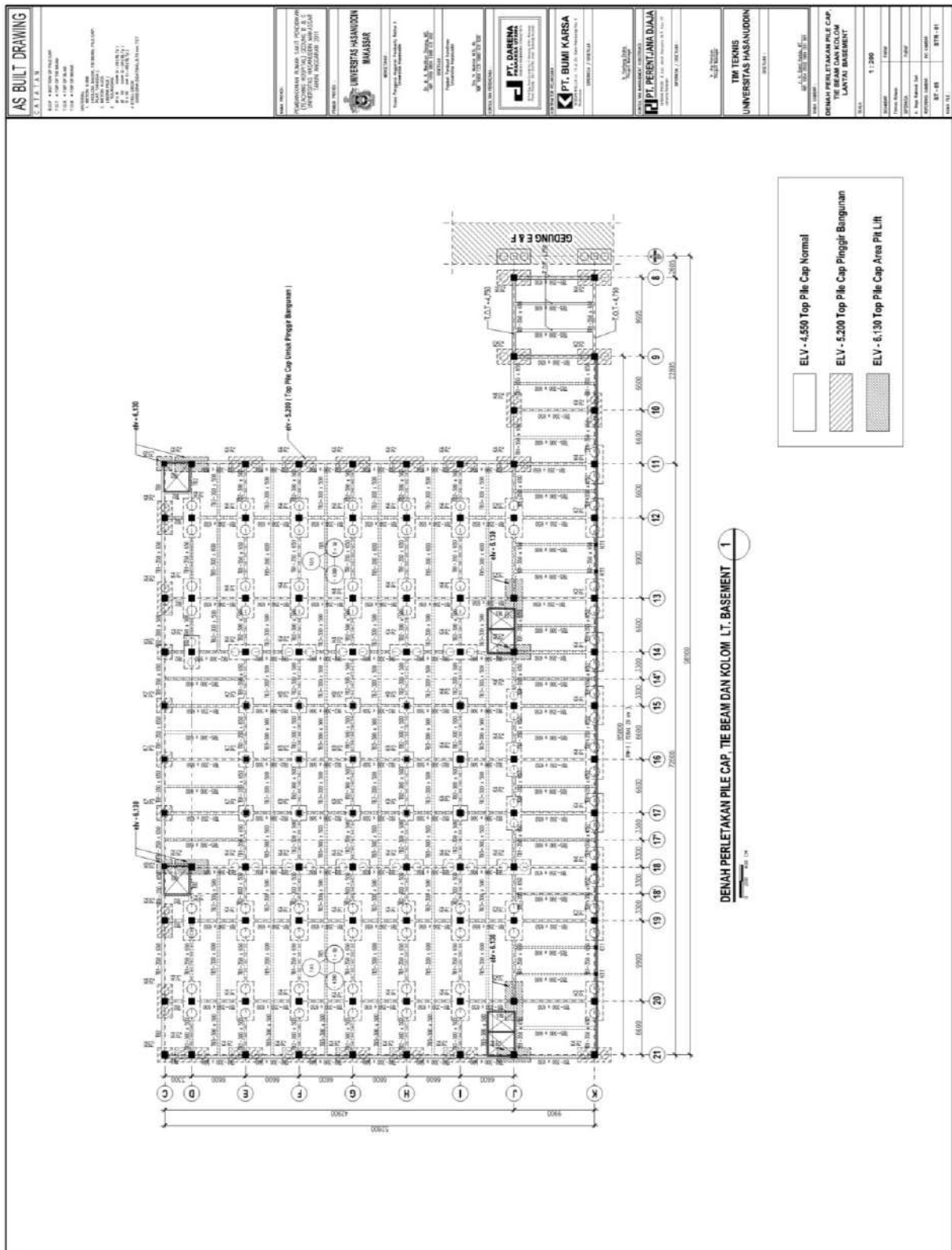


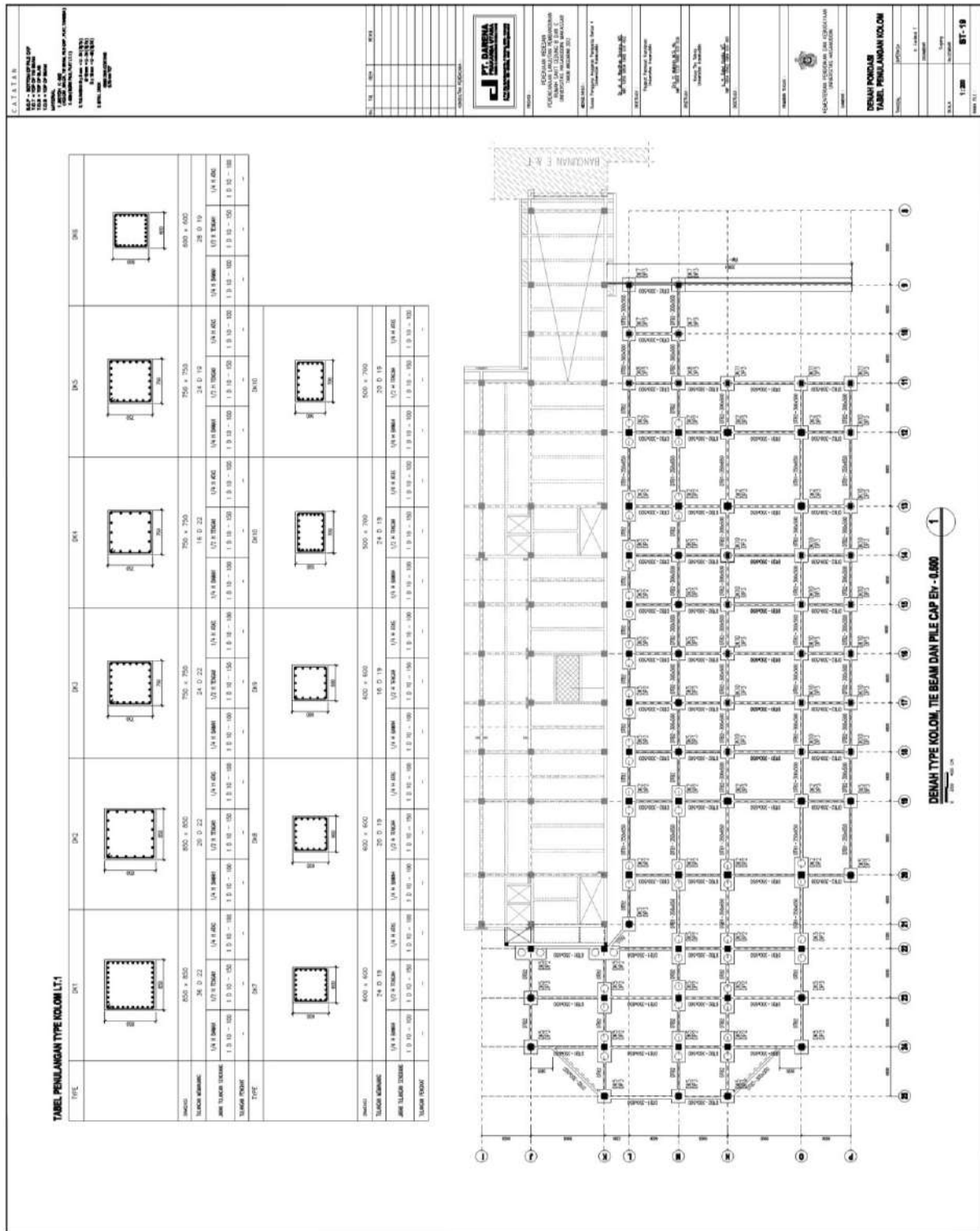


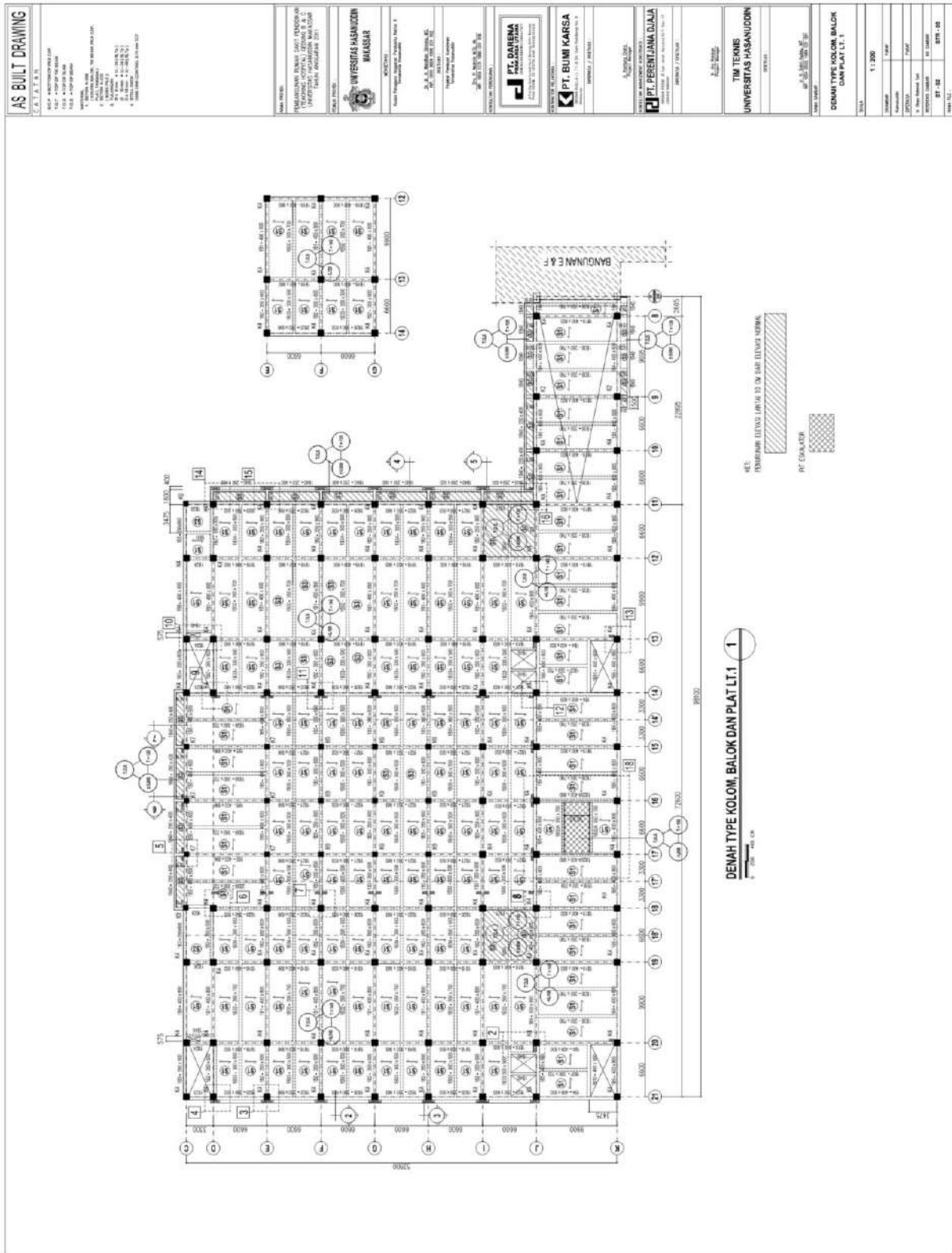


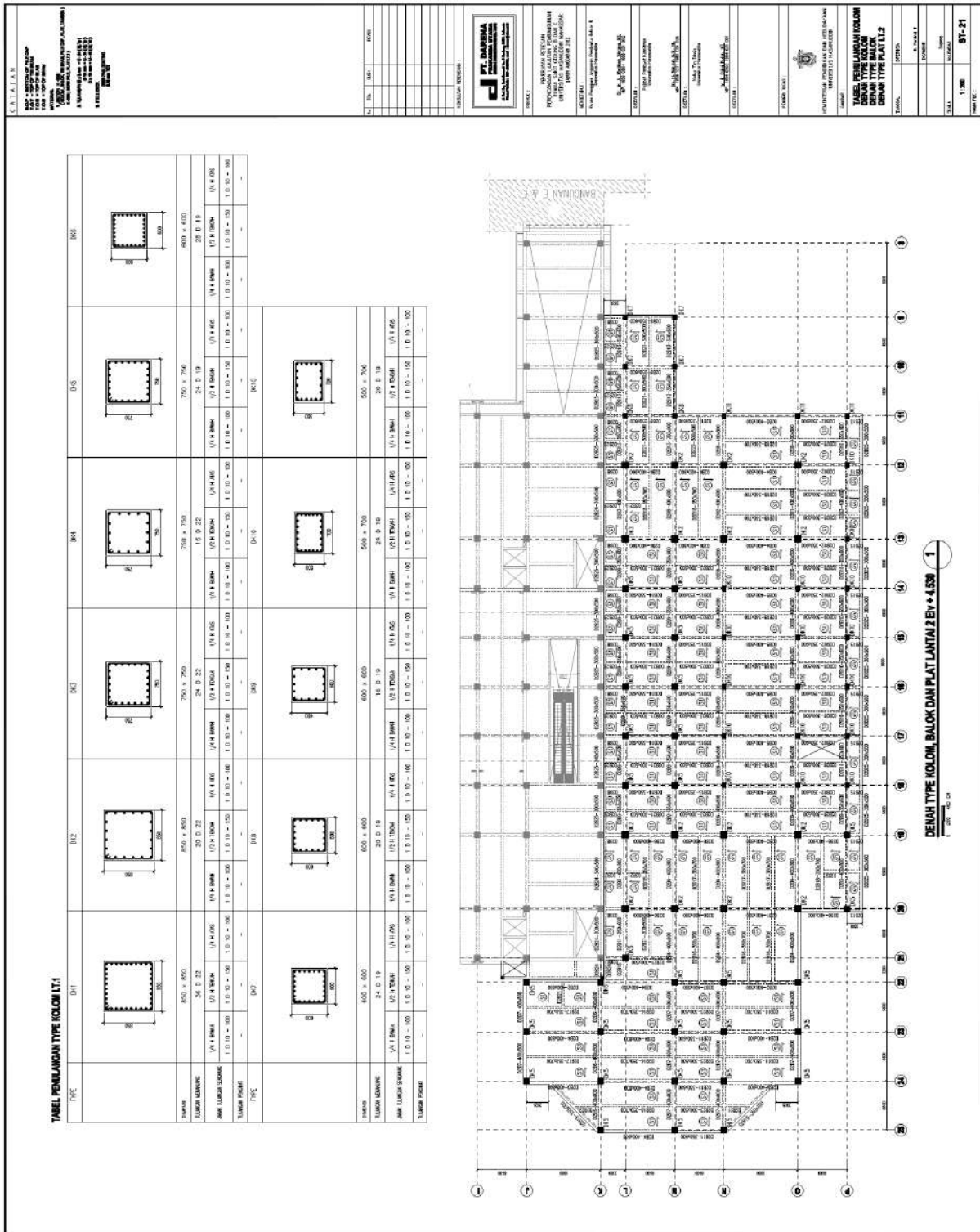


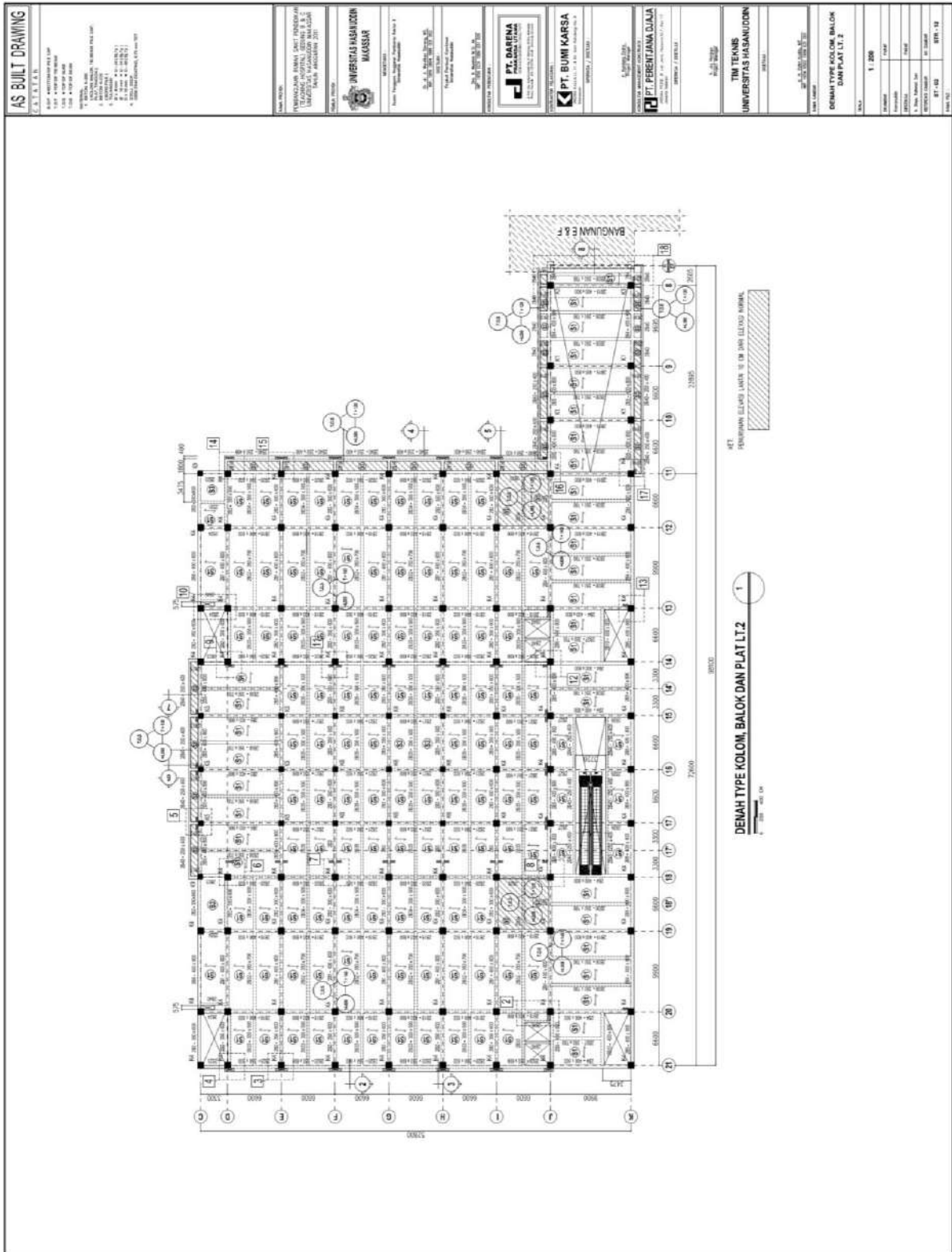
STRUCTURAL DRAWINGS

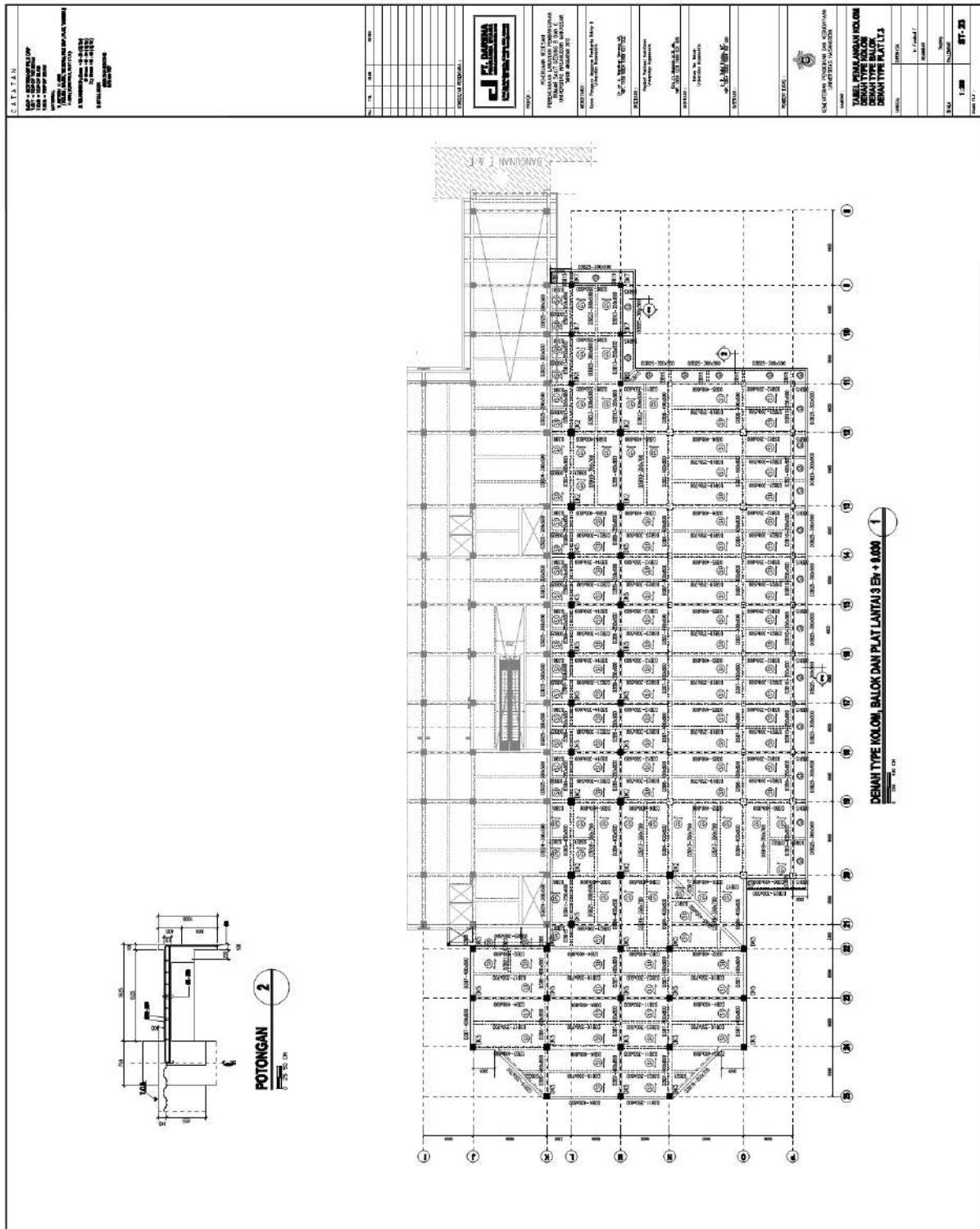


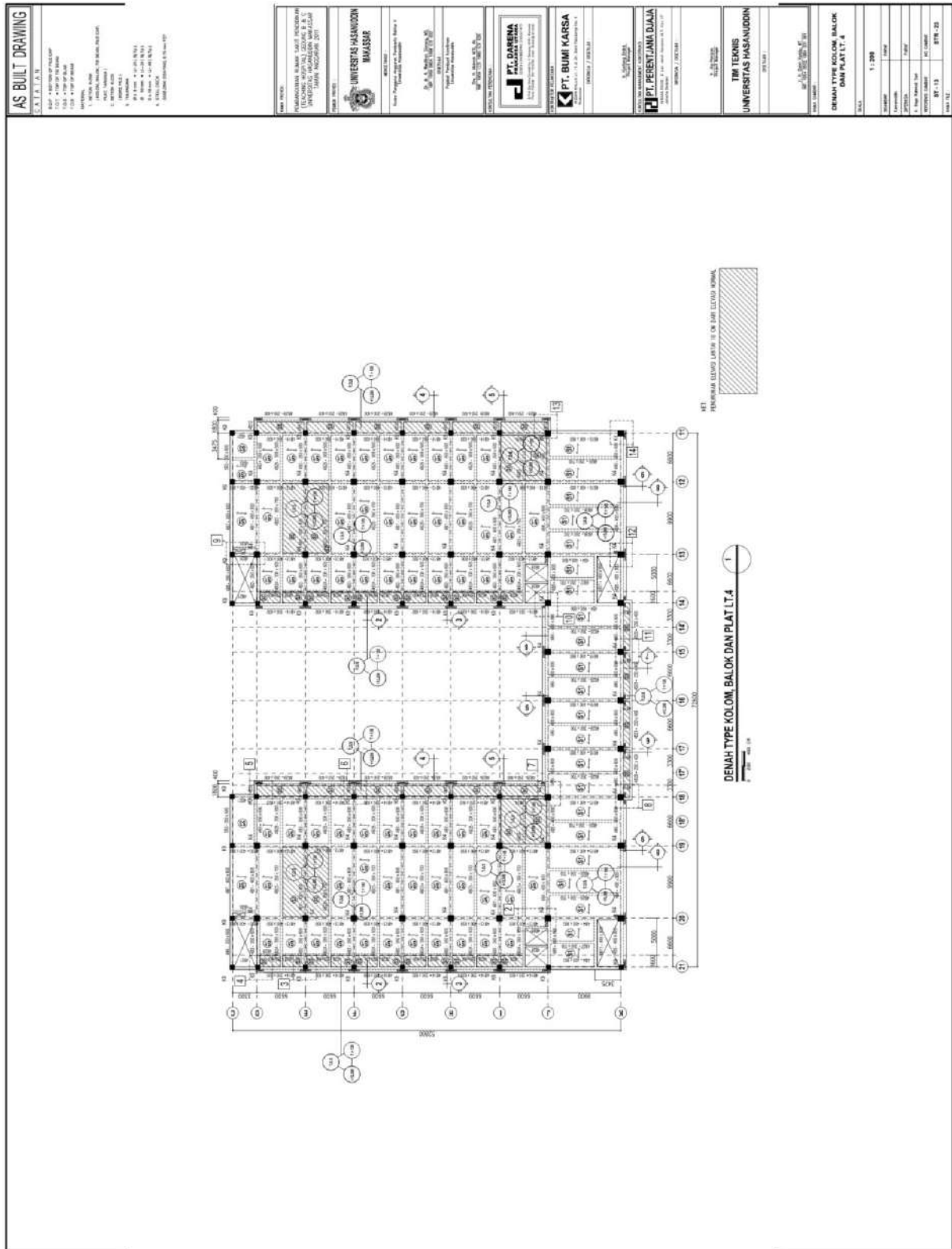


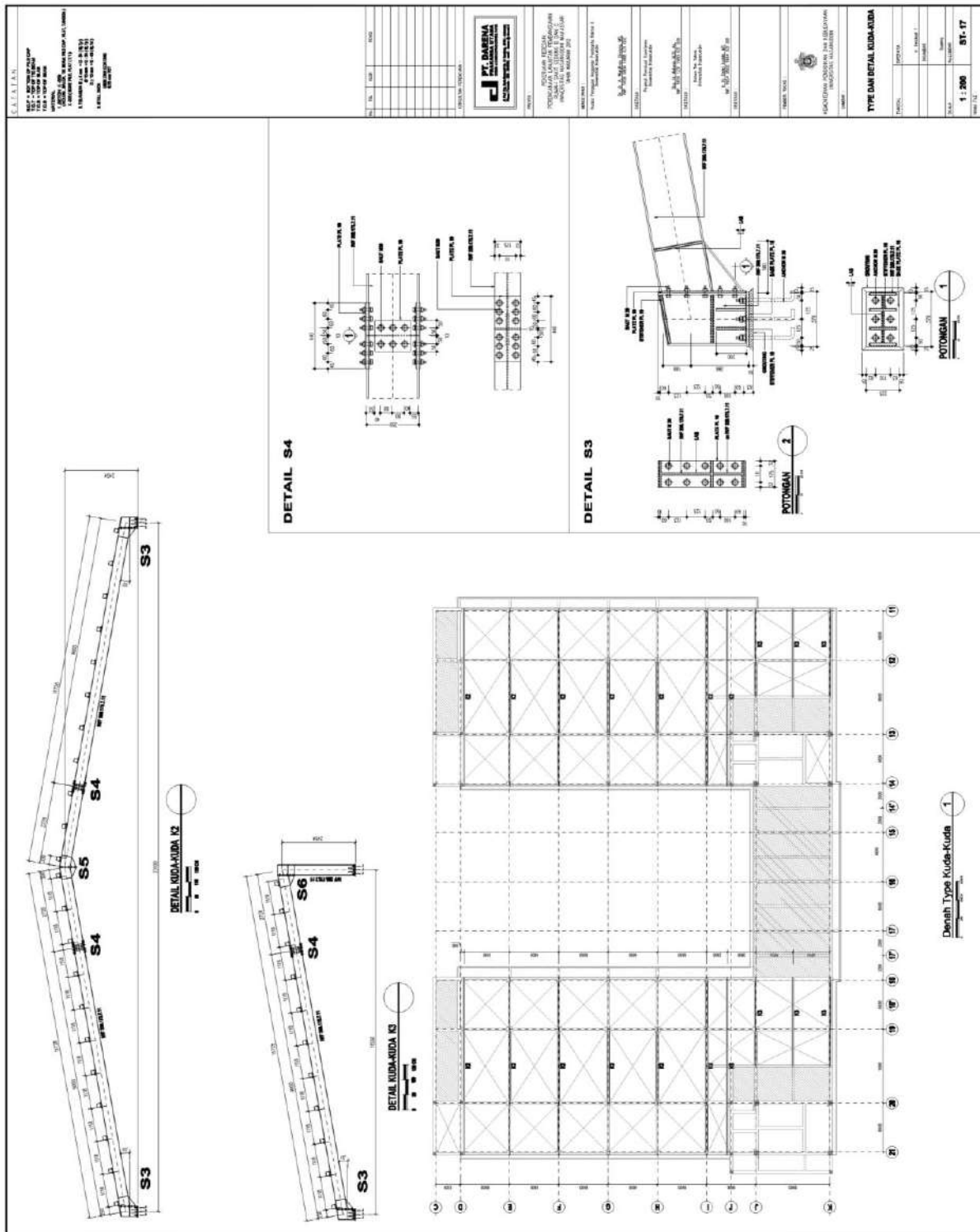












APPENDIX C
INSPECTION REPORT 3-4 OCT 2016

Site Inspection Report **Site Advice**

To	Project	
John Kornie	HUH Makassar	
	Job No	Date
	168020	5-Oct-2016
Attention	Report No	Page No
	SI-RR-001	1/3

Site investigation in UNHAS hospital has been investigated by Mr. Ryan and Ms. Vera on 3rd and 4th October 2016. Based on our investigation, we see there is some minor differences between as-built structural drawings and existing building. The minor differences are :

1. At podium (4 storey building) grid J-0_25-24, we couldn't see any slab as shown on as-build drawings
2. There is extention slab at grid 0-P_20-24 and it's not shown on as-built drawings
3. There is no dilatation gap between podium (4 storey building) and main area (7 storey building). Usually the minimum gap dilatation can be 10 cm. The function of the gap dilatation is to provide space area between the buildings so during the earthquake, horizontal movement from each building didn't lead to pounding between 2 buildings
4. There is some columns between grid 19-20 that is not shown on as-built drawings

Another problems we see in the existing building during walk-in investigation are :

Basement floor

- Basement area mostly flooded by water
- The drange at perimeter has not been built
- The pump in sumping 1 at grid D-C didn't work so the water can't be pumped to the existing drange
- Ground pipe from the sump pit to the pond has been blocked by something so the water can't be flowed
- Sump pit 2 at grid O-C_18 hasn't been built

1st floor

- We could see 1st floor structural (beam and slab) because the basement area is flooded

1.Reinforcement Inspections are subject to final clean out of formwork or excavation & maintaining specified cover during placement of concrete.
2.If the Builder considers a cost or time variation may arise as a consequence of this report they must refer immediately to Architect/Superintendent.

Copy to

Engineer **Mr. Ryan & Ms. Vera** Director

Site Inspection Report **Site Advice**

To	Project	
John Kornie	HUH Makassar	
	Job No	Date
	168020	5-Oct-2016
Attention	Report No	Page No
	SI-RR-001	2/3

2nd floor

- There is some area ponding by water and mostly it's at perimeter slab. The ponding can lead to corrosion of the reinforcement and also it would effect the performance of the structure by reducing diameter of rebar and bond between concrete and rebar
- There is cracking and exposed reinforcement on the slab at grid H-G_15-16. It possibly because of higher load during construction or poor construction quality

3rd floor

- Heavily damaged of the beam of the beam at grid G-H_15-16. it possibly because of the poor construction quality or higher load during construction
- Some area ponding by water. The ponding water come from water leakage in the upper storey
- There is some exposed reinforcement of the beam
- Some crack in the top of the slab at grid N-O_19-20. Based on the crack location (exactly top of the beam), we assume that the top reinforcement of the slab might be not enough or it has no top reinforcement at all
- For the steel area, we see some missing bolt in he connection and also the grouting between the concrete and the steel hasn't been installed yet

4th floor

- Ponding of water in some area
- We can see deformed beam at grid G-F_18 and grid K_12-13. It is not usual that the deformation can be seen directly by our eyes when the architectural and operation load hasn't been applied

5th floor

- Ponding of water in some area
- Haneycomb concrete on the beam grid J-K_20

1.Reinforcement Inspections are subject to final clean out of formwork or excavation & maintaining specified cover during placement of concrete.
2.If the Builder considers a cost or time variation may arise as a consequence of this report they must refer immediately to Architect/Supintendent.

Copy to

Engineer **Mr. Ryan & Ms. Vera** Director



Site Inspection Report Site Advice

To	Project	
John Kornie	HUH Makassar	
	Job No	Date
	168020	5-Oct-2016
Attention	Report No	Page No
	SI-RR-001	3/3

6th floor

- Ponding of water in most area (in the area where architectural finish not yet been installed)

Roof

- The drainage of the roof at grid 21 has not been built, but the other drainage (gutter) at grid 17'-18 didn't work even it has been built. It's not work properly because there is no down pipe so the water can't be flowed

1.Reinforcement Inspections are subject to final clean out of formwork or excavation & maintaining specified cover during placement of concrete.
2.If the Builder considers a cost or time variation may arise as a consequence of this report they must refer immediately to Architect/Superintendent.

Copy to

Engineer Director
Mr. Ryan & Ms. Vera

APPENDIX D
SELECTED INSPECTION PHOTOGRAPHS
3-4 October 2016



Photo 1 – Basement



Photo 2 - Ground



Photo 3 - Story 2 Beam Heavy Damage (Exposed)



Photo 4 - Story 2 Ponding Water



Photo 5 - Story 3



Photo 6 - Story 3 Deformed beam



Photo 7 - Story 3 Podium Steel Roof



Photo 8 - Story 4 Corroded Reinforcement due to Leakage Water



Photo 9 - Story 4 Suspended Stair



Photo 10 - Story 5 Ponding Water



Photo 11 - Story 5 Podium Concrete Roof and Drainage



Photo 12 - Story 6 and Steel Roof



Photo 13 - Roof Drainage not Working



Photo 14 - Underground Pipe from Sump pit Basement to Pond

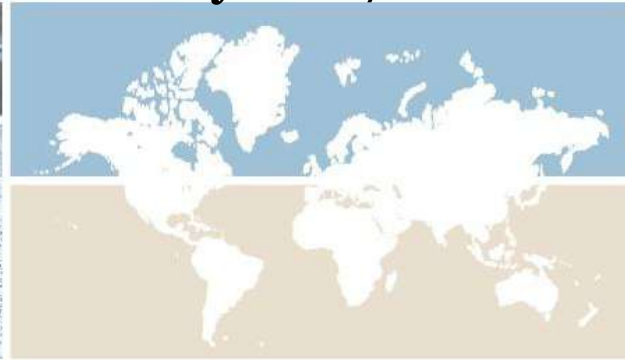


Photo 15 - Sump pit in Basement



Photo 16 - Trash in drainage

Addendum as per Comments dated January 2017 including Annexures





MINISTER OF RESEARCH, TECHNOLOGY AND HIGHER EDUCATION
HASANUDDIN UNIVERSITY HOSPITAL

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Makassar, January 6nd, 2017

No : 0072 /UN4.26/TU.11/2017

Att : Response to Pre-FS on HUH Development Plan (Rev).

Dear Milena Buyene-Kuehnl,

We do apologize to tell you that we have to revise our response on your Pre-Feasibility Study report. We just received official letter from Financial and Development Supervisory Agency (BPKP) regarding the estimation cost for building construction at 4th january 2017. We have already adjusted the cost for consruction and equipment accordingly as attached.

Kindly please feel free to find the revised Pre-Feasibility Study of Hasanuddin University Hospital Development Project.

Thank you very much in advance for your understanding.

Best Regards,
Director of General Administration,
Human Resources & Finance

Dr. Indrianty Sudirman, SE, M.Si
NIP. 196901281999032001

Endorsed by,
President Director

Dr. dr. Andi Fachruddin Benyamin, Sp.PD-KHOM
NIP. 195212191980111002



Responses to pre feasibility study on Hasanuddin University Development Plan

1. Section 1.2 : Governence, Organization And Managemen

Page 1, Paragraph 1, 1st sentence

- HUH plays a significant role in eastern Indonesia as a provider of **medical profession education** as well as the highest level of clinical care, an exemplar of clinical excellence, a centre for research and a university training centre

2. Section 1.3 : Human Resourches Management & Development

Page 2, Paragraph 2, 2st Sentences

- We actually have updated bussiness plan but not covering human resources, we will revise it accordingly. (Annex 6 : Bussines Plan of HUH 2014)

3. Section 3.1 : Employment Condition

Page 20, Paragraph 2

- Since HUH is a new entity in Hasanuddin University, most revenue is allocated for operational cost of hospital and small portion used for development. The main funding of HUH comes from HUH's revenues
- Salaries of about 45% of the staff employed by HUH (who have civil servant status) are paid by the central government. Those employees consisting of 103 are permanent civil servant at HUH, 160 are civil servant assigned by Hasanuddin University as part-time and 96 are civil servant from ministry of health as part-time.

Page 20, Paragraph 3

- The management staff of HUH come from the workforce Hasanuddin University, consisting of faculty of medicine, faculty of public health, faculty of pharmacy, faculty of economic and bussines and from head office of Hasanuddin Unversity.



MINISTER OF RESEARCH, TECHNOLOGY AND HIGHER EDUCATION
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- Most of executives are appointed as part-time managers to govern HUH, while the two of them are full time.
- 4. Section 3.3 : Evaluation of HRM and HRD at HUH**
- According to EPOS findings, the management of human resources is still weak and need to be improved. Therefore, we propose to reallocate some parts of budget for continuing professional education to revitalize HRM system, starting from job analysis to performance management.
 - a. Annex 5 replaced by annex 1 (Details of the proposed budget expenditure by activity type & Details Budget of Clinical Information System and Telemedicine)
 - b. Annex 15 replaced by annex 2 (University level education plan)
 - c. Annex 20 replaced by annex 3 (Timeline options)
- 5. Section 4.4.7. Estimated Cost of Completion**
- Regarding on EPOS team review that estimated cost for completion of BCD building of Hasanuddin University Hospital would take into account about IDR 200 billion, the equivalent of USD 15,4 million. Based on this, senior managers of Hasanuddin University Hospital met with Central BPKP Team to determine budget planning for continuing the completion. Therefore, Central BPKP Team decided that estimated cost for the completion of the building would be around IDR 154 billion, the equivalent of USD 11 million.
 - Annex 22b replaced by annex 5 (Revised building cost estimates)
- 6. Section 5.2 Equipment Planning**
- The Medical equipment planned for inclusion in HUH development plan covers: Traumatology, Neurointervention, Eye, Fertility Endocrine And Reproductive and Medical Rehabilitation Services. Based on a pre-feasibility study on development plan of Hasanuddin University Hospital conducted by EPOS Team, it is reduced budget for completing of building construction.
 - Annex 21b replaced by annex 4 (Revised equipment estimates).



