RISING ANEW

HEALTH AT THE HEART OF HEALING

A photo book on the rehabilitation and rebuilding of Yolanda-ravaged hospitals

RISING ANEW

HEALTH AT THE HEART OF HEALING

A photo book on the rehabilitation and rebuilding of Yolanda-ravaged hospitals

Acknowledgement

This book was developed by the Department of Health with support from the World Health Organization Office of the Representative in the Philippines. The contributions of the following institutions, offices and resource persons are gratefully acknowledged:

Dr. Teodoro J. Herbosa
Undersecretary of Health
National Capital Region and Metro Manila Hospitals Operations Cluster
Dr. Paulyn Jean B. Rosell-Ubial
Assistant Secretary of Health
Visayas Operations Cluster
Atty. Nicolas B. Lutero III
Assistant Secretary of Health
Support to Service Delivery Technical Cluster III and Director IV
Health Facilities and Services Regulatory Bureau
Dr. Jose R. Llacuna, Jr.
Director IV
Regional Office for Eastern Visayas
Arch. Maria Rebecca M. Peñafiel
Director III
Health Facility Development Bureau
Dr. Lilibeth C. David
Cluster Head Designate
Health Policy Finance and Research Development Cluster and Director IV
Health Policy Development and Planning Bureau
Dr. Roland L. Cortez
Assistant Secretary of Health
Support to Service Delivery Technical Cluster I
Dr. Ivanhoe C. Escartin
Officer-In-Charge, Director IV
Health Promotion and Communication Service
Ms. Maylene M. Beltran
Director IV
Bureau of International Health Cooperation
Dr. Arnel Z. Rivera
Officer-In-Charge, Director III
Health Emergency Management Bureau

This book was produced with the technical assistance of **Dr. Lester S. A. Geroy**, **Dr. James Salisi**, **Dr. Miguel Antonio Salazar** and **Atty. Abdel Jamal Disangcopan** of the World Health Organization Philippines Country Office.

Photos contributed by the Office of the Secretary of Health; documentary photos taken by **Mr. Roderick Lirios**; book layout design and image post-processing by **Mr. Timothy Laurie Y. Ang**.

Foreword

The arrival of Super Typhoon Yolanda (Haiyan) in the Visayas region of the Philippines on November 8, 2013 left an unprecedented trail of devastation. Thousands of lives were lost and millions of people were left without shelter, livelihoods, schools and health facilities.

The Philippine Government and our partners at the Department of Health (DOH) have worked courageously over the past months to restore health services to those affected. World Health Organization (WHO) Philippines has been proud to work alongside the DOH as co-lead for the health cluster.

Now, the WHO is working alongside the Philippine government to support re-establishing the hospitals, rural health facilities and barangay health stations that were either damaged or totally destroyed and to rebuild public health care facilities at a higher level of proficiency, capacity and financial coverage than ever before.

The book is the second of a two-book series to support the rapid rehabilitation of health systems in the affected areas. The first book featured some of the rural health units in Region 8 that were badly damaged. This book, features some of the hospitals in Region 8 that were badly damaged and reinforces the need to build back better to provide essential health services to the millions of Filipinos who live in the affected areas. It provides an illustrative snapshot of how hospitals and training institutions that were damaged are on the road to recovery through a mix of private, community, donor and government efforts. The book is complemented by a dynamic website that provides a comprehensive real time analysis of all of the hospitals that require rehabilitation.

We hope that by providing this information on where rehabilitation/reconstruction is ongoing and where it is planned, the assistance required to rebuild health facilities will be provided in a timely and targeted way. The book and website contain detailed information about government and donor guidelines, guidance on building back better and safer hospitals and how and where support can bed.

The continued growth of the Philippine economy underpins the government's desire to lift its citizens out of poverty. Rebuilding the health system is an essential component of rebuilding lives and livelihoods. Given the scale of this disaster, it's going to take a healthy population and a robust health infrastructure to fuel the region's recovery. We encourage you to continue to place health at the heart of healing by supporting these efforts to ensure adequate and high-quality health care for these afflicted communities.

Thank you for your ongoing and future support.

Message from the DOH Secretary

The story of Eastern Visayas Regional Medical Center – the only hospital that remained functional during Typhoon Yolanda – will always inspire us. When all power lines and communication had shut down, the health sector still managed to provide the essential services that the people needed.

Typhoon Yolanda destroyed hospitals, community health centers and barangay health stations. Such destruction to the health sector causes concern among our people, knowing that the most essential facilities where they can go to for the most essential of human care are gone.

The Department has supported the building, strengthening and improvement of hospitals nationwide through the Health Facility Enhancement Program (HFEP). This book is timely as the country is at the peak of investing in hospitals.

These efforts are aimed towards making hospitals the last building standing in disasters. Hospitals should be sturdy and functional. Hospitals can be reserve and focal points for power, communication, security, logistics and even evacuation in extreme emergencies.

Building back better requires hospitals that are prepared and are responsive to the needs of their target populations. The health care continuum must be well integrated from primary care to the tertiary level. More than hospitals, we need to ensure that human resources are sufficient and capable, medicines are sufficient and equipment and supplies are available. The health sector must be built within a system where people are protected from financial risk. This requires integrated information systems that link patients in all levels of care. Such initiatives are prerequisites as the country aims to achieve Universal Health Care (UHC) by 2016.