MINISTER OF RESEARCH, TECHNOLOGY AND HIGHER EDUCATION
HASANUDDIN UNIVERSITY HOSPITAL

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7. Section 4.2.3 Building E, F

- Basement Level – Medical Imaging contains rooms designed for general X-Ray, CT Scan and MRI. At present there are general X-Ray, fluoroscopy installation, CT Scan 128 Slice Source, no MRI.
- L2 – The Associated Sterilising Unit has had a sterilizer with a large capacity so as to sterilization equipment is no longer done in Building A.

8. Section 4.3 Technical and Environmental Services

- The Hospitals have 3 departments responsible in provision of technical services and environmental service. The Environmental and Safety Department are responsible for establishing quality standards and monitoring ongoing compliance. The engineer and Maintenance Department are responsible for operation, maintenance and troubleshooting equipment and utility system hospitals. General Service Department are responsible for monitoring the cleaning services, security services and transportation.

9. Section 4.3.1 Electricity Supply

- Each of the three main building is supplied electricity from PLN power grid by different electrical power capacity. Building A has a capacity 850 KVA, Building E,F and Building B, C,D have a capacity 2 X850 KVA.

10. Section 4.3.2 Emergency Power Supply

- Building A was not installed an emergency generator only a small semi-portable generator (about 5KVA). The generator supplies Into Space Operations ophthalmology.
- Building E,F emergency generators installed where there are two diesel generators with a voltage of 2 x 810 KVA. Building E, F also have UPS with voltage in 2 x 300 KVA that provides electrical power to areas high-risk equipment. And building B, C, D just have diesel generator with voltage in 850 KVA.

ANNEX 1

Details of The Proposed Budget Expenditure by Activity

No	Activities	Cost (USD)			Budget (IDR)	
		1 USD = 13,950 IDR				
		Loan	Counterpart Funding	Total Cost	Total Project Budget	
I	Completion of Structural BC Building	10.302.776	770.902	11.073.677	Rp	154.477.800.000
II	Hospital Equipment					
	Standardized Equipment for profession education of medical doctor	4.902.898	-	4.902.898	Rp	68.395.420.440
	Improving of Service Excellences	4.165.817	-	4.165.817	Rp	58.113.142.765
	Improving Diagnostic Centre and Clinical Pharmacy	3.576.417	-	3.576.417	Rp	49.891.023.240
	Internsip Training Centre (Simulation Centre)	4.264.198	-	4.264.198	Rp	59.485.562.500
	Improving Hasanuddin University Research Laboratory	402.509	-	402.509	Rp	5.615.000.000
	Subtotal	17.311.839		17.311.839	Rp	241.500.148.945
	Subtotal II + PPN 10%	19.043.022		19.043.022	Rp	265.650.163.840
III.	Human Resources Development					
	Revitalization of Human Resource Management		36.101	36.101	Rp	503.604.060
	Human Resource Training to improve competence of employee in hospital		191.319	191.319	Rp	2.668.900.000
	Human Resource Education		546.237	546.237	Rp	7.620.000.000
	Subtotal III		773.656	773.656	Rp	10.792.504.060,00
IV.	System Development					
	Clinic and Management Information System (MIS and Telemedicine)	716.846		716.846	Rp	10.000.000.000
	Subtotal IV	716.846		716.846	Rp	10.000.000.000
	Total (I+II+III+IV)	30.062.644	1.544.558	31.607.202	Rp	440.920.467.900
V.	Management consultant		918.456	918.456	Rp	12.812.461.200
	(3% x Total I+II+III+IV)					
VI.	Contingency 5%	1.503.132	123.151	1.626.283	Rp	22.686.646.455
	Total Project (I+II+III+IV+V).....	30.062.644	2.463.014	32.525.658	Rp	453.732.929.100
	Total Project + Contingency	31.565.776	2.586.165	34.151.941	Rp	476.419.576.950

ANNEX 1

**Details Budget of Clinical Information System and Telemedicine
Hasanuddin University Hospital**

No.	Component Activity	Amount	Cost	Total Cost
A. Software				
1	Polyclinics	11 modul	Rp 550.000.000	
2	Inpatient	17 modul	Rp 850.000.000	
3	Emergency Unit	2 modul	Rp 100.000.000	
4	Measures of Medical & Support Services	48 modul	Rp 2.450.000.000	
5	Dictionary of Medical Terms	2 modul	Rp 100.000.000	
6	Clinical pharmacy	3 modul	Rp 150.000.000	
	SUB-TOTAL	87 modul		Rp 4.200.000.000
B. Training & Human Resource Development				
1	Implementation Training for Pharmacists	6 orang	Rp 25.000.000	
2	Implementation Training for SIM Staff	6 orang	Rp 25.000.000	
	SUB-TOTAL	12 orang		Rp 50.000.000
A. Software (Software) / Module Telemedicine Clinic				
1	Tele-consultation	14 modul	Rp 700.000.000	
2	Tele-monitoring	16 modul	Rp 800.000.000	
3	Tele-radiology	8 modul	Rp 400.000.000	
4	Tele-pathology	17 modul	Rp 850.000.000	
5	Tele-cardiology	4 modul	Rp 200.000.000	
6	Tele-pulmonology	1 modul	Rp 50.000.000	
7	Tele-neurology	1 modul	Rp 50.000.000	
		61 modul		Rp 3.050.000.000
B. Technical Devices				
1	Data-Call Centre (build up)	1 set	Rp 2.000.000.000	
2	Medical audio-video broadcast (multiple)	5 unit	Rp 400.000.000	
3	Medical audio-video broadcast (single)	10 unit	Rp 300.000.000	
	SUB-TOTAL			Rp 2.700.000.000
			TOTAL	Rp 10.000.000.000

ANNEX 2. BUDGET OF EDUCATION PLAN FOR EDUCATION EMPLOYEE

NO	TYPE OF HRH	STUDY PROGRAM	Jenjang pendidikan (D1/D2/D3/D4/S1/profesi/S2/S2-T/S3/S3-T)	Basic Education Level Employee	Participant	Number of Semester	BUDGET/SEMESTER		TOTAL
							SPP	Operasional	
1	Medic Specialist	Interna	S2-T	Profession	1	8	Rp 10.000.000	Rp 20.000.000	Rp 240.000.000
		Pediatric	S2-T	Profession	1	8	Rp 10.000.000	Rp 20.000.000	Rp 240.000.000
		General Surgery + Oncology	S3-T	Profession	1	10	Rp 10.000.000	Rp 20.000.000	Rp 300.000.000
		Orthopedy	S2-T	Profession	1	8	Rp 10.000.000	Rp 20.000.000	Rp 240.000.000
		Eye	S2-T	Profession	1	8	Rp 10.000.000	Rp 20.000.000	Rp 240.000.000
		Neurology	S2-T	Profession	1	8	Rp 10.000.000	Rp 20.000.000	Rp 240.000.000
		Medical Rehabilitation	S2-T	Profession	1	8	Rp 10.000.000	Rp 20.000.000	Rp 240.000.000
		Clinical Pathology	S2-T	Profession	1	8	Rp 10.000.000	Rp 20.000.000	Rp 240.000.000
		Neurosurgery	S2-T	Profession	1	8	Rp 10.000.000	Rp 20.000.000	Rp 240.000.000
		Radiology	S2-T	Profession	1	8	Rp 10.000.000	Rp 20.000.000	Rp 240.000.000
		Anatomic Pathology	S2-T	Profession	1	8	Rp 10.000.000	Rp 20.000.000	Rp 240.000.000
2	Nurse	Specialist	S2-T	Profession	20	6	Rp 12.000.000	Rp 14.000.000	Rp 3.120.000.000
		Management Keperawatan	S2	Profession	1	4	Rp 10.000.000	Rp 10.000.000	Rp 80.000.000
3	Non Medic	Biomedic Technic	S2	S1	1	4	Rp 8.000.000	Rp 10.000.000	Rp 72.000.000
		Electromedic	D4	D3	2	2	Rp 8.000.000	Rp 10.000.000	Rp 72.000.000
		Technical Information	S2	S1	1	4	Rp 8.000.000	Rp 10.000.000	Rp 72.000.000
		Management	S2	S1	12	4	Rp 10.000.000	Rp 10.000.000	Rp 960.000.000
4	Supporting Medical	Medical Laboratory Technology	S1	D3	2	4	Rp 7.000.000	Rp 10.000.000	Rp 136.000.000
		Laboratory Patology Anatomy	S1	D3	1	4	Rp 7.000.000	Rp 10.000.000	Rp 68.000.000
		Laboratory Mikrobiologi	S1	D3	1	4	Rp 7.000.000	Rp 10.000.000	Rp 68.000.000
		Radiotherapy	S2	S1	1	4	Rp 7.000.000	Rp 10.000.000	Rp 68.000.000
		Radiology	S1	D3	2	4	Rp 7.000.000	Rp 10.000.000	Rp 136.000.000
		Farmacy Clinic	S2	S1	1	4	Rp 7.000.000	Rp 10.000.000	Rp 68.000.000
Total									7.620.000.000
									\$ 546.237

ANNEX 2

**EDUCATION PLAN FOR MEDICAL DOCTORS
HASANUDDIN UNIVERSITY HOSPITAL**

Study Program	The School/ University	Level Education (D1/D2/D3/D4/S1//Profesi/S2 /S2-T/S3/S3-T)	Basic Education Level Employee	Number of Semester		Year			Participant
						2017	2018	2019	
Interna	Hasanuddin University	S2-T	Profession	8	Semester	1 person			1
Pediatric	Hasanuddin University	S2-T	Profession	8	Semester		1 person		1
General Surgery + Oncology	Hasanuddin University	S3-T	Profession	10	Semester		1 person		1
Orthopedy	Hasanuddin University	S2-T	Profession	8	Semester		1 person		1
Eye	Hasanuddin University	S2-T	Profession	8	Semester	1 person			1
Neurology	Hasanuddin University	S2-T	Profession	8	Semester		1 person		1
Medical Rehabilitation	Indonesia University	S2-T	Profession	8	Semester	1 person			1
Clinical Pathology	Hasanuddin University	S2-T	Profession	8	Semester	1 person			1
Neurosurgery	Hasanuddin University	S2-T	Profession	8	Semester		1 person		1
Radiology	Hasanuddin University	S2-T	Profession	8	Semester	1 person			1
TOTAL									10

ANNEX 2

**EDUCATION PLAN FOR NURSE AND MIDWIFE
HASANUDDIN UNIVERSITY HOSPITAL**

No.	Study Program	Plan Of Study	Level Education (D1/D2/D3/D4/S1//profesi /S2/S2-T/S3/S3-T)	Basic Education Level Employee	Number of Semester	Year			Participant
						2017	2018	2019	
1	Ners spesialis Kep. Anak (Cancer)	UI/UNPAD/UNAIR	S2-T	Profession	6 Semester		1	1	2
2	Ners spesialis Kep. Kritis (Trauma)	UNPAD	S2-T	Profession	6 Semester		1	1	2
3	Ners spesialis Kep. Medikal Bedah (Cancer)	UNHAS/UI/UNPAD/UN AIR	S2-T	Profession	6 Semester		1	1	2
4	Ners spesialis Kep. Medikal Bedah (Urologi)	UNHAS/UI/UNPAD/UN AIR	S2-T	Profession	6 Semester		1	1	2
5	Ners spesialis Kep. Medikal Bedah (Cardiovaskular)	UNHAS/UI/UNPAD/UN AIR	S2-T	Profession	6 Semester		1	1	2
6	Ners spesialis Kep. Medikal Bedah (Cerebral/Neurologi dan vaskular)	UNHAS/UI/UNPAD/UN AIR	S2-T	Profession	6 Semester		1	1	2
7	Ners spesialis Kep. Medikal Bedah (Endokrin Metabolik)	UNHAS/UI/UNPAD/UN AIR	S2-T	Profession	6 Semester		1	1	2
8	Ners spesialis Kep. Jiwa	UI/UNPAD/UNAIR	S2-T	Profession	6 Semester		1	1	2
9	Ners spesialis Kep. Medikal Bedah (Eye)	UNHAS/UI/UNPAD/UN AIR	S2-T	Profession	6 Semester		1	1	2
10	Management Keperawatan	UNHAS	S2-T	Profession	4 Semester		1	1	2
Total									20

ANNEX 2**EDUCATION PLAN FOR MANAGEMENT
HASANUDDIN UNIVERSITY HOSPITAL**

Program Studi	Plan Of Study	Level Education (D1/D2/D3/D4/S1//profesi/ S2/S2-T/S3/S3-T)	Basic Education Level Employee	Number of Semester	Year			Participant
					2017	2018	2019	
Management	Unhas/UI/UGM/ Unair	S2	S1	4 Semester	3 Person	3 Person	3 Person	9
Accounting	Unhas/UI/UGM/ Unair	Profession	S1	2 Semester		2 Person		2
Law	Unhas/UI/UGM/ Unair	S2	S1	4 Semester		1 Person		1
TOTAL								12

ANNEX 2

**EDUCATION PLAN FOR TECHNICAL SUPPORT STAFF
HASANUDDIN UNIVERSITY HOSPITAL**

Departement	Program Studi (Bidang)	Plan Of Study	Level Education (D1/D2/D3/D4/S1//profe si/S2/S2-T/S3/S3-T)	Basic Education Level Employee	Number of Semester		Year			Participa nt	
							2017	2018	2019		
Radiotherapy	Medical Physic	UNIVERSITAS HASANUDDIN	S2	S1	4	Semester		1 Orang		1	1
Radiology	Technic Radiology	POLTEKES KEMENKES SEMARANG	S1	D3	2	Semester	1 Orang	1 Orang	1 Orang	3	3
Technical Hospital Instalation	BIOMEDIC TECHNIC	UNIVERSITAS INDONESIA/ UNIVERSITI TEKNOLOGI MALAYSIA (UTM)	S2	S1	4	Semester	1 Orang			1	3
	Electromedic	POLTEKES KEMENKES JAKARTA II / D4 TEKNIK ELEKTRO POLTEK MKS/ S1 TEKNIK ELKETRO UNHAS	D4	D3	2	Semester	1 Orang	1 Orang		2	
Farmacy Clinic	Farmacy Clinic	UNIVERSITAS GAJAH MADA / UNIVERSITAS AIRLANGGA	S2	Profession	4	Semester	1 Orang	1 Orang		1	1
Laboratory	Medical LaboratoryTechnology	UNIVERSITAS GAJAH MADA / UNIVERSITAS AIRLANGGA	S1	D3	2	Semester	1 Orang	1 Orang		1	1
	Laboratory Patology Anatomy	Unhas	S1	D3	2	Semester	1 Orang			1	1
	Laboratory Microbiology	Unhas	S1	D3	2	Semester	1 Orang			1	1
System Information Management	Technic Information	UNHAS	S2	S1	4	Semester		1 Orang		1	1
	Psikology Clinic	Unhas/UI/UGM/ Unair	S2	S1	4 Semester		1 Person		1		
TOTAL										12	12

ANNEX 2

Budget Training of Human Resources to increase the competence of educators in the Hasanuddin University Hospital

No.	Training	Year				Eksternal Training					Total
		2017	2018	2019	Perticipant	Registration/ people	Total Registrasi	Tiket	Acommodation	Lump Sump	
1	Advance Trauma Life Support (ATLS)	2	2	1	5	5.000.000	25.000.000	15.000.000	15.000.000	13.000.000	68.000.000
2	Advance Cardiac Life Support (ACLS)	2	2	1	5	5.000.000	25.000.000	-	-	1.500.000	26.500.000
3	Basic Trauma and Cardiac Life Support (BTCLS)	2	2	1	5	3.000.000	15.000.000	-	-	1.500.000	16.500.000
4	Advanced Level Emergency Nursing	2	2	2	6	5.000.000	30.000.000	18.000.000	18.000.000	15.600.000	81.600.000
5	Management Trauma Post Disaster	1	1	1	3	2.500.000	7.500.000	9.000.000	9.000.000	7.800.000	33.300.000
6	Training pediatric Ophthalmology	1	1	1	3	15.000.000	45.000.000	36.000.000	54.000.000	18.000.000	153.000.000
7	Training OT Management ophtalmology	1	1	1	3	10.000.000	30.000.000	18.000.000	9.000.000	9.000.000	66.000.000
8	Basic Eye Nurse Training	1	1	1	3	5.000.000	15.000.000	18.000.000	9.000.000	9.000.000	51.000.000
9	Advanced Eye Nurse Training	1	1	1	3	10.000.000	30.000.000	18.000.000	9.000.000	9.000.000	66.000.000
10	Community Eye Nurse Training	1	1	1	3	5.000.000	15.000.000	18.000.000	9.000.000	9.000.000	51.000.000
11	Training care of cancer patients with chemotherapy	1	1	1	3	3.500.000	10.500.000	9.000.000	9.000.000	7.800.000	36.300.000
12	Training advanced cancer nurses	1	1	1	3	10.000.000	30.000.000	9.000.000	9.000.000	7.800.000	55.800.000
13	Training Wound Care	1	1	1	3	10.000.000	30.000.000	9.000.000	9.000.000	7.800.000	55.800.000
14	Training of paliative care	1	1	1	3	3.500.000	10.500.000	9.000.000	9.000.000	7.800.000	36.300.000

No.	Training	Year				Eksternal Training					Total
		2017	2018	2019	Perticipant	Registration/ people	Total Registrasi	Tiket	Acommodation	Lump Sump	
15	Radiotherapy Nurse Training	1	1	1	3	5.000.000	15.000.000	9.000.000	9.000.000	7.800.000	40.800.000
16	IVF Nurse Training	1	1	1	3	60.000.000	180.000.000	36.000.000	27.000.000	36.000.000	279.000.000
17	Embriologist	1	1	1	3	60.000.000	180.000.000	36.000.000	27.000.000	36.000.000	279.000.000
18	Konsultan Invitro Fertilisasi	1	1	1	3	60.000.000	180.000.000	36.000.000	27.000.000	36.000.000	279.000.000
19	Stroke Nursing Training	1	1	1	3	5.000.000	15.000.000	9.000.000	9.000.000	7.800.000	40.800.000
20	Basic neurology nurse training	1	1	1	3	5.000.000	15.000.000	9.000.000	9.000.000	7.800.000	40.800.000
21	Neurointervention Nurse Training	1	1	1	3	5.000.000	15.000.000	9.000.000	9.000.000	7.800.000	40.800.000
22	Neuro rehabilitation nurse training	1	1	1	3	5.000.000	15.000.000	9.000.000	9.000.000	7.800.000	40.800.000
23	USG Muscleskeletal for guiding injectioun procedure	1	1	1	3	5.000.000	15.000.000	9.000.000	9.000.000	7.800.000	40.800.000
24	Phisical terapis	1	1	1	3	5.000.000	15.000.000	9.000.000	9.000.000	7.800.000	40.800.000
25	Occupation therapis	1	1	1	3	5.000.000	15.000.000	9.000.000	9.000.000	7.800.000	40.800.000
26	Orthostic	1	1	1	3	5.000.000	15.000.000	9.000.000	9.000.000	7.800.000	40.800.000
27	Basic Emergency Obstetric Neonatal Care		1	1	2	5.000.000	10.000.000	-	-	1.000.000	11.000.000
28	Midwifery Update		1	1	2	5.000.000	10.000.000	-	-	1.000.000	11.000.000
29	Diesel Engine : Operation & Maintenance	1	1	1	3	Rp 5.000.000	15.000.000	9.000.000	9.000.000	7.800.000	40.800.000
30	Maintenance & repair Alat Kesehatan	1	1	1	3	Rp 4.000.000	12.000.000	9.000.000	9.000.000	7.800.000	37.800.000
31	Pelatihan Manajemen	25	25	20	70	Rp 4.000.000	280.000.000	140.000.000	42.000.000	105.000.000	567.000.000
Amount							1.320.500.000	533.000.000	390.000.000	425.400.000	2.668.900.000
Total											\$ 191.319