Safe hospitals principles should be integrated in the rebuilding of health facilities. Furthermore, hospitals should have sufficient equipment, supplies and medicines. Our health workforce are essential to services that our hospitals provide and they should have good training and be well taken cared of in terms of remuneration and benefits. We have ongoing training programs designed to strengthen the capacity of our workforce in responding to emergency situations. Our Department also provides capacity building through training and institutionalizing that hospitals have emergency preparedness, response and recovery plans.

There is still a lot of work to be done to build back a better health sector. We hope that these photo books will guide decision makers, local governments and partners when they plan, design and reconstruct facilities in local communities.

We thank WHO's effort in advocating and coordinating efforts in reconstruction of health facilities through the photo book on hospitals!

Enrique T. Ona, M.D.
Secretary of the Department of Health

Message from the WHO Representative to the Philippines

In the aftermath of Typhoon Yolanda we have seen a united people acting to build their futures, fueled by economic growth and a common spirit of togetherness. We see local governments doing their best efforts to link with different partners and take the opportunity to build back better. This is the Filipino model, a response and recovery framework based on strong social ties, creativity, community resilience, cooperation and local initiatives. Despite the challenges, we see homes that are built, government centers reconstructed and health facilities rehabilitated.

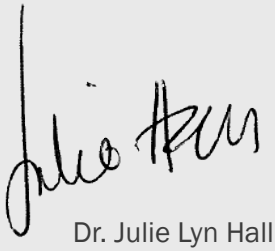
Hospitals are not only centers for care of the sick; they also represent an investment in social capital that reflects a community's security and progress. Hospitals are huge social investments and the process of building hospitals requires high standards in design, infrastructure and technology. Hospitals are vital components of the health care continuum from communities through primary health care facilities to tertiary medical centers that offer advanced care.

Community health centers or barangay health stations are the door to health care. They should be strongly linked to rural health units and hospitals through an integrated referral system. When patients enter health care, they should be able to move within it with ease, benefiting from the services it offers at all levels. And when advanced treatment is completed, the patient is sent back to the rural health units

and barangay health stations where they are provided ongoing care. The Philippines must build on its existing strength of the presence of health centers in villages and municipalities.

In post-Typhoon Yolanda, the WHO has supported the Philippines in coordination with international health partners, and has provided logistics, resource mobilization, health equipment, medicines and supplies, disease surveillance, risk communication, health promotion, mental health and other essential health services. WHO continues to support the government through recovery and rehabilitation planning, policy development, research, monitoring of reconstruction, capacity building in service delivery, health system strengthening, innovation and reconstruction.

This photo book completes the catalogue that WHO and the DOH are producing to feature the importance of safe health facilities, health sector damage and losses, and guidelines for safe reconstruction. While the first photo book focused on community health centers and rural health units, this book provides an illustrative snapshot of how hospitals and training institutions that were damaged are on the road to recovery through a mix of international and national government and non-government efforts. The book is complemented by a dynamic website found at http://buildingbackbetterhealth.doh.gov.ph/ that provides a comprehensive real time analysis of all of the hospitals that require rehabilitation.



Dr. Julie Lyn Hall
WHO Representative to the Philippines

Table of Contents

Introduction

Typhoon Yolanda devastated several regions in the Philippines when it made landfall on 8 November 2013. It was the strongest ever-recorded typhoon to hit the country in recent history. The damages to life and property were staggering. The estimated damage to the public health sector alone cost PHP 1.17 billion (USD 26 million), PHP 863.7 million (USD 19.2 million) of which were in infrastructure and PHP 307 million (USD 6.8 million) in equipment losses. The damage to the private health sector cost an estimated PHP 1.96 billion (National Economic Development Agency, NEDA, 2013).

The Department of Health (DOH), along with other national government agencies, is working tirelessly to address the needs of affected populations. It has been working with local and international partners and local government units to ensure the functionality of health facilities and to make health services accessible and available to the people.

With the collective efforts of the government, international partners, business groups and private sector, the communities that have suffered and survived the typhoon are getting back on their feet. Temporary shelters have been set up for those who have lost their homes. Help has been extended to those who needed relief and services for health and social welfare have been provided to everyone. However, much more remains to be done in order to recover fully from the damage wrought by Typhoon Yolanda and emerge more resilient than ever before.

With this in mind, the Philippine government is steadfast in its resolve to fund and implement programs to ensure that recovery is complete across all affected sectors in Regions 4, 5, 6, 7 and 8. In line with this, several donors here and abroad and both local and international partner organizations have significantly contributed to the reconstruction and recovery efforts of the government. The government intends to build back better, in order to ensure that the catastrophic losses are not repeated.

The DOH is leading the way in building back better the health sector. In parallel with providing vital health services, the Department has been working tirelessly to ensure that programs and systems are in place to rehabilitate and build back the damaged health facilities, that disaster preparedness and resilience are part of all health facilities' standard operating procedures and

that the lessons learned from this disaster are documented and applied in the Department's work. The DOH is not alone in carrying out this work. With the help of local and international partners, many communities have been helped and local government units are benefiting from their assistance.

A prime example of this cooperation is the DOH's partnership with the World Health Organization (WHO) right from the beginning of the response to Typhoon Yolanda and throughout the recovery phase. The two organizations have worked hand-in-hand to coordinate the efforts of all concerned agencies, non-government organizations and foreign governments to help the affected areas. They have also worked to gather support from all sectors of society in order to mobilize resources and direct them to recovery and building back better. This cooperation is supported in part by the publication of communication materials, to present in pictures what words could not.