ANNEX 4

**THE PLAN OF MEDICAL EQUIPMENT
HASANUDDIN UNIVERSITY HOSPITAL**

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
I. IMPROVING OF FIVE SERVICES EXCELLENCES						
1.1 TRAUMA SERVICES CENTER EQUIPMENT						
I. ICU, ICCU EQUIPMENT						
1	CCRT	1	Unit	Rp 780.000.000	Rp 780.000.000	
2	Ventilator	10	Unit	Rp 785.800.750	Rp 7.858.007.500	
3	Defibrilator	3	Unit	Rp 156.921.000	Rp 470.763.000	
4	Patient Monitor	16	Unit	Rp 50.000.000	Rp 800.000.000	
5	Central Patient Monitor	2	Unit	Rp 274.417.186	Rp 548.834.372	
6	Syringe pump	16	Unit	Rp 14.991.900	Rp 239.870.400	
7	Infusion Pump	16	Unit	Rp 24.909.060	Rp 398.544.960	
8	Patient Warming (and Cooling) Machine	2	Unit	Rp 146.349.000	Rp 292.698.000	
9	Emergency Trolley	4	Unit	Rp 31.000.000	Rp 124.000.000	
II. OPERATING THEATER EQUIPMENT						
a. OT #1 (Orthopaedic)						
10	Operating Lamp	1	Unit	Rp 1.606.000.000	Rp 1.606.000.000	
11	Anaesthesia Machine	1	Unit	Rp 459.400.150	Rp 459.400.150	
12	Patient Monitor	1	Unit	Rp 50.000.000	Rp 50.000.000	
13	Operating Table Orthopaedic	1	Unit	Rp 1.188.318.000	Rp 1.188.318.000	
14	Electrosurgery Unit	1	Unit	Rp 288.460.000	Rp 288.460.000	
15	Defibrilator	1	Unit	Rp 156.921.000	Rp 156.921.000	
b. OT #2 (Neurosurgery)						
16	Operating Lamp	1	Unit	Rp 1.606.000.000	Rp 1.606.000.000	
17	Anaesthesia Machine	1	Unit	Rp 459.400.150	Rp 459.400.150	
18	Patient Monitor	1	Unit	Rp 50.000.000	Rp 50.000.000	
19	Operating Table	1	Unit	Rp 1.188.318.000	Rp 1.188.318.000	
20	Electrosurgery Unit	1	Unit	Rp 288.460.000	Rp 288.460.000	
21	Defibrilator	1	Unit	Rp 156.921.000	Rp 156.921.000	
c. OT #3 (Digestive surgery)						
22	Operating Lamp	1	unit	Rp 1.606.000.000	Rp 1.606.000.000	
23	Anaesthesia Machine	1	unit	Rp 459.400.150	Rp 459.400.150	
24	Patient Monitor	1	unit	Rp 50.000.000	Rp 50.000.000	
25	Operating Table	1	unit	Rp 1.188.318.000	Rp 1.188.318.000	
26	Electrosurgery Unit	1	Unit	Rp 288.460.000	Rp 288.460.000	
27	Defibrilator	1	Unit	Rp 156.921.000	Rp 156.921.000	
d. OT #4 (Ear, Nose & Throat (Otorhinolaryngology))						
28	Fess Instrument Set	1	Unit	Rp 117.332.000	Rp 117.332.000	
29	Operating Lamp	1	Unit	Rp 1.606.000.000	Rp 1.606.000.000	
30	Anaesthesia Machine	1	Unit	Rp 459.400.150	Rp 459.400.150	
31	Patient Monitor	1	Unit	Rp 50.000.000	Rp 50.000.000	
32	Operating Table	1	Unit	Rp 1.188.318.000	Rp 1.188.318.000	
33	Electrosurgery Unit	1	Unit	Rp 288.460.000	Rp 288.460.000	
34	Defibrilator	1	Unit	Rp 156.921.000	Rp 156.921.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
e. OT #6 (Plastic Surgery)						
35	Operating Lamp	1	Unit	Rp 1.606.000.000	Rp 1.606.000.000	
36	Anaesthesia Machine	1	Unit	Rp 459.400.150	Rp 459.400.150	
37	Patient Monitor	1	Unit	Rp 50.000.000	Rp 50.000.000	
38	Operating Table	1	Unit	Rp 1.188.318.000	Rp 1.188.318.000	
39	Electrosurgery Unit	1	Unit	Rp 288.460.000	Rp 288.460.000	
40	Defibrillator	1	Unit	Rp 156.921.000	Rp 156.921.000	
f. OT #7 (Urology)						
41	Caluson Unit	1	Unit	Rp 383.255.119	Rp 383.255.119	
42	Operating Lamp	1	Unit	Rp 1.606.000.000	Rp 1.606.000.000	
43	Anaesthesia Machine	1	Unit	Rp 459.400.150	Rp 459.400.150	
44	Patient Monitor	1	Unit	Rp 50.000.000	Rp 50.000.000	
45	Operating Table	1	Unit	Rp 1.188.318.000	Rp 1.188.318.000	
46	Defibrillator	1	Unit	Rp 156.921.000	Rp 156.921.000	
g. OT #8 (Heart And Vaskuler Surgery)						
47	Operating Lamp	1	Unit	Rp 1.606.000.000	Rp 1.606.000.000	
48	Anaesthesia Machine	1	Unit	Rp 459.400.150	Rp 459.400.150	
49	Patient Monitor	1	Unit	Rp 50.000.000	Rp 50.000.000	
50	Operating Table	1	Unit	Rp 1.188.318.000	Rp 1.188.318.000	
51	Electrosurgery Unit	1	Unit	Rp 288.460.000	Rp 288.460.000	
52	Defibrillator	1	Unit	Rp 156.921.000	Rp 156.921.000	
h. OT #1 & #2 (Onkology)						
53	Operating Lamp	1	Unit	Rp 1.606.000.000	Rp 1.606.000.000	
54	Anaesthesia Machine	1	Unit	Rp 459.400.150	Rp 459.400.150	
55	Patient Monitor	1	Unit	Rp 50.000.000	Rp 50.000.000	
56	Operating Table	1	Unit	Rp 1.188.318.000	Rp 1.188.318.000	
57	Electrosurgery Unit	1	Unit	Rp 288.460.000	Rp 288.460.000	
58	Defibrillator	1	Unit	Rp 156.921.000	Rp 156.921.000	
III. RECOVERY ROOM						
59	Patient Monitor	5	Unit	Rp 50.000.000	Rp 250.000.000	
60	Patient Stracher	4	Unit	Rp 3.720.000	Rp 14.880.000	
61	Defibrillator	2	Unit	Rp 156.921.000	Rp 313.842.000	
62	Emergency trolley	2	Unit	Rp 31.000.000	Rp 62.000.000	
63	Infusion pump	4	Unit	Rp 20.250.000	Rp 81.000.000	
64	Syringe pump	4	Unit	Rp 14.991.900	Rp 59.967.600	
65	Suction pump	1	Unit	Rp 26.345.000	Rp 26.345.000	
66	Patient Warming System	2	Unit	Rp 49.394.212	Rp 98.788.424	
IV. PSYCHIATRY:						
67	Transcranial Magnetic Stimulation	1	Unit	Rp 950.000.000	Rp 950.000.000	
V. CENTRAL STERILE SUPPLY DEPARTEMENT						
68	Steam Sterile 2 Doors 1000 Ltr	1	Unit	Rp 1.100.000.000	Rp 1.100.000.000	
SUBTOTAL TRAUMA SERVICES CENTER					Rp 44.674.461.575	
1.2 NEUROINTERVENTION SERVICES CENTER EQUIPMENT						
69	EMG	1	Unit	Rp 437.199.840	Rp 437.199.840	
SUBTOTAL NEUROINTERVENTION SERVICES					Rp 437.199.840	
1.3 EYE SERVICES CENTER EQUIPMENT						
70	OCT	1	Unit	Rp 2.510.695.000	Rp 2.510.695.000	
71	Ret Cam	1	Unit	Rp 1.981.520.000	Rp 1.981.520.000	
SUBTOTAL EYE SERVICES CENTER					Rp 4.492.215.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
1.4 REHABILITATION SERVICES CENTER EQUIPMENT						
	a.Diagnostic					
72	Examination Table	5	Unit	Rp 15.200.000	Rp 76.000.000	
73	Examination Lamp	1	Unit	Rp 872.000	Rp 872.000	
74	Handgrip strength dynamometer	1	Unit	Rp 400.000	Rp 400.000	
75	Handheld dynamometer	1	Unit	Rp 500.000	Rp 500.000	
76	Surface electromyography (Biofeedba	1	Set	Rp 137.500.000	Rp 137.500.000	
77	Inclinometer	2	Unit	Rp 3.490.000	Rp 6.980.000	
78	Peak flow meter	1	Unit	Rp 1.100.000	Rp 1.100.000	
79	USG Musculoskeletal Set*	1	Unit	251.000.000	Rp 251.000.000	
	a. Physical Modality					
80	Shortwave diathermy	1	Unit	Rp 148.300.000	Rp 148.300.000	
81	Microwave diathermy	1	Unit	Rp 133.210.000	Rp 133.210.000	
82	Ultrasound diathermy	2	Unit	Rp 80.312.000	Rp 160.624.000	
83	TENS	1	Unit	Rp 103.510.000	Rp 103.510.000	
84	Neuromuskular Electrical stimulatio	1	Unit	Rp 115.156.000	Rp 115.156.000	
85	Infrared (Lampu 80)	1	Unit	Rp 6.000.000	Rp 6.000.000	
86	Paraffin Bath	1	Unit	Rp 7.000.000	Rp 7.000.000	
87	High Level Laser Therapy	1	Unit	Rp 250.000.000	Rp 250.000.000	
88	Nebulizer Jet	3	Unit	Rp 900.000	Rp 2.700.000	
89	Nebulizer Ultrasound	1	Unit	Rp 6.000.000	Rp 6.000.000	
90	Set Traksi (motorized)	1	Unit	Rp 105.500.000	Rp 105.500.000	
91	Pneumatic Compression Device	1	Unit	Rp 85.000.000	Rp 85.000.000	
92	Ultraviolet quartz lamp	1	Unit	Rp 18.000.000	Rp 18.000.000	
93	Incentive Spirometri	2	Unit	Rp 600.000	Rp 1.200.000	
94	Whirpool bath	1	Unit	Rp 60.750.000	Rp 60.750.000	
95	Vital Stim	1	Unit	Rp 150.200.000	Rp 150.200.000	
96	Continous Passive Movement Set (knee & ankle)*	2	Unit	Rp 67.500.000	Rp 135.000.000	
97	Extracorporeal Shockwave Therapy	1	Unit	Rp 85.000.000	Rp 85.000.000	
98	Cryotherapy	1	Unit	Rp 157.000.000	Rp 157.000.000	
99	Transcranial Magnetic Stimulator	1	Unit	Rp 503.949.223	Rp 503.949.223	
	b. Gymnasium					
	1. Exercise Set equipment					
100	Bosu balance trainer	1	Unit	Rp 1.100.000	Rp 1.100.000	
101	Trampette (trampoline) set	1	Unit	Rp 1.200.000	Rp 1.200.000	
102	Matras set	4	Unit	Rp 6.400.000	Rp 25.600.000	
103	Floor protection mats	4	Set	Rp 600.000	Rp 2.400.000	
104	Gymnastic ball	3	Unit	Rp 350.000	Rp 1.050.000	
105	Wall Bar	1	Set	Rp 5.000.000	Rp 5.000.000	
106	Shoulder wheel	1	Unit	Rp 1.000.000	Rp 1.000.000	
107	Theraband exercise set	3	Unit	Rp 300.000	Rp 900.000	
108	Finger ladder	1	Unit	Rp 610.527	Rp 610.527	
109	Ladder Set	1	Unit	Rp 3.000.000	Rp 3.000.000	
110	Therapeutic position equipment set (supine-prone lying wede, supine stander, floor sitter)	1	Unit	Rp 5.000.000	Rp 5.000.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
	2. Exercise device				Rp -	
111	Treadmill	1	Unit	Rp 386.363.600	Rp 386.363.600	
112	Ergocycle (static bicycle)	1	Unit	Rp 380.000.000	Rp 380.000.000	
113	Arm Ergocycle (arm crank)	1	Unit	Rp 30.000.000	Rp 30.000.000	
114	Tilting Table	1	Unit	Rp 27.500.000	Rp 27.500.000	
115	Suspension & pulley equipment (EN)	1	Unit	Rp 63.500.000	Rp 63.500.000	
116	Parallel bars	1	Unit	Rp 8.800.000	Rp 8.800.000	
117	Quadricep Bench (NK-Table)	1	Unit	Rp 15.000.000	Rp 15.000.000	
118	Leg press set	1	Unit	Rp 20.000.000	Rp 20.000.000	
119	Portable CPR Device*	1	Unit	Rp 13.400.000	Rp 13.400.000	
120	d. Speech Therapy					
121	Speech Therapy	1	Unit	Rp 121.120.000	Rp 121.120.000	
	F. Occupational therapy					
122	Sensory integration therapy Equipment	1	Unit	Rp 64.350.000	Rp 64.350.000	
123	ADL Exercises Equipment	1	Unit	Rp 152.321.000	Rp 152.321.000	
124	Snoozlen Set	1	Set	Rp 135.000.000	Rp 135.000.000	
125	G. Ambulance Aid	1	Set	Rp 55.000.000	Rp 55.000.000	
	J. Orthotic Prosthetic Equipment Set (Ruang Ortho Prostetic) *					
126	Orthotic Prosthetic Equipment Set	1	Set	Rp 1.000.000.000	Rp 1.000.000.000	
SUBTOTAL REHABILITATION SERVICES CENTER					Rp 5.227.666.350	
1.5 FERTILITY ENDOCRINE AND REPRODUCTIVE SERVICES CENTER EQUIPMENT						
127	A. FER Laboratory Clinic	1	set			
-	Hefa	1		Rp 1.000.000.000	Rp 1.000.000.000	
-	USG 3 D Logic	2		Rp 700.000.000	Rp 1.400.000.000	
-	Patient Monitor	1		Rp 80.000.000	Rp 80.000.000	
-	Test tube Heater	1		Rp 30.000.000	Rp 30.000.000	
-	Power Supply for test tube heater	1		Rp 20.000.000	Rp 20.000.000	
	Examination Lamp	2		Rp 10.000.000	Rp 20.000.000	
-	Micropipettor	2		Rp 10.000.000	Rp 20.000.000	
-	Micropipettor	2		Rp 10.000.000	Rp 20.000.000	
-	IVF Thermometer	1		Rp 8.000.000	Rp 8.000.000	
-	Pipetro 10-100 ml	2		Rp 10.000.000	Rp 20.000.000	
-	Laminar Air Flow Cabinet (LAF)	1		Rp 200.000.000	Rp 200.000.000	
-	Pipetro 20-100 ml	2		Rp 10.000.000	Rp 20.000.000	
-	Pipetro 100-1000 ml	2		Rp 10.000.000	Rp 20.000.000	
-	Gynecology Table	2		Rp 50.000.000	Rp 100.000.000	
-	Laboratory Refrigerator	1		Rp 10.000.000	Rp 10.000.000	
-	Air Incubator	1		Rp 250.000.000	Rp 250.000.000	
-	Instrument basin (large)	10		Rp 300.000	Rp 3.000.000	
-	Binocular Microscope	1	Olympus	Rp 30.000.000	Rp 60.000.000	
-	Neubauer Counting Chamber	2		Rp 300.000	Rp 600.000	
SUBTOTAL FER SERVICES CENTER					Rp 3.281.600.000	
SUBTOTAL FIVE SERVICES EXCELLENES					Rp 58.113.142.765	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
II. IMPROVING OF THE DIAGNOSTIC DAN CLINICAL PHARMACY						
2.1 DIAGNOSTIK CENTER SERVICES EQUIPMENT						
128	X-Ray Mobile	1	Unit	Rp 378.083.255	Rp 378.083.255	
129	USG 4D For Radiology	1	Unit	Rp 1.606.063.873	Rp 1.606.063.873	
130	MRI 3T	1	Unit	Rp 21.275.000.000	Rp 21.275.000.000	
131	Cath Lab	1	Unit	Rp 12.000.000.000	Rp 12.000.000.000	
132	C-Arm	1	Unit	Rp 1.751.360.128	Rp 1.751.360.128	
133	MSCT-SCAN 16 SLICE-Workstation	1	Unit	Rp 5.435.902.080	Rp 5.435.902.080	
134	Digital Radiografi	1	Unit	Rp 905.955.904	Rp 905.955.904	
135	Digital Mammografi	1	Unit	Rp 5.296.158.000	Rp 5.296.158.000	
136	Digital X-Ray Panoramic	1	Unit	Rp 500.000.000	Rp 500.000.000	
SUBTOTAL DIAGNOSTIC CENTER SERVICES					Rp 49.148.523.240	
2.2 CLINICAL PHARMACY SERVICES EQUIPMENT						
137	Laminar Air Flow Cabinet (LAF)	1	Set	Rp 192.500.000	Rp 192.500.000	
138	Cytogard Cytotoxic Drugs Safety	1	Set	Rp 550.000.000	Rp 550.000.000	
SUBTOTAL CLINICAL PHARMACY SERVICES					Rp 742.500.000	
SUBTOTAL DIAGNOSTIC AND CLINICAL PHARMACY					Rp 49.891.023.240	
III. INTERSHIP TRAINING CENTRE (SIMULATION CENTER)						
3.1 EMERGENCY UNIT						
139	Manikin pemasangan kateter pria	1	Set	Rp 51.932.000	Rp 51.932.000	
140	Manikin pemasangan kateter	1	Set	Rp 51.932.000	Rp 51.932.000	
141	Manikin punksi vena	3	Set	Rp 24.318.000	Rp 72.954.000	
142	Manikin basic life skill	2	Set	Rp 9.707.500.000	Rp 19.415.000.000	
143	Manikin airway dan breathing, dan	2	Set	Rp 198.888.000	Rp 397.776.000	
SUBTOTAL EMERGENCY UNIT					Rp 19.989.594.000	
3.3 GENERAL CLINIC						
144	Manikin Pemeriksaan Fisis	1	Set	Rp 120.000.000	Rp 120.000.000	
145	Manikin Rectal Touche	2	Set	Rp 25.000.000	Rp 50.000.000	
SUBTOTAL GENERAL CLINIC					Rp 170.000.000	
3.3 MATERNITY ROOM						
146	Manikin pemeriksaan ANC (wanita	2	Set	Rp 139.261.000	Rp 278.522.000	
147	Manikin Partus Normal	1	Set	Rp 3.437.500.000	Rp 3.437.500.000	
148	Manikin Pemeriksaan fisis genitalia	1	Set	Rp 171.037.000	Rp 171.037.000	
149	Manikin pemeriksaan fisis	1	Set	Rp 43.232.000	Rp 43.232.000	
150	manikin USG bayi	1	Set	Rp 300.000.000	Rp 300.000.000	
SUBTOTAL MATERNITY ROOM					Rp 4.230.291.000	
3.3 OPERATING THEATRE						
151	Manikin OK	3	Set	Rp 5.000.000.000	Rp 15.000.000.000	
SUBTOTAL OPERATING THEATRE					Rp 15.000.000.000	
3.3 ICU						
152	Manikin ICU	1	Set	Rp 7.000.000.000	Rp 7.000.000.000	
SUBTOTAL ICU					Rp 7.000.000.000	
3.3 PICU						
153	Manequin resusitasi	1	Set	Rp 7.000.000.000	Rp 7.000.000.000	
154	manekin bayi	2	Set	Rp 250.000.000	Rp 500.000.000	
SUBTOTAL PICU					Rp 7.500.000.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
3.3 ENT						
155	ENT set	5	Set	Rp 210.000.000	Rp 1.050.000.000	
				SUBTOTAL ENT	Rp 1.050.000.000	
3.3 INTERNA						
156	Patient bed elektrik 3 crunk	1	Set	Rp 20.000.000	Rp 20.000.000	
157	Spirometry	1	Set	Rp 89.000.000	Rp 89.000.000	
158	Nebulizer	1	Set	Rp 1.100.000	Rp 1.100.000	
159	Timbangan dewasa	1	Set	Rp 825.000	Rp 825.000	
160	Elektrocardiograph (ECG)	1	Set	Rp 83.050.000	Rp 83.050.000	
161	Manikin punksi pleura	1	Set	Rp 100.000.000	Rp 100.000.000	
				SUBTOTAL INTERNA	Rp 293.975.000	
3.3 SURGERY						
161	manikin hecting	5	Set	Rp 11.078.000	Rp 55.390.000	
162	Manikin vena seksi	1	Set	Rp 150.000.000	Rp 150.000.000	
163	Manikin WSD	1	Set	Rp 150.000.000	Rp 150.000.000	
164	Manikin sirkumsisi	3	Set	Rp 100.000.000	Rp 300.000.000	
165	Manikin Punksi Suprapubik	1	Set	Rp 50.000.000	Rp 50.000.000	
				SUBTOTAL SURGERY	Rp 705.390.000	
3.3 SKIN AND VENEREAL						
166	Dynamics Multi-Application Laser	1	Unit	Rp 1.771.312.500	Rp 1.771.312.500	
				SUBTOTAL SKIN AND VENEREAL	Rp 1.771.312.500	
3.3 ORTHOPEDIC						
167	manekin whole skeleton with stand	2	Set	Rp 20.000.000	Rp 40.000.000	
168	pelvis with stand	2	Set	Rp 20.000.000	Rp 40.000.000	
169	manekin upper extrimity (muscle)	2	Set	Rp 20.000.000	Rp 40.000.000	
170	manekin lower extremity (muscle)	2	Set	Rp 20.000.000	Rp 40.000.000	
171	stand	2	Set	Rp 20.000.000	Rp 40.000.000	
172	manekin bayi	2	Set	Rp 125.000.000	Rp 250.000.000	
173	manekin kaki bayi CTEV	2	Set	Rp 150.000.000	Rp 300.000.000	
174	manekin for atoskopy knee	2	Set	Rp 250.000.000	Rp 500.000.000	
175	manekin for artoscopy shoulder	2	Set	Rp 250.000.000	Rp 500.000.000	
				SUBTOTAL ORTHOPEDIC	Rp 1.750.000.000	
3.3 CARDIOLOGY						
176	Manikin auskultasi jantung (bunyi	1	Set	Rp 25.000.000	Rp 25.000.000	
				SUBTOTAL CARDIOLOGY	Rp 25.000.000	
				SUB TOTAL SIMULATION CENTER	Rp 59.485.562.500	
IV. IMPROVING RESEARCH LABORATORY						
4.1 ELECTRICITY SUPPLY						
177	Genset	1	Unit	Rp 500.000.000	Rp 500.000.000	
178	UPS	1	Unit	Rp 200.000.000	Rp 200.000.000	
4.2 IMPROVEMENT OF MOLECULAR BIOLOGY & CELL						
179	Equipments					
180	Nano drop to measure DNA/RNA	1	Unit	Rp 300.000.000	Rp 300.000.000	
181	CO2 incubator	1	Unit	Rp 240.000.000	Rp 240.000.000	
182	Minus 20	1	Unit	Rp 20.000.000	Rp 20.000.000	
183	Calibration & annual service	2	Unit	Rp 15.000.000	Rp 30.000.000	
4.3 IMMUNOHISTOCHEMISTRY UNIT						
	Equipments					
184	Sakura Finetek Filing cabinet for Slides Model Tissue-Tek® Lab Aid Ultra II Cabinet	1	Unit	Rp 130.000.000	Rp 130.000.000	
185	Sakura Finetek Filing cabinet for Blocks Model Tissue-Tek® Lab Aid Ultra II Cabinet	1	Unit	Rp 130.000.000	Rp 130.000.000	
186	Intellipath autostainer	1	Unit	Rp 1.265.000.000	Rp 1.265.000.000	
4.4 EPIDEMIOLOGY UNIT						
187	Equipments					
	Car for epidemiology survey	1		Rp 240.000.000	Rp 240.000.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
4.5 ANIMAL EXPERIMENT UNIT						
	Equipments					
188	Micro UV Spectrophotometer	1	Unit	Rp 240.000.000	Rp 240.000.000	
189	Flow Cytometer	1	Unit	Rp 200.000.000	Rp 200.000.000	
190	Air Handling Unit (AHU), Rack for	1	Unit	Rp 400.000.000	Rp 400.000.000	
191	SPF Cage	50	Unit	Rp 3.800.000	Rp 190.000.000	
192	Calibration & annual service	2	Unit	Rp 15.000.000	Rp 30.000.000	
4.6 BIOSAFETY LEVEL 3 LABORATORY						
193	Equipments					
		1	Set	Rp 1.500.000.000	Rp 1.500.000.000	
SUB TOTAL RESEARCH LABORATORY					Rp 5.615.000.000	
V. STANDARD EQUIPMENT FOR DOCTOR PROFESIONAL IN HOSPITAL						
5.1 EMERGENCY SERVICE						
a. Triage Room						
194	Wheel Chair	4		Rp 818.182	Rp 3.272.728	
195	Stretcher	2		Rp 34.070.000	Rp 68.140.000	
196	Pocket Pulse Oxymetri	1		Rp 10.895.094	Rp 10.895.094	
197	Aneroid Sphygmomanometer	2		Rp 772.000	Rp 1.544.000	
198	Thermometer (Digital)	2		Rp 90.000	Rp 180.000	
199	Baby Weighting Scale	1		Rp 2.500.000	Rp 2.500.000	
200	Penlight	4		Rp 50.000	Rp 200.000	
b. Resusciation Room						
201	Ventilator Transport	1		Rp 400.000.000	Rp 400.000.000	
202	Patient Monitor	3		Rp 50.000.000	Rp 150.000.000	
203	Laryngoscope (Pediatric)	2		Rp 1.500.000	Rp 3.000.000	
204	Laryngoscope (Adult)	1		Rp 1.500.000	Rp 1.500.000	
205	Laryngoscope (Neonatus)	2		Rp 2.200.000	Rp 4.400.000	
206	Nebulizer	1		Rp 787.000	Rp 787.000	
207	Portable Pulse Oxyimetri	1		Rp 10.895.094	Rp 10.895.094	
208	Stethoscope (Adult)	2		Rp 1.500.000	Rp 3.000.000	
209	Stethoscope (Pediatric)	2		Rp 1.500.000	Rp 3.000.000	
210	Infusion Pump	2		Rp 24.909.060	Rp 49.818.120	
211	Syringe Pump	2		Rp 14.991.900	Rp 29.983.800	
212	Examination Bed	2		Rp 17.000.000	Rp 34.000.000	
213	Aneroid Sphygmomanometer	2		Rp 778.000	Rp 1.556.000	
214	Electrocardiograph 12 Channels	1		Rp 73.889.305	Rp 73.889.305	
215	Instrument Trolley	1		Rp 2.500.000	Rp 2.500.000	
216	Double Bowl Stand	1		Rp 1.800.000	Rp 1.800.000	
217	Regulator Oxygen 15 L	3		Rp 800.000	Rp 2.400.000	
218	Regulator Oxygen 1 L	2		Rp 800.000	Rp 1.600.000	
219	Warmer	2		Rp 750.000	Rp 1.500.000	
220	Emergency Trolley	1		Rp 33.000.000	Rp 33.000.000	
221	Head Immobilization	4		Rp 1.470.000	Rp 5.880.000	
222	Restrain	4		Rp 500.000	Rp 2.000.000	
223	CPAP Mask (Adult)	3		Rp 1.000.000	Rp 3.000.000	
224	CPAP Mask (Pediatric)	1		Rp 1.000.000	Rp 1.000.000	
225	Jacksoon Ress (Adult)	2		Rp 1.000.000	Rp 2.000.000	
226	Jacksoon Ress (Pediatric)	2		Rp 1.000.000	Rp 2.000.000	
227	Resuscitation (Adult)	3		Rp 1.500.000	Rp 4.500.000	
228	Resuscitation (Pediatric)	3		Rp 1.500.000	Rp 4.500.000	
229	Digital Thermometer	8		Rp 90.000	Rp 720.000	
230	Instrument Cabinet	2		Rp 4.500.000	Rp 9.000.000	
231	Oxygen Tube Transport	2		Rp 1.500.000	Rp 3.000.000	
232	Digital Thermometer	2		Rp 250.000	Rp 500.000	
233	Mobile Infuse Stand	2		Rp 700.000	Rp 1.400.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
c. Isolation Room						
234	Electric Patient Bed	1		Rp 61.740.000	Rp 61.740.000	
235	Manual Patient Bed	2		Rp 15.000.000	Rp 30.000.000	
236	Patient Monitor	1		Rp 21.000.000	Rp 21.000.000	
237	Emergency Trolley	1		Rp 31.000.000	Rp 31.000.000	
238	Stethoscope	2		Rp 850.000	Rp 1.700.000	
239	Digital Sphygmomanometer	1		Rp 1.100.000	Rp 1.100.000	
240	Aneroid Sphygmomanometer	2		Rp 778.000	Rp 1.556.000	
241	Thermometer (Digital)	2		Rp 90.000	Rp 180.000	
d. Observasi Room						
242	Stretcher	2		Rp 34.070.000	Rp 68.140.000	
243	Patient Monitor	2		Rp 21.000.000	Rp 42.000.000	
244	Defibrillator	1		Rp 156.921.000	Rp 156.921.000	
245	Infusion Pump	2		Rp 24.909.060	Rp 49.818.120	
246	Pneumatic Splint Set	4		Rp 491.726	Rp 1.966.904	
247	Stethoscope (Adult)	2		Rp 850.000	Rp 1.700.000	
248	Stethoscope (Pediatric)	2		Rp 850.000	Rp 1.700.000	
249	Wall Suction	5		Rp 2.500.000	Rp 12.500.000	
250	Syringe Pump	2		Rp 14.991.900	Rp 29.983.800	
251	Sterile cloth	8		Rp 500.000	Rp 4.000.000	
252	Matrass Anti Decubitus	1		Rp 10.000.000	Rp 10.000.000	
253	Dressing Trolley	1		Rp 2.500.000	Rp 2.500.000	
254	Instrument Cabinet	2		Rp 2.500.000	Rp 5.000.000	
255	Aneroid Sphygmomanometer	6		Rp 772.000	Rp 4.632.000	
e. Operating Room (Ruang Tindakan Bedah)						
256	Dressing Set	6		Rp 250.000	Rp 1.500.000	
257	Vena Section Inst. Set Simple	2		Rp 250.000	Rp 500.000	
258	Torakosintesis Set	2		Rp 250.000	Rp 500.000	
259	Vacum Splint	2		Rp 6.000.000	Rp 12.000.000	
260	Wound Dressing	2		Rp 250.000	Rp 500.000	
261	Emergency Trolley	1		Rp 33.000.000	Rp 33.000.000	
262	Sterile cloth	3		Rp 500.000	Rp 1.500.000	
f. Emergency Medical Examination (Ruang Tindakan Medik)						
263	Irrigation Suction	1		Rp 2.500.000	Rp 2.500.000	
264	Syringe Pump	1		Rp 14.991.900	Rp 14.991.900	
265	Infusion Pump	1		Rp 24.909.060	Rp 24.909.060	
266	Bronchoscopy	1		Rp 383.410.500	Rp 383.410.500	
267	Ophthalmoscopy	1		Rp 30.000.000	Rp 30.000.000	
268	Emergency Trolley	1		Rp 33.000.000	Rp 33.000.000	
269	sterile cloth	6		Rp 500.000	Rp 3.000.000	
270	Thermometer (Digital)	3		Rp 90.000	Rp 270.000	
g. Immobilization Set						
271	Splint	12		Rp 1.500.000	Rp 18.000.000	
272	Long Spine Board	2		Rp 1.800.000	Rp 3.600.000	
273	Scoop Stretcher	2		Rp 1.500.000	Rp 3.000.000	
274	Kendrik Extrinsic Device	1		Rp 1.500.000	Rp 1.500.000	
275	Wound Toilet Set	2		Rp 250.000	Rp 500.000	
276	Apron	2		Rp 10.000.000	Rp 20.000.000	
h. Neonatus and Pediatric Medical Room (Ruang Tindakan Neonatus dan Anak)						
277	Transport Incubator	1		Rp 120.300.000	Rp 120.300.000	
278	Infuse stand	4		Rp 700.000	Rp 2.800.000	
279	Patient Bed	1		Rp 28.000.000	Rp 28.000.000	
280	Film viewer	1		Rp 600.000	Rp 600.000	
281	Suction Wall	6		Rp 2.500.000	Rp 15.000.000	
282	Intra Osseus Set	2		Rp 2.500.000	Rp 5.000.000	
283	Emergency Trolley	1		Rp 33.000.000	Rp 33.000.000	
284	Oxygen Regulator 1 L	4		Rp 300.000	Rp 1.200.000	
285	Oxygen Regulator 15 L	4		Rp 300.000	Rp 1.200.000	
286	Thermometer (Digital)	4		Rp 90.000	Rp 360.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
287	Infant warmer + Neo Puff (T-Piece Resuscitator)	1		Rp 198.000.000	Rp 198.000.000	
288	Neonatus Monitor	1		Rp 180.000.000	Rp 180.000.000	
289	Laryngoscope (Neonatus)	2		Rp 2.200.000	Rp 4.400.000	
290	Laryngoscope (Pediatric)	2		Rp 2.200.000	Rp 4.400.000	
291	Incubator	1		Rp 198.000.000	Rp 198.000.000	
292	Resuscitation Set Pediatric	1		Rp 2.500.000	Rp 2.500.000	
293	Baby Coat	2		Rp 3.500.000	Rp 7.000.000	
294	Nebulizer	1		Rp 787.000	Rp 787.000	
295	Spirometri	1		Rp 30.500.000	Rp 30.500.000	
296	Pulse Oxymetri	1		Rp 1.500.000	Rp 1.500.000	
i. Obstetrics Room (Ruang Tindakan Kebidanan)						
297	Curettage Set	2		Rp 28.000.000	Rp 56.000.000	
298	Partus Set	1		Rp 749.201.000	Rp 749.201.000	
299	Wall Suction	2		Rp 1.000.000	Rp 2.000.000	
300	Partus Table	1		Rp 80.000.000	Rp 80.000.000	
301	Vacum Set	1		Rp 1.750.000	Rp 1.750.000	
302	Forcep Set	1		Rp 1.750.000	Rp 1.750.000	
303	Cardiotocography	1		Rp 17.000.000	Rp 17.000.000	
304	Resuscitation Set Adult	1		Rp 2.500.000	Rp 2.500.000	
305	Neo Puff (T-Piece Resuscitator)	1		Rp 15.000.000	Rp 15.000.000	
306	Laryngoscope (Neonatus)	2		Rp 2.500.000	Rp 5.000.000	
307	Infant warmer	1		Rp 320.000.000	Rp 320.000.000	
308	Portable Pulse Oxymetri	1		Rp 1.500.000	Rp 1.500.000	
309	Instrument Cabinet	1		Rp 2.500.000	Rp 2.500.000	
Ambulance						
310	Suction Manual	2		Rp 4.500.000	Rp 9.000.000	
311	Rigid Splint	5		Rp 99.000	Rp 495.000	
312	Long Spine Board	2		Rp 8.950.000	Rp 17.900.000	
313	Scoop Strecher	3		Rp 2.500.000	Rp 7.500.000	
314	Head Immobilizer	6		Rp 2.500.000	Rp 15.000.000	
315	Neck Collar Adult	6		Rp 1.200.000	Rp 7.200.000	
316	Neck Collar Child	6		Rp 1.200.000	Rp 7.200.000	
317	Extrication Device	2		Rp 41.850.000	Rp 83.700.000	
318	Ventilator Transport	1		Rp 88.500.000	Rp 88.500.000	
319	Pulse Oxymetri	2		Rp 1.500.000	Rp 3.000.000	
320	Defibrillator	1		Rp 156.921.000	Rp 156.921.000	
321	Patient Monitor	1		Rp 67.245.997	Rp 67.245.997	
322	Electrocardiograph 12 Channels	1		Rp 27.200.000	Rp 27.200.000	
323	CPAP Mask (Adult)	2		Rp 4.851.000	Rp 9.702.000	
324	CPAP Mask (Pediatric)	2		Rp 4.851.000	Rp 9.702.000	
325	Nebulyzer	4		Rp 787.000	Rp 3.148.000	
326	Jackson Rees (Adult)	4		Rp 1.000.000	Rp 4.000.000	
327	Jackson Rees (Pediatric)	4		Rp 1.000.000	Rp 4.000.000	
328	Neo Puff (T-Piece Resuscitator)	1		Rp 23.232.000	Rp 23.232.000	
SUB TOTAL IGD					Rp 4.695.574.422	
5.2 INTERNA SERVICE						
Outpatient						
329	Examination Table	10		Rp 15.200.000	Rp 152.000.000	
330	Aneroid Sphygmomanometer	10		Rp 778.000	Rp 7.780.000	
331	Digital Sphygmomanometer	6		Rp 1.100.000	Rp 6.600.000	
332	Thermometer (Digital)	23		Rp 90.000	Rp 2.070.000	
333	Medical Weighing Scale Height Measuring	23		Rp 1.200.000	Rp 27.600.000	
334	Electrocardiograph 3 Channels	1		Rp 33.000.000	Rp 33.000.000	
335	Gauge	7		Rp 50.000	Rp 350.000	
336	Fibroscan	1		Rp 30.000.000	Rp 30.000.000	
337	Minor Set	3		Rp 450.000	Rp 1.350.000	
338	BMP (Bone Marrow Pungsi)	1		Rp 20.000.000	Rp 20.000.000	
339	Spirometri	1		Rp 18.000.000	Rp 18.000.000	
340	Instrument Set	2		Rp 2.500.000	Rp 5.000.000	
341	Head Lamp	1		Rp 800.000	Rp 800.000	
342	Otoskop	2		Rp 500.000	Rp 1.000.000	
343	Endoscope Fiber	1		Rp 383.410.500	Rp 383.410.500	
344	Emergency Trolley	1		Rp 33.000.000	Rp 33.000.000	
345	Holter monitor	1		Rp 300.000.000	Rp 300.000.000	
346	Monitor blood pressure	1		Rp 350.000.000	Rp 350.000.000	
347	Resuscitation Kit	1		Rp 2.500.000	Rp 2.500.000	
348	AED (Automatic External Defibrilator)	1		Rp 98.000.000	Rp 98.000.000	
349	Temporary pacemaker	1		Rp 500.000	Rp 500.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
	Examination Room (VVIP Inpatient)					
350	Examination Table	1		Rp 15.200.000	Rp 15.200.000	
351	Digital Sphygmomanometer	1		Rp 1.100.000	Rp 1.100.000	
352	Aneroid Sphygmomanometer	1		Rp 778.000	Rp 778.000	
353	Film Viewer	1		Rp 600.000	Rp 600.000	
354	Pen Light	1		Rp 67.500	Rp 67.500	
355	Stethoscope	1		Rp 850.000	Rp 850.000	
356	Thermometer Digital	1		Rp 90.000	Rp 90.000	
357	Emergency Trolley	1		Rp 31.000.000	Rp 31.000.000	
358	Minor Surgery Set	1		Rp 450.000	Rp 450.000	
359	Lever Biopsi Set	1		Rp 500.000	Rp 500.000	
360	Set Aspirasi for spinel cord	2		Rp 1.000.000	Rp 2.000.000	
361	Renal Biopsi Set	1		Rp 500.000	Rp 500.000	
362	Suction pump Portable	1		Rp 4.500.000	Rp 4.500.000	
363	Electrocardiograph 12 Channel	1		Rp 73.889.305	Rp 73.889.305	
364	Syringe Pump	1		Rp 14.991.900	Rp 14.991.900	
365	Trocar	1		Rp 55.000	Rp 55.000	
366	Pulse Oxymetri	1		Rp 1.500.000	Rp 1.500.000	
	VVIP Inpatient					
367	Defibrillator	1		Rp 156.921.000	Rp 156.921.000	
368	ENT Examination set	1		Rp 5.548.000	Rp 5.548.000	
369	Film Viewer	1		Rp 600.000	Rp 600.000	
370	Infusion pump	6		Rp 32.500.000	Rp 195.000.000	
371	Examination Lamp	1		Rp 872.000	Rp 872.000	
372	Bed Patient Electric	50		Rp 49.040.000	Rp 2.452.000.000	
373	Mobile Aneroid Sphygmomanometer	1		Rp 772.000	Rp 772.000	
374	Digital Sphygmomanometer	1		Rp 1.100.000	Rp 1.100.000	
375	Medical Weighing Scale	1		Rp 775.000	Rp 775.000	
376	Mobile Infuse Stand	3		Rp 700.000	Rp 2.100.000	
377	Vomit Place	3		Rp 250.000	Rp 750.000	
	Examination Room (VIP Inpatient)					
72	Digital Sphygmomanometer	1		Rp 1.100.000	Rp 1.100.000	
73	Aneroid Sphygmomanometer	1		Rp 778.000	Rp 778.000	
74	Film Viewer	1		Rp 600.000	Rp 600.000	
75	Pen Light	1		Rp 67.500	Rp 67.500	
76	Stethoscope	1		Rp 850.000	Rp 850.000	
77	Thermometer (Digital)	1		Rp 90.000	Rp 90.000	
79	Defibrillator	1		Rp 156.921.000	Rp 156.921.000	
81	Lever Biopsi Set	1		Rp 500.000	Rp 500.000	
82	Bone Marrow Aspiration Set (Specific Needle)	1		Rp 1.000.000	Rp 1.000.000	
83	Renal Biopsi Set	1		Rp 500.000	Rp 500.000	
87	Trocar	1		Rp 55.000	Rp 55.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
	VIP Inpatient					
89	Patient Monitor	1		Rp 21.000.000	Rp 21.000.000	
	Patient Monitor	1		Rp 67.245.997	Rp 67.245.997	
90	Defibrillator	1		Rp 156.921.000	Rp 156.921.000	
93	ENT Examination set	1		Rp 5.548.000	Rp 5.548.000	
94	Film Viewer	1		Rp 600.000	Rp 600.000	
95	Infusion pump	2		Rp 24.909.060	Rp 49.818.120	
96	Examination Lamp	1		Rp 872.000	Rp 872.000	
97	Matrass Decubitus	1		Rp 1.000.000	Rp 1.000.000	
100	Pen Light	2		Rp 67.500	Rp 135.000	
102	Stethoscope (Child)	2		Rp 850.000	Rp 1.700.000	
	Stethoscope (Adult)	3		Rp 850.000	Rp 2.550.000	
103	Mobile Suction	1		Rp 2.500.000	Rp 2.500.000	
	Wall Suction	6		Rp 3.000.000	Rp 18.000.000	
104	Syringe Pump	2		Rp 14.991.900	Rp 29.983.800	
105	Electric Patient Bed	50		Rp 49.040.000	Rp 2.452.000.000	
108	Digital Sphygmomanometer	1		Rp 1.100.000	Rp 1.100.000	
	Examination Room (Class II & III Inpatient)					
111	Examination Table	2		Rp 12.471.910	Rp 24.943.820	
112	Digital Sphygmomanometer	2		Rp 1.621.192	Rp 3.242.384	
113	Aneroid Sphygmomanometer	1		Rp 778.000	Rp 778.000	
115	Pen Light	1		Rp 67.500	Rp 67.500	
116	Stethoscope	1		Rp 850.000	Rp 850.000	
119	Defibrillator	1		Rp 156.921.000	Rp 156.921.000	
124	Portable Suction pump	1		Rp 2.500.000	Rp 2.500.000	
125	Electrocardiograph 12 Channel	1		Rp 73.889.305	Rp 73.889.305	
126	Syringe Pump	1		Rp 19.000.000	Rp 19.000.000	
127	Trocar	1		Rp 55.000	Rp 55.000	
128	Pulse Oxymetri	2		Rp 600.000	Rp 1.200.000	
	Class II & III Inpatient					
129	Patient Monitor	1		Rp 67.245.997	Rp 67.245.997	
130	Defibrillator	1		Rp 156.921.000	Rp 156.921.000	
131	Electrocardiograph 12 Channel	1		Rp 73.889.305	Rp 73.889.305	
	Instrument Trolley	5		Rp 3.151.000	Rp 15.755.000	
133	ENT Examination set	1		Rp 5.548.000	Rp 5.548.000	
135	Infusion pump	1		Rp 24.909.060	Rp 24.909.060	
136	Examination Lamp	1		Rp 872.000	Rp 872.000	
137	Matrass Decubitus	1		Rp 1.000.000	Rp 1.000.000	
139	Nebulyzer	1		Rp 526.000	Rp 526.000	
	Tabung O2	1		Rp 1.000.000	Rp 1.000.000	
142	Stethoscope	2		Rp 850.000	Rp 1.700.000	
	Suction Wall	5		Rp 4.500.000	Rp 22.500.000	
143	Suction Pump Portable	4		Rp 2.500.000	Rp 10.000.000	
144	Syringe Pump	3		Rp 14.991.900	Rp 44.975.700	
145	Electric Patient Bed	30		Rp 61.740.000	Rp 1.852.200.000	
146	Manual Patient Bed	70		Rp 15.000.000	Rp 1.050.000.000	
147	Aneroid Sphygmomanometer	8		Rp 772.000	Rp 6.176.000	
148	Digital Sphygmomanometer	5		Rp 1.100.000	Rp 5.500.000	
149	Thermometer (Digital)	1		Rp 90.000	Rp 90.000	
	Klisma Set	1		Rp 250.000	Rp 250.000	
	Humidifier	13		Rp 2.250.000	Rp 29.250.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
	Chemotherapy Inpatient					
170	Patient Monitor	1		Rp 67.245.997	Rp 67.245.997	
171	Defibrillator	1		Rp 156.921.000	Rp 156.921.000	
172	Electrocardiograph 12 Channel	1		Rp 73.889.305	Rp 73.889.305	
175	Film Viewer	1		Rp 600.000	Rp 600.000	
176	Infusion pump	3		Rp 24.909.060	Rp 74.727.180	
178	Matrass Decubitus	1		Rp 1.000.000	Rp 1.000.000	
180	Nebulyzer	1		Rp 526.000	Rp 526.000	
181	Pen Light	2		Rp 67.500	Rp 135.000	
182	Pulse Oxymetri	1		Rp 600.000	Rp 600.000	
183	Stethoscope	2		Rp 850.000	Rp 1.700.000	
185	Syringe Pump	1		Rp 14.991.900	Rp 14.991.900	
	Laryngoscope (Adult)	1		Rp 2.200.000	Rp 2.200.000	
	Jakson Reese (Adult)	1		Rp 5.000.000	Rp 5.000.000	
	Jakson Reese (Pediatic)	1		Rp 5.000.000	Rp 5.000.000	
	Examination Room (Class I Inpatient)					
193	Digital Sphygmomanometer	1		Rp 1.100.000	Rp 1.100.000	
194	Aneroid Sphygmomanometer	1		Rp 778.000	Rp 778.000	
195	Film Viewer	1		Rp 600.000	Rp 600.000	
196	Pen Light	1		Rp 67.500	Rp 67.500	
197	Stethoscope	1		Rp 850.000	Rp 850.000	
198	Thermometer (Digital)	1		Rp 90.000	Rp 90.000	
200	Defibrillator	1		Rp 156.921.000	Rp 156.921.000	
201	Minor Surgery Set	1		Rp 450.000	Rp 450.000	
202	Lever Biopsi Set	1		Rp 500.000	Rp 500.000	
203	Bone Marrow Aspiration Set (Specific Needle)	1		Rp 1.000.000	Rp 1.000.000	
204	Renal Biopsi Set	1		Rp 500.000	Rp 500.000	
208	Trocar	1		Rp 55.000	Rp 55.000	
	Class I Inpatient					
211	Defibrillator	1		Rp 152.545.455	Rp 152.545.455	
214	ENT Examination set	1		Rp 5.548.000	Rp 5.548.000	
215	Film Viewer	1		Rp 600.000	Rp 600.000	
216	Infusion pump	1		Rp 24.909.060	Rp 24.909.060	
217	Examination Lamp	1		Rp 872.000	Rp 872.000	
218	Matrass Decubitus	3		Rp 1.000.000	Rp 3.000.000	
223	Stethoscope (Adult)	5		Rp 850.000	Rp 4.250.000	
224	Wall Suction	2		Rp 2.500.000	Rp 5.000.000	
	Mobile Suction	1		Rp 2.290.950	Rp 2.290.950	
225	Syringe Pump	2		Rp 14.991.900	Rp 29.983.800	
226	Patient Bed (Electric)	100		Rp 35.000.000	Rp 3.500.000.000	
228	Mobile Aneroid Sphygmomanometerr	3		Rp 772.000	Rp 2.316.000	
229	Digital Sphygmomanometerr	5		Rp 1.100.000	Rp 5.500.000	
230	Thermometer (Digital)	1		Rp 90.000	Rp 90.000	
	Ambu bag (Adult)	1		Rp 800.000	Rp 800.000	
	Hemodialisa Unit					
	Electrocardiograph 12 Channel	1		Rp 73.889.305	Rp 73.889.305	
	Minor Surgery Set	1		Rp 150.000	Rp 150.000	
	Instrument Cabinet	1		Rp 4.000.000	Rp 4.000.000	
	Plastic Measurement Cup	10		Rp 10.000	Rp 100.000	
	Instrument Trolley	2		Rp 1.500.000	Rp 3.000.000	
	Stethoscope	1		Rp 1.100.000	Rp 1.100.000	
	Medicine Refrigerator	1		Rp 3.000.000	Rp 3.000.000	
	Patient Monitor	1		Rp 47.265.900	Rp 47.265.900	
	Patient Bed					
	Overbed	30		Rp 5.500.000	Rp 165.000.000	
	Bedside Cabinet (standard)	30		Rp 4.300.000	Rp 129.000.000	
SUBTOTAL INTERNA SERVICE					Rp 15.796.319.045	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
5.3 HEALTH PEDIATRIC SERVICE						
Outpatient						
1	Electrocardiograph 12 Channels	1		Rp 73.889.305	Rp 73.889.305	
2	Infant and baby pediatric resuscitation	1		Rp 460.000	Rp 460.000	
4	Examination lamp	1		Rp 872.000	Rp 872.000	
10	Cold chain	1		Rp 300.000.000	Rp 300.000.000	
12	Vena section set	2		Rp 300.000	Rp 600.000	
14	Oxygen set and flow meter (15 L & 2 L)	2		Rp 1.100.000	Rp 2.200.000	
16	Pen light	2		Rp 67.500	Rp 135.000	
17	Roll Metric	2		Rp 20.000	Rp 40.000	
18	Echocardiography	1		Rp 519.750.000	Rp 519.750.000	
19	Pulse Oxymetri	1		Rp 1.500.000	Rp 1.500.000	
20	Funduscopy	1		Rp 1.400.000	Rp 1.400.000	
PERINATOLOGI						
15	Incubator	3		Rp 227.000.000	Rp 681.000.000	
16	Infant Warmer	2		Rp 100.300.000	Rp 200.600.000	
26	Infusion Pump	2		Rp 20.250.000	Rp 40.500.000	
27	Syringe Pump	5		Rp 19.000.000	Rp 95.000.000	
28	Baby Examination table	2		Rp 15.200.000	Rp 30.400.000	
29	Examination lamp	1		Rp 872.000	Rp 872.000	
31	Reflex hammer	2		Rp 30.000	Rp 60.000	
33	Intubation set	2		Rp 2.200.000	Rp 4.400.000	
34	Incubator Transport	1		Rp 180.000.000	Rp 180.000.000	
35	Infant Warmer	1		Rp 100.300.000	Rp 100.300.000	
Inpatient						
36	Funduscopy	1		Rp 1.400.000	Rp 1.400.000	
37	BMP Needle	2		Rp 150.000	Rp 300.000	
39	Stadiometer	1		Rp 500.000	Rp 500.000	
40	Light Box	1		Rp 780.000	Rp 780.000	
41	USG 2D Colour Doppler+ Echo	1		Rp 519.750.000	Rp 519.750.000	
42	Electrocardiograph 12 Channels	1		Rp 79.511.390	Rp 79.511.390	
43	Pulse Oxymetri	1		Rp 1.500.000	Rp 1.500.000	
44	T- Piece Resusitator (Neopuff)	1		Rp 21.120.000	Rp 21.120.000	
(PICU)						
45	Infusion Pump	20		Rp 17.000.000	Rp 340.000.000	
46	Syringe Pump	21		Rp 11.000.000	Rp 231.000.000	
47	Monitor Cardiorespiratory	15		Rp 68.300.000	Rp 1.024.500.000	
48	Ventilator	4		Rp 595.341.000	Rp 2.381.364.000	
49	Defibrillator	1		Rp 192.972.600	Rp 192.972.600	
50	Incubator	1		Rp 286.650.000	Rp 286.650.000	
51	Blankletrol	2		Rp 641.265.000	Rp 1.282.530.000	
52	Nebulizer	1		Rp 1.500.000	Rp 1.500.000	
53	Emergency Trolley	1		Rp 65.000.000	Rp 65.000.000	
54	Pulse Oxymetri	1		Rp 1.500.000	Rp 1.500.000	
55	Echocardiography	1		Rp 519.750.000	Rp 519.750.000	
56	Non Invasive Haemodynamic Monitor	1		Rp 179.155.200	Rp 179.155.200	
(NICU)						
56	Incubator	18		Rp 286.650.000	Rp 5.159.700.000	
57	Phototherapy	10		Rp 48.000.000	Rp 480.000.000	
58	Nasal Bubble CPAP	8		Rp 146.720.000	Rp 1.173.760.000	
59	Low Flow Meter 2,5 lpm	5		Rp 4.640.000	Rp 23.200.000	
60	Low Flow Meter 1 lpm	5		Rp 16.000.000	Rp 80.000.000	
61	Flow Meter oxygen 15 lpm	6		Rp 1.075.000	Rp 6.450.000	
62	Nebulizer	4		Rp 1.100.000	Rp 4.400.000	
63	Suction Wall	5		Rp 3.750.000	Rp 18.750.000	
64	Syringe Pump	33		Rp 11.000.000	Rp 363.000.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
65	Infusion Pump	20		Rp 17.000.000	Rp 340.000.000	
66	Infant Warmer	6		Rp 320.000.000	Rp 1.920.000.000	
67	Patient Monitor	20		Rp 15.000.000	Rp 300.000.000	
68	Cerebral function monitor	1		Rp 1.794.100.000	Rp 1.794.100.000	
69	Electrocardiograph 12 Channels	1		Rp 79.511.390	Rp 79.511.390	
70	Baby Weighting Scale	1		Rp 5.000.000	Rp 5.000.000	
71	Mobile X-Ray	1		Rp 338.250.000	Rp 338.250.000	
72	USG 2D (philips)	1		Rp 519.750.000	Rp 519.750.000	
73	HFO 3100 A	1		Rp 822.000.000	Rp 822.000.000	
74	Light Box	1		Rp 780.000	Rp 780.000	
75	Ventilator Neonatus	1		Rp 495.000.000	Rp 495.000.000	
76	Infantometer	1		Rp 1.029.000.000	Rp 1.029.000.000	
77	Jaundicemeter	1		Rp 4.900.000	Rp 4.900.000	
78	Pulse Oxymetri	1		Rp 170.121.600	Rp 170.121.600	
79	Spacer Baby	3		Rp 1.500.000	Rp 4.500.000	
JUMLAH PELAYANAN KESEHATAN ANAK					Rp 24.496.934.485	