This photo book is the second book on health facilities that were damaged by Typhoon Yolanda. The first book highlighted 31 badly damaged Community Health Centers (CHCs), also known as Rural Health Units (RHUs), in the provinces of Leyte, Samar and Eastern Samar, and copies of it have been widely distributed by the DOH and WHO.

This hospital photo book highlights the vital role of hospitals in coping with disasters, tells the stories of health workers who survived the typhoon and helped out in the aftermath and presents the tools for building back better.

The book is divided into three chapters. Chapter 1 provides an overview of the role of hospitals during disasters, describes the damage wrought by Typhoon Yolanda to the health facilities and presents the concepts of safer hospitals and building back better. Chapter 2 highlights the experience and stories of survival and rising anew of the health workers, nine government hospitals, four private hospitals and three training institutions in Region 8. It also describes the health sector's plans for recovery and reconstruction. Lastly, Chapter 3 presents a summary of useful tools on how to build back better, such as national standards on health facilities, safer hospitals, health care waste management and mental health. It is hoped that this book will be useful in remembering the lessons of Typhoon Yolanda and in moving forward.

1 HOSPITALS, DISASTERS AND BUILDING BACK BETTER

In confronting the escalating effects of climate change, the resources of countries like the Philippines will be strained to the limit. Let me assure you: we know that we cannot allow ourselves to be trapped in a vicious cycle of destruction and reconstruction. We know that it is more efficient to prioritize resilience now, rather than to keep rebuilding. This is why we are going to BUILD BACK BETTER.

Benigno S. Aquino III
President of the Philippines

From a speech given at the briefing of Philippine development partners on reconstruction assistance post Yolanda

Typhoon Yolanda

Typhoon Yolanda (also known as Typhoon Haiyan) made landfall on 8 November 2013 in six areas: Guiuan, Eastern Samar; Tolosa, Leyte; Daanbantayan, Cebu; Bantayan Island, Cebu; Concepcion, Iloilo; and Busuanga, Palawan. It is the strongest ever-recorded typhoon in recent history to hit the Philippines, with maximum sustained winds of 235 km/hr and severe gusts of 275 km/hr.

In the typhoon's wake, 3,424,593 families were affected in Regions 4-A, 4-B, 5, 6, 7, 8, 10, 11 and CARAGA, displacing 890,895 families in the process. More than a million houses were destroyed. In total, it caused PHP 89 billion (USD 2 billion) worth of damages to infrastructure, productivity, social and cross-sectoral aspects of life in the affected regions (National Disaster Risk Reduction and Management Council, 2014). As of 7 November 2014, on the eve of one year after Yolanda, the government has listed 6,300 dead, 28,689 injured and 1,785 people missing.

The total damage to the public health sector is estimated at PHP 1.17 billion (USD 26 million), of which PHP 863.7 million (USD 19.2 million) in infrastructure and PHP 307 million (USD 6.8 million) in equipment losses. Damage to the private health sector is estimated at PHP 1.96 billion (NEDA, 2013).

Health facilities across regions 4B, 6, 7 and 8 were damaged by the typhoon. The following table summarizes the number of damaged health facilities.

Table 1 Number of health facilities damaged by Typhoon Yolanda (Department of Health Health Facility Development Bureau, 2014)

Region/ Province	No. of Hospitals Affected	No. of Rural Health Units/ Community Health Centers Affected	No. of Barangay Health Stations/Centers Affected
Region 8	21	53	113
Leyte	15	41	63
Eastern Samar	5	10	36
Western Samar	1	2	14

Region 7	2	15	89
Cebu	2	15	89
Region 6	16	37	225
Aklan	3	10	4
Antique	1	5	8
Capiz	5	17	117
Iloilo	4	5	96
Negros Occidental	3	-	-
Region 4B	2		
Palawan	2	-	-
Total	42	95	427

A total of 42 government hospitals sustained structural damages due to the strong winds and/or the storm surge. The majority of these hospitals as well as private hospitals had to stop admitting patients into their ward and had to scale down their operations to first aid treatment and emergency deliveries if not totally cease operations. The following table lists the hospitals that were damaged by Typhoon Yolanda.

Table 2 List of Damaged Hospitals (Department of Health Health Facility Development Bureau, 2014)

Region 8	
Leyte	
Eastern Visayas Regional Medical Center	Isabel Community Hospital
Leyte Provincial Hospital	Ormoc District Hospital
Schistosomiasis Control and Research Hospital	Palompon General Hospital (Dr. Manuel B. Veloso Memorial Hospital)
Carigara District Hospital	Abuyog District Hospital
Villaba Community Hospital	Western Leyte Provincial Hospital (Dr. Jose Silao Memorial Hospital)
Northwestern Leyte District Hospital	Kananga Community Hospital

Tabango Community Hospital	
Eastern Samar	
Homonhon Island Community Hospital	Balangiga District Hospital (Albino M. Duran Memorial Hospital)
Quinapondan Community Hospital	Felipe Abrigo Memorial Hospital, Guiuan
Eastern Samar Provincial Hospital, Borongan	
Western Samar	
Basey District Hospital	
Region 7	
Cebu	
Daanbantayan District Hospital	Bantayan District Hospital
Region 6	
Aklan	
Dr. Rafael S. Tumbokon Memorial District Hospital	Dr. Ramon Legaspi Memorial Hospital
Altavas District Hospital	
Antique	
Pedro L. Gindap Municipal Hospital	
Capiz	
Roxas Memorial Provincial Hospital (old site and Outpatient Department at new site)	Gerry Roxas Memorial District Hospital
Mabusao District Hospital	Dumarao Medicare Hospital
Iloilo	
Jesus M. Colmenares Memorial District Hospital	Sara District Hospital
Barotca Viejo Municipal Hospital	Western Visayas Sanitarium
Negros Occidental	
Teresita Jalandoni Memorial Provincial Hospital	Vicente Gustillo Memorial Hospital
Cadiz District Hospital	
Region 4B	
Palawan	
Culion Sanitarium and General Hospital	Coron District Hospital