5.4 PELAYANAN OBGYN

OutPatient						
1	Obstetric Examination Table	1		Rp 5.000.000	Rp 5.000.000	
9	Pap Smear Kit	1		Rp 121.000	Rp 121.000	
10	IUD kit	1		Rp 380.000	Rp 380.000	
15	Colposcopy	1		Rp 899.000.000	Rp 899.000.000	
30	Sonde uterus	2		Rp 35.000	Rp 70.000	
31	Tampon Forceps	2		Rp 112.000	Rp 224.000	
32	Instrument Box	1		Rp 110.000	Rp 110.000	
Inpatient						
34	Patient Bed	20		Rp 58.054.000	Rp 1.161.080.000	
35	Thermometer (Digital)	9		Rp 90.000	Rp 810.000	
36	Thermometer (Raksa)	9		Rp 20.000	Rp 180.000	
37	Examination Lamp	3		Rp 1.250.000	Rp 3.750.000	
38	Stethoscope	6		Rp 850.000	Rp 5.100.000	
39	Suction pump mobile	2		Rp 2.500.000	Rp 5.000.000	
40	Oxygen Set √ Flow meter	6		Rp 1.100.000	Rp 6.600.000	
41	Recusitation Set	1		Rp 18.348.000	Rp 18.348.000	
42	USG 2 dimensi	1		Rp 308.000.000	Rp 308.000.000	
44	Minor surgery instrument set	2		Rp 450.000	Rp 900.000	
45	Matrass Anti Decubitus	5		Rp 1.000.000	Rp 5.000.000	
46	Emergency Kit	1		Rp 2.500.000	Rp 2.500.000	
47	Film viewer	1		Rp 800.000	Rp 800.000	
48	Nebulyzer	3		Rp 526.000	Rp 1.578.000	
49	Cardiotocograph	1		Rp 90.000.000	Rp 90.000.000	
51	Medicine Cabinet	3		Rp 3.200.000	Rp 9.600.000	
52	Sphygmomanometer	5		Rp 1.100.000	Rp 5.500.000	
53	Sterile Cabinet	3		Rp 6.000.000	Rp 18.000.000	
54	Catheter Wascom	5		Rp 110.000	Rp 550.000	
55	Instrument Trolley	5		Rp 1.045.000	Rp 5.225.000	
56	Head lamp	5		Rp 1.250.000	Rp 6.250.000	
57	Chirurgis Pincet	10		Rp 25.000	Rp 250.000	
58	Anatomis Pincet	10		Rp 30.000	Rp 300.000	
59	Baby Weighting Scale Digital	5		Rp 2.500.000	Rp 12.500.000	
60	Instrument trolley	5		Rp 3.206.000	Rp 16.030.000	
61	Patient monitor	2		Rp 191.400.000	Rp 382.800.000	
63	Medical Weighing Scale	1		Rp 1.500.000	Rp 1.500.000	
65	Shower Waskom	5		Rp 1.500.000	Rp 7.500.000	
66	Instrument Box	10		Rp 110.000	Rp 1.100.000	
67	Hot Pot	5		Rp 20.000	Rp 100.000	
68	Flow meter O2	100		Rp 134.000	Rp 13.400.000	
69	Sponge and Dressing Forceps	10		Rp 125.000	Rp 1.250.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
70	Nierbekhen	10		Rp 27.000	Rp 270.000	
71	Wheel Chair	1		Rp 1.620.000	Rp 1.620.000	
72	Infuse Stand	4		Rp 721.050	Rp 2.884.200	
73	Measurement glass	1		Rp 65.000	Rp 65.000	
74	Oxygen Tube	3		Rp 1.000.000	Rp 3.000.000	
75	Artery Clamp	10		Rp 50.000	Rp 500.000	
76	Com	10		Rp 20.000	Rp 200.000	
77	Sputum Tube	5		Rp 90.000	Rp 450.000	
78	Stand Waskom	5		Rp 1.500.000	Rp 7.500.000	
79	Urinal Adult	10		Rp 20.000	Rp 200.000	
80	Oxygen Wall	100		Rp 1.000.000	Rp 100.000.000	
81	Wall Suction pump	100		Rp 2.500.000	Rp 250.000.000	
82	Dropler	2		Rp 800.000	Rp 1.600.000	
83	Box baby	100		Rp 3.600.000	Rp 360.000.000	
84	Stethoscope (neonatus)	10		Rp 1.200.000	Rp 12.000.000	
85	Stairs Patient	20		Rp 175.000	Rp 3.500.000	
86	Infuse Stand	100		Rp 450.000	Rp 45.000.000	
87	Instrument Tray	20		Rp 150.000	Rp 3.000.000	
88	Auto tranfusion set	5		Rp 800.000	Rp 4.000.000	
89	Baby Tub	10		Rp 2.500.000	Rp 25.000.000	
90	GV set	10		Rp 85.000	Rp 850.000	
	Kamar Tindakan Persalinan (VK)					
91	Instrument Box Set	9		Rp 2.750.000	Rp 24.750.000	
92	Curretage instrument set	4		Rp 3.000.000	Rp 12.000.000	
93	Minor surgery set	5		Rp 450.000	Rp 2.250.000	
94	Doppler	4		Rp 800.000	Rp 3.200.000	
95	Laennec	5		Rp 50.000	Rp 250.000	
96	Sphygmomanometer Mobile	5		Rp 1.143.000	Rp 5.715.000	
97	Suction pump	5		Rp 2.500.000	Rp 12.500.000	
98	Examination Lamp	12		Rp 1.250.000	Rp 15.000.000	
99	Baby Weighting Scale	1		Rp 3.000.000	Rp 3.000.000	
100	Oxygen Set √ Flow meter	5		Rp 1.100.000	Rp 5.500.000	
102	Forceps	2		Rp 1.435.927	Rp 2.871.854	
103	Vacum	5		Rp 2.750.000	Rp 13.750.000	
104	Cardiotocograph	1		Rp 119.000.000	Rp 119.000.000	
105	Stethoscope (Adult)	9		Rp 1.250.000	Rp 11.250.000	
106	Recuscitation set	12		Rp 2.000.000	Rp 24.000.000	
107	Suction Curetage	5		Rp 2.500.000	Rp 12.500.000	
108	Infusion pump	5		Rp 11.000.000	Rp 55.000.000	
109	Infusion warmer	6		Rp 5.500.000	Rp 33.000.000	
110	Auto transfusion set	5		Rp 800.000	Rp 4.000.000	
111	Embriotomi set	3		Rp 7.260.000	Rp 21.780.000	
112	Hecting Set	9		Rp 250.000	Rp 2.250.000	
113	Partus Set	9		Rp 250.000	Rp 2.250.000	
114	Gynecology Examination	1		Rp 151.140.000	Rp 151.140.000	
115	Manometer	5		Rp 1.000.000	Rp 5.000.000	
116	Scissors Bent	10		Rp 40.000	Rp 400.000	
117	IUD Hook	10		Rp 500.000	Rp 5.000.000	
118	Speculum (Large)	4		Rp 80.000	Rp 320.000	
119	Speculum (Medium)	4		Rp 80.000	Rp 320.000	
120	Speculum (Small)	4		Rp 80.000	Rp 320.000	
121	Spekulum Sim U	3		Rp 80.000	Rp 240.000	
122	Spekulum Sim L	4		Rp 80.000	Rp 320.000	
123	Tenaculum	9		Rp 60.000	Rp 540.000	
124	Chirurgis Pincet	12		Rp 25.000	Rp 300.000	
125	Anatomis Pincet	12		Rp 25.000	Rp 300.000	
126	Sponge and Dressing Forceps	12		Rp 85.000	Rp 1.020.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
127	Dressing Drum (Large)	4		Rp 200.000	Rp 800.000	
128	Dressing Drum (Medium)	12		Rp 200.000	Rp 2.400.000	
129	Dressing Drum (Small)	12		Rp 200.000	Rp 2.400.000	
130	Nierabeken	12		Rp 500.000	Rp 6.000.000	
131	Emergency trolley	1		Rp 33.000.000	Rp 33.000.000	
132	Busi Dilatator	12		Rp 200.000	Rp 2.400.000	
133	Sonde uterus	5		Rp 200.000	Rp 1.000.000	
134	Solver Amniotic	9		Rp 15.000	Rp 135.000	
135	Tampon forceps	6		Rp 200.000	Rp 1.200.000	
136	Oxygen Tube	3		Rp 820.000	Rp 2.460.000	
137	Partus Bed	5		Rp 68.000.000	Rp 340.000.000	
138	USG Obstetry	0		Rp 900.000.000		
139	Com	5		Rp 45.000	Rp 225.000	
140	Gauge	5		Rp 25.000	Rp 125.000	
Kebidanan						
141	Stethoscope (Adult)	4		Rp 950.000	Rp 3.800.000	
142	Medical Weighing Scale	1		Rp 1.500.000	Rp 1.500.000	
143	Oxygen Tube	2		Rp 1.000.000	Rp 2.000.000	
144	Examination Lamp	3		Rp 872.000	Rp 2.616.000	
145	Pisfot dewasa	3		Rp 20.000	Rp 60.000	
146	Wheel Chair	3		Rp 1.620.000	Rp 4.860.000	
147	Infuse Stand	5		Rp 420.000	Rp 2.100.000	
148	Electric Suction pump	3		Rp 800.000	Rp 2.400.000	
149	Emergency trolley	1		Rp 31.000.000	Rp 31.000.000	
151	Patient bed	6		Rp 28.000.000	Rp 168.000.000	
152	Manometer	2		Rp 1.000.000	Rp 2.000.000	
154	Baby Weighting Scale	1		Rp 2.500.000	Rp 2.500.000	
155	Syringe pump	3		Rp 31.680.000	Rp 95.040.000	
156	Instrument Cabinet	2		Rp 3.500.000	Rp 7.000.000	
157	Sterile Cabinet	1		Rp 4.000.000	Rp 4.000.000	
158	Medicine Cabinet	1		Rp 3.200.000	Rp 3.200.000	
159	Sterilisator	1		Rp 1.272.727	Rp 1.272.727	
160	Stretcher	1		Rp 34.070.000	Rp 34.070.000	
161	Partus set	3		Rp 250.000	Rp 750.000	
162	Hecting set	3		Rp 250.000	Rp 750.000	
163	Curretage instrument set	3		Rp 500.000	Rp 1.500.000	
164	Tromol (Large)	2		Rp 200.000	Rp 400.000	
165	Tromol (Small)	2		Rp 200.000	Rp 400.000	
166	Tromol (Medium)	2		Rp 200.000	Rp 400.000	
167	Nierbeken	5		Rp 50.000	Rp 250.000	
168	Com	5		Rp 45.000	Rp 225.000	
169	Oxygen Tube	2		Rp 820.000	Rp 1.640.000	
170	Infuse Stand	5		Rp 420.000	Rp 2.100.000	
171	Stairs Patient	3		Rp 175.000	Rp 525.000	
172	Gauge	5		Rp 25.000	Rp 125.000	
173	GV set	2		Rp 85.000	Rp 170.000	
PONEK OBGYN						
1 RUANG PERIKSA						
1	Instrument Trolley	1		Rp 3.151.000	Rp 3.151.000	
2	Suction Portable	1		Rp 1.300.000	Rp 1.300.000	
3	Sphygmomanometer	1		Rp 2.000.000	Rp 2.000.000	
4	Laennec	1		Rp 50.000	Rp 50.000	
5	Pelvic Term	1		Rp 100.000	Rp 100.000	
6	Infuse Stand	1		Rp 850.000	Rp 850.000	
7	Oxygen Tube + Flow Meter	1		Rp 1.500.000	Rp 1.500.000	
8	Medical Weighing Scale	1		Rp 1.000.000	Rp 1.000.000	
10	Ambu Bag Adult	1		Rp 660.000	Rp 660.000	
11	Emergency Trolley	1		Rp 65.000.000	Rp 65.000.000	
12	Gynecologi Patient bed	1		Rp 28.726.914	Rp 28.726.914	
13	Stretcher	1		Rp 3.500.000	Rp 3.500.000	
14	Dinklik (Step stools)	1		Rp 1.000.000	Rp 1.000.000	
15	Spill Kit	1		Rp 500.000	Rp 500.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
2	EXAMINATION ROOM					
16	Trolley	1		Rp 3.151.000	Rp 3.151.000	
17	Mayo Table (Small)	1		Rp 1.180.000	Rp 1.180.000	
18	Examination Lamp	1		Rp 625.000	Rp 625.000	
19	Infuse Stand	1		Rp 850.000	Rp 850.000	
20	Gynecologi Patient bed	1		Rp 28.726.914	Rp 28.726.914	
21	Monitor	1		Rp 15.000.000	Rp 15.000.000	
22	Flow Meter Wall	1		Rp 2.500.000	Rp 2.500.000	
23	Suction Wall	1		Rp 2.500.000	Rp 2.500.000	
24	Dinklik (Step stools)	1		Rp 1.000.000	Rp 1.000.000	
25	USG	1		Rp 519.750.000	Rp 519.750.000	
3	OBSERVATION ROOM					
26	Trolley	1		Rp 3.151.000	Rp 3.151.000	
27	Gynecologi Patient bed	1		Rp 28.726.914	Rp 28.726.914	
28	Monitor Cardiotocography Cabinet	1		Rp 2.700.000	Rp 2.700.000	
29	Dinklik (Step stools)	1		Rp 1.000.000	Rp 1.000.000	
30	LCD Monitor USG	1		Rp 23.500.000	Rp 23.500.000	
31	USG 4D	1		Rp 519.750.000	Rp 519.750.000	
32	Infuse Stand	1		Rp 850.000	Rp 850.000	
4	RECOVERY ROOM					
33	Infuse Stand	1		Rp 850.000	Rp 850.000	
34	Bed Patient	1		Rp 16.500.000	Rp 16.500.000	
35	Box Baby	1		Rp 1.600.000	Rp 1.600.000	
36	USG	1		Rp 23.500.000	Rp 23.500.000	
5	VK ROOM II					
37	Trolley	1		Rp 3.151.000	Rp 3.151.000	
38	Gynecologi Patient bed	1		Rp 28.726.914	Rp 28.726.914	
39	Dinklik (Step stools)	1		Rp 1.000.000	Rp 1.000.000	
40	Box Baby	1		Rp 1.600.000	Rp 1.600.000	
41	Infuse Stand	2		Rp 850.000	Rp 1.700.000	
42	Flow Meter O2 Wall	1		Rp 2.500.000	Rp 2.500.000	
43	Suction Wall	1		Rp 2.500.000	Rp 2.500.000	
44	Baby Weighting Scale	1		Rp 5.000.000	Rp 5.000.000	
45	Examination Lamp	1		Rp 625.000	Rp 625.000	
46	Fetal Doppler	1		Rp 10.480.000	Rp 10.480.000	
47	Laennec	1		Rp 50.000	Rp 50.000	
48	Ambu Bag Neonatus	1		Rp 660.000	Rp 660.000	
49	Patient bed	1		Rp 16.500.000	Rp 16.500.000	
50	Clorin Waskom	1		Rp 150.000	Rp 150.000	
6	RUANG KB INVENTARIS					
51	Tromol (Medium)	3		Rp 250.000	Rp 750.000	
52	Catheter Wascom	1		Rp 100.000	Rp 100.000	
53	Sponge and Dressing Forceps and Place	2		Rp 100.000	Rp 200.000	
54	Oxygen Tube Transport	3		Rp 1.200.000	Rp 3.600.000	
55	Infuse Stand	2		Rp 850.000	Rp 1.700.000	
56	Examination Lamp	1		Rp 625.000	Rp 625.000	
57	Partus Set	6		Rp 150.000	Rp 900.000	
58	Hecting Set	3		Rp 150.000	Rp 450.000	
59	Set Inspeculla	2		Rp 250.000	Rp 500.000	
7	VK ROOM II					
1	Trolley	1		Rp 3.151.000	Rp 3.151.000	
61	Bed Patient Gynecologi	1		Rp 28.726.914	Rp 28.726.914	
62	Dinklik (Step stools)	1		Rp 1.000.000	Rp 1.000.000	
63	Infuse Stand	2		Rp 850.000	Rp 1.700.000	
64	Baby Weighting Scale	1		Rp 5.000.000	Rp 5.000.000	
65	Baby Table	1		Rp 1.900.000	Rp 1.900.000	
66	Baby Box	1		Rp 1.600.000	Rp 1.600.000	
67	Examination Lamp	1		Rp 625.000	Rp 625.000	
68	Suction Wall	1		Rp 2.500.000	Rp 2.500.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
69	Baby Incubator	1		Rp 286.650.000	Rp 286.650.000	
70	Flow Meter Wall	1		Rp 2.500.000	Rp 2.500.000	
71	Ambu Bag Neonatus	1		Rp 660.000	Rp 660.000	
72	Patient Bed	1		Rp 16.500.000	Rp 16.500.000	
73	Clorin Waskom	1		Rp 150.000	Rp 150.000	
8	STORAGE EQUIPMENT					
74	Blood Warmer	1		Rp 25.000.000	Rp 25.000.000	
75	Electrocardiograph 12 Channel	1		Rp 79.511.390	Rp 79.511.390	
76	Syringe Pump	1		Rp 14.991.900	Rp 14.991.900	
77	Infusion Pump	1		Rp 24.909.060	Rp 24.909.060	
78	Nebulizer	1		Rp 1.750.000	Rp 1.750.000	
SUBTOTAL OBSTETRI AND GYNECOLOGY SERVICES					Rp 7.026.922.701	
5.5 ANATOMI PATHOLOGY SERVICES						
A. Tissue Processing and Microscopic Examination Room						
1	Work Station / Grossing Station	1		Rp 800.000.000	Rp 800.000.000	
2	Autopsi Set	1		Rp 660.000.000	Rp 660.000.000	
13	Printmate	1		Rp 825.000.000	Rp 825.000.000	
B. (Histology) Tissue Processing Room						
3	Automatic Staining Machine	1		Rp 75.928.000	Rp 75.928.000	
8	Cryostat/VC	1		Rp 783.434.000	Rp 783.434.000	
10	Glass Equipment for Manual Processing	2		Rp 10.000.000	Rp 20.000.000	
13	Virtual Microscope	1		Rp 25.450.000	Rp 25.450.000	
14	Fume Hood	1		Rp 120.000.000	Rp 120.000.000	
15	Ph Meter	1		Rp 8.500.000	Rp 8.500.000	
16	Silemate	1		Rp 352.000.000	Rp 352.000.000	
17	Blokstore Cabinet	1		Rp 40.000.000	Rp 40.000.000	
C. Clinical Cytology Room						
1	Patient Bed	1		Rp 17.000.000	Rp 17.000.000	
2	Examination Lamp	1		Rp 872.000	Rp 872.000	
3	Gynecology Bed	1		Rp 15.000.000	Rp 15.000.000	
4	View box	1		Rp 1.000.000	Rp 1.000.000	
5	Storage Cabinets For Reagensia	1		Rp 12.000.000	Rp 12.000.000	
6	Instrument Trolley	2		Rp 3.750.000	Rp 7.500.000	
7	Work Table	2		Rp 1.500.000	Rp 3.000.000	
8	Chair	2		Rp 500.000	Rp 1.000.000	
9	Speculum	1		Rp 176.000	Rp 176.000	
10	Sterilisator	1		Rp 26.880.000	Rp 26.880.000	
11	Piston Gun	1		Rp 1.200.000	Rp 1.200.000	-
12	Microscope Binocular	1		Rp 27.928.000	Rp 27.928.000	
D. (Cytology) Fluid Processing Room						
1	Manual Staining Jar	12		Rp 500.000	Rp 6.000.000	-
4	Timer	1		Rp 250.000	Rp 250.000	-
6	Microscope Binocular	1		Rp 27.928.000	Rp 27.928.000	
7	Liquid Base Cytology Manual	1		Rp 67.672.000	Rp 67.672.000	
8	Liquid Base Cytology Automatic / Machine	1		Rp 91.200.000	Rp 91.200.000	
9	Vortex	1		Rp 2.500.000	Rp 2.500.000	
13	Laboratory Table	5		Rp 2.000.000	Rp 10.000.000	
14	Blockstore Cabinet	2		Rp 3.280.000	Rp 6.560.000	-
E. Immunohistochemistry Room						
1	Automated Immunohistochemistry Stainer	1		Rp 1.650.000.000	Rp 1.650.000.000	
2	Fully Motorize Rotary Microtome √ Waterbath	1		Rp 144.430.000	Rp 144.430.000	
3	Hotplate	1		Rp 34.035.000	Rp 34.035.000	
4	Refrigerator Cabinet 4°C	1		Rp 26.554.000	Rp 26.554.000	
5	Freezer -20°C	1		Rp 80.000.000	Rp 80.000.000	
6	Timer	2		Rp 250.000	Rp 500.000	
7	Microscope Binocular	1		Rp 27.928.000	Rp 27.928.000	
8	Drying Oven	1		Rp 200.000.000	Rp 200.000.000	
9	Mikropipet	4		Rp 12.000.000	Rp 48.000.000	-
10	Microscope Double Head	1		Rp 75.928.000	Rp 75.928.000	
11	Staining Set	1		Rp 12.000.000	Rp 12.000.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
F. Imunofluorescence Room						
1	Microscope Imunofluorescence +Camera+PC	1		Rp 219.989.000	Rp 219.989.000	
G. Molecular Pathology Room						
1	PCR (RT dan Convensional)	1		Rp 130.000.000	Rp 130.000.000	
2	Apparatus Electroforesis	2		Rp 600.000.000	Rp 1.200.000.000	
3	Gel Doc	1		Rp 114.720.000	Rp 114.720.000	
4	Ph Meter	1		Rp 500.000	Rp 500.000	
5	Micro Balance	1		Rp 465.000.000	Rp 465.000.000	
H. Diagnosis Room						
1	Microscope Binocular	1		Rp 27.928.000	Rp 27.928.000	
2	Microscope Flourescence	1		Rp 744.360.000	Rp 744.360.000	
3	Five Headed	1		Rp 546.270.000	Rp 546.270.000	
4	Microscope+Camera	1		Rp 27.000.000	Rp 27.000.000	
5	Attached+PC	1		Rp 15.000.000	Rp 15.000.000	
6	Table for Microscope	2		Rp 10.000.000	Rp 20.000.000	
7	Chair for Diagnosis	2		Rp 5.000.000	Rp 10.000.000	
8	Book Cabinet	2		Rp 3.500.000	Rp 7.000.000	-
I. Reagensia and Tissue Files Room						
1	Iron Rack	3		Rp 3.000.000	Rp 9.000.000	
2	Iron Cabinet	1		Rp 35.000.000	Rp 35.000.000	
J. Eye Washer Room						
1	Eye Washer	1		Rp 11.000.000	Rp 11.000.000	
SUBTOTAL ANATOMI PATHOLOGY					Rp 9.918.120.000	
5.6 CLINICAL PATHOLOGY SERVICES						
E. Blood Bank Equipment						
1	Blood Bank Darah Refrigerator	1	Unit	Rp 23.052.000	Rp 23.052.000	
2	Reagent Refrigerator (glass door)	1	Unit	Rp 108.120.000	Rp 108.120.000	
3	Serologi Centrifuge	1	Unit	Rp 79.900.000	Rp 79.900.000	
4	Dry Incubator	1	Unit	Rp 55.760.000	Rp 55.760.000	
5	Microscope Binocular	1	Unit	Rp 30.600.000	Rp 30.600.000	
6	Active Cooling Box	1	Unit	Rp 51.000.000	Rp 51.000.000	
7	Passive Cooling Box 10 ltr	1	Unit	Rp 4.505.000	Rp 4.505.000	
8	Hand Sealer	1	Unit	Rp 3.185.000	Rp 3.185.000	
9	Plasma ekstraktor	1	Unit	Rp 38.610.000	Rp 38.610.000	
10	Elektrik tube sealer	1	Unit	Rp 93.340.000	Rp 93.340.000	
11	Blood collection mixer	1	Unit	Rp 107.900.000	Rp 107.900.000	
12	Eye Washer	1	Unit	Rp 11.000.000	Rp 11.000.000	
SUBTOTAL CLINICAL PATHOLOGY					Rp 606.972.000	
5.7 MICROBIOLOGY SERVICES						
5	Deep Freeze, Suhu sampai - 100 C (volume 200 L)	1		Rp 26.000.000	Rp 26.000.000	
6	Analitical Balance For Medium Kultur	1		Rp 3.000.000	Rp 3.000.000	
11	ELISA Reader	1		Rp 55.000.000	Rp 55.000.000	
12	Shaking Water bath (volume air, sekitar 20 L)	1		Rp 13.500.000	Rp 13.500.000	
13	Spectrophotometer	1		Rp 26.935.000	Rp 26.935.000	
15	Shaking incubator (volume 120 L)	1		Rp 15.000.000	Rp 15.000.000	
16	Sterilization Instrument fluid using a filter (a set with a pump)	1		Rp 26.000.000	Rp 26.000.000	
17	Test Tube	300		Rp 250.000	Rp 75.000.000	
18	Petridish	10		Rp 300.000	Rp 3.000.000	
19	Erlenmeyer	2		Rp 100.000	Rp 200.000	
20	Refrigerator suhu -2 s/d -8°C	4		Rp 2.000.000	Rp 8.000.000	
SUBTOTAL MICROBIOLOGY					Rp 251.635.000	

No	MEDICAL EQUIPMENT	QTY	UNITS	PRICE	TOTAL PRICE	REMARKS
5.8 MEDIKOLEGAL DAN FORENSIK						
Mortuary Room						
1	Body Bags	1		Rp 152.113.500	Rp 152.113.500	
3	Dissection Table	1		Rp 770.000.000	Rp 770.000.000	
4	Autopsi Instrument	1		Rp 350.000.000	Rp 350.000.000	
5	Head Lamp	1		Rp 100.000.000	Rp 100.000.000	
6	Examination Lamp	1		Rp 160.000.000	Rp 160.000.000	
8	Preparation table	1		Rp 310.000.000	Rp 310.000.000	
9	Refrigerated Mortuary Cabinet	1		Rp 960.000.000	Rp 960.000.000	
10	Weighing machine for Weighing dead bodies	1		Rp 200.000.000	Rp 200.000.000	
11	Weighing machine for organs	1		Rp 309.583.500	Rp 309.583.500	
Forensic Room						
12	Three body refrigerator	1		Rp 960.000.000	Rp 960.000.000	
13	Body Transporter	1		Rp 170.000.000	Rp 170.000.000	
14	Hydraulic autopsy Carrier	1		Rp 350.000.000	Rp 350.000.000	
15	Autopsy saw electric	1		Rp 100.000.000	Rp 100.000.000	
16	Embalming machines	1		Rp 200.000.000	Rp 200.000.000	
17	Autopsy scale	1		Rp 60.000.000	Rp 60.000.000	
18	Examination light	1		Rp 160.000.000	Rp 160.000.000	
19	Bioron Thermocycler Basic 910051	1		Rp 152.113.500	Rp 152.113.500	
20	Midi Horizontal Gel Electrophoresis System	1		Rp 9.350.000	Rp 9.350.000	
21	Smart Minis 300 V	1		Rp 6.820.000	Rp 6.820.000	
22	Stirring Waterbath	1		Rp 16.500.000	Rp 16.500.000	
23	Elite Dry Bath Blocks Incubator plus 0.2 mL Tube Blocks (MD-B0.2)	1		Rp 8.800.000	Rp 8.800.000	
24	Micro High-Speed Centrifuge Include Rotor	1		Rp 23.402.287	Rp 23.402.287	
25	Magnetic Stirrer	1		Rp 6.000.000	Rp 6.000.000	
26	Rib cutting knife	1		Rp 6.000.000	Rp 6.000.000	
27	Standard dissecting knives	1		Rp 8.000.000	Rp 8.000.000	
28	Post mortem knife	1		Rp 6.000.000	Rp 6.000.000	
29	Half curved needles	1		Rp 3.000.000	Rp 3.000.000	
30	Postmortem thread	1		Rp 2.000.000	Rp 2.000.000	
31	DFS Taq Polymerase	1		Rp 750.000	Rp 750.000	
32	Superhot Taq polymerase	1		Rp 1.050.000	Rp 1.050.000	
33	Reverase (M-MuLV-RT)	1		Rp 1.610.000	Rp 1.610.000	
34	100 bp DNA ladder	1		Rp 750.000	Rp 750.000	
35	4you4 dNTPs Mix 40mM (4x10mM)	2		Rp 500.000	Rp 1.000.000	
36	Proteinase K (20 mg/ml)	3		Rp 475.000	Rp 1.425.000	
37	DFS master mix (ready to use)	4		Rp 900.000	Rp 3.600.000	
38	Agarose	5		Rp 1.515.000	Rp 7.575.000	
39	Ron's PCR pure kit	6		Rp 1.250.000	Rp 7.500.000	
40	Ron's tissue DNA mini kit	5		Rp 2.000.000	Rp 10.000.000	
41	Ron's blood and cell DNA mini kit	4		Rp 2.000.000	Rp 8.000.000	
SUBTOTAL FORENSIC AND MEDICOLEGAL					Rp 5.602.942.787	
SUBTOTAL STANDARD EQUIPMENT FOR DOCTOR PROFESIONAL IN HOSPITAL					Rp 68.395.420.440	

I. IMPROVING OF SERVICES EXCELLENCE	Rp 58.113.142.765
II. IMPROVE OF DIAGNOSTIC AND CLINICAL PHARMACY SERVICES	Rp 49.891.023.240
III. INTERSHIP TRAINING CENTRE	Rp 59.485.562.500
IV. IMPROVING RESEARCH LABORATORY	Rp 5.615.000.000
V. STANDARD EQUIPMENT FOR DOCTOR PROFESIONAL IN HOSPITAL	Rp 68.395.420.440

TOTAL Rp 241.500.148.945
PPN 10% Rp 24.150.014.895
GRAND TOTAL Rp 265.650.163.840
USD \$19.043.022

RENCANA ANGGARAN BIAYA (RAB)

Kegiatan : Satuan Kerja Universitas Hasanuddin
 Pekerjaan : Pembangunan Gedung B & C Penunjang Rumah Sakit Pendidikan
 Lokasi : Kampus UNHAS Tamalanrea Km. 10 Makassar
 Tahun anggaran : 2017

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URAIAN PEKERJAAN	SUB JUMLAH	JUMLAH
REKAPITULASI AKHIR		
PEMBANGUNAN GEDUNG : B & C PENUNJANG RUMAH SAKIT PENDIDIKAN		
UNIVERSITAS HASANUDDIN MAKASSAR		
PEKERJAAN ANGGARAN TAHUN 2017		Rp. 5.607.562.040,08
DIVISI 1.0. UMUM	Rp. 1.361.686.447,81	
• PEKERJAAN STANDAR		
A. BANGUNAN GEDUNG : B & C (ICU, COT, POLIKLINIK & PERAWATAN)	Rp. 635.090.931,93	
B. BANGUNAN GEDUNG, D	Rp. 348.895.049,94	
• PEKERJAAN SARANA LUAR		
C. PEKERJAAN SARANA LUAR	Rp. 3.261.889.610,40	
PEKERJAAN ANGGARAN TAHUN 2017		Rp. 117.974.756.193,84
A. BANGUNAN GEDUNG : B & C (ICU, COT, POLIKLINIK & PERAWATAN)	Rp. 31.069.261.431,16	
B. BANGUNAN GEDUNG : D	Rp. 20.012.919.549,95	
C. PEKERJAAN NON STANDAR MINI HOSPITAL 2017		
• PEKERJAAN NON STANDAR		
D. PEKERJAAN ARSITEKTUR NON STANDAR	Rp. 9.817.796.271,15	
E. PEKERJAAN MEKANIKAL NON STANDAR	Rp. 36.791.473.690,83	
F. PEKERJAAN ELEKTRIKAL NON STANDAR	Rp. 14.228.766.604,30	
• PEKERJAAN SARANA LUAR		
G. PEKERJAAN SARANA LUAR	Rp. 6.054.538.646,46	
SUB TOTAL		Rp. 123.582.318.233,92
Redesain 15 %		Rp. 18.537.347.735,09
PPN 10%		Rp. 12.358.231.823,39
TOTAL		Rp. 154.477.897.792,40
DIBULATKAN		Rp. 154.477.800.000,00
Terbilang : Seratus Lima Puluh Empat Milyar Empat Ratus Tujuh Puluh Tujuh Juta Delapan Ratus Ribu Rupiah		

Tim Review RSUH

Dr.dr A. Fachruddin Benyamin,Sp.PD,KHOM



KEMENTERIAN RISET, TEKNOLOGI, DAN PENDIDIKAN TINGGI
UNIVERSITAS HASANUDDIN
RUMAH SAKIT UNIVERSITAS HASANUDDIN
Jalan Perintis Kemerdekaan KM. 10 Makassar 90245
Telepon (0411) 586200 (6 Saluran), 586107 Faksimile (0411) 585188

Nomor : 0000 /UN4.24/KU.21/2016

29 Desember 2016

Lampiran : Satu berkas

Perihal : Hasil Evaluasi Kebutuhan Anggaran RSUH

Yth. Rektor Universitas Hasanuddin
di Makassar

Menindaklanjuti Surat Penugasan Rektor Universitas Hasanuddin nomor:: 47499/UN4.I/KP.19/2016 tanggal 11 Nopember 2016 tentang pengangkatan tim Reviewer pelaksanaan pembangunan lanjutan pembangunan rumah sakit universitas hasanuddin gedung B dan C ,maka disampaikan hasil review sebagai berikut:

1. Tujuan Review

- a. Mengetahui jumlah anggaran yang telah terserap dalam pembangunan Rumah Sakit Unhas sejak tahun 2011 sampai dengan Tahun Anggaran 2016.
- b. Melakukan pemeriksaan dan menghitung secara akurat tentang kebutuhan anggaran penyelesaian Rumah Sakit Unhas sebagai bahan evaluasi dalam pengajuan anggaran pembangunan Rumah Sakit..

2. RuangLingkup Review

Ruang lingkup Review adalah:

- a. Gedung B dan C yaitu meliputi kebutuhan anggaran penyelesaian ruang perawatan dan ,ICU,COT dan ruang lainnya sesuai perencanaan.
- b. Gedung D yang masih perlu penyempurnaan termasuk Penyiapan Mini Hospital
- c. Penyelesaian Sarana luar termasuk penyempurnaan lingkungan dan Relokasi Genset pada Lokasi awal sesuai dengan Design semula.

3. MetodeEvaluasi

Metode Review meliputi:

- a. Pengumpulan data dan informasi

Pengumpulan data dan informasi dimaksudkan untuk memperoleh seluruh data perencanaan, dan pelaksanaan yang telah dilaksanakan pada Rumah Sakit Unhas sampai dengan Tahun Anggaran 2016.

b. Melakukan Pemeriksaan

Pemeriksaan lapangan dilakukan secara menyeluruh untuk mengetahui kondisi bangunan secara keseluruhan utamanya pada Gedung B,C dan D.

c. Melakukan Penghitungan Anggaran

Berdasarkan dokumen yang diperoleh dan hasil pemeriksaan lapangan ,maka selanjutnya dilakukan analisis dan menghitung kebutuhan penyelesaian Rumah Sakit Unhas.

4. Hasil Evaluasi

Berdasarkan hasil evaluasi yang telah kami lakukan dari tanggal 11 Nopember 2016 sampai dengan tanggal 20 Desember 2016, dapat disimpulkan:

1) Realisasi anggaran pelaksanaan konstruksi sejak pembangunan tahun anggaran 2011 sampai dengan tahun anggaran 2016 seluruhnya sebesar **Rp.184.305.648.445** dengan perincian:

a. Tahun anggaran 2011	Rp37.264.529.280
b. Tahun anggaran 2012	Rp29.779.622.342
c. Tahun anggaran 2013	Rp29.072.977.000
d. Tahun anggaran 2014	Rp56.906.445.823
e. Tahun anggaran 2015	Rp3.763.870.000
f. Tahun anggaran 2016	<u>Rp27.518.204.000</u>
Jumlah realisasi	Rp184.305.648.445

2) Kebutuhan anggaran yang masih diperlukan untuk penyelesaian Rumah Sakit Unhas sebesar **Rp154.477.800.000**, dengan perincian sebagai berikut:

a. Pekerjaan Umum	Rp.1.361.686.447,81
b. Pekerjaan Sarana luar	Rp.4.245.875.592,27
c. Bangunan Gedung B,C (ICU,COT,Poliklinik dan Perawatan)	Rp31.069.261.431,16
d. Bangunan Gedung D (Mini Hospital)	Rp20.012.919.549,95
e. Pekerjaan Arsitek Non Standar	Rp9.817.796.271,15
f. Pekerjaan Mekanikal Non Standar	Rp36.791.473.690,83
g. Pekerjaan Elektrikal Non Standar	Rp14.228.766.604,30

h. Pekerjaan Sarana Luar/Lingkungan	<u>Rp6.054.538.646,46</u>
Jumlah	<u>Rp123.582.318.233,83</u>
i. Re Design 15 %	<u>Rp18.537.347.735,09</u>
j. PPN	<u>Rp12.358.231.823,39</u>
Jumlah Kebutuhan (pembulatan)	<u>Rp154.477.800.000,00</u>

5. Saran

Hasil evaluasi ini dapat diteruskan untuk bahan evaluasi selanjutnya .
Demikian kami sampaikan sebagai bahan pelaporan tim evaluasi , atas perkenaan Rektor diucapkan terima kasih.

Ketua



Dr.dr.Andi Fachruddin Benyamin,Sp.PD

RENCANA ANGGARAN BIAYA (RAB)

Kegiatan : Satuan Kerja Universitas Hasanuddin
 Pekerjaan : Pembangunan Gedung B & C Penunjang Rumah Sakit Pendidikan
 Lokasi : Kampus UNHAS Tamalanrea Km. 10 Makassar
 Tahun anggaran : 2017

Halaman : 1

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REKAPITULASI AKHIR		
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UNIVERSITAS HASANUDDIN MAKASSAR		
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DIVISI 1.0. UMUM	Rp. 1,361,686,447.81	
• <i>PEKERJAAN STANDAR</i>		
A. BANGUNAN GEDUNG : B & C (ICU, COT, POLIKLINIK & PERAWATAN)	Rp. 635,090,931.93	
B. BANGUNAN GEDUNG, D	Rp. 348,895,049.94	
• <i>PEKERJAAN SARANA LUAR</i>		
C. PEKERJAAN SARANA LUAR	Rp. 3,261,889,610.40	
PEKERJAAN ANGGARAN TAHUN 2017		Rp. 117,974,756,193.84
A. BANGUNAN GEDUNG : B & C (ICU, COT, POLIKLINIK & PERAWATAN)	Rp. 31,069,261,431.16	
B. BANGUNAN GEDUNG : D	Rp. 20,012,919,549.95	
C. PEKERJAAN NON STANDAR MINI HOSPITAL 2017		
• <i>PEKERJAAN NON STANDAR</i>		
D. PEKERJAAN ARSITEKTUR NON STANDAR	Rp. 9,817,796,271.15	
E. PEKERJAAN MEKANIKAL NON STANDAR	Rp. 36,791,473,690.83	
F. PEKERJAAN ELEKTRIKAL NON STANDAR	Rp. 14,228,766,604.30	
• <i>PEKERJAAN SARANA LUAR</i>		
G. PEKERJAAN SARANA LUAR	Rp. 6,054,538,646.46	
SUB TOTAL		Rp. 123,582,318,233.92
<i>Redesain 15 %</i>		Rp. 18,537,347,735.09
<i>PPN 10%</i>		Rp. 12,358,231,823.39
T O T A L		Rp. 154,477,897,792.40
DIBULATKAN		Rp. 154,477,800,000.00
Terbilang : Seratus Lima Puluh Empat Milyar Empat Ratus Tujuh Puluh Tujuh Juta Delapan Ratus Ribu Rupiah		

Tim Review RSUH



Dr. dr A. Fachruddin Benyamin, Sp.PD, KHOM

RENCANA BISNIS DAN ANGGARAN

(R B A)

RUMAH SAKIT UNIVERSITAS HASANUDDIN

KEMENTERIAN PENDIDIKAN DAN KEBUDAYAAN

REPUBLIK INDONESIA

2014

KATA PENGANTAR

Puji syukur kepada Allah SWT , karena atas izin-Nya sehingga penyusunan Rencana Bisnis Anggaran (RBA) BLU RS Unhas dapat terwujud. RBA yang disusun ini mengacu Pedoman Teknis Penyusunan RBA di Lingkungan RS PTN Direktur Jenderal Pendidikan Tinggi Kementerian Pendidikan dan Kebudayaan Tahun 2014. Konsep anggaran yang diajukan adalah berbasis kinerja, analisis biaya satuan dan analisis pendapatan dan pendanaan menjadi hal fundamental yang mendorong rumah sakit Unhas agar dapat menjalankan misinya sebagai RS Pendidikan dengan tetap mengutamakan mutu pelayanan.

Ucapan terima kasih ke para pihak yang telah membantu penyusunan RBA ini kepada tim RS Unhas yang telah membantu dalam hal penyediaan data sampai proses pendokumentasian laporan RBA ini.

Akhirnya, kami menyadari bahwa Laporan RBA ini ini masih jauh dari kesempurnaan. Olehnya itu, segala kritik dan saran untuk perbaikannya sangat diharapkan dan sebelumnya kami tak lupa mengucapkan terima kasih. Semoga laporan ini dapat bermanfaat bagi kita semua.