Typhoon Yolanda stretched the capacity of health facilities to the limit. The staff who remained in the hospital during the typhoon's landfall had to stay on for days to tend to the medical needs of the admitted patients and to help those who came in when the wind, rain and storm surge subsided. The hospital staff who were at home when the typhoon hit had to help themselves first before they could report back to work. The majority of the hospitals in the affected regions continued to treat injured patients days after the typhoon but many had to stop operations because of the damages that they sustained. In Region 8 the Eastern Visayas Regional Medical Center emerged as the last hospital standing, despite having been inundated and damaged by the typhoon itself.

The hospitals became a refuge for the wounded and served as staging points for larger and wider relief operations to affected areas. Many people were helped by the hospitals but many more could have been helped.

The experience during Typhoon Yolanda highlights the important role of hospitals and brings to fore the importance of making sure that our health facilities can withstand disasters and continue to operate during and after a disaster to bring much needed relief to the victims.

Hospitals in the Philippine Health System

In order to better understand the impact of the typhoon on the health system, it helps to look at the role of hospitals in the Philippines. The DOH defines a hospital as "a place devoted primarily to the maintenance and operation of health facilities for the diagnosis, treatment and care of individuals suffering from illness, disease, injury or deformity or in need of obstetrical or other surgical, medical and nursing care. It shall also be construed as any institution, building or place where there are installed beds, cribs or bassinets for twenty-four hour use or longer by patients in the treatment of diseases."

A hospital performs a vital function in the community where it is located. In normal times, its role is to alleviate suffering and to bring back to health those who are admitted to it. This role is magnified in times of great need, such as what happened when Typhoon Yolanda struck.

The DOH lists 1,963 hospitals in the Philippines and 60 percent of these are owned by the private sector (Department of Health, 2014). The majority of hospitals are concentrated in urban areas and private hospitals outnumber government ones. In contrast, in rural areas government hospitals outnumber private ones, as in the case of Region 8 where 59 out of the 81 hospitals are owned by the government. This distribution pattern highlights the importance of government-owned hospitals in rural areas – serving as critical health care service delivery facilities for poorer populations.

In general, health facilities in the Philippines are classified according to a system devised by the DOH that considers: 1) general or special type; 2) service capabilities; 3) size or bed capacity; and whether it can serve as a training institution or not as summarized in Table 3. According to the DOH Administrative Order No. 2012-0012 on Rules and Regulations Governing the New Classification of Hospitals and Other Health Facilities in the Philippines, hospitals are also classified according to ownership, scope of services and functional capacity as shown in Table 4.

Table 3 New Classification of Hospitals and Other Health Facilities

Hospitals	Other Health Facilities
General	A. Primary Care Facility
Level 1	B. Custodial Care Facility
Level 2	C. Diagnostic/ Therapeutic Facility
Level 3 (Teaching/ Training)	
Specialty	D. Specialized outpatient Facility

Table 4 New Classification of General Hospitals

Hospitals	Level 1	Level 2	Level 3
Clinical Services for inpatients	Consulting Specialists in: Medicine, Paediatrics, OB-GYNE, Surgery	Level 1 plus all:	Level 2 plus all:
		Departmentalized Clinical Services	Teaching/training with accredited residency training program in the 4 major clinical services
	Emergency and Outpatient Services	Respiratory Unit	Physical Medicine and Rehabilitation Unit
	Isolation Facilities	General ICU	
	Surgical/Maternity Facilities	High Risk Pregnancy Unit	Ambulatory Surgical Clinic
	Dental Clinic	Neonatal Intensive Care Unit (NICU)	Dialysis Clinic
Ancillary Services	Secondary Clinical Laboratory	Tertiary Clinical Laboratory	Tertiary Laboratory with Histopathology
	Blood Station	Blood Station	Blood Bank
	1st Level X-ray	2nd Level X-ray with mobile unit	3rd Level X-ray
	Pharmacy		

The government has established a network of hospitals from level 1 to level 3 all over the Philippines. These hospitals mainly cater to the poor and those in remote areas that are not served by private hospitals. The management and operation of municipal, district and provincial hospitals has been devolved to local government units, while the regional and specialty hospitals remain under the DOH.

One of the strategic thrusts of Universal Health Care or *Kalusugan Pangkalahatan* is to aim for improved access to quality hospitals and health care facilities. In line with this, the DOH strengthened the implementation of the Health Facilities Enhancement Program (HFEP) established under Department Order No. 2008 - 0162 entitled "*Guidelines and Procedures for the Implementation of the Government Hospital Upgrading Project under the CY2008 Health Facilities Enhancement Program Funds of the DOH*." HFEP aims to improve existing health facilities, many of which are decades old and in need of repair, and to augment the capacity of local health systems to increase access of the poor to quality health care. The main goal of the program is to improve the delivery of basic, essential and specialized health services. Through HFEP, primary health care facilities will be revitalized and hospitals of different levels will be rationalized and decongested. More than PHP 9 billion has been allocated for the implementation of this program in 2014 (Department of Health, 2014).

The importance of good health facilities in ordinary times cannot be overemphasized. They become even more vital in times of disasters. As extreme weather conditions become the norm, the DOH recognizes that health facilities should be able to withstand disasters and remain functional.

Reducing Risk from Extreme Weather Events

Extreme weather events like Typhoon Yolanda are becoming the norm. The Philippines ranks second in the 2014 Climate Risk Index (Kreft & Eckstein, 2013) for having suffered massive losses due to extreme weather events in 2012. The country also ranked seventh for weather-related losses from past events during 1993-2011. This ranking demonstrates how vulnerable the country has been and continues to be. In fact, from 2007 to 2010 the Philippines, on average, was hit by 17 typhoons per year. The damage to rice farming alone amounted to close to PHP 8 billion annually (Israel, 2012).

The government has been taking measures to mitigate the risks, starting with policies and programs to incorporate disaster preparedness and resiliency in schools, health facilities, government offices and private establishments. The Philippine Disaster Risk Reduction and Management Act of 2010 sets the national policy for strengthening the Philippine disaster risk reduction and management system, provides the national disaster risk reduction and management framework and institutionalizes the national disaster risk reduction and management plan.

The law espouses a comprehensive, all-hazards, multi-sectoral, inter-agency and community-based approach to disaster risk reduction and management. The National Disaster Risk Reduction and Management Council acts as the lead agency in policy-making, coordination, integration, supervision, monitoring and evaluation of disaster risk reduction and management plans in the country. All levels of government, from national to regional to local, are tasked to prepare and implement comprehensive disaster risk reduction and preparedness plans.

From 2010 to now, the Philippines has witnessed devastating typhoons that are increasing in strength. Typhoon Yolanda is by far the strongest typhoon to make landfall so far. Although several steps have been taken by communities to prepare for disasters, the experience with Typhoon Yolanda reinforces the need to rethink old measures, such as the standards for building design, and the importance of protecting vulnerable populations, in order to make vital facilities such as hospitals resilient to weather extremes even before any disaster hits.

Hospitals Safe from Disasters – From Campaign to Action

"Hospitals Safe from Disasters" is a campaign which aims to raise awareness among stakeholders in order to protect the lives of patients and health workers by ensuring the structural resilience of health facilities; making sure health facilities and health services are able to function in the aftermath of emergencies and disasters; and improving the emergency management capacity of health workers and institutions.

From 2009 to 2011 the Philippines implemented the WHO Western Pacific Regional Office Project on Safe Hospitals. The DOH developed tools to assess hospitals in terms of disaster preparedness and resilience and became a model in the region for the program. The Department assessed major hospitals across the country and provide recommendations.

Learning from past disasters and pursuing the campaign more fully, the DOH in 2013 introduced an Administrative Order (AO 2013-0014: Policies and Guidelines on Hospitals Safe from Disasters) that sets out policies and guidelines on making hospitals safe from disasters. The goal of this order is to reduce disaster risks, ensure protection and the continuous operation of hospitals and other health facilities, and save lives during emergencies and disasters. The order aims to ensure that hospitals and health facilities will continue to function by adapting policies and standards on the safe construction and maintenance of health facilities, integrating disaster risk reduction in planning and development and providing general guidelines on the implementation of "Hospitals Safe from Disasters".

It also aims to ensure that hospitals and health facilities develop innovative and effective strategies necessary to keep hospitals safe from disasters, and define roles and responsibilities of all offices in the implementation (Department of Health, 2013).

The Administrative Order defines hospitals that are safe from disasters as hospitals and health facilities whose structural, non-structural and functional components remain accessible and operational at maximum capacity immediately following a disaster. A year into the implementation of the order, the DOH

finds that it is becoming more relevant in light of the impact of Typhoon Yolanda on the health system and the possibility of more extreme weather events in the future. In the recovery and reconstruction phase, the DOH intends to build back better the health facilities that were damaged by Yolanda and to take measures to ensure their functionality in the aftermath of any future disaster.

2 SURVIVING TYPHOON YOLANDA AND RISING ANEW

This chapter is about the hospitals that survived Typhoon Yolanda. It tells the stories of the health workers and hospital staff who continued to serve the survivors of the typhoon, despite the damages that the hospitals sustained and despite the difficulties that they themselves faced as victims and survivors.

Nine government hospitals, four private hospitals and three training institutions are presented. Each hospital profile provides basic information on location, service capacity, role in the community, damages that it sustained during the typhoon and the status of recovery. The focus is on Region 8, where the effects of the typhoon are most dramatic and where the impact will reverberate in years to come. The hospitals covered in this chapter are listed in the following tables.