Makassar, Juni 2014

Penyusun



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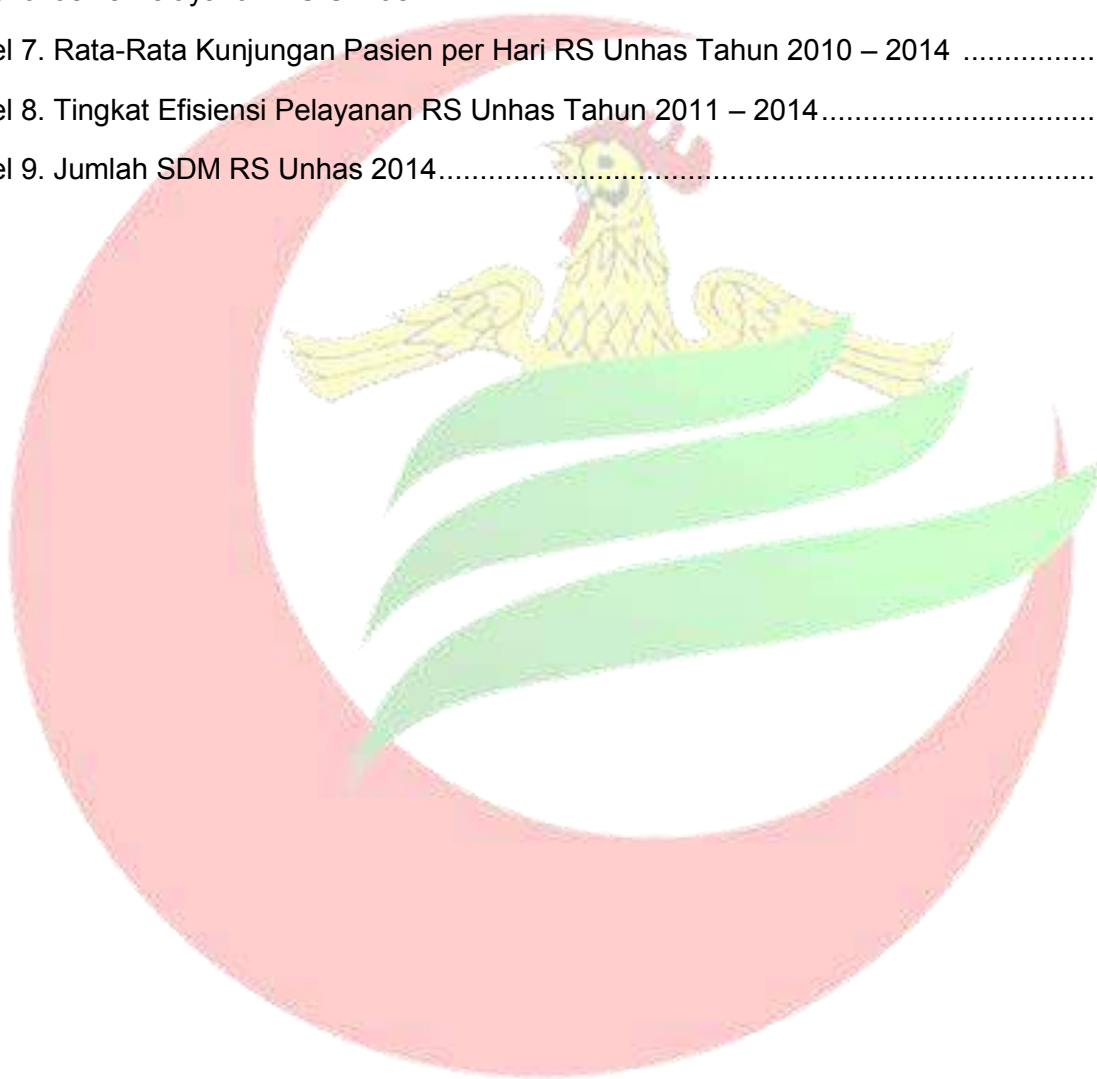
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Ringkasan Eksekutif

Rumah Sakit Universitas Hasanuddin (RS Unhas) didirikan untuk memfasilitasi proses pendidikan dan penelitian di bidang ilmu kedokteran dan ilmu kesehatan lainnya di Universitas Hasanuddin..

Dalam menjalankan fungsinya, RS Unhas memiliki visi menjadi pelopor terpercaya dalam memadukan pendidikan, penelitian dan pemeliharaan kesehatan yang bertaraf internasional yang salah satu misinya adalah menciptakan tenaga profesional yang berstandar internasional dalam pendidikan, penelitian dan pemeliharaan kesehatan. Saat ini, RS Unhas mengembangkan pelayanan unggulan sesuai dengan *Memorandum of Understanding (MoU)* dengan Rumah Sakit Dr. Wahidin Sudirohusodo (RSWS) yaitu *Trauma Centre, Cancer Centre, Diagnostic Centre, Fertility Endocrine Reproductive Centre* dan *Neurointervention Centre*. Dalam operasionalisasinya, RS Unhas banyak bekerja sama dengan RSWS dalam rujukan parcial (pelayanan Radiologi, Radioterapi dan Laboratorium).

RS Unhas telah memiliki kapasitas tempat tidur (TT) sebanyak 218 buah yang berada di Gedung A dan Gedung EF. Saat ini RS Unhas sedang mengembangkan pembangunan Gedung BC. Beberapa sarana dan prasarana sudah tersedia ditunjang oleh alat-alat kesehatan yang canggih dan bertambahnya produk layanan seperti Radioterapi, *Neonatal Care* dan Haemodialisa. Sumber daya manusia (SDM) RS Unhas hingga tahun Mei 2014 mencapai 753 orang yang berasal dari berbagai profesi. Tim manajemen berasal dari multidisplin ilmu antara lain Fakultas Kedokteran, Fakultas Kesehatan Masyarakat, Fakultas Farmasi, Fakultas Ekonomi, Fakultas Hukum, dan lain-lain. Pada 10 Desember 2013, RS Unhas telah mendapatkan sertifikasi penetapan kelas rumah sakit dari Kementerian Kesehatan Republik Indonesia sebagai RS Umum Kelas B dan pada tanggal 1 Januari 2014 masuk sebagai anggota Persatuan Rumah Sakit Indonesia (PERSI).

Pada tahun 2012, PAGU yang diberikan kepada RS Unhas sebesar Rp22.909.312.932,- dengan besar penerimaan sebesar Rp19.965.406.443,- pada tahun 2013, PAGU yang diberikan sebesar Rp 44.980.750.000,- dengan besar penerimaan Rp41.768.503.485,-, dan pada tahun 2014 pagu yang diberikan sebesar Rp 45.736.074.842. Hingga bulan Mei 2014 Rumah Sakit Unhas telah melayani pasien di Instalasi Rawat Jalan sebanyak 20.637 kunjungan pasien dengan rata-rata perhari sebanyak 168 kunjungan, di Instalasi Rawat Darurat 2.449 kunjungan pasien dengan rata-rata 18 kunjungan perhari, xInstalasi HCU/ICU sebanyak 175 kunjungan dimana rata-rata kunjungan perhari sebanyak 4 kunjungan. Di Instalasi Bedah Sentral jumlah kunjungan selama periode ini sebanyak 964 kasus (9 kasus/ hari). Pencapaian BOR RS Unhas 66.02%.

Penyusunan RBA ini dilakukan dengan menggunakan beberapa asumsi makro (laju inflasi, nilai tukar rupiah serta suku bunga) dan asumsi mikro yang digunakan bahwa RS Unhas membutuhkan subsidi yang tinggi, mengingat tingginya biaya investasi gedung, alat dan sumber daya manusia. Dibutuhkan dana yang cukup besar untuk memfasilitasi pelayanan pendidikan, pelatihan dan penelitian yang terintegrasi dengan pemeliharaan kesehatan, mengingat semakin banyak peserta didik yang difasilitasi di RS Unhas serta meningkatnya volume pelayanan akibat semakin baiknya respon masyarakat.

BAB I

PENDAHULUAN

A. Gambaran Umum Rumah Sakit Universitas Hasanuddin

Sejak awal Fakultas Kedokteran Universitas Hasanuddin mempergunakan Rumah Sakit Umum Labuang Baji, Rumah Sakit Stella Maris, Rumah Sakit Pelamonia, Rumah Sakit Jiwa DADI dan menyusul Rumah Sakit Akademis sebagai tempat praktek Mahasiswa Kedokteran Universitas Hasanuddin untuk mencapai gelar Dokter.

Sesuai dengan perkembangan zaman dan tuntutan waktu, Rumah Sakit Jiwa DADI di bangun di Kampus Universitas Hasanuddin yang baru yang bernama Rumah Sakit Umum Dokter Wahidin Sudirohusodo, dimana Rumah Sakit Umum Dokter Wahidin Sudirohusodo juga berfungsi sebagai pusat rujukan di Kawasan Timur Indonesia. Sampai sekarang ini, kesemua rumah sakit tersebut diatas, ditambah dengan Rumah Sakit Umum Islam Faisal menjadi tempat praktek Mahasiswa yang akan menjadi dokter. Adapun Kelas dan Kepemilikan rumah sakit tersebut berbeda-beda.

Berhubung dengan kepemilikan dan kelas yang berbeda-beda, maka kebijakan pelayanan pendidikan dan penelitian dalam rumah sakit tersebut bervariasi satu sama lainnya dan seringkali menimbulkan konflik atau ketidakserasian antara pelayanan, pendidikan dan penelitian. Kondisi ini tentunya menghambat proses pelayanan maupun proses pendidikan yang berakibat ketidakpuasan pasien dan keterlambatan kelulusan bagi mahasiswa kedokteran. Sehubungan dengan hal tersebut, dibutuhkan suatu rumah sakit khusus pendidikan yang dapat menjadi rujukan teknologi medis pendidikan dan penelitian bagi mahasiswa kedokteran Universitas Hasanuddin.

Sehingga dianggap perlu untuk mengembangkan RS Pendidikan yang bisa dijadikan sebagai laboratorium pendidikan tidak hanya untuk fakultas kedokteran namun juga untuk fakultas ilmu-ilmu kesehatan di Unhas seperti Fakultas Kesehatan Masyarakat, Farmasi, Fakultas Keperawatan.

Selain itu pembentukan RS Pendidikan termuat dalam Undang-Undang No 20 tahun 2013 tentang Pendidikan Kedokteran pasal 6 bahwa Pembentukan Fakultas Kedokteran dan/atau Fakultas Kedokteran Gigi paling sedikit harus memenuhi syarat dan ketentuan sebagai berikut:

- a. memiliki dosen dan tenaga kependidikan sesuai dengan ketentuan peraturan perundang-undangan;
- b. memiliki gedung untuk penyelenggaraan pendidikan;

- c. memiliki laboratorium biomedis, laboratorium kedokteran klinis, laboratorium bioetika/humaniora kesehatan, serta laboratorium kedokteran komunitas dan kesehatan masyarakat; dan
- d. memiliki Rumah Sakit Pendidikan atau memiliki rumah sakit yang bekerja sama dengan Rumah Sakit Pendidikan dan Wahana Pendidikan Kedokteran.

RS Unhas berlokasi di Jl. Perintis Kemerdekaan Km. 10 Kampus Tamalanrea Makassar dan diresmikan pada tanggal 15 Februari 2010 di Makassar oleh Menteri Pendidikan dan Kebudayaan Prof.Dr.M.Nuh. Rumah Sakit Universitas Hasanuddin didirikan dengan ijin operasional No 12536/YANKES-2/XII/2013. RS Unhas berdampingan dengan RSUP Dr. Wahidin Sudirohusodo bertujuan untuk efisiensi penggunaan sarana dan efisiensi pemanfaatan sumber daya manusia (SDM) sehingga dapat dikembangkan konsep **saling menguatkan** dalam mengintegrasikan program pendidikan, penelitian dan pemeliharaan kesehatan dengan RSUP Dr. Wahidin Sudirohusodo.

Selain diatas, lokasi yang berdekatan ini juga dalam rangka perkembangan wilayah kampus Unhas Tamalanrea akan dikembangkan menjadi *Academic Health Centre* di Indonesia bagian Timur. Rumah Sakit Universitas Hasanuddin akan dikembangkan sebagai rumah sakit yang *environmental friendly, energy saving* serta mengembangkan teknologi informasi yang canggih dalam menjalankan pelayanannya. Pelayanan kesehatan yang dilayani di rumah sakit ini antara lain deteksi dini penyakit melalui penggunaan teknologi canggih (*Hi-Tech*) seperti penggunaan Biomolekuler serta pengembangan teknologi modern dan pengembangan pusat-pusat layanan yang tidak dikembangkan oleh rumah sakit yang ada di Sul-Sel.

Pelayanan disediakan terdiri dari pelayanan spesialis dan sub spesialis yang terpadu dalam centre dan multidisiplin yang dimulai dari deteksi dini dengan menggunakan teknologi canggih seperti PET Scan, Gamma Camera hingga terapi dengan menggunakan gamma knife, gen terapi dan Sistem Sel, juga akan dikembangkan pelayanan Cancer Center, Eye Center, Cerebral and Vascular Intervention Center, Research Center, Tele Medicine and Education Center, Trauma Center, Diagnostic Center, Endocrinology Fertility Center, Assesment Alternative Medicine Center, dan *Fisioterapi and Rehabilitation Center*.



B. Visi dan Misi Rumah Sakit Universitas Hasanuddin

Visi

Menjadi pelopor terpercaya dalam memadukan Pendidikan, Penelitian dan Pemeliharaan Kesehatan yang bertaraf internasional.

Misi

1. Menciptakan tenaga profesional yang berstandar internasional dalam pendidikan, penelitian dan pemeliharaan kesehatan.
2. Menciptakan lingkungan akademik yang optimal untuk mendukung pendidikan, penelitian dan pemeliharaan kesehatan.
3. Mempelopori inovasi pemeliharaan kesehatan melalui penelitian yang unggul dan perbaikan mutu yang berkesinambungan.
4. Memberikan pemeliharaan kesehatan secara terpadu dengan pendidikan, penelitian yang berstandar internasional tanpa melupakan fungsisosial.
5. Mengembangkan jejaring dengan institusi lain baik regional maupun internasional.

Untuk mencapai visi misinya, RS Unhas telah melakukan standarisasi terhadap input dengan memenuhi kriteria jumlah dan kompetensi SDM, peralatan, ruangan dan bangunan sesuai persyaratan RS Kelas B (lihat lampiran 1) dan sedang dalam proses untuk menstandarisasi proses pelayanan sesuai dengan standar akreditasi internasional.

Selanjutnya, sebagai rencana jangka panjang untuk pencapaian visi misi maka disusunlah Renstra periode 2015-2019 sebagai lanjutan dari Renstra periode I 2010-2014. Pada renstra periode ke 2, RS Unhas memiliki tujuan strategis masih sama dengan periode pertama, karena tujuan ini masih sangat relevan dengan kondisi dan misi RS Unhas. yakni :

1. Terwujudnya RS Pendidikan yang menjadi pelopor pengembangan ilmu pengetahuan dan teknologi di bidang kesehatan. Untuk mencapai tujuan ini, RS Unhas menetapkan sasaran strategis yakni :
 - 1.1 Terlaksananya pembelajaran terkait bidang kesehatan yang menerapkan *continuous quality improvement*,
 - 1.2 Terciptanya inovasi metode pembelajaran klinik
 - 1.3 Pengembangan ilmu pengetahuan dan teknologi kedokteran dan manajemen rumah sakit berbasis penelitian,
 - 1.4 Tercapainya Pendidikan Kesehatan unggulan dalam bidang cancer , Trauma , eye, FER, neurointervention, nyeri, farmasi dan humaniora

- 1.5 Terciptanya inovasi dalam bidang pelayanan kesehatan dan manajemen rumah sakit
- 1.6 Tercapainya Standar sebagai RS Pendidikan.
2. Terselenggaranya pendidikan, penelitian dan pemeliharaan kesehatan yang terintegrasi. Sasaran strategis yang diambil RS Unhas untuk mencapai tujuan ini yakni:
 - 2.1 Adanya keterkaitan pendidikan dasar dan profesi yang didukung oleh perangkat pembelajaran mutakhir dan lengkap dengan melibatkan bagian-bagian terkait sejak awal
 - 2.2 Tersedianya SDM dalam bidang pendidikan, penelitian dan pemeliharaan kesehatan yang memiliki kualitas pengetahuan dan keterampilan terkini serta jiwa pengabdian social,
 - 2.3 Tersedianya SDM dalam bidang pendidikan, penelitian dan pemeliharaan kesehatan yang memiliki kualitas pengetahuan dan keterampilan terkini serta jiwa pengabdian social,
 - 2.4 Tersedianya sarana dan prasarana yang mendukung pendidikan, penelitian dan pelayanan kesehatan yang terintegrasi,
 - 2.5 Tersedianya dana yang memadai untuk proses pendidikan, pelatihan dan penelitian dari berbagai sumber,
 - 2.6 Terselenggaranya penelitian terintegrasi berbasis pelayanan kesehatan,
 - 2.7 Terselenggaranya pemeliharaan kesehatan berstandar internasional, Adanya kerjasama dengan RS pendidikan di negara maju (Sister Hospital),
 - 2.8 Terselenggaranya pemeliharaan kesehatan yang terintegrasi antara tenaga medis, paramedis dan tenaga kesehatan lainnya,
 - 2.9 Terintegrasinya proses pendidikan, penelitian, pemeliharaan kesehatan dengan manajemen
3. Terwujudnya rumah sakit pendidikan yang berstandar international. Tujuan ke tiga ini dicapai dengan sasaran strategis :
 - 3.1 Tercapainya fungsi Rumah Sakit sebagai wahana pendidikan dan penelitian bidang terkait kesehatan yang bertaraf Internasional, dan
 - 3.2 Tercapainya mutu pelayanan Kesehatan Rumah Sakit Pendidikan berstandar Internasional.
4. Terbentuknya kemitraan jangka panjang yang saling menguntungkan dengan sasaran strategis:
 - 4.1 Meningkatkan kemitraan Academic, Business, Community and Government (ABCG) ditingkat Lokal, Regional dan Global dalam bidang pemeliharaan kesehatan, pendidikan dan penelitian,

- 4.2 Meningkatnya kontribusi kemitraan terhadap peningkatan pelayanan kesehatan bermutu,
- 4.3 Terwujudnya Academic Health Centre (AHC) sebagai wujud integrasi fungsional : proses pendidikan, penelitian, pemeliharaan kesehatan, dan manajemen antara RS UNHAS, RSWS dan UNHAS, dan
- 4.4 Meningkatnya kontribusi RS terhadap kesejahteraan masyarakat dan pengembangan daerah
5. Terwujudnya organisasi dan manajemen rumah sakit yang mendukung pelayanan kesehatan bermutu. Sasaran strategisnya ialah :
 - 5.1 Meningkatnya efektifitas dan efisiensi pengelolaan Rumah Sakit,
 - 5.2 Terciptanya budaya mutu organisasi dan manajemen,
 - 5.3 Meningkatnya penerapan prinsip good governance, clinical governance,
 - 5.4 Terlengkapinya perangkat organisasi sesuai dengan standar RS Pendidikan,
 - 5.5 Meningkatnya Produktivitas dan kepuasan kerja pegawai RS,
 - 5.6 Tersedianya SIM RS yang mendukung decision supporting system (DSS), dan
 - 5.7 Terwujudnya sistem pemeliharaan kesehatan yang bermutu,

Untuk mencapai sasaran strategis dikembangkan lah inisiatif strategis sampai program kerja seperti yang dijelaskan pada tabel berikut:

Tabel 1. Matriks Tujuan Strategis I Renstra RS Unhas 2015 – 2019
Terwujudnya RS Pendidikan yang Menjadi Pelopor Pengembangan Ilmu Pengetahuan dan Teknologi di Bidang Kesehatan

Sasaran strategis		Inisiatif Strategi		Program kerja	
1.1	Terlaksananya pembelajaran terkait bidang kesehatan yang menerapkan <i>continous quality improvement</i> .	1.1.1	Pengembangan mutu dan efektivitas proses pembelajaran secara berkelanjutan	1.1.1.1	Meta evaluasi sistem penjaminan mutu pembelajaran klinik dan non klinik untuk RS pendidikan
				1.1.1.2	Pengembangan sistem penjaminan mutu pembelajaran
				1.1.1.3	Pembelajaran peserta didik pada RS Jejaring (<i>Academic Health Centre</i>)
				1.1.1.4	Membentuk jejaring dengan Puskesmas, RS Kelas D, RS Kelas C untuk profesi dokter, RS Kelas B lainnya untuk Spesialis, RS Kelas A Untuk Subspesialis
1.2	Terciptanya inovasi metode pembelajaran klinik.	1.1.2	Pengembangan teknologi pembelajaran inovatif	1.1.2.1	Pembuatan modul pembelajaran klinik dan non klinik
				1.1.2.2	Pengembangan instrumen pembelajaran berbasis digital (a.l. : video pembelajaran)
				1.1.2.3	Pengembangan <i>simulation center</i>
				1.1.2.4	Pembuatan modul pembelajaran berbasis penelitian

Sasaran strategis		Inisiatif Strategi		Program kerja	
				1.1.2.5	Pengembangan metode pembelajaran berbasis hasil penelitian
1.3	Pengembangan ilmu pengetahuan dan teknologi kedokteran dan manajemen rumah sakit berbasis penelitian.	1.3.1	<i>Translational research</i>	1.3.1.1	Penyusunan road map penelitian terapan
				1.3.1.2	Pengembangan <i>knowledge management</i>
				1.3.1.3	Penyusunan SOP pembelajaran berbasis penelitian
				1.3.1.4	Peningkatan publikasi dibidang cancer, trauma, mata, FER, diagnostik dini, rehabilitas medis, neurointervensi, nyeri (akut, kronik dan cancer) dan manajemen rumah sakit
1.4	Tercapainya Pendidikan Kesehatan unggulan dalam bidang cancer, trauma, eye, FER, neurointervention, nyeri, farmasi dan humaniora	1.4.1	Pengembangan Pendidikan Kesehatan unggulan dalam bidang cancer, trauma, eye, FER, neurointervention, nyeri, farmasi dan manajemen rumah sakit	1.4.1.1	Pengembangan pendidikan bidang cancer
				1.4.1.2	Pengembangan pendidikan bidang trauma
				1.4.1.3	Pengembangan pendidikan bidang eye
				1.4.1.4	Pengembangan pendidikan bidang FER
				1.4.1.5	Pengembangan pendidikan bidang neurointervention
				1.4.1.6	Pengembangan pendidikan bidang farmasi klinik
				1.4.1.7	Pengembangan pendidikan bidang manajemen rumah sakit
1.5	Terciptanya inovasi dalam bidang pelayanan kesehatan dan manajemen RS.	1.5.1	Meningkatkan inovasi pelayanan kesehatan dan manajemen rumah sakit.	1.5.1.1	Penyediaan sarana dan prasarana penelitian
				1.5.1.2	Peningkatan kompetensi SDM dalam bid penelitian
				1.5.1.3	Perluasan akses dan mutu sumber pembelajaran
				1.5.1.4	Penyusunan SOP pelayanan kesehatan berbasis penelitian
1.6	Tercapainya Standar sebagai RS Pendidikan	1.6.1	Meningkatkan tingkat kecukupan dan mutu sarana dan prasarana pembelajaran RS Pendidikan	1.6.1.1	Pengembangan sarana prasarana RS kelas A Pendidikan
				1.6.1.2	Pengembangan SDM RS kelas A Pendidikan
				1.6.1.3	Pengembangan proses pelayanan sesuai RS kelas A Pendidikan

Sumber : RS Unhas, 2014

Tabel diatas menjelaskan program kerja yang akan dilaksanakan pada lima tahun kedepan dalam rangka menjalankan misi pertama yaitu menciptakan tenaga profesional. Sasaran strategis dan program kerja diatas merupakan lanjutan dari program kerja dari periode pertama renstra yaitu 2010-2014.

Tabel 2. Matriks Tujuan Strategis 2 Renstra RS Unhas 2015 – 2019
Terselenggaranya Pendidikan, Penelitian dan Pemeliharaan Kesehatan yang Terintegrasi

Sasaran Strategis		Inisiatif Strategis		Program Kerja	
2.1	Adanya keterkaitan pendidikan dasar dan profesi yang didukung oleh perangkat pembelajaran mutakhir dan lengkap dengan melibatkan bagian-bagian terkait sejak awal	2.1.1	Pengembangan sistem <i>Evidence Based Medicine</i>	2.1.1.1	Pengembangan <i>Practice Guidelines</i>
				2.1.1.2	Monitoring dan evaluasi <i>Practice Guidelines</i>
				2.1.1.3	Pengembangan modul pembelajaran dan modul keterampilan klinis sesuai kompetensi masing-masing profesi
2.2	Tersedianya SDM dalam bidang pendidikan, penelitian dan pemeliharaan kesehatan yang memiliki kualitas pengetahuan dan keterampilan terkini serta jiwa pengabdian sosial	2.2.1	Meningkatkan kompetensi instruktur klinik dalam pembelajaran, penelitian, dan pemeliharaan kesehatan	2.2.1.1	Penyelenggaraan pendidikan berkelanjutan
				2.2.1.2	MOU dengan RS terkemuka di Indonesia (RSCM, RS Sardjito, RSUD DR.Sutomo, RS Harapan Kita, RS Pusat Otak Nasional, dll)
		2.2.2	Menyelenggarakan spiritual management	2.2.2.1	Manajemen perubahan berorientasi RS Pendidikan
				2.2.2.2	Pelaksanaan ESQ
				2.2.2.3	Pencerahan Etika
2.3	Tersedianya sarana dan prasarana yang mendukung pendidikan, penelitian dan pelayanan kesehatan yang terintegrasi	2.3.1	Pengembangan sarana dan prasarana yang mendukung pendidikan, penelitian dan pelayanan kesehatan yang terintegrasi	2.3.1.1	Pengembangan <i>simulation centre</i>
				2.3.1.2	Peningkatan sarana dan prasarana laboratorium
				2.3.1.3	Akreditasi lab
				2.3.1.4	Pembangunan <i>Mini Hospital/ Simulation Centre</i>
				2.3.1.5	Pengembangan multimedia (<i>wifi, fasilitas teleconference, video pembelajaran, prosedur pembelajaran operasi via CCTV</i>)
				2.3.1.6	Pengadaan alat untuk pelayanan unggulan
				2.3.1.7	Pengembangan ruang diskusi mahasiswa
				2.3.1.8	Pengembangan ruang diskusi mahasiswa
2.4	Tersedianya dana yang memadai untuk proses pendidikan, pelatihan dan penelitian dari berbagai sumber	2.4.1		2.4.1.1	Usulan RKAT
				2.4.1.2	MOU dengan Fakultas terkait
				2.4.1.3	MOU dengan Instansi lain
2.5	Terselenggaranya penelitian terintegrasi berbasis pelayanan kesehatan	2.5.1	Integrasi penelitian berbasis pelayanan kesehatan	2.5.1.1	Pembuatan Road Map penelitian RS
				2.5.1.2	Pelaksanaan penelitian di SMF berdasarkan Road Map RS
				2.5.1.3	Pembuatan kebijakan/SOP pada pelayanan kesehatan yang mendukung terselenggaranya penelitian
2.6	Terselenggaranya pemeliharaan kesehatan berstandar internasional	2.6.1	Pemeliharaan kesehatan berstandar internasional	2.6.1.1	Pengadaan fasilitas pemeliharaan kesehatan yang berstandar internasional setiap SMF
2.7	Adanya kerjasama dengan RS pendidikan di negara maju (<i>Sister</i>	2.7.1	Pembentukan kerjasama dengan RS Pendidikan di	2.7.1.1	Pembuatan MOU dengan Jepang
				2.7.1.2	Pengiriman tenaga medis, paramedis dan staf manajemen



Sasaran Strategis		Inisiatif Strategis		Program Kerja	
	<i>Hospital</i>)		negara maju	2.7.1.3	Penyelenggaraan Webiner (Website Seminar)
2.8	Terselenggaranya pemeliharaan kesehatan yang terintegrasi antara tenaga medis, paramedis dan tenaga kesehatan lainnya	2.8.1	Integrasi antara tenaga medis, paramedis dan tenaga kesehatan lainnya dalam pemeliharaan kesehatan	2.8.1.1	Pembuatan Kebijakan/ SOP terkait pelayanan terintegrasi
				2.8.1.2	Pengadaan ruang diskusi (meeting conference) terintegrasi
2.9	Terintegrasinya proses pendidikan, penelitian, pemeliharaan kesehatan dengan manajemen	2.9.1	Integrasi proses pendidikan, penelitian, pemeliharaan kesehatan dengan manajemen	2.9.1.1	Pengembangan <i>services blue print</i>
				2.9.1.2	Monev <i>services blue print</i>

Sumber : RS Unhas, 2014

Tabel 3. Matriks Tujuan Strategis 3 Renstra RS Unhas 2015 – 2019
Terwujudnya RS Pendidikan yang berstandar Internasional

Sasaran Strategis		Inisiatif Strategis		Program Kerja	
3.1	Tercapainya fungsi Rumah Sakit sebagai wahana pendidikan dan penelitian bidang terkait kesehatan yang bertaraf Internasional	3.1.1	Internasionalisasi	3.1.1.1	<i>Joint research</i> dengan institusi luar negeri
				3.1.1.2	<i>Joint seminar</i> dengan institusi luar negeri
				3.1.1.3	Menyelenggarakan pelatihan tenaga pendidik dokter mitra (TOT) di tingkat internasional
				3.1.1.4	Pertukaran instruktur klinik dengan institusi liar negeri
				3.1.1.5	Menjalin kerjasama antara Rumah Sakit Unhas dengan Universitas atau <i>teaching hospital</i> di luar negeri
				3.1.1.6	Penyediaan anggaran untuk penelitian yang akan dipublikasikan ke jurnal internasional
				3.1.1.7	Peningkatan kemampuan bahasa asing instruktur klinik Rumah Sakit
				3.1.1.8	Orientasi peserta didik dari luar negeri
				3.1.1.9	Pengembangan bahan ajar berstandar nasional dan internasional dalam bahasa indonesia dan bahasa inggris
				3.1.1.10	Pengembangan SOP dan kode etik dalam bahasa indonesia dan bahasa inggris
				3.1.1.11	Pengadaan telemedicine Nasional dan Internasional
				3.1.1.12	Pembelajaran peserta didik pada RS Jejaring (<i>Academic Health Centre</i>)
				3.1.1.13	Membentuk jejaring dengan Puskesmas, RS Kelas D, RS Kelas C untuk profesi dokter, RS Kelas B lainnya untuk Spesialis, RS Kelas A Untuk Subspesialis
3.2	Tercapainya mutu pelayanan Kesehatan Rumah Sakit Pendidikan berstandar Internasional	3.2.1	Pengakuan internasional	3.2.1.1	Akreditasi Nasional (KARS)
				3.2.1.2	Akreditasi Internasional (JCI AMC)
				3.2.1.3	Kerjasama antara Rumah Sakit dengan jasa traveling (<i>Health Tourism</i>)

Sumber : RS Unhas, 2014



Tabel 4. Matriks Tujuan Strategis 4 Renstra RS Unhas 2015 – 2019
 Terbentuknya Kemitraan Jangka Panjang yang Saling Menguntungkan

Sasaran Strategis		Inisiatif Strategis		Program Kerja	
4.1	Meningkatnya kemitraan Academic, Business, Community and Government (ABCG) ditingkat Lokal, Regional dan Global dalam bidang pemeliharaan kesehatan, pendidikan dan penelitian.	4.1.1	Pengembangan kemitraan	4.1.1.1	Pengembangan <i>blue print</i> pemasaran rumah sakit
				4.1.1.2	Pengembangan kerja sama
				4.1.1.3	Program CRM (Customer Relationship Management)
				4.1.1.4	Monitoring dan Evaluasi Kemitraan
				4.1.1.5	Optimalisasi peran dan fungsi humas untuk peningkatan citra RS
				4.1.1.6	Implementasi pemasaran rumah sakit
4.2	Meningkatnya kontribusi kemitraan terhadap peningkatan pelayanan kesehatan bermutu	4.2.1	Penguatan Kerjasama intra dan lintas sektor	4.2.1.1	Pelayanan Prima
				4.2.1.2	Pengembangan sistem dan mekanisme kemitraan untuk masing - masing jenis kemitraan
				4.2.1.3	Pengembangan indikator dan target mutu pelayanan kesehatan dari setiap kemitraan yang dibangun
				4.2.1.4	Monitoring dan Evaluasi manfaat kemitraan
4.3	Terwujudnya Academic Health Centre (AHC) sebagai wujud integrasi fungsional : proses pendidikan, penelitian, pemeliharaan kesehatan, dan manajemen antara RS UNHAS, RSWs dan UNHAS	4.3.1	Aliansi strategis	4.3.1.1	Pengembangan pendidikan terintegrasi antara RS UNHAS, RSWs dan UNHAS
				4.3.1.2	Pengembangan penelitian terintegrasi antara RS UNHAS, RSWs dan UNHAS
				4.3.1.3	Pengembangan pemeliharaan kesehatan terintegrasi antara RS UNHAS, RSWs dan UNHAS
				4.3.1.4	Pengembangan manajemen terintegrasi antara RS UNHAS, RSWs dan UNHAS
4.4	Meningkatnya kontribusi RS terhadap kesejahteraan masyarakat dan pengembangan daerah	4.4.1	Peningkatan kualitas pelayanan	4.4.1.1	Monitoring dan Evaluasi Implementasi Pelayanan GAKIN
		4.4.2	Advokasi ke Pemerintah untuk sarana transportasi umum	4.4.1.2	Survey kepuasan dan kebutuhan pelayanan kesehatan
				4.4.1.3	Pengembangan kerjasama

Sumber : RS Unhas, 2014



Tabel 5. Matriks Tujuan Strategis 5 Renstra RS Unhas 2015 – 2019
 Terwujudnya Organisasi dan Manajemen Rumah Sakit yang Mendukung Pelayanan
 Kesehatan Bermutu

Sasaran Strategis		Indikator Sasaran Strategi		Program Kerja	
5.1	Meningkatnya efektifitas dan efisiensi pengelolaan Rumah Sakit.	5.1.1.	<i>Cost Recovery Rate (CRR)</i>	5.1.1.1	Meningkatkan utilisasi revenue centre
				5.1.1.2	Meningkatkan utilisasi pelayanan unggulan
				5.1.1.3	Meningkatkan cost containment.
		5.1.2.	Harga Perkiraan Sendiri mengacu pada harga pasar	5.1.2.1	Pelaksanaan Survey Pasar.
				5.1.2.2	Pembuatan SOP Pengadaan Barang Sesuai standar biaya.
				5.1.2.3	<i>E-Procurement.</i>
		5.1.3.	Berkurangnya angka kehilangan inventaris Rumah Sakit	5.1.3	Penyusunan SOP pengelolaan barang inventaris.
				5.1.4	Pelaporan checklist inventaris pertriwulan.
				5.1.5	Monitoring dan Evaluasi implementasi SOP
				5.1.6	Pengembangan sistem Punishment
		5.1.4	Cost Of Quality a. Cost of Failure : - Internal Failure Costs - External Failure Costs b. Cost of Avoiding Failure : - Appraisal Costs - Prevention Costs	5.1.4.1	Penerapan sistem manajemen mutu
				5.1.4.2	Peningkatan kompetensi SDM
				5.1.4.3	Monitoring dan Evaluasi kepatuhan SOP
				5.1.4.4	Pemberian reward and punishment terhadap pelaksanaan SOP
		5.1.5.	Kinerja keuangan yang sehat - <i>Cash Ratio</i> - <i>Current Ratio</i> - <i>Collection Period</i>	5.1.5.1	Kebijakan penggunaan langsung uang penerimaan RS.
				5.1.5.2	Meningkatkan sumber-sumber pendapatan
				5.1.5.3	Meningkatkan utilisasi pelayanan unggulan
				5.1.5.4	Meminimalisir hutang jangka pendek.
				5.1.5.5	Penerapan manajemen logistic yang efektif
5.1.5.6	Monitoring dan evaluasi penjualan obat-obatan dan BHP				
5.1.5.7	Monitoring dan evaluasi system penagihan piutang.				
5.1.5.8	Mengembangkan SOP system penagihan piutang				
5.1.5.9	Bekerja sama dengan tim debt collector				
5.1.5.10	Pengembangan kebijakan system denda				
5.1.5.11	Monitoring dan evaluasi kebijakan system denda				



Sasaran Strategis		Indikator Sasaran Strategi		Program Kerja			
		- Fixed Asset Turnover		5.1.5.12	Pengembangan sistem manajemen pemasaran		
				5.1.5.13	Meningkatkan mutu pelayanan sehingga menciptakan loyal customer		
				5.1.5.14	Monitoring dan evaluasi utilisasi alkes		
				5.1.5.15	Monitoring dan evaluasi pelayanan unggulan		
				- Return on Equity		5.1.5.16	Meningkatkan efisiensi dan efektivitas pelayanan
						5.1.5.17	Cost containment BHP dan overhead
						5.1.5.18	Meningkatkan efisiensi penggunaan BHP
				- Inventory Turnover		5.1.5.19	Penerapan manajemen logistic yang efektif
						5.1.5.20	Peningkatan kapasitas perencanaan obat dan BHP
						5.1.5.21	Peningkatan kapasitas pengelolaan inventory
						5.1.5.22	Monitoring dan evaluasi penerapan manajemen logistic
						5.1.5.23	Monitoring dan evaluasi inventory
		5.1.5.24	Penerapan lean six sigma				
		5.1.6.	Peningkatan Efisiensi biaya operasional (air, listrik, Internet, biaya telepon)		5.1.6.1	Penyusunan kebijakan dan SOP Penggunaan Overhead.	
					5.1.6.2	Restriksi pemakaian air, listrik, internet, biaya telepon.	
					5.1.6.3	Pemberian reward and punishment	
		5.1.7.	Tingkat pencapaian standar pelayanan minimal (SPM)		5.1.7.1	Meningkatkan Kinerja.	
					5.1.7.2	Mengembangkan Budaya Mutu.	
					5.1.7.3	Peningkatan kompetensi bagi staf.	
					5.1.7.4	Kepatuhan terhadap SPM	
					5.1.7.5	Pengembangan system Reward and Punishment	
					5.1.7.6	Monitoring dan evaluasi penerapan SOP dan Kebijakan	
		5.2	Terciptanya budaya mutu organisasi dan manajemen	5.2.1.	Pedoman pengelolaan organisasi dan manajemen setiap unit kerja.	5.2.1.1	Pembuatan pedoman pengelolaan organisasi dan manajemen.
5.2.3.	Tingkat kepatuhan pelaksanaan SOP terkait pengelolaan organisasi dan manajemen setiap unit kerja.				5.2.3.1	Peningkatan Kompetensi.	
					5.2.3.2	Pengadaan Fasilitas yang memadai.	
					5.2.3.3	Pemberian Reward and Punishment terhadap pelaksanaan SOP	
5.2.4.	Audit sistem penjaminan mutu secara berkelanjutan.				5.2.4.1	Pelaksanaan audit per triwulan.	
					5.2.4.2	Pelatihan auditor.	
					5.2.4.3	Penyusunan SOP Audit.	
					5.2.4.4	Pengembangkan format audit.	



Sasaran Strategis		Indikator Sasaran Strategi		Program Kerja	
		5.2.5.	Ketepatan waktu pelaporan hasil monitoring dan evaluasi mutu disetiap unit kerja.	5.2.5.1	Peningkatan kompetensi SDM dalam penyusunan laporan
				5.2.5.2	Pemberian reward and punishment
5.3	Meningkatnya penerapan prinsip <i>good governance</i>	5.3.1	Transparansi pengelolaan keuangan.	5.3.1.1	Pendistribusian Neraca keuangan ke seluruh unit kerja
				5.3.1.2	Pendistribusian RKAT ke seluruh unit kerja
				5.3.1.3	Pengembangan system informasi tentang pengelolaan keuangan
		5.3.2.	Transparansi pengelolaan SDM.	5.3.2.1	Rekrutmen SDM secara online
				5.3.2.2	Mengembangkan system informasi tentang pengelolaan SDM
5.4	<i>Clinical Governance: Risk Management, Clinical Audit, Leadership, Team Work, Ownership</i>	5.4.1.	Clinical Audit (Audit medik berkesinambungan dan Audit medik Terfokus) Kriteria : DPJP dengan kematian dan pulpak terbanyak, LOS tertinggi, paling banyak meresepkan obat di luar fornas)	5.4.1.1	Kelengkapan PPK, Clinical Pathway, Algoritma, Standing order.
				5.4.1.2	Penyusunan Laporan Clinical Audit per triwulan
				5.4.1.3	Pelaksanaan Death Conference per kasus selektif
				5.4.1.4	Penyusunan Laporan Follow Up Hasil Clinical Audit
				5.4.1.5	<i>Pelaksanaan Daily Case Report (Laporan dari SMF ke Komdik)</i>
				5.4.1.6	Kebijakan RS Mengenai singkatan diagnosis.
				5.4.1.7	Monitoring ketepatan waktu kehadiran visite DPJP
				5.4.1.8	Monitoring etika klinis dan disiplin profesi hasil dari keluhan pasien, staf medis, non medis dan laporan hasil evaluasi kasus pada death conference dan clinical audit.
		5.4.2.	Program patient safety	5.4.2.1	Monitoring kepatuhan terhadap Kebijakan, Pedoman, dan SPO.
				5.4.2.2	Edukasi pasien/keluarga, staf dan peserta didik.
				5.4.2.3	Monitoring kepatuhan 6 sasaran keselamatan pasien.
				5.4.2.4	Pelaksanaan safety officer dan champion.
				5.4.2.5	Monitoring hasil tindak lanjut instalasi berdasarkan temuan safety officer dan champion.
				5.4.2.6	Pelaksanaan investigasi kasus keselamatan pasien.
				5.4.2.7	Evaluasi mutu setiap unit/instalasi.
		5.4.3.	Terbentuknya teamwork dalam penyajian pelayanan.	5.4.3.1	Rapat koordinasi antar profesi minimal setiap bulan.
				5.4.3.2	Penilaian kinerja teamwork dari SDM.
5.4.3.3	Monitoring keluhan dari staf lain.				
5.4.3.4	Pelaksanaan family gathering.				
5.4.3.5	Pelaksanaan Relationship Building (Kerja bakti, pengajian, senam, Morning tea).				



Sasaran Strategis		Indikator Sasaran Strategi		Program Kerja			
		5.4.4	Terciptanya Organizational Citizenship Behavior (OCB) <i>OCB merupakan tindakan seseorang di luar kewajibannya, tidak memperhatikan kepentingan diri sendiri (Sloat, 1999), tidak membutuhkan deskripsi pekerjaan (job description) dan sistem imbalan formal, bersifat sukarela dalam bekerjasama dengan teman sekerja dan menerima perintah secara khusus tanpa keluhan (Organ dan Konovski, 1989).</i>	5.4.3.6	Pelaksanaan rapat koordinasi antar konsulen dengan peserta didik.		
				5.4.4.1	Pelaksanaan pelatihan mengenai motivasi kerja.		
				5.4.4.2	Pelaksanaan jenjang karir.		
				5.4.4.3	Pelaksanaan promosi jabatan.		
				5.4.4.4	Pelaksanaan rapat internal rutin antar pimpinan dan staf.		
				5.4.4.5	Pemberian kesempatan pendidikan dan pelatihan bagi staf.		
				5.4.4.6	Kepatuhan terhadap kebijakan dan aturan di RS.		
				5.4.4.7	Pengembangkan role model tingkat pimpinan.		
				5.4.4.8	Evaluasi kehadiran rapat rutin RS.		
				5.4.4.9	Pelaksanaan Benchmarking.		
				5.4.4.10	Pelatihan ESQ.		
5.4.4.11	Pelaksanaan rekrutment dengan memperhatikan hasil MMPPI khususnya pada responsibility dan kerjasama.						
5.5	Terlengkapinya perangkat organisasi sesuai dengan standar RS Pendidikan.	5.5.1.	Tersusunnya struktur organisasi sesuai dengan kelas RS.Pendidikan.	5.5.1.1	Rapat review struktur organisasi.		
				5.5.1.2	Persiapan akreditasi nasional.		
		5.5.2.	Tersusunnya <i>Job Description</i>	5.5.2.1	Evaluasi jabatan mengenai Kesesuaian antara Job Description dan Kompetensi.		
				5.5.2.2	Evaluasi kinerja bulanan individu.		
				5.5.2.3	Laporan review job description setiap triwulan		
		5.5.3.	Tersusunnya HBL dan MBL.	5.5.3.1	SK Penetapan HBL dan MBL RS.		
				5.5.3.2	Monitoring dan Evaluasi pelaksanaan HBL dan MBL		
		5.5.4.	Tersusunnya Renstra RS Periode 2015-2019	5.5.4.1	Tersedianya buku Renstra periode 2015-2019.		
				5.5.4.2	Monitoring dan Evaluasi Pencapaian kinerja RS sesuai Renstra.		
		5.6	Meningkatnya Produktivitas dan kepuasan kerja pegawai RS	5.6.1	Tersedianya laporan tahunan survey kepuasan kerja pegawai	5.6.1.1	Diseminasi hasil survey kepuasan ke seluruh unit kerja.
						5.6.1.2	Pemberian reward and punishment.(staf of the year, insentif kinerja)
						5.6.1.3	Penilaian atasan, bawahan dan peer review.
5.6.2.	Tersedianya laporan triwulan pencapaian KPI individu.			5.6.2.1	Ketersediaan log book setiap pegawai.		
				5.6.2.2	Monitoring kinerja pegawai setiap bulan oleh kepala unit/instalasi		
				5.6.2.3	Ketersediaan dashboard kinerja individu		
				5.6.2.4	Monitoring kehadiran individu		
				5.6.2.5	Monitoring kedisiplinan pemakaian seragam dan ID Card.		
5.6.3.	Terimplementasinya program kerja kesehatan dan			5.6.3.1	Medical Checkup Karyawan.		
				5.6.3.2	Education PPI dan K3.		



Sasaran Strategis		Indikator Sasaran Strategi		Program Kerja	
5.7	Tersedianya SIM RS yang mendukung decision supporting system (DSS).	5.6.3.	keselamatan kerja (K3) dan PPI bagi pegawai RS	5.6.3.3	elatihan Penanggulangan Bencana.
				5.6.3.4	Pengukuran mikrobiological terutama pada area high risk.
				5.6.3.5	Keterlibatan Tim PPI dan K3 dalam biomedical engineering (gedung dan tata letak ruang)
				5.6.3.6	Monitoring kewaspadaan standar dan isolasi.
		5.6.4.	Tersedianya sarana penunjang kesehatan dan keselamatan kerja (K3) dan PPI.	5.6.4.1	Ketersediaan APD secara rutin.
				5.6.4.2	Ketersediaan spill kit
				5.6.4.3	Ketersediaan sarana Hand Hygiene
				5.6.4.4	Ketersediaan sarana sanitasi ruangan (disinfectan ruangan)
				5.6.4.5	Ketersediaan fasilitas dan ruangan isolasi sesuai standar.
		5.6.5.	Tingkat pencapaian target Key Performance Indicator (KPI) unit.	5.6.5.1	Pelaporan tingkat pencapaian target Key Performance Indicator (KPI).
				5.6.5.2	Monitoring kinerja unit setiap bulan oleh kepala unit/instalasi
				5.6.5.3	Ketersediaan dashboard kinerja unit.
				5.6.5.4	Pelaporan dan evaluasi pencapaian mutu dari penanggung jawab mutu setiap unit kerja ke sub.komite penjaminan mutu setiap bulan.
		5.7.1.	Tingkat pemanfaatan SIM RS yang terintegrasi dengan pelayanan, pendidikan, dan penelitian. (<i>Knowledge management system</i>) sebagai basis pengambilan keputusan	5.7.1.1	Monitoring operasional SIM sebelum publikasi.
				5.7.1.2	Monitoring keakuratan data SIM sebelum publikasi.
				5.7.1.3	Tersedianya Bank Data secara internal dan eksternal.
				5.7.1.4	Kebijakan mengenai Security Level Access pada SIM.
				5.7.1.5	Proses pendidikan dan penelitian dalam SIM yang terintegrasi dengan pihak fakultas.
				5.7.1.6	Evaluasi hasil pendidikan dan penelitian yang dapat dijadikan proses pembelajaran dalam pelayanan.
5.7.1.7	Publikasi hasil pendidikan dan penelitian di RS.				
5.7.1.8	Tingkat pemanfaatan SIM dalam pedoman, SOP dan kode etik penggunaan SIM oleh pegawai RS dan peserta didik.				
5.7.2.	Tersedianya SIM RS yang mendukung pelaksanaan BPJS.	5.7.2.1	Tersedianya Bridging antara SIM RS Unhas dan BPJS Pusat.		
		5.7.2.2	Ketepatan laporan klaim pasien ke BPJS.		
		5.7.2.3	Monitoring update coding.		
5.7.3.	Tingkat akurasi data SIM RS.	5.7.3.1	Monitoring keakuratan data SIM setiap triwulan		



Sasaran Strategis		Indikator Sasaran Strategi		Program Kerja	
		5.7.4.	Tingkat pemanfaatan SIM dalam pedoman, SOP dan kode etik penggunaan SIM oleh pegawai RS dan peserta didik.	5.7.4.1	Monitoring pemanfaatan SIM dalam pedoman, SOP dan kode etik penggunaan SIM oleh pegawai RS dan peserta didik.
5.8	Terwujudnya sistem pemeliharaan kesehatan yang bermutu.	5.8.1.	Akreditasi nasional oleh Komite Akreditasi Rumah Sakit (KARS)	5.8.1.1	Pembuatan SOP terkait 15 pokja
				5.8.1.2	Kelengkapan dokumen (Kebijakan, Pedoman, dan SOP)
				5.8.1.3	Monitoring kepatuhan terhadap kebijakan, pedoman, dan SOP.
				5.8.1.4	Mereview deklarasi dan komitmen.
				5.8.1.5	Ketersediaan sarana pendukung akreditasi Komite Akreditasi Rumah Sakit (KARS).
				5.8.1.6	Ketersediaan anggaran visitasi tim KARS.
		5.8.2.	Akreditasi oleh <i>Joint commission International</i> (JCI)	5.8.2.1	Pembuatan SOP terkait 15 pokja
				5.8.2.2	Kelengkapan dokumen (Kebijakan, Pedoman, dan SOP)
				5.8.2.3	Monitoring kepatuhan terhadap kebijakan, pedoman, dan SOP.
				5.8.2.4	Mereview deklarasi dan komitmen.
				5.8.2.5	Ketersediaan sarana pendukung akreditasi Joint Commission International (JCI)
				5.8.2.6	Ketersediaan anggaran visitasi tim JCI.

Sumber : RS Unhas, 2014



Tabel 6. Ikhtisar Belanja/ Pembiayaan Per Program Dan Kegiatan TA 2015

Kode	Uraian Unit/ Program/ IKU Program/ Kegiatan/ IKK/Output/ Sumber Dana	Alokasi			Jumlah
		Belanja Pegawai	Belanja Barang	Belanja Modal	
1	2	3	4	5	6
023.04.08	Program Pendidikan Tinggi				
	IKU Program :				
	IKU 4.5 Jumlah prodi berakreditasi				
	IKU 4.6 Persentase prodi PT berakreditasi minimal B				
	IKU 4.10 Persentase dosen yang berkualifikasi S2				
	IKU 4.11 Persentase dosen yang berkualifikasi S3				
	IKU 4.12 Peserntase dosen yang bersertifikat				
	IKU 4.13 Persentase dosen dengan publikasi nasional				
	IKU 4.14 Persentase dosen dengan publikasi internasional				
	IKU 4.15 Jumlah HKI yang dihasilkan				
4078	Kegiatan Layanan Tridarma Perguruan Tinggi				
	<i>Pengembangan Penelitian dan Pengabdian Kepada Masyarakat</i>				
<i>IKK 4.9.6</i>	<i>Jumlah dosen yang melakukan pengabdian masyarakat</i>				
4078.013	Output Prodi Memenuhi Standar Mutu Profesi		50.311.042.101		50.311.042.101
<i>IKK 4.6.2</i>	<i>Jumlah PT memenuhi standar mutu sarana dan prasarana</i>				
4078.046	Output Alat pendidikan pendukung pembelajaran swadana		52.658.255.981	39.822.463.279	92.480.719.260
<i>IKK 4.7.7</i>	<i>Persentase Tenaga PTN/ BHPP yang memiliki sertifikat fungsional</i>				
4078.021	Output Tenaga kependidikan ikut program pengembangan SDM		5.307.004.795		5.307.004.795
2014	<i>Dukungan Manajemen dan Pelaksanaan Tugas Teknis Lainnya</i>				
2014.994	Output Layanan Perkantoran	901.233.844			901.233.844
	Jumlah	901.233.844	108.276.302.877	39.822.463.279	149.000.000.000



C. Budaya Rumah Sakit Universitas Hasanuddin

1. Cepat Tanggap
2. Cerdas Berinovasi
3. Cermat Menilai
4. Ceria Melayani
5. Cekatan bertindak
6. Canggih teknologi
7. Curahan hati pelanggan

RS Unhas melaksanakan beberapa kegiatan pengembangan SDM untuk menciptakan budaya kerja tersebut antara lain dengan menciptakan role model pada tingkat manajemen, menyelenggarakan pelatihan *service excellent*, menyelenggarakan pengajaran, pelatihan peningkatan *Emotional Spiritual Question (ESQ)*, dan lain-lain.

D. Susunan Pejabat Pengelola dan Dewan Pengawas Rumah Sakit Universitas Hasanuddin

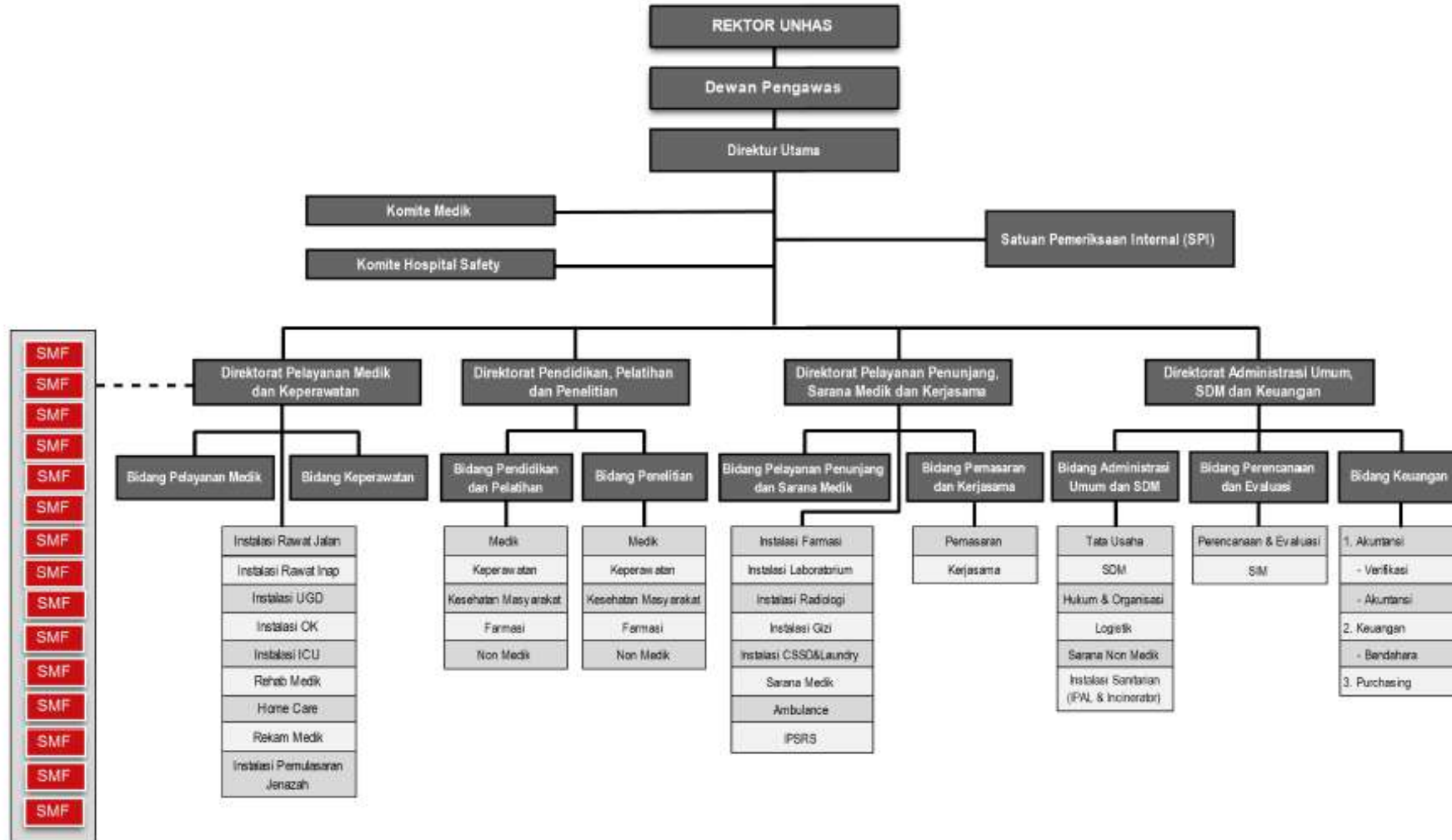
Struktur Organisasi Rumah Sakit Unhas terdiri atas:

- a. Pemilik ; Universitas Hasanuddin : Rektor Universitas Hasanuddin
- b. Dewan Pengawas; Prof.dr.Irawan Yusuf, Ph.D (Dekan FK UNHAS) dan Prof.Dr.dr.Idrus A. Paturusi, Sp.B.,Sp.OT,FI CS.
- c. Direktur Utama; Prof.Dr.dr.Syamsu, Sp. PD.KAI
- d. Direktur Pendidikan, Pelatihan dan Penelitian; dr.Kurnia Bintang, Sp.S., MARS.
- e. Direktur Medik dan Keperawatan;Prof.Dr.dr. Andi Asadul Islam, Sp.BS.
- f. Direktur Pelayanan Penunjang dan Kemitraan; Dr.dr.Syafri K. Arif, Sp.An.KIC.
- g. Direktur Adm.Umum, SDM dan Keuangan; Dr.Syahrir A. Pasinringi,MS.
- h. Komite Medik; dr.Susi Aulina, Sp.S (K).
- i. Komite *Hospital Safety*;
- j. Satuan Pemeriksaan Internal (SPI); dr. Mansyur Arif, Ph.D., SP.PK(K)
- k. Bidang Pendidikan dan Pelatihan; Sudirman Natsir, S.Ked, MWH, Ph.D
- l. Bidang Penelitian; dr. Isra Wahid, Ph.D.
- m. Bidang Pelayanan Medik; dr. Haerani Rasyid, M.Kes.,Sp.PD.,KGGH(K).
- n. Bidang Keperawatan; Dr. Hj.Werna Nontji, S.Kp.,M.Kep.
- o. Bidang Penunjang; dr.A.Dwi Bahagia Febriani, Ph.D, Sp.A (K),
- p. Bidang Pemasaran dan Kerjasama; Dra. Rahmawati Syukur, M.Si., Apt.
- q. Bidang Keuangan; Syamsuddin, SE.Ak, M.Si
- r. Bidang Perencanaan dan Evaluasi;dr. A.Indahwaty Sidin, MHSM
- s. Bidang SDM, Administrasi Umum :dr.Saidah Syamsuddin, Sp.KJ
- t. Satuan Medis Fungsional;
- u. Instalasi-Instalasi.
 1. Instalasi Rawat Jalan
 2. Instalasi Rawat Inap
 3. Instalasi Gawat Darurat
 4. Instalasi ICU/HCU
 5. Kamar Operasi
 6. Laundry & CSSD
 7. Instalasi Farmasi
 8. Instalasi Gizi
 9. Instalasi Radiologi
 10. Instalasi Laboratorium Patologi Klinik
 11. Instalasi Laboratorium Patologi Anatomi
 12. Instalasi Mikrobiologi
 13. Rehabilitasi Medis & Fisioterapi
 14. Forensik dan Pemulasaran Jenazah





STRUKTUR ORGANISASI RUMAH SAKIT UNIVERSITAS HASANUDDIN



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Uraian Tugas Dewan Pengawas Rumah Sakit Universitas Hasanuddin

- (1) Dewan Pengawas adalah unit non struktural yang bersifat independen, yang terdiri dari maksimal lima orang yaitu wakil pemilik/Rektor Universitas Hasanuddin, Dekan Fakultas Kedokteran, wakil dari institusi profesi dan wakil tokoh masyarakat, dan seseorang diantaranya diangkat menjadi Ketua Dewan Pengawas;
- (2) Tugas Pokok Dewan Pengawas :
 - a. Memberikan pendapat dan saran kepada Rektor Universitas Hasanuddin mengenai rencana bisnis anggaran tahun berjalan;
 - b. Memberikan nasehat kepada direksi dalam melakukan kepengurusan BLU;
 - c. Mengikuti perkembangan kegiatan rumah sakit dengan memberikan pendapat dan saran kepada Rektor Universitas Hasanuddin mengenai setiap masalah yang dianggap penting bagi manajemen rumah sakit;
 - d. Meminta keterangan kepada direksi terhadap hasil pemeriksaan atau hasil pelaksanaan tugas Satuan Pemeriksaan Intern (SPI);
 - e. Melaporkan kepada Rektor Universitas Hasanuddin apabila terjadi gejala penurunan kinerja rumah sakit;
 - f. Melakukan tugas pengawasan lain yang ditetapkan dalam peraturan pendirian rumah sakit;
- (3) Fungsi Dewan Pengawas :
 - a. Menetapkan visi, misi, falsafah, kebijakan dan tujuan rumah sakit;
 - b. Melaksanakan pengawasan dan pelaksanaan rencana strategis;
 - c. Menilai dan menyetujui pelaksanaan rencana anggaran;
 - d. Mengawasi pelaksanaan kendali mutu dan kendali biaya;
 - e. Mengawasi dan menjaga pelaksanaan hak dan kewajiban rumah sakit dan pasien;
 - f. Mengawasi kepatuhan penerapan etika rumah sakit, etika profesi dan peraturan perundang-undangan;
 - g. Mengusulkan calon direksi rumah sakit kepada Rektor Universitas Hasanuddin;
- (4) Tanggungjawab Dewan Pengawas :
 - a. Memeriksa kas keuangan rumah sakit untuk keperluan verifikasi kekayaan rumah sakit;
 - b. Meminta penjelasan dari direksi atau pejabat lainnya mengenai segala persoalan yang menyangkut pengurusan rumah sakit;
 - c. Memberikan persetujuan atau bantuan kepada direksi dalam melakukan perbuatan hukum tertentu;

- (5) Hubungan jabatan Dewan Pengawas bertanggungjawab kepada Rektor Universitas Hasanuddin dan membawahi Direktur Utama dan Direksi Rumah Sakit Universitas Hasanuddin;
- (6) Persyaratan menjadi Dewan Pengawas Rumah Sakit Universitas Hasanuddin :
 - a. Warga negara Indonesia dan memiliki dedikasi, memahami masalah manajemen rumah sakit dan dapat menyediakan waktu yang cukup untuk melaksanakan tugasnya;
 - b. Tidak pernah tersangkut masalah hukum;

Uraian Tugas Satuan Pemeriksaan Internal Rumah Sakit Universitas Hasanuddin

- (1) Satuan Pemeriksaan Internal dipimpin oleh seorang Ketua;
- (2) Tugas pokok Satuan Pemeriksaan Internal adalah :
 - a. Membantu Direktur Utama dalam melaksanakan pemeriksaan intern keuangan dan operasional rumah sakit;
 - b. Membantu Direktur utama dalam meningkatkan *corporate governance* rumah sakit terutama dengan efektifitas proses pengendalian manajemen resiko, implementasi etika sosial dan pengukuran kinerja rumah sakit;
 - c. Memberikan penilaian dan rekomendasi kepada Direktur Utama agar kegiatan rumah sakit mengarah pada pencapaian tujuan dan sasarannya secara efektif dan efisien.
- (3) Fungsi Satuan Pemeriksaan Internal :
 - a. Melakukan pengawasan semua unsur pelaksana kegiatan di lingkungan rumah sakit yang meliputi; pengelolaan administrasi keuangan, administrasi pelayanan dan administrasi dan SDM;
 - b. Melakukan pengujian serta penilaian atas hasil laporan berkala atau sewaktu-waktu dari setiap unsur pelaksana kegiatan di lingkungan Rumah Sakit atas petunjuk direktur utama;
 - c. Melakukan penelusuran mengenai kebenaran laporan atau informasi tentang hambatan penyimpangan dan penyalahgunaan wewenang;
 - d. Memberi saran dan alternatif pemecahan masalah kepada direktur utama dalam hal terjadinya penyimpangan;
 - e. Melakukan pemantauan tindak lanjut dari hasil temuan aparat pengawasan internal dan eksternal;
 - f. Melakukan Pemantauan Investasi dan Asset Rumah Sakit;
 - g. Memimpin Staff Satuan Pemeriksaan Internal;
- (4) Satuan Pemeriksaan Internal :



- a. Bertanggungjawab untuk memberikan pelayanan pemeriksaan manajemen yang bermutu dalam rangka meningkatkan efisiensi dan efektifitas pengelolaan sumber daya rumah sakit;
 - b. Bertanggungjawab meningkatkan kinerja pengawasan dalam rangka membantu terwujudnya akuntabilitas publik oleh manajemen rumah sakit;
- (5) Satuan Pemeriksaan Internal bertanggungjawab langsung terhadap Direktur Utama rumah sakit, serta dalam pelaksanaan tugas berkoordinasi dengan seluruh direksi rumah sakit, komite medik dan Komite hospital safety serta Satuan Medis Fungsional (SMF);
- (6) Syarat menjadi Ketua Satuan Pemeriksaan Internal :
- a. Minimal strata dua (S2) di bidang kesehatan;
 - b. Memiliki pendidikan dan atau pengalaman di bidang *Internal Audit* atau bergelar *Qualified Internal Auditor (QIA)*;

Uraian Tugas Komite Medik

A. KOMITE MEDIK

1. Komite Medik dipimpin oleh seorang Ketua;
2. Tugas Pokok Komite Medik adalah;
 - a. Meningkatkan profesionalisme tenaga medik, dan tenaga kesehatan lainnya yang bekerja di Rumah Sakit;
 - b. Melakukan kredensial bagi seluruh tenaga medik, dan tenaga kesehatan lainnya yang akan dan telah melakukan tindakan profesi di Rumah Sakit;
 - c. Memelihara kompetensi dan etika tenaga medik, dan tenaga kesehatan lainnya yang bekerja di Rumah Sakit;
 - d. Memberikan rekomendasi pengambilan tindakan disiplin bagi tenaga medik, dan tenaga kesehatan lainnya yang akan bekerja di Rumah Sakit ;
3. Fungsi Komite Medik yaitu Menegakkan profesionalisme dengan mengendalikan tenaga medik, dan tenaga kesehatan lainnya yang melakukan tindakan medik dan tindakan profesi di Rumah Sakit;
4. Tanggung Jawab Komite Medik
 - a. Memberikan rekomendasi dalam pemberian izin melakukan tindakan medik, dan tindakan profesi tenaga kesehatan lainnya di Rumah Sakit melalui mekanisme kredensial;
 - b. Menjaga kompetensi dan perilaku para tenaga medik, dan tenaga kesehatan lainnya melalui audit medik dan pengembangan profesi berkelanjutan;



- c. Menegakkan disiplin profesi medik, dan tenaga kesehatan lainnya.
5. Syarat Menjadi Ketua Komite Medik
- a. Memiliki kualifikasi pendidikan minimal dokter spesialis atau Strata Dua (S2) dalam bidang kesehatan;
 - b. Mempunyai kredibilitas dan komitmen yang tinggi untuk pengembangan Rumah Sakit melalui komite medik;

SUB KOMITE DISIPLIN PROFESI

1. Tugas Pokok Sub Komite Disiplin Profesi
- a. Melaksanakan pembinaan etika profesi;
 - b. Mengatur dan mengawasi kewenangan profesi antara Satuan Medis Fungsional (SMF);
 - c. Memelihara kompetensi dan etika tenaga medik, Dan tenaga kesehatan lainnya;
 - d. Membantu Direktur rumah sakit menyusun *medical staff bylaws* dan memantau pelaksanaannya;
 - e. Membantu Direktur rumah sakit menyusun kebijakan dan prosedur yang terkait dengan *medico-legal* ;
 - f. Membantu Direktur rumah sakit menyusun kebijakan dan prosedur yang terkait dengan *etiko- legal*.
2. Fungsi Sub Komite Disiplin Profesi yaitu Melaksanakan kebijakan Komite Medik dalam bidang etika dan disiplin profesi medik;
3. Tanggung Sub Komite Disiplin Profesi bertanggungjawab langsung kepada Ketua Komite Medik Rumah Sakit;
4. Syarat Menjadi Ketua Sub Komite Disiplin Profesi
- a. Memiliki kualifikasi pendidikan minimal dokter spesialis atau Strata Dua (S2) dalam bidang kesehatan;
 - b. Mempunyai kredibilitas dan komitmen yang tinggi untuk pengembangan Rumah Sakit melalui komite medik;

SUB KOMITE KREDENSIAL

1. Tugas Pokok Sub Komite Kredensial
- a. Melakukan kredensial dan re-kredensial bagi seluruh tenaga medik yang telah dan akan bekerja dan melakukan tindakan Medik di Rumah Sakit;
 - b. Melakukan review permohonan untuk menjadi anggota staf medik rumah sakit secara total obyektif, adil, jujur dan terbuka;

- c. Membuat rekomendasi hasil review berdasarkan kriteria yang ditetapkan dan sesuai dengan kebutuhan staf medik, Dan tenaga kesehatan lainnya di rumah sakit;
 - d. Membuat laporan kepada Komite Medik apabila permohonan sesuai dengan ketentuan yang diatur di dalam peraturan internal staf Medik (Medical Staf By law) di rumah sakit;
 - e. Melakukan review kompetensi staf medik dan memberikan laporan dan rekomendasi kepada Komite Medik dalam rangka pemberian *clinical privileges*, *reappointments* dan penugasan staf Medik pada unit kerja;
2. Fungsi Sub Komite Kredensial yaitu Melaksanakan kebijakan Komite Medik di bidang kredensial profesi medik;
 3. Sub Komite Kredensial bertanggungjawab langsung kepada ketua Komite Medik Rumah Sakit;
 4. Syarat Menjadi Ketua Sub Komite Kredensial :
 - a. Memiliki kualifikasi pendidikan minimal dokter spesialis atau Strata Dua (S2) dalam bidang kesehatan;
 - b. Mempunyai kredibilitas dan komitmen yang tinggi untuk pengembangan Rumah Sakit melalui Komite Medik;

SUB KOMITE MUTU PROFESI

1. Tugas Pokok Sub Komite Mutu Profesi
 - a. Melakukan koordinasi dengan bidang pelayanan medik dan Satuan Medis Fungsional dalam menyusun Standar Pelayanan Medik dan Standar Prosedur Operasional tindakan medik dan memantau pelaksanaannya;
 - b. Melaksanakan pembinaan mutu profesi medik ;
 - c. Meningkatkan program pelayanan, pendidikan dan pelatihan serta penelitian dan pengembangan dalam bidang medik;
 - d. Melakukan monitoring dan evaluasi mutu pelayanan medik, antara lain melalui monitoring dan evaluasi kasus bedah, ketepatan, kelengkapan, dan keakuratan rekam Medik, *tissue review*, *mortalitas dan morbiditas*, serta *medical care review*;
2. Fungsi Sub Komite Mutu Profesi yaitu Melaksanakan kebijakan Komite Medik di bidang Mutu Profesi Medik;
3. Sub komite mutu profesi bertanggungjawab langsung kepada ketua Komite Medik.
4. Syarat Menjadi Ketua Sub Komite Mutu Profesi Medik :

- a. Memiliki kualifikasi pendidikan minimal dokter spesialis atau Strata Dua (S2) dalam bidang kesehatan;
- b. Mempunyai kredibilitas dan komitmen yang tinggi untuk pengembangan Rumah Sakit melalui Komite Medik;

SUB KOMITE FARMASI DAN TERAPI

1. Tugas Pokok Sub Komite Farmasi dan Terapi
 - a. Menyusun Formularium Rumah Sakit Universitas Hasanuddin, memantau dan mengevaluasi pelaksanaannya;
 - b. Melakukan revisi Formularium Rumah Sakit paling sedikit 2 (dua) kali pada akhir tahun;
 - c. Melaksanakan monitoring dan pembinaan pelaksanaan pekerjaan dan pelayanan Farmasi oleh kelompok Apoteker dan/atau Tenaga Teknis Farmasi;
 - d. Mengupayakan peningkatan pelaksanaan pekerjaan dan pelayanan Farmasi melalui program pendidikan dan pelatihan;
 - e. Melaksanakan koordinasi dengan Kepala Instalasi Farmasi Rumah Sakit dalam pelaksanaan poin I s.d IV diatas;
 - f. Membantu kelompok staf medik dalam bidang Farmasi untuk meningkatkan pelayanan Medik;
 - g. Bersama Sub Komite Kredensial melakukan proses kredensial bagi tenaga Farmasi;
 - h. Bersama Sub Komite Mutu Profesi melaksanakan pembinaan mutu profesi Farmasi;
 - i. Bersama Sub Komite Disiplin Profesi melaksanakan pembinaan etika profesi Farmasi;
2. Fungsi Sub Komite Farmasi dan Terapi yaitu Melaksanakan kebijakan Komite Medik dibidang Farmasi dan Terapi;
3. Sub Komite mutu profesi medik bertanggungjawab langsung kepada ketua komite medik;
4. Syarat Menjadi Ketua Sub Komite Farmasi dan Terapi
 - a. Memiliki kualifikasi pendidikan minimal Strata Dua (S2) Farmasi atau S2 dalam bidang kesehatan lain dengan dasar pendidikan keFarmasian;
 - b. Mempunyai kredibilitas dan komitmen yang tinggi untuk pengembangan Rumah Sakit melalui Komite Medik;

SUB KOMITE KEPERAWATAN

1. Tugas Pokok Sub Komite Keperawatan
 - a. Menjamin tersedianya Standar Operasional Prosedur dan Standar Asuhan Keperawatan yang didasarkan pada *Evidens Based Nursing Practice* di seluruh bidang area Keperawatan;
 - b. Bekerjasama dengan Sub Komite Disiplin Profesi membina dan memantau perilaku etik dan profesional tenaga Keperawatan;
 - c. Berkoordinasi dengan Sub Komite Peningkatan Mutu Profesi dalam semua kegiatan pemantauan mutu dan evaluasi Keperawatan, misalnya jenis kegiatan, jadwal monitoring dan Evaluasi, penanggung jawab pelaksana;
 - d. Berkoordinasi dengan Sub Komite Peningkatan Mutu Profesi untuk peningkatan dan pemanfaatan riset Keperawatan;
 - e. Berpartisipasi dalam program rekrutmen, pengangkatan, melalui koordinasi dengan bagian Sub Komite Kredensial;
 - f. Sosialisasi kegiatan Sub Komite Keperawatan kepada seluruh tenaga Keperawatan rumah sakit;
 - g. Membuat laporan kegiatan secara berkala (sekali setahun) kepada ketua komite medik;
 - h. Memprakarsai perubahan dalam meningkatkan mutu asuhan Keperawatan;
 - i. Melaksanakan tugas-tugas lain yang dianggap penting sesuai masukan dari Komite Medik;
2. Fungsi Sub Komite Keperawatan yaitu Melaksanakan kebijakan Komite Medik yang berkaitan dengan mutu pelayanan Keperawatan, perencanaan program pelayanan, penelitian dan pengembangan profesi Keperawatan;
3. Tanggung Sub Komite Keperawatan bertanggungjawab langsung kepada Komite Medik dalam hal yang berkaitan dengan bidang Keperawatan;
4. Syarat Menjadi Ketua Sub Komite Keperawatan
 - a. Memiliki kualifikasi pendidikan minimal S2 Keperawatan atau S2 dalam bidang kesehatan dengan dasar pendidikan Keperawatan;
 - b. Mempunyai kredibilitas dan komitmen yang tinggi untuk pengembangan Rumah Sakit melalui Komite Medik;

Uraian Tugas Komite Hospital Safety

- (1) Komite *Hospital Safety* dipimpin oleh seorang Ketua;



- (2) Tugas pokok Tim *Hospital Safety* adalah menyelenggarakan perencanaan, pelaksanaan, Monitoring dan evaluasi *Patient Safety* dan Penjaminan Mutu, K3 (Kesehatan dan Keselamatan Kerja) dan Analisis Lingkungan, Infeksi Nosokomial dan Terapi Rasional;
- (3) Fungsi Komite *Hospital Safety* :
 - a. Menyusun standar mutu pelayanan rumah sakit;
 - b. Pengelolaan penjaminan mutu;
 - c. Pengelolaan kebersihan dan keamanan rumah sakit;
 - d. Perencanaan, pelaksanaan, pengawasan dan evaluasi *Patient Safety*.
 - e. Perencanaan, pelaksanaan, pengawasan dan evaluasi K3 dan Analisis Lingkungan termasuk monitoring kualitas air IPAL;
 - f. Perencanaan, pelaksanaan, pengawasan dan evaluasi Infeksi Nosokomial dan Terapi Rasional;
- (4) Komite *Hospital Safety* :
 - a. Bertanggungjawab terhadap perencanaan, pelaksanaan, monitoring dan evaluasi *Patient Safety* dan Penjaminan Mutu, K3 dan Analisis Lingkungan, Infeksi Nosokomial dan Terapi Rasional;
- (5) Komite *Hospital Safety* bertanggungjawab langsung kepada Direktur Utama rumah sakit serta berkoordinasi dengan seluruh Direksi rumah sakit, Komite Klinik, Satuan Pemeriksa Internal (SPI), Satuan Medis Fungsional (SMF) dan Instalasi;
- (6) Syarat menjadi Ketua *Hospital Safety* :
 - a. Minimal berpendidikan Strata Dua (S2) di bidang Manajemen Rumah Sakit atau Kesehatan Kerja;
 - b. Telah mengikuti pelatihan dan atau pengalaman di bidang *Hospital Safety*;

Uraian Tugas Satuan Medis Fungsional

- (1) Satuan Medis Fungsional (SMF) adalah kelompok dokter yang bekerja di bidang Medik dalam jabatan fungsional, setiap SMF dipimpin oleh seorang ketua bertanggungjawab kepada Komite Medik;
- (2) Tugas pokok Satuan Medis Fungsional (SMF):
 - a. Mengelola kegiatan pendidikan, pelatihan dan penelitian di Bidang Medik;
 - b. Mengkoordinir anggotanya untuk melakukan kegiatan diagnosa, penatalaksanaan penyakit dan penyuluhan;
- (3) Fungsi Satuan Medis Fungsional (SMF):



- a. Melakukan kegiatan sesuai dengan jabatan fungsional dan kompetensi masing-masing berdasarkan peraturan perundang-undangan yang berlaku;
 - b. Membantu Komite Medik menyusun pedoman, standar dan prosedur tetap (protap) dalam penyelenggaraan dan pengendalian pelayanan Medik;
 - c. Membantu Komite Medik memonitoring dan mengawasi penyelenggaraan pelayanan Medik dalam rangka penjaminan mutu dan pemeliharaan etika profesi;
 - d. Melakukan kegiatan pendidikan kedokteran, profesi, spesialis dan subspecialis serta pengembangan profesi berkelanjutan sesuai ketentuan yang berlaku;
- (4) Satuan Medis Fungsional (SMF) bertanggungjawab terhadap penyelenggaraan kegiatan pendidikan kedokteran, profesi, spesialis dan subspecialis sesuai ketentuan yang berlaku;
 - (5) Satuan Medis Fungsional (SMF) berkoordinasi dengan seluruh direksi rumah sakit, komite medik, tim *hospital safety*, instalasi dan satuan pemeriksaan internal;
 - (6) Syarat menjadi Satuan Medis Fungsional (SMF) adalah berpendidikan spesialis di bidangnya masing-masing;