Table 5 List of Government Hospitals

No.	Province	Municipality	Hospital Name
1	Leyte	Tacloban City	Eastern Visayas Regional Medical Center
2	Leyte	Tacloban City	Tacloban City Hospital
3	Leyte	Palo	Leyte Provincial Hospital
4	Leyte	Ormoc	Ormoc District Hospital
5	Leyte	Palompon	Palompon General Hospital (Dr. Manuel B. Veloso Memorial Hospital)
6	Leyte	Abuyog	Abuyog District Hospital
7	Eastern Samar	Balangiga	Balangiga District Hospital (Albino M. Duran Memorial Hospital)
8	Eastern Samar	Guiuan	Felipe Abrigo Memorial Hospital, Guiuan
9	Western Samar	Basey	Basey District Hospital

Table 6 List of Private Hospitals

No.	Province	Municipality	Hospital
1	Eastern Samar	Guiuan	Immaculate Conception Clinic and Hospital
2	Leyte	Tacloban City	Divine Word Hospital
3	Leyte	Tacloban City	Bethany Hospital
4	Leyte	Tacloban City	Mother of Mercy Hospital

Table 7 List of Training Institutions

No.	Province	Municipality	Name
1	Leyte	Palo	UP Manila School of Health Sciences
2	Leyte	Tacloban	Remedios Trinidad Romualdez Medical Foundation
3	Leyte	Palo	Regional Health Training Center

GOVERNMENT HOSPITALS

Eastern Visayas Regional Medical Center
Tacloban City Hospital
Leyte Provincial Hospital
Ormoc District Hospital
Dr. Manuel B. Veloso Memorial Hospital (Palompon General Hospital)
Abuyog District Hospital
Balangiga District Hospital (Albino M. Duran Memorial Hospital)
Felipe Abrigo Memorial Hospital, Guiuan
Basey District Hospital

EASTERN VISAYAS REGIONAL MEDICAL CENTER

Real Street, Tacloban City, Leyte
11°15'8" N 125°0'19" E

Health facility name: Eastern Visayas Regional Medical Center (EVRMC)
Health facility short code: 5139
Level: 3 (Teaching and training hospital)
Bed capacity: 275
Ownership: Department of Health
Health workforce:

- Doctors (106)
- Nurses (154)
- Midwives (1)
- Dentists (0)
- Auxiliary staff (128)

Estimated population served: 4,101,322
Catchment areas: Region 8
Average no. of patients (per day): 450
Services:

Emergency medical services, general surgery, internal medicine, pediatrics, obstetrics and gynecology, family and community medicine, orthopedics, radiology, ophthalmology, ears, nose and throat, psychiatry, rehabilitation, dental medicine and blood bank.

Specialty clinics include diabetes, asthma, Expanded Program on Immunization under five, hypertension and cardiovascular, diagnostic services (laboratory, electrocardiogram, endoscopy, laparoscopy, ultrasound), employees' clinic, pain clinic and other specialty clinics and services, as well as support services areas.

PhilHealth accredited: Yes
Estimated cost of damage

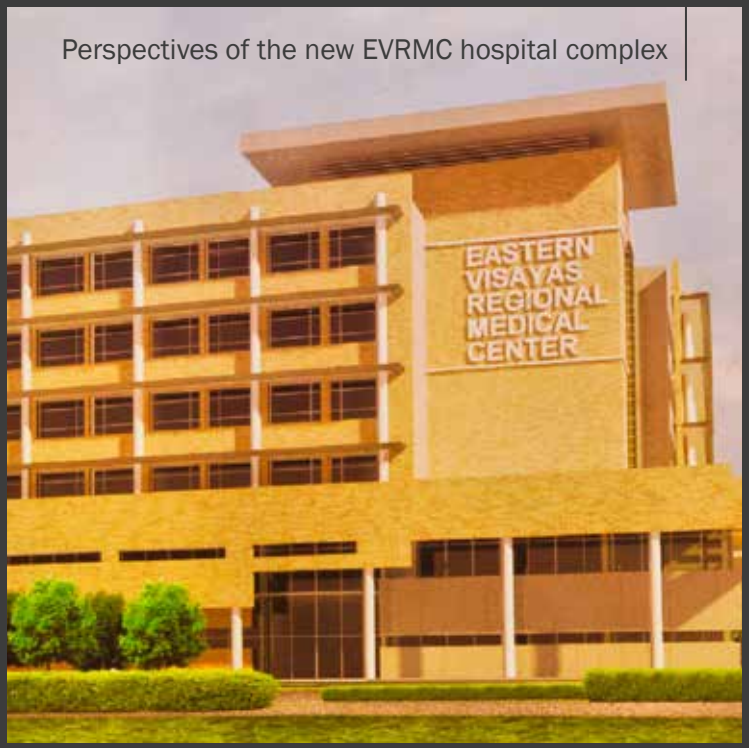
Equipment: PHP 35,000,000
Infrastructure: PHP 42,872,000

Availability of medicines: All the time
Medical records: Paper-based
Plans for reconstruction:

The present site of the EVRMC is located near the sea and within a no-build zone. Because of this, EVRMC will be transferred to Cabalawan, Tacloban City, far from the sea and other hazards, but still accessible to people. Government funding has been allocated for the construction of the main hospital and administration buildings, Japan International Cooperation Agency (JICA) funding for the Outpatient Department Building and the Bloomberg Foundation funding for the Support and Ward Extension Building.

Dr. Cirilo Galindez
EVRMC Officer-In-Charge,
Chief of Hospital, explaining the
plan for the new EVRMC buildings
and relocation site.

Perspectives of the new EVRMC hospital complex



EVRMC facade

On-going repairs at the EVRMC

EVRMC is located within the no-build zone thus the need to relocate to a safer site.

The new site for EVRMC in Cabalawan, Tacloban City, moving away from the no-build zone area, has an existing building (shown below) which will be converted to the Administration and Training Center Building of the hospital.