Uraian Tugas Direktur Utama Rumah Sakit

- (1) Rumah Sakit Universitas Hasanuddin dipimpin oleh seorang Direktur Utama yang dalam melaksanakan tugasnya bertanggung jawab langsung kepada Dewan Pengawas;
- (2) Tugas pokok Direktur Utama Rumah Sakit Universitas Hasanuddin adalah memimpin penyelenggaraan rumah sakit dalam upaya mewujudkan rumah sakit Universitas Hasanuddin sebagai pelopor terpercaya dalam memadukan pendidikan, penelitian dan pemeliharaan kesehatan;
- (3) Fungsi Direktur Utama rumah sakit adalah memimpin dan mengambil kebijakan strategik dalam penyelenggaraan rumah sakit;
- (4) Tanggungjawab Direktur Utama rumah sakit adalah bertanggungjawab penuh atas seluruh operasional rumah sakit berdasarkan dokumen Rencana Strategik Rumah Sakit;
- (5) Direktur utama bertanggungjawab langsung kepada Rektor Universitas Hasanuddin;
- (6) Direktur utama dapat bertindak atas nama rumah sakit;
- (7) Persyaratan menjadi Direktur Utama Rumah Sakit Universitas Hasanuddin :
 - a. Berlatarbelakang pendidikan Medik dan minimal Strata Tiga (S3) di bidang Kesehatan;
 - b. Mempunyai pendidikan dan atau pengalaman di bidang Kesehatan;



Uraian Tugas Direktorat Pelayanan Medik dan Keperawatan

- (1) Direktorat pelayanan medik dan Keperawatan dipimpin oleh seorang Direktur;
- (2) Tugas pokok Direktur pelayanan medik dan Keperawatan adalah memimpin penyusunan perencanaan, pelaksanaan, monitoring dan evaluasi pelayanan medik dan pelayanan Keperawatan;
- (3) Fungsi jabatan Direktur pelayanan medik dan Keperawatan adalah membuat kebijakan operasional dalam penyelenggaraan fungsi direktorat pelayanan Medik;
- (4) Direktur Pelayanan medik dan Keperawatan :
 - a. Bertanggung jawab langsung kepada Direktur Utama;
 - b. Berkoordinasi dengan direksi lainnya dalam mendukung pelaksanaan tugas dan fungsi direktorat pelayanan Medik;
 - c. Memimpin kepala Bidang pelayanan Medik dan Bidang Keperawatan;
- (5) Syarat menjadi Direktur Pelayanan medik dan Keperawatan :
 - a. Pendidikan Dokter Spesialis atau Dokter dengan pendidikan Sarjana Strata dua (S2) di bidang kesehatan;
 - b. Mempunyai pendidikan dan atau pengalaman jabatan di bidang kesehatan;

Uraian Tugas Direktur Pendidikan, Pelatihan dan Penelitian

- (1) Direktorat Pendidikan, Pelatihan dan Penelitian dipimpin oleh seorang Direktur yang dalam melaksanakan tugasnya bertanggung jawab kepada Direktur Utama;
- (2) Tugas Pokok Direktur Pendidikan Pelatihan dan Penelitian Rumah Sakit Universitas Hasanuddin adalah :
 - a. Memimpin penyusunan perencanaan, pelaksanaan , monitoring dan evaluasi kegiatan pendidikan dan penelitian;
 - b. Membantu direktur utama dalam meningkatkan dan mengembangkan pendidikan, pelatihan dan penelitian;
 - c. Menjamin *continous quality improvement* pelaksanaan pendidikan, pelatihan dan penelitian;
 - d. Bertanggung jawab meningkatkan kualitas SDM melalui pendidikan, pelatihan dan penelitian;
- (3) Fungsi Direktur Pendidikan, Pelatihan dan Penelitian Rumah Sakit Universitas Hasanuddin:
 - a. Membuat dan mengambil kebijakan operasional dalam penyelenggaraan fungsi direktorat pendidikan, pelatihan dan penelitian;
 - b. Menangani hal-hal yang berkaitan peningkatan kualitas SDM (tenaga medis, penunjang medis, tenaga Keperawatan, tenaga Farmasi, tenaga manajemen



- rumah sakit, dan tenaga non kesehatan) melalui pendidikan, pelatihan dan penelitian;
- (4) Direktur Pendidikan, Pelatihan dan Penelitian bertanggungjawab terhadap penyusunan perencanaan, pelaksanaan, monitoring dan evaluasi bidang pendidikan, pelatihan dan penelitian;
 - (5) Tanggung jawab Direktur Pendidikan, pelatihan dan penelitian :
 - a. Bertanggungjawab langsung kepada Direktur Utama;
 - b. Berkoordinasi dengan direksi lainnya dalam mendukung pelaksanaan tugas dan fungsi direktorat pendidikan, pelatihan dan penelitian;
 - c. Memimpin Kepala bidang pendidikan, pelatihan dan bidang penelitian;
 - (6) Syarat menjadi Direktur Pendidikan, Pelatihan dan Penelitian :
 - a. Pendidikan Dokter Spesialis atau Dokter dengan pendidikan Sarjana Strata dua (S2) di bidang kesehatan;
 - b. Mempunyai pendidikan dan atau pengalaman jabatan di bidang kesehatan;

Uraian Tugas Direktur Pelayanan Penunjang, Sarana Medik dan Kerjasama

- (1) Direktorat Pelayanan Penunjang, Sarana Medik dan Kerjasama dipimpin oleh seorang Direktur;
- (2) Tugas pokok Direktur Pelayanan Penunjang, Sarana Medik dan Kerjasama adalah memimpin penyelenggaraan penyusunan perencanaan, pelaksanaan, monitoring dan evaluasi pemanfaatan fasilitas pelayanan penunjang sarana medik dan kerjasama;
- (3) Fungsi Direktur Pelayanan Penunjang, Sarana Medik dan Kerjasama adalah mengambil kebijakan operasional dalam penyelenggaraan fungsi Direktorat pelayanan penunjang , sarana medik dan kerjasama;
- (4) Direktur Pelayanan Penunjang, Sarana Medik dan Kerjasama :
 - a. Bertanggungjawab langsung kepada Direktur Utama;
 - b. Berkoordinasi dengan direksi lainnya dalam mendukung pelaksanaan tugas dan fungsi direktorat Pelayanan Penunjang, Sarana Medik dan Kerjasama;
 - c. Memimpin kepala bidang Pelayanan Penunjang, Sarana Medik dan bidang Kerjasama;
- (5) Syarat menjadi Direktur Pelayanan Penunjang, Sarana Medik dan Kerjasama :
 - a. Pendidikan Dokter Spesialis atau Dokter dengan pendidikan Sarjana Strata dua (S2) di bidang kesehatan;
 - b. Mempunyai pendidikan dan atau pengalaman jabatan di bidang kesehatan;

Uraian Tugas Direktur Administrasi Umum, SDM dan Keuangan

- (1) Direktorat Administrasi Umum, SDM dan Keuangan dipimpin oleh seorang Direktur;
- (2) Tugas pokok Direktur Administrasi Umum, SDM dan Keuangan adalah memimpin penyusunan perencanaan, pelaksanaan, Monitoring dan evaluasi administrasi, SDM dan keuangan;
- (3) Fungsi Direktur Administrasi Umum, SDM dan Keuangan adalah membuat kebijakan operasional dalam penyelenggaraan fungsi direktorat administrasi, SDM dan keuangan;
- (4) Direktur Administrasi Umum, SDM dan Keuangan :
 - a. Bertanggung jawab langsung kepada Direktur Utama;
 - b. Berkoordinasi dengan direksi lainnya dalam mendukung pelaksanaan tugas dan fungsi direktorat administrasi, SDM dan keuangan;
 - c. Memimpin kepala bidang Administrasi Umum dan SDM, bidang keuangan, bidang perencanaan dan evaluasi;
- (5) Syarat menjadi Direktur Administrasi Umum, SDM dan Keuangan :
 - a. Berpendidikan minimal Strata dua (S2) di bidang manajemen kesehatan;
 - b. Mempunyai pendidikan dan atau pengalaman jabatan di bidang kesehatan;

Uraian Tugas Bidang Pelayanan Medik

- (1) Bidang Pelayanan Medik dipimpin oleh seorang Kepala Bidang;
- (2) Tugas pokok Kepala Bidang Pelayanan Medik adalah menyelenggarakan penyusunan perencanaan, pelaksanaan, monitoring dan evaluasi pelayanan medik meliputi :
 - a. Instalasi rawat jalan;
 - b. Instalasi rawat inap;
 - c. Instalasi rawat darurat;
 - d. Instalasi OK;
 - e. Instalasi *Intensivite Care Unit* (ICU);
 - f. Rehab Medik;
 - g. *Home Care*;
 - h. Rekam Medik;
 - i. Instalasi Pemulasaran Jenazah;
- (3) Fungsi Bidang Pelayanan Medik :
 - a. Menyusun perencanaan, pelaksanaan, monitoring dan evaluasi di bidang pelayanan Medik;
 - b. Menyusun *Standard Operating Procedure* (SOP), Standar Pelayanan Minimal (SPM) dan alur proses di bidang pelayanan Medik;

- c. Mengelola penyelenggaraan pelayanan Medik di semua instalasi pelayanan rumah sakit;
 - d. Memfasilitasi penyelenggaraan pendidikan dan penelitian di bidang Medik.
- (4) Bidang Pelayanan Medik :
- a. Bertanggung jawab langsung kepada Direktur Pelayanan Medik dan Keperawatan;
 - b. Berkoordinasi dengan kepala bidang lainnya dalam mendukung penyelenggaraan pelayanan Medik;
 - c. Berkoordinasi dengan kepala instalasi dalam penyelenggaraan pelayanan Medik;
 - d. Memimpin staf bidang pelayanan Medik;
- (5) Syarat menjadi Kepala Bidang Pelayanan Medik :
- a. Berpendidikan profesi minimal dokter spesialis atau dokter dengan pendidikan sarjana Strata Dua (S2) bidang kesehatan;
 - b. Berpendidikan dan atau memiliki pengalaman di Bidang Kesehatan;

Tugas Pokok Bidang Keperawatan

- (1) Bidang Keperawatan dipimpin oleh seorang Kepala Bidang;
- (2) Tugas pokok Kepala Bidang Pelayanan Keperawatan adalah menyelenggarakan penyusunan perencanaan, pelaksanaan, monitoring dan evaluasi pelayanan Keperawatan meliputi :
 - 1. Instalasi rawat jalan;
 - 2. Instalasi rawat inap;
 - 3. Instalasi rawat darurat;
 - 4. Instalasi OK;
 - 5. Instalasi *Intensivite Care Unit* (ICU);
 - 6. Rehab Medik;
 - 7. Home Care
 - 8. Rekam Medik
 - 9. Instalasi Pemulasaran Jenazah
- (3) Fungsi Bidang Keperawatan adalah :
 - a. Menyusun perencanaan, pelaksanaan, monitoring dan evaluasi di bidang pelayanan Keperawatan;
 - b. Melakukan Koordinasi dengan Komite Keperawatan dalam Menyusun Standar Asuhan Keperawatan (SAK), Standar Operasional Prosedur (SOP) dan alur proses pelayanan Keperawatan;
 - c. Mengelola penyelenggaraan pelayanan Keperawatan di semua instalasi pelayanan rumah sakit;

- d. Memfasilitasi penyelenggaraan pendidikan dan penelitian dibidang Keperawatan.
- (4) Bidang Keperawatan :
 - a. Bertanggungjawab langsung kepada Direktur Pelayanan Medik dan Keperawatan;
 - b. Berkoordinasi dengan kepala bidang lainnya untuk mendukung penyelenggaraan pelayanan Keperawatan;
 - c. Berkoordinasi dengan seluruh kepala instalasi dalam penyelenggaraan pelayanan Keperawatan;
- (5) Syarat menjadi Kepala Bidang Pelayanan Keperawatan :
 - a. Berpendidikan Minimal Strata Dua (S2) dibidang Keperawatan dan berprofesi NERS;
 - b. Berpendidikan dan atau memiliki pengalaman di Bidang Keperawatan;

Uraian Tugas Bidang Pemasaran dan Kerjasama

- (1) Bidang Pemasaran dan Kerjasama dipimpin oleh seorang Kepala Bidang;
- (2) Tugas pokok Kepala Bidang Pemasaran dan Kerjasama adalah:
 - a. Menyelenggarakan penyusunan perencanaan, pelaksanaan, monitoring dan evaluasi sistem pemasaran rumah sakit;
 - b. Menyelenggarakan penyusunan perencanaan, pelaksanaan, monitoring dan evaluasi kegiatan kerjasama rumah sakit dengan pihak eksternal.
- (3) Fungsi Bidang Pemasaran dan Kerjasama:
 - a. Merencanakan produk pelayanan sesuai dengan kebutuhan dan keinginan masyarakat;
 - b. Merencanakan, melaksanakan, memonitoring dan mengevaluasi program pemasaran yang terintegrasi dengan sistem informasi untuk memberikan nilai unggul;
 - c. Merencanakan, melaksanakan, memonitoring dan mengevaluasi program kerjasama rumah sakit;
- (4) Bidang Pemasaran dan Kerjasama:
 - a. Bertanggungjawab langsung kepada Direktur Pelayanan Penunjang, Sarana Medik dan Kerjasama;
 - b. Berkoordinasi dengan seluruh unit rumah sakit dalam hal Pemasaran dan Kerjasama;
 - c. Memimpin Staff Bidang Pemasaran dan Kerjasama;
- (5) Syarat menjadi Kepala Bidang Pemasaran dan Kerjasama:
 - a. Berpendidikan Minimal Strata Dua (S2) di bidang Kesehatan;

- b. Telah mengikuti pelatihan dan atau memiliki pengalaman di bidang pemasaran kesehatan;

Uraian Tugas Bidang Pelayanan Penunjang dan Sarana Medik

- (1) Bidang Sarana Medik dipimpin oleh seorang Kepala Bidang;
Tugas pokok Kepala Bidang Pelayanan Penunjang dan Sarana Medik adalah
 1. Menyelenggarakan penyusunan perencanaan, pelaksanaan, monitoring dan evaluasi akhir pelayanan penunjang dan sarana Medik meliputi : Instalasi Farmasi, Instalasi Laboratorium, Instalasi Radiologi, Instalasi Gizi, Instalasi CSSD & Laundry, Sarana Medik, Ambulance, dan IPS RS;
 2. Melakukan pemeliharaan dan evaluasi berkala pemanfaatan pelayanan penunjang dan sarana Medik;
- (2) Fungsi Bidang Pelayanan Penunjang dan Sarana Medik :
 - a. Menyusun perencanaan kebutuhan pelayanan penunjang dan sarana Medik atas usulan instalasi;
 - b. Penyelenggaraan pemeliharaan dan kalibrasi berkala sarana pelayanan penunjang dan sarana Medik;
 - c. Menyelenggarakan evaluasi berkala sarana pelayanan penunjang dan sarana Medik secara efektif dan efisien;
 - d. Melaksanakan Pemeliharaan Peralatan mekanik dan elektrik;
 - e. Melaksanakan Pemeliharaan Peralatan Elektronik dan Medik (ELMED);
 - f. Melaksanakan Pemeliharaan alat Berat (ALBER);
- (3) Bidang Pelayanan Penunjang dan Sarana Medik bertanggungjawab terhadap perencanaan, pelaksanaan, monitoring dan evaluasi akhir pemanfaatan pelayanan penunjang dan sarana Medik;
- (4) Bidang Pelayanan Penunjang dan Sarana Medik:
 - a. Bertanggungjawab langsung kepada Direktur Pelayanan Penunjang, Sarana Medik dan Kerjasama;
 - b. Berkoordinasi dengan kepala bidang lainnya;
 - c. Memimpin staff bidang Pemasaran dan kerjasama;
- (5) Syarat menjadi Kepala Bidang Pelayanan Penunjang dan Sarana Medik :
 - a. Minimal berpendidikan dokter spesialis atau dokter dengan pendidikan Strata Dua (S2) di bidang kesehatan;
 - b. Telah mengikuti pelatihan atau pengalaman di bidang kesehatan;

Uraian Tugas Bidang Pendidikan dan Pelatihan



- (1) Bidang Pendidikan dan Pelatihan dipimpin oleh seorang Kepala Bidang;
- (2) Tugas Pokok Bidang Pendidikan dan Pelatihan adalah menyelenggarakan perencanaan, pelaksanaan, monitoring dan evaluasi pendidikan dan pelatihan meliputi :
 - a. Medik;
 - b. Keperawatan;
 - c. Kesehatan Masyarakat;
 - d. Farmasi;
 - e. Non Medik;
- (3) Fungsi Bidang Pendidikan dan Pelatihan:
 - a. Menyusun perencanaan, pelaksanaan, monitoring dan evaluasi di bidang pendidikan dan pelatihan;
 - b. Menyusun Standar Operating Procedure (SOP), dan alur proses di bidang pendidikan dan pelatihan;
 - c. Mengelola perencanaan pendidikan medik, Keperawatan, kesehatan masyarakat, Farmasi dan non medik;
- (4) Bidang Pendidikan dan Pelatihan :
 - a. Bertanggung jawab langsung kepada Direktur Pendidikan, pelatihan dan Penelitian;
 - b. Berkoordinasi dengan kepala bidang lainnya dan kepala instalasi dalam mendukung peningkatan kualitas SDM;
 - c. Memimpin staf bidang pendidikan dan pelatihan;
- (5) Syarat menjadi Kepala Bidang Pendidikan dan Pelatihan :
 - a. Pendidikan minimal Strata Dua (S2) di bidang kesehatan;
 - b. Mempunyai pengalaman di bidang pendidikan dan pelatihan;

Uraian Tugas Bidang Penelitian

- (1) Bidang Penelitian dipimpin oleh seorang Kepala Bidang;
- (2) Tugas pokok Kepala Bidang Penelitian adalah menyelenggarakan perencanaan, pelaksanaan, monitoring dan evaluasi penelitian dan pengembangan yang meliputi :
 - a. Medik;
 - b. Keperawatan;
 - c. Kesehatan Masyarakat;
 - d. Farmasi;
 - e. Non Medik;



- (3) Fungsi Bidang Penelitian:
- a. Mengembangkan Roadmap Penelitian;
 - b. Menyusun SOP dan alur proses penelitian dan pengembangan;
 - c. Menyusun perencanaan, pelaksanaan, monitoring dan evaluasi di bidang penelitian dan pengembangan;
 - d. Mengelola penyelenggaraan penelitian dan pengembangan yang terintegrasi dengan Fakultas Kedokteran, Fakultas Kedokteran Gigi, Fakultas Kesehatan Masyarakat dan Fakultas Farmasi Unhas dan menjalin kerjasama dengan lembaga/donor untuk memajukan penelitian;
 - e. Mengatur pemanfaatan laboratorium penelitian untuk kegiatan pelayanan;
- (4) Bidang Penelitian bertanggungjawab terhadap :
- a. Penyusunan perencanaan, pelaksanaan, monitoring dan evaluasi serta kerjasama dengan lembaga/donor di bidang penelitian dan pengembangan;
 - b. Memimpin staff bidang penelitian;
- (5) Syarat menjadi Kepala Bidang Penelitian rumah sakit :
- a. Pendidikan minimal Strata Dua (S2) di bidang kesehatan;
 - b. Mempunyai pengalaman di bidang penelitian;

Uraian Tugas Bidang Administrasi Umum dan SDM

- (1) Bidang Administrasi Umum dan SDM dipimpin oleh seorang Kepala Bidang;
- (2) Tugas pokok Kepala Bidang Administrasi Umum dan SDM adalah :
- a. Menyelenggarakan perencanaan, pelaksanaan, monitoring dan evaluasi meliputi :
 - Tata Usaha;
 - SDM;
 - Hukum & Organisasi;
 - Logistik;
 - Sarana Non Medik;
 - Sarana Saritarian (IPAL & Incinerator);
 - b. Berkoordinasi dengan Komite Medik dalam membentuk panitia kredensial yaitu panitia yang bertanggungjawab terhadap penentuan kompetensi dan kualifikasi tenaga dokter dan KeKeKePerawatanan di rumah sakit saat perekrutan;
- (3) Fungsi Bidang Administrasi Umum dan SDM adalah :
- a. Menyusun perencanaan, pelaksanaan, monitoring dan evaluasi kegiatan Administrasi Umum;
 - b. Menyusun alur proses layanan Administrasi Umum;

- c. Menyusun *Hospital By Law* (HBL);
 - d. Berkoordinasi dengan komite medik untuk merumuskan dan *Medikal Staff By Law* (MSBL);
 - e. Menyusun perencanaan ketenagakerjaan setiap unit, perumusan uraian jabatan, analisis pekerjaan, deskripsi pekerjaan, penentuan standar hasil pekerjaan, rekrutmen, seleksi, penempatan, pengembangan dan pelatihan SDM Rumah Sakit, penentuan sistem imbalan, dan pemutusan hubungan kerja;
 - f. Memfasilitasi penanganan masalah hukum di rumah sakit;
 - g. Melaksanakan pemeliharaan Sarana non medik;
 - h. Melaksanakan pemeliharaan sarana sanitarian (IPAL dan Incinerator);
- (4) Bidang Administrasi Umum dan SDM:
- a. Bertanggungjawab terhadap seluruh pengelolaan Administrasi Umum dan SDM rumah sakit;
 - b. Bertanggungjawab terhadap pengelolaan sarana non medik dan pemeliharaan sarana sanitarian (IPAL & Incinerator);
 - c. Bertanggungjawab dalam legalitas Memorandum of Understanding (MoU) dan penanganan masalah hukum rumah sakit;
- (5) Bidang Administrasi Umum dan SDM:
- a. Bertanggungjawab langsung kepada Direktur Administrasi Umum, SDM dan Keuangan;
 - b. Berkoordinasi dengan Kepala Bidang Keuangan dan Kepala Bidang Perencanaan dan Evaluasi, Komite Medik, Satuan Pemeriksaan Internal, Satuan Medis Fungsional dan Instalasi – instalasi di Rumah Sakit;
 - c. Berkoordinasi dengan Komite Hospital Safety dalam hal sarana IPAL;
 - d. Memimpin staf bidang Administrasi Umum dan SDM;
- (6) Syarat menjadi Kepala Bidang Administrasi Umum dan SDM:
- a. Pendidikan minimal strata dua (S2);
 - b. Memiliki pengalaman di bidang tugasnya;

Uraian Tugas Bidang Keuangan

- (1) Bidang keuangan dipimpin oleh seorang Kepala Bidang;
- (2) Tugas pokok Kepala Bidang Keuangan adalah menyelenggarakan perencanaan, pelaksanaan, monitoring dan evaluasi keuangan rumah sakit meliputi:
 - a. Mengkoordinasi penyusunan Anggaran pendapatan dan belanja rumah sakit sesuai Daftar Rencana Kegiatan (DRK);
 - b. Verifikasi dana dan akuntansi rumah sakit;



- c. Pembelian dan Kerjasama Sama Operasi (KSO);
 - d. Purchasing;
- (3) Fungsi Bidang Keuangan adalah :
- a. Menyusun perencanaan anggaran rumah sakit;
 - b. Mengkoordinasikan Penyusunan Sistem Remunerasi;
 - c. Merencanakan dan mengelola pendapatan/penerimaan keuangan;
 - d. Mengelola efisiensi penggunaan dana;
 - e. Melaksanakan perbendaharaan, verifikasi, akuntansi serta mobilisasi dana;
 - f. Mengkoordinasikan pembuatan daftar usulan kegiatan dan daftar isian kegiatan;
 - g. Melakukan *purchasing* dan mengelola sistem *joint venture*;
 - h. Mengelola *asset* rumah sakit;
 - i. Melakukan evaluasi pengelolaan keuangan;
 - j. Mengkoordinasikan Penyusunan Sistem Tarif;
- (4) Bidang Keuangan bertanggungjawab terhadap seluruh perencanaan, pengelolaan dan evaluasi sistem keuangan rumah sakit;
- (5) Bidang Keuangan :
- a. Bertanggungjawab langsung kepada Direktur Administrasi Umum, SDM dan Keuangan;
 - b. Berkoordinasi dengan Kepala Bidang Administrasi Umum dan SDM, Kepala Bidang Perencanaan dan Evaluasi;
 - c. Memimpin staf keuangan;
- (6) Syarat menjadi Kepala Bidang Keuangan :
- a. Pendidikan minimal Strata Dua (S2) di bidang ekonomi dan berpendidikan profesi akuntan;
 - b. Memiliki pengalaman di bidang manajemen keuangan rumah sakit;
 - c. Telah mengikuti pelatihan dan atau pengalaman di bidang manajemen keuangan rumah sakit;

Uraian Tugas Bidang Perencanaan dan Evaluasi

- (1) Bidang Perencanaan dan Evaluasi dipimpin oleh seorang Kepala Bidang;
- (2) Tugas pokok Kepala Bidang Perencanaan dan Evaluasi adalah;
 - a. Mengkoordinasikan penyusunan perencanaan dan evaluasi program dengan seluruh unit di rumah sakit;
 - b. Mengkoordinasi kegiatan penyusunan perencanaan program kegiatan seluruh unit kerja dengan anggaran Rumah Sakit.
- (3) Fungsi Bidang Perencanaan dan Evaluasi adalah:



- a. Mengkoordinasikan penyusunan sistem perencanaan strategik dan tahunan serta evaluasi rumah sakit;
 - b. Menyusun dan merencanakan kebijakan Perencanaan dan Evaluasi Rumah Sakit ;
 - c. Mengkoordinasikan sistem monitoring dan evaluasi kegiatan program.
 - d. Melaksanakan analisis, pengendalian dan evaluasi terhadap pelaksanaan program kegiatan seluruh unit kerja;
 - e. Menyusun Rekapitulasi kegiatan seluruh unit kerja;
 - f. Penyusunan rencana dan pelaksanaan pengelolaan dan pemantapan Sistem Informasi Rumah Sakit;
- (4) Bidang Perencanaan dan Evaluasi bertanggung jawab mengkoordinasi penyusunan perencanaan dan evaluasi rumah sakit;
- (5) Bidang Perencanaan dan Evaluasi :
- a. Bertanggungjawab langsung kepada Direktur Administrasi Umum, SDM dan Keuangan;
 - b. Berkoordinasi dengan seluruh kepala bidang, Komite, Satuan Medis Fungsional (SMF), dan instalasi;
 - c. Memimpin staf bidang perencanaan dan evaluasi, dan Staff Sistem Informasi Manajemen (SIM) Rumah Sakit;
 - d. Memimpin Staf Sistem Informasi Manajemen (SIM) Rumah Sakit;
- (6) Syarat menjadi Kepala Bidang Perencanaan dan Evaluasi :
- a. Pendidikan minimal strata dua (S2) di bidang manajemen rumah sakit;
 - b. Memiliki pengalaman pelatihan dalam bidang perencanaan dan evaluasi rumah sakit.

Uraian Tugas Instalasi-instalasi

- (1) Instalasi adalah unit pelayanan non struktural setiap instalasi dipimpin oleh seorang Kepala Instalasi;
- (2) Tugas pokok instalasi adalah memfasilitasi kegiatan pelayanan, pendidikan dan penelitian rumah sakit;
- (3) Fungsi instalasi adalah memfasilitasi untuk menyelenggarakan kegiatan bagi pasien di rawat inap, rawat jalan, rawat darurat, Keperawatan intensif, bedah sentral, radiologi, Farmasi, Gizi, Laboratorium, dan kegiatan pemeliharaan dan perbaikan sarana Rumah Sakit;
- (4) Instalasi bertanggungjawab terhadap penyelenggaraan kegiatan pelayanan, pendidikan dan penelitian rumah sakit di masing-masing instalasi;

- (5) Instalasi bertanggungjawab langsung terhadap Direksi dan dalam pelaksanaan tugas berkoordinasi dengan kepala bidang terkait;
- (6) Syarat menjadi kepala instalasi :
 - a. Sesuai kompetensi profesi pada masing-masing instalasi;
 - b. Memiliki pendidikan dan atau pengalaman pada masing-masing instalasi;



BAB II
KINERJA TAHUN 2014 DAN RENCANA BISNIS ANGGARAN
RUMAH SAKIT UNIVERSITAS HASANUDDIN TAHUN 2015

A. Gambaran Kondisi RS Unhas

1. Kondisi Internal RS Unhas

a. Pelayanan

Pada tahap awal, fokus utama RS Unhas adalah menyajikan pelayanan kesehatan kepada masyarakat kemudian secara bertahap menjalankan proses pendidikan. Hal ini dilakukan karena mengacu pada konsep RS Pendidikan yang ditetapkan yakni RS Pendidikan harus menyediakan *real patient* yang memadai baik jenis dan jumlahnya dan atau simulasi tentang pasien yang relevan untuk mencapai kompetensi tertentu. Alasan lainnya bahwa untuk memperoleh izin sebagai RS Pendidikan diperlukan terlebih dahulu izin operasional tetap sebagai RS pelayanan, sehingga RS Unhas memenuhi dulu persyaratan tersebut dengan menyediakan pelayanan yang sesuai dengan RS kelas B (Peraturan Menteri Kesehatan Republik Indonesia Nomor 340/Menkes/Per/III/2010) yang dapat dijadikan wahana pendidikan untuk menghasilkan dokter umum dan dokter spesialis. Sehingga akhirnya pada tanggal 10 Desember 2013 RS Unhas mendapatkan sertifikasi penetapan kelas rumah sakit dari Kementerian Kesehatan Republik Indonesia sebagai RS Umum Kelas B (Jumlah TT 218).

Penetapan RS Unhas sebagai Kelas B memberikan implikasi bahwa RS Unhas merupakan RS rujukan dan melayani semua segmen masyarakat, sehingga jumlah kasus yang banyak diharapkan dapat tersedia dan mencukupi kebutuhan pendidikan bagi para peserta didik baik program profesi Kepaniteraan Klinik maupun Program Pendidikan Dokter Spesialis (PPDS) agar peserta didik bisa mencapai kompetensi klinis sesuai dengan pilar keterampilan klinis yang diatur pada Standar Kompetensi Dokter Indonesia (SKDI).

Meski RS Unhas telah ditetapkan sebagai RS Kelas B, RS Unhas juga telah mengembangkan beberapa pelayanan unggulan seperti pusat mata, pusat trauma, pusat kanker, pusat radioterapi, Neurointervention dan Pusat Reproduksi (Fertility endocrine Reproductive) serta akan mengembangkan beberapa pelayanan unggulan lainnya seperti, *telemedicine*.

Di bawah ini ditampilkan tabel perkembangan jenis pelayanan yang tersedia dari periode 2010 – 2014.



Jenis-jenis pelayanan yang diberikan RS Unhas sejak tahun 2010 :

Tabel 7. Jenis Pelayanan RS Unhas

No	Jenis Pelayanan	Operasional Pelayanan				
		2010	2011	2012	2013	2014
1	Poliklinik Umum	√	√	√	√	√
2	Poliklinik Bedah	√	√	√	√	√
3	Poliklinik Non Bedah	√	√	√	√	√
4	Fisioterapy		√	√	√	√
5	Poliklinik <i>Cardiovaskuler</i>			√	√	√
6	<i>Bee Practice & Riset Center</i>			√	√	√
7	Poliklinik Nyeri dan Faliatif Care				√	√
8	Instalasi Rawat Darurat	√	√	√	√	√
9	Instalasi Rawat Inap		√	√	√	√
10	Instalasi Radiologi					
11	Instalasi Laboratrium Patologi Klinik	√	√	√	√	√
12	Instalasi Mikrobiologi		√	√	√	√
13	Instalasi Farmasi	√	√	√	√	√
14	Instalasi CSSD & Laundry	√	√	√	√	√
15	Instalasi Gizi			√	√	√
16	Instalasi Pemulasaran Jenazah			√	√	√
17	Radio Terapi			√	√	√
18	NICU				√	√
19	Haemodialisa					√

Sumber : RS Unhas, 2014

Sejak tahun 2010 hingga sekarang, kunjungan pasien semakin meningkat. Berikut tabel tren kunjungan pasien RS Unhas sejak tahun 2010 :

Tabel 8. Rata-Rata Kunjungan Pasien/ Hari RS Unhas Tahun 2010 – 2014

NO	Kunjungan Pasien	2010 (orang)	2011 (orang)	2012 (orang)	2013 (orang)	2014 (orang)
1	Rawat Darurat	1	4	9	14	18
2	Rawat Jalan	0	5	39	82	228
3	HCU/ ICU	0	0	2	3	4
4	OK	0	4	4	6	7

Sumber : Rekam Medik RS Unhas, 2014

Pada tahun 2014, kunjungan RS Unhas meningkat rata-rata 49% dibanding tahun 2013. Peningkatan yang sangat signifikan terjadi pada kunjungan rawat jalan yakni sebesar 105%. Hal ini dikarenakan dengan diterapkannya kebijakan JKN sehingga mulai Januari 2014 RS Unhas



menerima semua pasien BPJS yang sebelumnya hanya menerima pasien ASKES.

Berikut disajikan tabel efisiensi pelayanan RS Unhas sejak tahun 2011:

Tabel 9. Tingkat Efisiensi Pelayanan RS Unhas Tahun 2011 - 2014

Indikator	Standar Kemenkes 2009	2011	2012	2013	2014
BOR	65 - 85 %	28,5%	45,53%	54,56%	67,62%
TOI	1 – 3 hari	15 hari	9 hari	7 hari	4 hari
AvLOS	6 – 9 hari	6 hari	7 hari	7 hari	6 hari

Sumber : Rekam Medik RS Unhas, 2014

Dari tabel di atas dijelaskan bahwa pada awalnya RS Unhas belum mencapai standar tingkat efisiensi meski tingkat hunian pada kelas I dan VIP sudah cukup bagus, hal ini disebabkan ruangan kelas III yang disediakan belum optimal penggunaannya karena ruangan kelas III rata-rata diperuntukan untuk pasien Jamkesmas/Jamkesda namun RS Unhas saat itu belum bekerjasama dengan Jamkesmas, sehingga pencapaian standar efisiensi pelayanan baru tercapai pada tahun 2014 setelah implementasi JKN.

Jumlah peserta Kepanitraan Klinik yang difasilitasi RS Unhas semakin meningkat. Pada tahun 2012 sebanyak 198 peserta atau sebesar 25% mahasiswa aktif profesi lulusan FK Unhas, pada Tahun 2013 meningkat menjadi 515 peserta atau sebesar 64% mahasiswa aktif profesi lulusan FK Unhas yang terfasilitasi. Periode Tahun 2014 jumlah peserta Kepanitraan Klinik yang difasilitasi sebanyak 738 peserta.

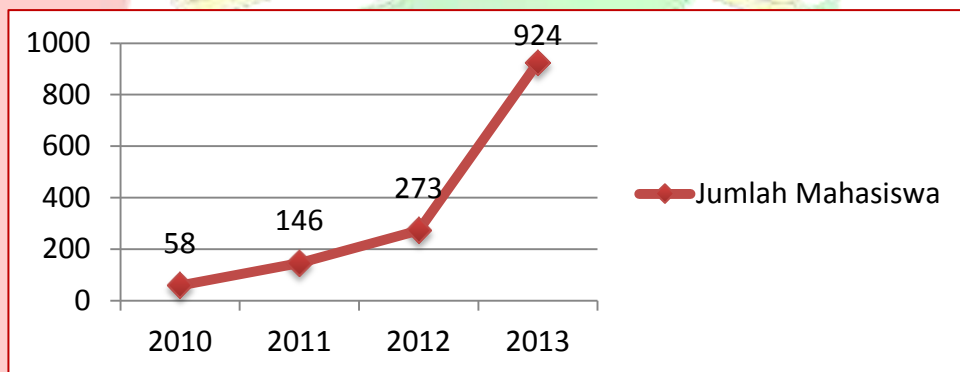
Peserta Kepanitraan Klinik di fasilitasi pada bagian Psikiatri, Ilmu Penyakit Mata, Bedah, Ilmu Penyakit Kulit dan Kelamin, Ilmu Penyakit Dalam, Ilmu Kesehatan Anak, Ilmu Penyakit Saraf, serta Ilmu Anastesi, perawatan Insentif dan Manajemen Nyeri.

RS Unhas juga memfasilitasi peserta Program Pendidikan Dokter Spesialis (PPDS). Pada Tahun 2013 RS Unhas telah memfasilitasi PPDS sebanyak 218 dokter dan selama Tahun 2014, RS Unhas sudah memfasilitasi sebanyak 274 dokter. PPDS diselenggarakan dari berbagai bagian ilmu kedokteran, seperti Ilmu Penyakit Dalam, Ilmu Penyakit Saraf, Ilmu Anastesi, perawatan Insentif dan Manajemen Nyeri, Ilmu Kesehatan Anak, Ilmu Patologi Klinik, Ilmu KesehatanTHT-KL, Obsetri Ginekologi, Psikiatri, Radiologi, Ilmu

Penyakit Kulit dan Kelamin, Ortopedi dan Traumatologi, Kardiologi, Gizi Klinik, Ilmu Penyakit Mata, dan Ilmu Bedah.

RS Unhas melaksanakan program pendidikan profesi terintegrasi di mana merupakan sebuah metode pembelajaran klinis melalui pengkajian kasus melibatkan beberapa profesi kesehatan (coass, perawat, apoteker, fisioterapis, ilmu gizi, Manajemen Rumah Sakit, dll). Tujuannya adalah melatih peserta didik bekerja secara tim sehingga dapat mewujudkan pemahaman yang komprehensif mengenai penyakit yang diderita pasien dengan demikian membuat pasien mendapatkan layanan prima, holistik dan terpadu dalam bentuk tim.

Selain program pendidikan untuk mahasiswa kedokteran, RS Unhas juga memfasilitasi program pendidikan/ praktek bagi mahasiswa non kedokteran yang berasal dari berbagai fakultas. Berikut rekapitulasi masiswa non kedokteran yang mengikuti praktek pendidikan di RS Unhas sejak Tahun 2010:



Gambar 1. Tren Jumlah Peserta Didik Non Kedokteran RS Unhas, 2010 – 2013

Peserta didik non kedokteran RS Unhas bersal dari Keperawatan (S1 dan S2), Fisioterapi, Ilmu Gizi, Manajemen RS, Rekam Medik, PKPA (Farmasi), Manajemen Administrasi RS (S2), Analisis Lingkungan, Non kesehatan (Teknik, Ekonomi, Hukum).

Konsep penelitian RS Unhas untuk tahun 2014 -2015 telah menetapkan indikator luaran jumlah publikasi ilmiah lokal sampai internasional, jumlah pemakalah dalam pertemuan ilmiah lokal sampai internasional, pembicara utama (Keynote Speaker) dalam pertemuan ilmiah lokal sampai internasional, *Visiting Lecturer*, jumlah Hak Atas Kekayaan Intelektual (HKI), Teknologi tepat guna, Model/Prototype/Desain/Karya seni/Rekayasa Sosial, Buku Ajar (ISBN),

Laporan penelitian yang tidak dipublikasi, Jumlah Dana Kerjasama Penelitian, dan Angka partisipasi peneliti.

Hingga saat ini, Bidang Penelitian RS Unhas memfasilitasi kegiatan penelitian dan workshop penulisan karya tulis ilmiah . Selama tahun 2014 RS Unhas memfasilitasi penelitian dari berbagai bidang ilmu, yakni:

PROGRAM STUDI	JUMLAH
Kedokteran	50
Biomedik	15
Magister Keperawatan	14
Psik	12
Fkm	10
Radiologi	7
Mars	5
Mipa	5
Magister Farmasi	3
Patologi Klinik	3
Program S3	3
Bedah	1
Ekonomi	1
Kedokteran Hewan	1
Kul-Kel	1
Magister Mipa	1
Patologi Anatomi	1
Sospol	1
Teknik	1
Total	135

Gambar 2. Proporsi Jumlah Penelitian yang Difasilitasi RS Unhas, 2014

b. Keuangan

Penerimaan RS Unhas berasal dari pelayanan pasien dan APBN. Pasien melakukan pembayaran pelayanan sesuai dengan tarif pelayanan RS Unhas yang telah ditetapkan dengan SK Rektor Nomor 8622/UN4/KU.28/2014

tentang Penetapan Tarif Umum Pelayanan Kesehatan pada Rumah Sakit Universitas Hasanuddin. Saat ini RS Unhas telah memiliki *billing system* yang membantu kelancaran proses pembayaran. Semua penerimaan RS Unhas disetorkan langsung ke rekening rektor sehingga timbul beberapa masalah seperti terhambatnya pengadaan obat-obat pasien dan bahan habis pakai dan , terlambatnya pembayaran jasa medik hal ini disebabkan karakteristik pelayanan rumah sakit bersifat *uncertainty* dan *emergency* dll.

Untuk menjamin akuntabilitas pengelolaan keuangan di RS ini, maka telah diterapkan *system akuntansi accrual*, sehingga pelaporan penggunaan dan penerimaan keuangan dapat dikelola dengan baik

c. Organisasi dan Sumber Daya Manusia (SDM)

Pengelolaan RS Unhas, saat ini dipimpin oleh seorang Direktur Utama bertanggung jawab pada Dewan Pengawas. Unsur Dewan Pengawas yang sesuai dengan UU no 44 Tahun 2009 tentang RS adalah unsur pemilik Rumah Sakit (Rektor Unhas), organisasi profesi (Dekan FK UH), untuk unsur tokoh masyarakat belum dapat dipenuhi. Selanjutnya, Direktur Utama ini dibantu oleh 4 orang Direktur yang mengurus Direktorat Pendidikan Pelatihan dan Penelitian, Direktorat Pelayanan Medik dan Keperawatan, Direktorat Sarana Penunjang dan Kerjasama, serta Direktorat Administrasi Umum, SDM dan Keuangan. Masing-masing direktorat dibantu dua sampai tiga kepala bidang. Para pengelola RS ini merupakan dosen yang diperbantukan berasal dari multidisiplin dan bekerja paruh waktu di RS. Namun, terdapat beberapa hal yang menjadi perhatian yaitu kompetensi manajerial dari pengelola RS ini belum sesuai standar yang dipersyaratkan oleh Permenkes no 971 Tahun 2009 tentang standar kompetensi pejabat structural kesehatan. Untuk memenuhi persyaratan ini, maka secara bertahap para pengelola diikutkan beberapa pelatihan manajerial RS.

Meskipun demikian, jumlah Sumber daya manusia (SDM) merupakan sumber kekuatan, karena RS Unhas saat ini telah memiliki SDM sebanyak 773 orang, terdiri atas tenaga medis, tenaga paramedis dan manajemen dengan status Pegawai Negeri Sipil (PNS), Calon Pegawai Negeri Sipil (CPNS), honorer dan kontrak.



Tabel 10. Jumlah SDM RS Unhas 2014

No.	Jenis Ketenagaan	Status Kepegawaian				Jumlah
		PNS diperbantukan	Organik	Honoror	Kontrak	
1	Direksi dan Manajemen	38	19	1	106	164
2	Dokter Spesialis	222				222
3	Dokter Umum	0	7		4	11
4	Perawat	0	20	1	169	190
5	Bidan	0	1	0	12	13
6	Refraksionist	0	1			1
8	Fisioterapist	0	1	0	7	8
9	Evakuator	0			13	13
10	Rekam Medik	0			18	18
12	Apoteker	0	3		11	14
13	Asisten Apoteker	0	1		17	18
14	Laboran	0	7	0	23	30
15	Tenaga Gizi	0	4		33	37
18	CSSD & Laundry	0			17	17
19	Radiografer	1	6		10	17
	J U M L A H	261	70	2	440	773

Sumber : Bidang SDM RS Unhas, 2014

SDM RS Unhas dengan status PNS terdiri atas PNS diperbantukan dan PNS organik. PNS diperbantukan di RS Unhas ini adalah sebagian besar adalah dosen tetap di Unhas. Dokter spesialis RS Unhas sebagian besar juga merupakan dokter spesialis di RSWS.

Jumlah tenaga kontrak RS Unhas sampai saat ini berjumlah 440 orang, namun berdasarkan hasil analisis perhitungan beban kinerja bahwa RS Unhas masih membutuhkan penambahan tenaga dari berbagai jenis profesi untuk mendukung kegiatan RS Unhas.

d. Sarana dan Prasarana

Pembangunan sarana fisik RS Unhas saat ini memasuki tahapan pembangunan Gedung B dan C. Untuk Gedung A telah dilakukan *soft opening* oleh Menteri Pendidikan Nasional pada tanggal 15 Februari 2010, sedang Gedung E dan F baru saja diresmikan pada tanggal 7 April 2012 oleh Menteri Pendidikan dan Kebudayaan RI dan telah melayani pasien sejak awal April 2012.

Pembangunan gedung A pada tahun 2008-2009 telah selesai. Gedung A terdiri dari tujuh lantai, lantai 1 dan 2 telah menyediakan pelayanan dengan jumlah 50 tempat tidur dan 2 kamar operasi. Sedangkan Lantai 3, 4, 5 dan 7 digunakan sebagai sarana perkuliahan, ruang kantor SMF Fakultas Kedokteran dan Bagian Manajemen Rumah Sakit FKM Unhas serta ruang diklat. Lantai 6 digunakan untuk laboratorium penelitian kerjasama Fakultas Kedokteran dengan Nechri dan Novartis.

Pembangunan Gedung E & F bersumber dari APBN tahun 2009 juga telah selesai di tahun 2012. Pada awalnya, Gedung E dan F direncanakan dibangun sebanyak 7 lantai, namun realisasinya hanya dapat dibangun 4 lantai, hal ini dikarenakan anggaran yang tersedia tidak mencukupi.

Pada tanggal 26 Maret 2012 Gedung E dan F telah difungsikan sebagai Cancer dan Trauma Center, yang pada tanggal 7 April 2012 gedung ini diresmikan oleh Menteri Pendidikan dan Kebudayaan RI. Gedung ini terdiri atas 5 lantai termasuk basement. Ruang perawatan di gedung ini berkapasitas sebanyak 218 tempat tidur.

Basement terdiri atas ruang Instalasi Rawat Darurat (IRD), Instalasi Radiologi, Instalasi Gizi, Instalasi CSSD dan Laundry, Instalasi Sistem Informasi (SIM), Instalasi Pemeliharaan Rumah Sakit (IPRS), Pemulasaran Jenazah (Mortuary), Instalasi Rekam Medik, Ruang Teknisi, Security Office dan musholah.

Lantai 1 terdiri atas lobby, Ruang Poliklinik Rawat Jalan, Laboratorium Patologi dan Laboratorium Anatomi, Instalasi Farmasi, Customer Service (Complain Centre, Promosi Kesehatan Masyarakat Rumah Sakit), Ruang Direktur, Ruang Manajemen, Kantor PMI Cabang Tamalanrea, dan Public Service (kantin, minimarket, dan bank). Poliklinik rawat jalan RS Unhas terdiri atas Poliklinik Jiwa, Saraf, EEG, THT, Bedah Anak, Bedah Digestif, Bedah Onkologi, Bedah Ortopedi, Bedah Plastik, Obgyn, Anak, Interna, Mata, dan Poliklinik Umum.

Lantai 2 terdiri atas ruang Intensive Care Unit (ICU) dengan kapasitas 6 tempat tidur, , ruang kemoterapi dengan kapasitas 22 tempat tidur, Central Operating Treatment (COT) sebanyak 4 tempat tidur, dan auditorium yang berkapasitas 400 kursi.

Ruang rawat inap RS Unhas berada di lantai 3 dan 4 dengan kapasitas total tempat tidur sebanyak 119 buah. Lantai 3 terdiri atas ruang rawat inap VIP sebanyak 18 tempat tidur, ruang VVIP A sebanyak 6 tempat tidur, dan ruang



VVIP B sebanyak 5 tempat tidur. Lantai 4 terdiri atas 36 tempat tidur ruang kelas I, 24 tempat tidur di ruang kelas II dan 30 tempat tidur di ruang kelas III.

Hingga saat ini RS Unhas sedang dalam proses pembangunan Gedung B dan C dengan anggaran yang terealisasi sebesar 33% dari anggaran yang direncanakan (anggaran yang terealisasi sebesar Rp 39.846.955.700,- dari 120.457.332.980, -). Untuk menunjang sarana tersebut juga telah dibangun beberapa prasarana yaitu instalasi air, mekanikal dan elektrikal, pencegahan dan penanggulangan kebakaran, instalasi gas medik, instalasi tata udara, serta sistem informasi dan komunikasi. Dalam hal instalasi mekanikal dan elektrikal, RS unhas telah memiliki listrik dengan kapasitas 865 KVA untuk Gedung A dan Gedung EF juga 865 KVA yang dapat memenuhi kebutuhan dengan beberapa alat medis dan alat berat. Juga telah tersedia prasarana pencegahan dan penanggulangan kebakaran serta instalasi air yang digunakan adalah sumber air tanah dan PDAM.

Selanjutnya untuk menunjang pelayanan medik telah disiapkan instalasi gas medik untuk penyediaan suply Oksigen secara sentral di ruang UGD dan Kamar Operasi. RS Unhas juga mengembangkan sistem informasi rumah sakit, yang berurusan dengan pengumpulan data, pengolahan data, penyajian informasi, analisa dan penyimpulan informasi serta penyampaian informasi yang dibutuhkan untuk menunjang kegiatan RS Unhas.

Untuk menjamin hasil pengelolaan limbah yang dihasilkan dari aktivitas pelayanan medis dan aktivitas umum, RS Unhas telah dilengkapi dengan IPAL Gedung EF RS Unhas telah ditambahkan *Treatment Buffer*. *Treatment Buffer* ini diharapkan dapat mereduksi parameter BOD, COD, TSS dan Mikroorganisme yang dihasilkan dari aktivitas pelayanan medis dan aktivitas umum para penghuni RS Unhas berupa limbah cair infeksius dan limbah cair berupa *urine* dan *feces*. *Treatment Buffer* untuk IPAL Gedung EF tidak efektif jika akan digunakan dalam waktu yang lama, untuk itu diperlukan penambahan IPAL permanen dengan spesifikasi yang lebih mutakhir.

Kondisi peralatan pelayanan penunjang RS Unhas berdasarkan Pedoman Sarana dan Prasarana RS Kelas B tahun 2010 oleh Depkes saat ini sudah terpenuhi sebanyak 46%. Ketersediaan sarana dan prasarana di beberapa unit pelayanan belum 100% memenuhi standar seperti pada unit laboratorium, padahal hal ini diharapkan dapat menunjang proses pendidikan, penelitian maupun pemeliharaan kesehatan.

Berdasarkan Peraturan Menteri Kesehatan Republik Indonesia Nomor 340/Menkes/Per/III/2010 Tentang Klasifikasi Rumah Sakit, beberapa pelayanan yang **belum dimiliki** RS Unhas sebagai RS Kelas B :

1. Pelayanan Medis : Kedokteran Forensik
2. Peralatan Medis Rehabilitasi Medik
3. Peralatan Medis Kamar Jenazah
4. Bangunan/ Ruang Isolasi
5. Bangunan/ Ruang Rehabilitasi Medik
6. Bangunan/ Ruang Dinas & Asrama

2. Kondisi Eksternal RS Unhas

a. Peraturan Perundangan

RS Unhas dalam mengemban misinya sebagai RS PTN, maka RS Unhas berpedoman kepada peraturan perundangan yang berlaku terkait penyelenggaraan kegiatan tri dharma antarlain :

1. UUD 1945.

a. Pasal 28H

Setiap orang berhak hidup sejahtera lahir dan batin, bertempat tinggal, dan mendapatkan lingkungan hidup yang baik dan sehat serta berhak memperoleh pelayanan kesehatan.

b. Pasal 34

Negara bertanggung jawab atas penyediaan fasilitas pelayanan kesehatan dan fasilitas pelayanan umum yang layak.

2. Undang-Undang no 20 tahun 2013 tentang Pendidikan Kedokteran Pasal 6

Pembentukan Fakultas Kedokteran dan/atau Fakultas Kedokteran Gigi sebagaimana dimaksud pada ayat (1) paling sedikit harus memenuhi syarat dan ketentuan sebagai berikut:

- a. memiliki Dosen dan Tenaga Kependidikan sesuai dengan ketentuan Peraturan Perundang-undangan;
- b. memiliki gedung untuk penyelenggaraan pendidikan;
- c. memiliki laboratorium biomedis, laboratorium kedokteran klinis, laboratorium bioetika/humaniora kesehatan, serta laboratorium kedokteran komunitas dan kesehatan masyarakat; dan

- d. memiliki Rumah Sakit Pendidikan atau memiliki rumah sakit yang bekerja sama dengan Rumah Sakit Pendidikan dan Wahana Pendidikan Kedokteran.
3. Undang-Undang no 12 tahun 2012 tentang Pendidikan Tinggi
4. UU No 36 tahun 2009 tentang Kesehatan.
5. UU No 44 tahun 2009 tentang Rumah Sakit.
 - a. Pasal 1

Rumah sakit adalah institusi pelayanan kesehatan yang menyelenggarakan pelayanan kesehatan perorangan secara paripurna yang menyediakan pelayanan rawat inap, rawat jalan dan gawat darurat.
 - b. Pasal 22

Rumah sakit dapat ditetapkan menjadi Rumah Sakit Pendidikan setelah memenuhi persyaratan dan standar Rumah Sakit Pendidikan Rumah Sakit Pendidikan sebagaimana dimaksud pada ayat (1) ditetapkan oleh Menteri setelah berkoordinasi dengan Menteri yang membidangi urusan pendidikan.
 - c. Pasal 23

Rumah Sakit Pendidikan sebagaimana dimaksud dalam Pasal 22 merupakan rumah sakit yang menyelenggarakan pendidikan dan penelitian secara terpadu dalam bidang pendidikan profesi kedokteran, pendidikan kedokteran berkelanjutan, dan pendidikan tenaga kesehatan lainnya.
Dalam penyelenggaraan Rumah Sakit Pendidikan dapat dibentuk jejaring RS PT.
Ketentuan lebih lanjut mengenai Rumah Sakit Pendidikan diatur dengan Peraturan Pemerintah.
6. UU No 29 Tahun 2004 tentang Praktik Kedokteran.
7. Undang-Undang Republik Indonesia Nomor 24 Tahun 2011 Tentang Badan Penyelenggara Jaminan Sosial.

Undang-Undang ini didasarkan bahwa setiap orang berhak atas jaminan sosial untuk dapat memenuhi kebutuhan dasar hidup yang layak. Untuk memberikan jaminan sosial yang menyeluruh negara mengembangkan sistem jaminan sosial nasional bagi seluruh rakyat Indonesia. Sistem Jaminan Sosial Nasional pada dasarnya merupakan program negara

yang bertujuan memberi kepastian perlindungan dan kesejahteraan sosial bagi seluruh rakyat Indonesia. Melalui program ini, setiap penduduk diharapkan dapat memenuhi kebutuhan dasar hidup yang layak apabila terjadi hal-hal yang dapat mengakibatkan hilang atau berkurangnya pendapatan, karena menderita sakit, mengalami kecelakaan, kehilangan pekerjaan, memasuki usia lanjut, atau pensiun

8. Peraturan Pemerintah No 72 tahun 2012 tentang Sistem Kesehatan Nasional
9. PP Nomor 74 Tahun 2012 tentang Perubahan Atas Peraturan Pemerintah Nomor 23 Tahun 2005 tentang Pengelolaan Badan Layanan Umum.
10. Permenkes No 512/MENKES/PER/IV/2007 tentang Izin Praktik dan Pelaksanaan Praktik Kedokteran.
11. Permenkes No147/MENKES/PER/II/2010 tentang Perizinan Rumah Sakit.
12. Permenkes No 340/MENKES/PER/III/2010 tentang Klasifikasi Rumah Sakit.
13. Kepmenkes No 1069/Menkes/SK/XI/2008 tentang Pedoman Klasifikasi dan Standar Rumah Sakit Pendidikan.
14. Peraturan Bersama Menteri Pendidikan dan Kebudayaan dan Menteri Kesehatan nomor 2/V/PB/2013 nomor 38 tahun 2013 tentang Rumah Sakit Pendidikan.
15. Peraturan Konsil Kedokteran Indonesia nomor 10 tahun 2012 tentang Standar Pendidikan Profesi Dokter Indonesia.
16. Peraturan Konsil Kedokteran Indonesia nomor 11 tahun 2012 tentang Standar Kompetensi Dokter Indonesia.
17. Peraturan Menteri Kesehatan Republik Indonesia Nomor 69 Tahun 2013.

Dalam peraturan ini dijelaskan tentang standar tarif pelayanan kesehatan pada fasilitas kesehatan tingkat pertama dan fasilitas kesehatan tingkat lanjutan dalam Penyelenggaraan program jaminan kesehatan, di mana konsep pembiayaan menggunakan sistem paket Tarif Indonesian - Case Based Groups yang selanjutnya disebut Tarif INA-CBG's. Tarif INA-CBG's adalah besaran pembayaran klaim oleh BPJS Kesehatan kepada Fasilitas Kesehatan Tingkat Lanjutan atas paket layanan yang didasarkan kepada pengelompokan diagnosis penyakit. Sistem pembiayaan ini menuntut RS PTN untuk mampu menyusun perhitungan unit cost pendidikan dan unit cost pelayanan untuk menghindari *double counting* dan *double founding*. Selama proses

pendidikan yang berlangsung selama kegiatan pelayanan, tidak dibenarkan biaya yang timbul akibat proses pendidikan di RSPTN dibebankan kepada pasien. Untuk itu RS Unhas membentuk tim penyusunan tarif dengan mempertimbangkan hal-hal tersebut yang melibatkan unit-unit pendidikan, pelayanan medik, dan keuangan.

b. Perkembangan Ipteks Bidang Kesehatan

Faktor yang menentukan permintaan terhadap pelayanan kesehatan dibagi dua kelompok. Kelompok pertama bahwa permintaan tersebut dapat dipengaruhi oleh pelayanan kesehatan yang ada sekarang- peningkatan kualitas dipengaruhi oleh pola rujukan (kondisi akses), tarif yang rendah atau waktu tunggu. Faktor-faktor ini dikendalikan seluruhnya derajat sumber daya public yang dialokasikan terhadap pelayanan dan kapaistas local untuk mengelola sumber daya tersebut secara efektif. Hal ini juga dipengaruhi oleh kondisi pasar. Satu area mungkin harus membayar staf atau obat lebih disbanding yang lain untuk menyediakan pelayanan dengan mutu yang sama.

Kelompok kedua adalah investasi dan pengeluaran terhadap pelayanan yang mempengaruhi permintaan. Seperti pengetahuan tentang kebutuhan kesehatan dan informasi tentang penyedia pelayanan kesehatan yang secara traditional berkaitan dengan sector kesehatan seperti infrastruktur transportasi. Kelompok lain adalah keluarga dan norma. Keseluruhan ini menentukan akses dan pemanfaatan (Ensor and Cooper 2004).

c. Perkembangan Industri Pelayanan Kesehatan di Provinsi Sulawesi Selatan

Pembangunan kesehatan telah mengalami peningkatan ke arah yang lebih baik. Hal ini ditunjukkan oleh angka kematian bayi per seribu kelahiran hidup menurun dari 142 tahun 1971 menjadi 62 pada tahun 1990, dan usia harapan hidup penduduk meningkat dari 47,2 tahun pada tahun 1971 menjadi 61,8 tahun pada tahun 1990.

Peningkatan kesejahteraan itu didukung oleh peningkatan industri pelayanan kesehatan yang makin merata dan makin luas jangkauannya. Pada tahun 1990 telah ada 55 unit rumah sakit dengan kapasitas tempat tidur sebanyak 5.329 buah, dan pusat kesehatan masyarakat (puskesmas) serta puskesmas pembantu sebanyak 1.161 unit dengan jangkauan pelayanan mencakup luasan 64,3 kilometer persegi dengan jumlah penduduk yang dilayani sebanyak 6.172 orang per puskesmas termasuk puskesmas



pembantu. Jika dibandingkan dengan keadaan tahun 1972 jumlah puskesmas baru mencapai 172 unit dengan jangkauan pelayanan mencakup luasan 123 kilometer persegi dengan penduduk yang dilayani sebanyak 30.644 jiwa per puskesmas.

3. Asumsi Makro

Pemerintah dan Komisi Keuangan Dewan Perwakilan Rakyat menyepakati perubahan asumsi makro Anggaran Pendapatan dan Belanja Negara Perubahan 2014 tentang perubahan asumsi pertumbuhan ekonomi, inflasi, suku bunga, dan nilai tukar rupiah.

- a. Pemerintah menyepakati perubahan asumsi pertumbuhan ekonomi menjadi 5,0-6,0 persen.
- b. Asumsi inflasi yang sebelumnya 5,5 persen pun diubah menjadi 5,3-7,3 persen.
- c. Asumsi suku bunga 5,5 persen ditambah menjadi 5,5-6 persen.
- d. Adapun asumsi nilai tukar rupiah sebesar 10.500-11.700 diubah menjadi 11.000-11.700.

4. Asumsi Mikro

- a. Subsidi yang diterima dari pemerintah

Dalam menjalankan fungsinya, RS ini masih mengandalkan subsidi dari pemerintah baik itu biaya investasi gedung, alkes maupun biaya operasionalnya. Subsidi pemerintah yang lebih besar diharapkan mengingat rumah sakit ini adalah diharapkan menjadi rumah sakit pendidikan utama tidak hanya bagi Fakultas Kedokteran Unhas namun juga untuk mendidik tenaga professional di bidang ilmu- ilmu kesehatan. Subsidi pemerintah dibutuhkan untuk biaya investasi yang cukup besar untuk mendidik dan melatih SDM yang professional yang diharapkan nanti SDM ini yang akan menciptakan tenaga professional yang berstandard International sesuai Visi RS Unhas. Selain itu dibutuhkan investasi alat kesehatan yang *high technologi*. Alat kesehatan ini dibutuhkan sebagai laboratorium untuk memfasilitasi pendidikan dokter spesialis dan sub spesialis yang diselenggarakan oleh Fakultas Kedokteran Unhas.

- b. Tarif layanan

Tarif RS Unhas saat ini sudah diberlakukan berdasarkan SK Rektor Nomor 8622/UN4/KU.28/2014 tentang Penetapan Tarif Umum Pelayanan Kesehatan pada Rumah Sakit Universitas Hasanuddin. Penetapan tarif pelayanan kesehatan dengan menghitung unit Cost, dan membandingkan dengan



Competitor, dan *Characteristic of Products*. *Competitor* yaitu Tarif Pesaing (RS Lain), *characteristic of products* adalah kemampuan membayar masyarakat atau kemauan ,membayar masyarakat. Sedangkan untuk tarif pelayanan BPJS mengikuti Tarif Indonesian-Case Based Groups (Tarif INA-CBG's) sebagaimana yang ditetapkan dalam peraturan Menteri Kesehatan Republik Indonesia Nomor 69 Tahun 2013 tentang Standar Tarif Pelayanan Kesehatan Pada Fasilitas Kesehatan Tingkat Pertama Dan Fasilitas Kesehatan Tingkat Lanjutan dalam Penyelenggaraan Program Jaminan Kesehatan.

Tarif layanan umum ini setiap tahun terbuka untuk direvisi untuk disesuaikan dengan kemampuan dan kemauan membayar pasien serta laju pertumbuhan ekonomi.

c. Volume layanan

Sesuai dengan tujuan utama RS Unhas sebagai RS Pendidikan maka volume layanan yang dimaksud adalah layanan pendidikan, pelatihan dan penelitian serta layanan medik dan keperawatan serta layanan penunjang.

Sebagai RS Pendidikan yang merupakan wahana pendidikan, maka dibutuhkan penyediaan sarana dan prasarana yang tidak hanya dapat memfasilitasi pelaksanaan pendidikan untuk menciptakan dokter primer namun juga pendidikan subspesialis. Dibutuhkan kasus pasien yang banyak dan bervariasi, untuk penyelenggaraan pelayanan unggulan seperti kasus-kasus *ophthalmologi, traumatologi, onkologi, Fertility endocrine Reproductive serta neurointervention*. Sehingga setiap tahun dibutuhkan penambahan tempat tidur untuk mengakomodasi kasus-kasus pasien yang masuk ke RS ini.

Sejalan dengan itu respons masyarakat terhadap adanya RS Pendidikan juga semakin baik ditandai dengan meningkatnya volume kunjungan di RS Unhas. RS ini juga berusaha memperbaiki image bahwa RS Pendidikan bukan tempat bagi pasien untuk menjadi “kelinci percobaan”.Kondisi ini sangat mendukung pencapaian misi RS Unhas untuk menciptakan tenaga profesional Menciptakan tenaga profesional yang berstandar international dalam pendidikan, penelitian dan pemeliharaan kesehatan. Menciptakan lingkungan akademik yang optimal untuk mendukung pendidikan, penelitian dan pemeliharaan kesehatan. Mempelopori inovasi pemeliharaan kesehatan melalui penelitian yang unggul dan perbaikan mutu pelayanan berkesinambungan serta Memberikan pemeliharaan kesehatan secara terpadu dengan pendidikan, penelitian yang berstandard international tanpa melupakan fungsi sosial.

Meskipun demikian masih banyak pelayanan yang tidak dapat dijalankan secara optimal karena terkendala oleh SDM serta alat dan sarana yang masih sangat terbatas.

Kondisi ini akan menjadi dasar perencanaan dan penganggaran RS. Seperti yang telah dituangkan dalam Renstra RS Unhas, mengembangkan layanan unggulan. Mengembangkan layanan unggulan berarti menyediakan SDM, tidak hanya kompetensi namun *soft skill* juga dikembangkan, menyediakan sarana dan prasarana, alat kesehatan, dan meubiler lainnya. Juga mengembangkan pengelolaan manajemen RS menjadi lebih baik untuk mencapai visi dan misi RS Unhas.

d. Pengembangan produk layanan

Layanan di rumah sakit ini dikembangkan sesuai dengan *memorandum of understanding* dengan RS Wahidin Sudirohusodo, yaitu tahun pertama dikembangkan Eye center dan trauma center, tahun ke 2 Cancer center, selanjtnya dikembangkan Fertility Endocrine Reproductive (FER) dan Neurointervention center. Selain itu juga direncanakan akan dikembangkan Diagnostic center.

Pengembangan produk layanan ini disesuaikan dengan pengembangan ilmu pengetahuan di bidang kedokteran yang diharapkan dapat memfasilitasi pelaksanaan tridharma perguruan tinggi di Rumah Sakit Unhas.

B. Proses Penilaian Kinerja BLU

RS Unhas selama ini belum melakukan penilaian kinerja BLU oleh auditor eksternal karena RS Unhas bukan organisasi BLU. Namun untuk tetap memonitoring dan mengevaluasi kinerja, RS Unhas telah mengadopsi beberapa indikator penilaian kinerja yakni dari Standar Pelayanan Minimal berdasarkan pedoman yang dikeluarkan oleh Departemen Kesehatan, Buku Pedoman Rumah Sakit Pendidikan Tinggi, dan secara bertahap mengadopsi indikator keselamatan pasien dari pedoman JCI.

C. Pencapaian Kinerja dan Target Kinerja RSPTN

Informasi /tabel yang disajikan: (lihat lampiran 2)

- 2.3.1 Rincian Pendapatan Per Unit Kerja;
- 2.3.2 Rincian Belanja Per Unit Kerja;
- 2.3.3 Pengelolaan Dana Khusus bagi satker BLU Pengelola Dana Khusus;
- 2.3.4 Ikhtisar Target Pendapatan menurut Program dan Kegiatan TA 2013;
- 2.3.5 Ikhtisar Belanja/Pembiayaan menurut Program dan Kegiatan TA 2013;
- 2.3.6 Pendapatan dan Belanja Agregat;
- 2.3.7 Perhitungan Biaya Layanan Per Unit Kerja (Terlampir)
- 2.3.8 Prakiraan Maju Pendapatan dan Prakiraan Maju Belanja.

D. Informasi Lainnya yang Perlu Disampaikan

Joint Committee International (JCI)

Sesuai dengan Visi RS Unhas yang menuju standard International, Untuk itu RS Unhas sedang menerapkan standar mutu dari KARS dan *Joint Commission International (JCI)* dengan mengembangkan budaya patient safety. Dalam Renstra 2014 -2019, RS Unhas menargetkan pada tahun 2015 telah tersertifikasi oleh Komisi Akreditasi Rumah Sakit (KARS) dan pada tahun 2017 RS Unhas menargetkan terstandarisasi secara international oleh *Joint Commission International (JCI)*

Implementasi sistem manajemen mutu telah dimulai sejak awal RS Unhas didirikan melalui adopsi secara bertahap standar mutu yang ditetapkan oleh *Joint Commission International (JCI)* dan secara resmi RS Unhas mulai berproses menerapkan standar mutu JCI tanggal 28 Juni 2011 yang disusul dengan terbitnya SK Direktur Utama tentang Pengangkatan Tim JCI RS Unhas pada tanggal 11 Juli 2011. Sejauh ini RS Unhas telah menghadirkan konsultan dari RS yang telah memiliki pengalaman melaksanakan akreditasi JCI sebanyak 2 kali, untuk melakukan *mock Survey* Tim Bimbingan Persiapan Akreditasi (TBPA) pada tanggal 19 -20 November 2011 yang dilanjutkan dengan *mock survey* ke-2 pada tanggal 26-27 Mei 2012. Kedua

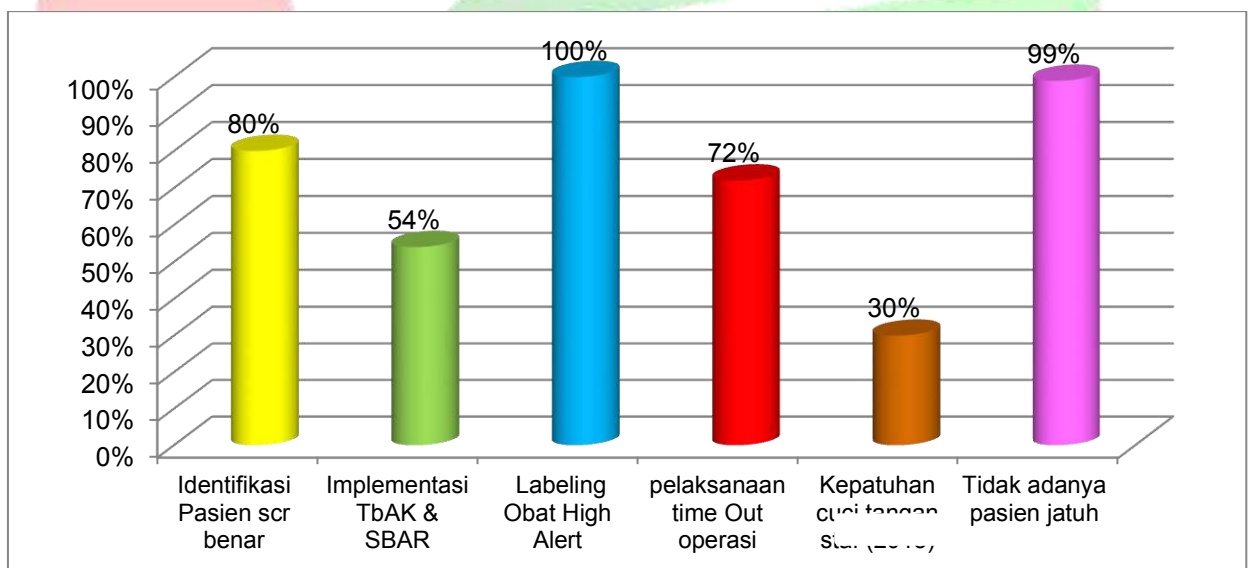


kegiatan tersebut bertujuan untuk melihat sejauh mana persiapan akreditasi yang telah dilakukan oleh RS Unhas termasuk penyusunan dokumen berupa kebijakan, SOP dan dokumen lainnya.

Sampai saat ini RS Unhas telah kebijakan lengkap yang mencakup 16 Chapter standar JCI untuk RS Pendidikan ditambah standar MDG's, SOP yang telah tersusun sebanyak 956 buah, sedangkan pedoman setiap unit kerja/instalasi sementara dalam proses final editing. Selain itu RS Unhas telah beberapa kali melakukan *tracer* untuk melihat seberapa jauh standarstandar yang terdapat dalam standar akreditasi JCI mampu diterapkan dalam pemberian pelayanan di RS Unhas. Saat ini sementara dilakukan self-asessment RS Unhas terhadap capaian setiap elemen penilaian dari 16 chapter standar JCI.

Proses akreditasi ini dirancang untuk menciptakan budaya keselamatan pasien dan budaya kualitas mutu pelayanan. Berdasarkan survey budaya keselamatan pasien di RS Unhas tahun 2013 didapatkan bahwa RS unhas termasuk dalam kategori **kuat** (71.57%) dan tingkat kematangan dalam budaya keselamatan RS Unhas berada pada posisi **proactive**, dimana RS Unhas selalu waspada akan risiko-risiko yang mungkin timbul.

Berikut implementasi 6 sasaran keselamatan pasien RS Unhas:



Gambar 3. Pencapaian Implementasi 6 Sasaran Keselamatan Pasein RS Unhas, 2014

Pencapaian kepatuhan terhadap 6 sasaran keselamatan pasien yang kurang dari 100% terkait dengan penyediaan pengadaan gelang identitas dan tanda risiko yang kurang konsisten, bukti komunikasi yang terintegrasi dengan penggunaan tanda TBak (Tulis, Baca dan konfirmasi Kembali)/SBAR (Situation, Background, Aseessment, Recommedation) dalam rekam medik yang kurang konsisten di instalasi tertentu,

pelaksanaan time out yang kurang konsisten, penyediaan fasilitas sabun/alkohol yang kurang konsisten dan kurangnya kepatuhan mencuci tangan setelah kontak dengan pasien serta edukasi pasien jatuh oleh petugas kesehatan kepada keluarga pasien yang berisiko jatuh masih kurang.

Kerja Sama

Hingga tahun 2013 RS Unhas telah menghasilkan kerja sama yakni:

ASURANSI

1. BPJS
2. 24 Medicare
3. PT.AJ.Mega Insurance
4. PT.AJSinarmas
5. PT.I'm Care-BlueDot
6. PT.Jasindo Healthcare
7. PT.Zakirah Healthcare
8. PT.Jamsostek
9. PMI
10. PT.Lippo Insurance
11. PT.Asuransi Tugu Mandiri

KORPORASI

1. PT.Kaltim Medika Utama
2. PT.Vale
3. RS.Palu
4. PT.AKR Corporindo Bungoro
5. PT.Posindo
6. PT.Semen Tonasa
7. PT.Yakes Mandiri
8. PT.Aneka Tambang
9. PT.Maruki Indonesia
10. PT.Roda mas (Hemodialisa)
11. PT.Multazam (limbah)

ASURANSI

1. PT.Asuransi Jiwa Adira Dinamika (proses)
2. PT.AXA Services Indonesiam (proses)
3. PT.Gesa Assistance (proses)
4. PT Inhealth

KORPORASI

1. PT.Yakes Telkom
2. PT.PLN Persero
3. PT.Garuda Indonesia

E. Ambang Batas Belanja BLU

Pagu RBA RS Unhas mengacu pada RBA Unhas tahun anggaran 2013 ditetapkan nilai ambang batas belanja BLU sebesar 10%. Prosentase ini didasarkan atas pertimbangan, sebagaimana yang dialami oleh institusi pendidikan tinggi pada umumnya, pendapatan yang diperoleh dari hasil kerjasama sulit untuk diprediksi. Disamping itu, kegiatan kerjasama tersebut sebagian besar harus dilaksanakan pada tahun berjalan, sehingga Unhas akan memiliki fleksibilitas untuk mengantisipasi belanja kegiatan kerjasama.

F. Prakiraan Maju Pendapatan dan Prakiraan Maju Belanja

(lihat lampiran 2 Tabel II E.1 dan Tabel II E.2)



BAB III

PENUTUP

RS Unhas telah menjalankan fungsi sebagai RS Pendidikan secara bertahap sejak tahun 2010. Pada Direktorat Pendidikan, Pelatihan dan Penelitian telah memfasilitasi 639 mahasiswa Unhas untuk melaksanakan proses pendidikan, pelatihan dan penelitian baik dari Fakultas Kedokteran maupun Fakultas Kesehatan lainnya seperti Bagian MRS FKM, Fakultas Farmasi, Keperawatan, dll. dari berbagai tingkatan pendidikan yaitu sarjana, magister, profesi dan pendidikan spesialis maupun subspecialis.

Proses pembelajaran yang difasilitasi setiap waktu di tingkatkan mutunya dan jumlah peserta didik setiap saat semakin bertambah dengan bertambahnya jumlah kasus yang tersedia. RS juga telah melengkapi sarana pendidikan secara bertahap untuk menciptakan wahana pendidikan sesuai dengan tujuan awal didirikannya RS.

Berkaitan dengan manajemen, RS Unhas juga telah menjadi wahana pembelajaran bagi mahasiswa Bagian MRS dan Program Magister Administrasi RS FKM Unhas. Pembukaan RS ini memfasilitasi mahasiswa tersebut untuk belajar bagaimana mempersiapkan berdirinya rumah sakit baru, perangkat manajemen apa saja yang perlu disiapkan. Mahasiswa telah belajar menyusun rencana strategi, hospital by law, membuat alur proses serta melakukan proses akreditasi sesuai dengan KARS yang mengadopsi prinsip yang diterapkan oleh *Joint commission International (JCI)* yang berfokus pada pasien. Seluruh proses manajemen di rumah sakit Unhas merupakan laboratorium bagi seluruh mahasiswa FKM khususnya manajemen rumah sakit, Kesehatan dan Keselamatan Kerja, Kesehatan Lingkungan serta PKMRS.

Secara ringkas digambarkan kesimpulan tiap bab sebagai berikut:

- BAB I dijelaskan gambaran umum, profil perkembangan, serta visi, misi, dan budaya serta susunan pejabat pengelola RS Unhas. RS Unhas di masa yang akan datang menargetkan terakreditasi baik nasional maupun internasional dan ditetapkan sebagai RS Kelas A Pendidikan.
- BAB II memaparkan tentang gambaran kondisi RS Unhas saat ini serta capaian kegiatan ditahun sebelumnya.

Meskipun progres yang cukup bagus bagi pengembangan RS Unhas, masih terdapat beberapa kelemahan dan kekurangan dalam pengelolaan RS Unhas, khususnya dalam hal proses pelayanan dan ketersediaan sumber daya. Masih terdapat beberapa tenaga yang belum memenuhi standar kompetensi, baik itu medis maupun non medis, khususnya bagi tenaga manajemen rumah sakit untuk mencapai dan menjalankan visi dan misi RS.



Selain sumber daya manusia, dalam melaksanakan proses pendidikan dan penelitian, RS Unhas mengembangkan *Simulation Centre* secara bertahap. Diharapkan pada tahun 2016 RS Unhas sudah dapat memberikan fasilitas yang baik sesuai dengan standar Rumah Sakit Pendidikan. Sehingga masih sangat dibutuhkan anggaran yang cukup besar untuk menjamin tercapainya misi RS Pendidikan.