TACLOBAN CITY HOSPITAL

Marasbaras District, Tacloban City
11°11'54" N 125°0'18" E

Health facility name: Tacloban City Hospital
Health facility short code: 5013
Level: 1
Bed capacity: 25
Ownership: City Government of Tacloban
Health workforce:

- Doctors (7)
- Nurses (6)
- Midwives (0)
- Dentists (1)

Estimated population served: 219,000
Catchment areas: Tacloban City and nearby towns of Leyte and Samar
Services:

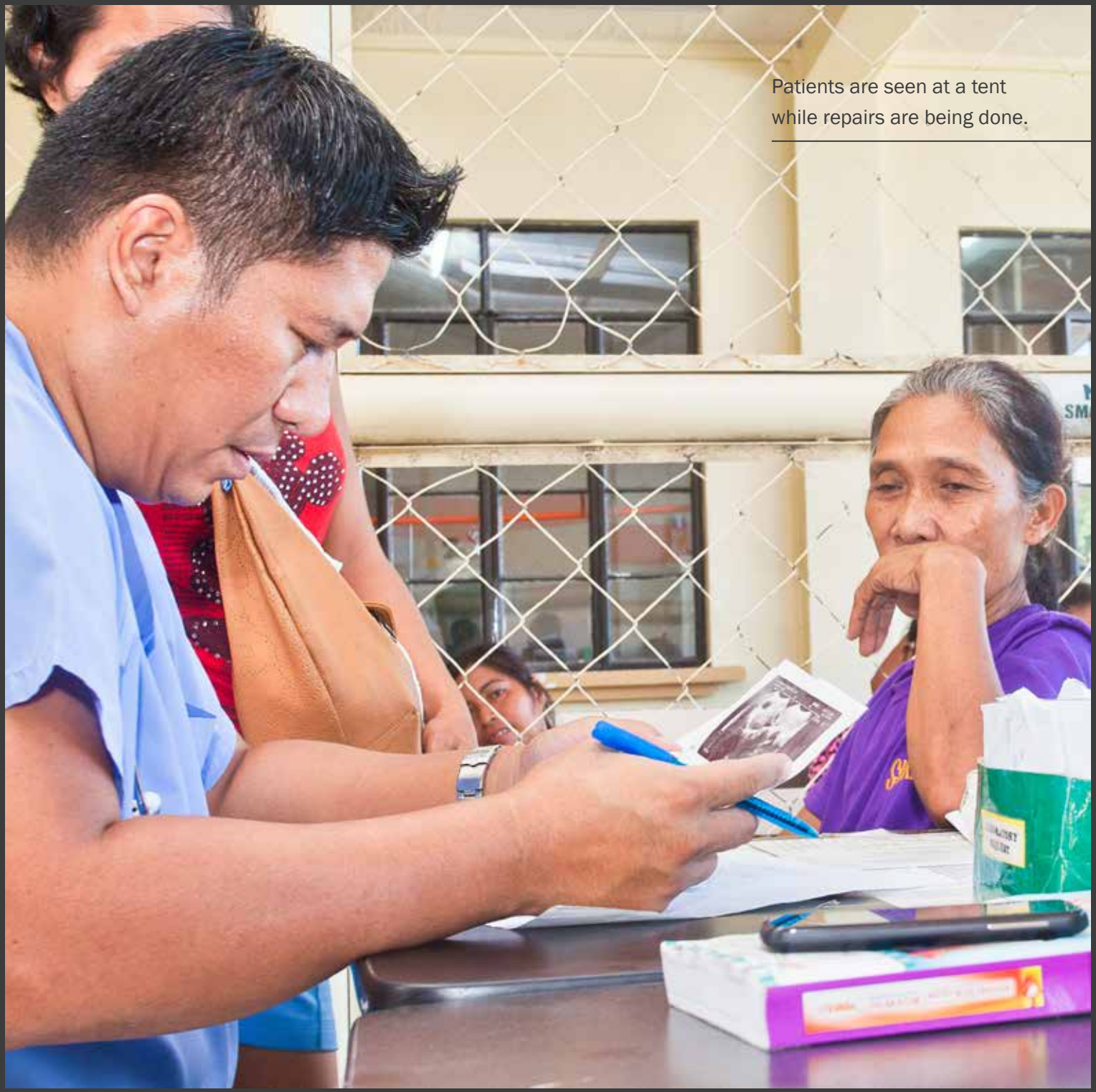
Outpatient consultation
Anti-rabies vaccination
Expanded Program on Immunization
Pharmacy
Laboratory
X-Ray
Emergency room
Dental
Hospital admission

PhilHealth accredited: Yes
Estimated cost of damage
Equipment: PHP 3,000,000
Infrastructure: PHP 7,800,000
Availability of medicines: All the time
Medical records: Paper-based
Plans for reconstruction:

SM Foundation, Inc. started rehabilitating the hospital on 1 May 2014. The United States Navy is also assisting in the construction of an outpatient department extension building.

Tacloban City Hospital is being repaired and rehabilitated by the SM Foundation, Inc., USAID and other donors.

Workers repairing
and rehabilitating
Tacloban City Hospital



Patients are seen at a tent while repairs are being done.

LEYTE PROVINCIAL HOSPITAL

Palo, Leyte
11°10'52" N 125°0'21" E

Health facility name: Leyte Provincial Hospital
Health facility short code: 618
Level: 2
Bed capacity: 100
Ownership: Provincial Government of Leyte
Health workforce:

- Doctors (18)
- Nurses (40)

Estimated population served: 4,101,322
Catchment areas: Region 8
Average no. of patients (per day): 450
Services:

Outpatient services
Internal medicine
Obstetrics and gynecology
Paediatrics
Surgery

PhilHealth accredited: Yes
Estimated cost of damage

Equipment: No data available
Infrastructure: PHP 10,000,000

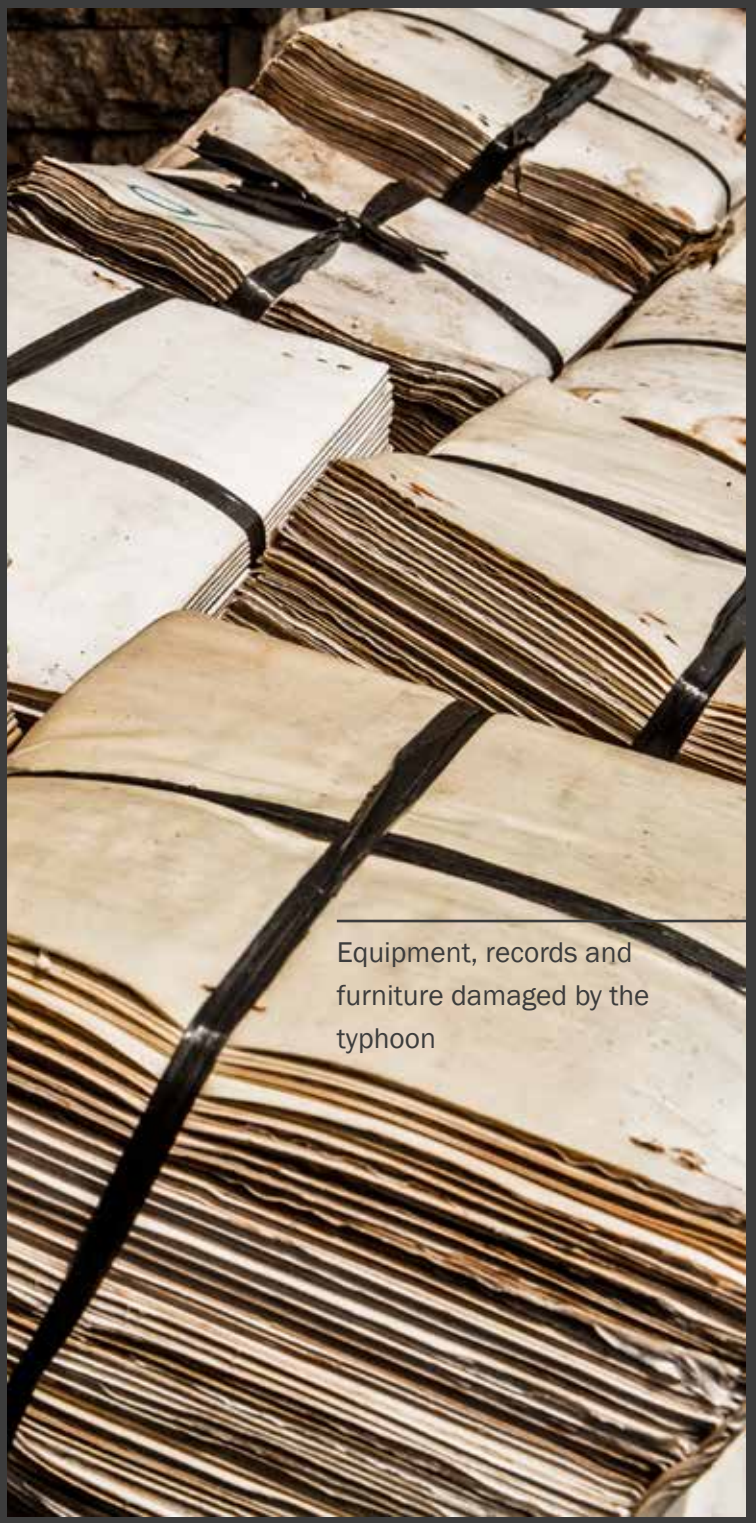
Availability of medicines: All the time
Medical records: Paper-based

Plans for reconstruction:

Repairs were done by DOH, Mercy Malaysia and the Korean Army. The rehabilitation will be funded by DOH.

Leyte Provincial Hospital after repair by partners

Quick fix done on the roof to make the hospital functional again



Equipment, records and furniture damaged by the typhoon

The roofs, walls and windows of one of the buildings of the hospital need to be repaired and the surrounding debris removed.

ORMOC DISTRICT HOSPITAL

Lilia Avenue, Ormoc City, Leyte
11°1'22" N 124°36'12" E

Health facility name: Ormoc District Hospital
Health facility short code: 2691
Level: 1
Bed capacity: 75
Ownership: Provincial Government of Leyte
Health workforce:

- Doctors (22)
- Nurses (38)
- Midwives (2)
- Dentists (0)
- Auxilliary staff (34)

Estimated population served: 350,000
Catchment areas: Ormoc City, Matag-ob, Merida, Kananga, Albuera
Average no. of patients (per day): 130-150
Services:

Emergency care services
Admissions
Outpatient clinics
Laboratory diagnostic services

PhilHealth accredited: Yes
Estimated cost of damage

Equipment: PHP 5,000,000
Infrastructure: PHP 5,000,000
Availability of medicines: All the time
Medical records: Paper-based
Plans for reconstruction:

Rehabilitation of the internal medicine wards was completed with support from Mercy Malaysia. All other rehabilitation and reconstruction will be funded by DOH.

Patients queue at the Ormoc District Hospital

Repairs starting to take shape

Another patient calmly
waiting for his turn

PALOMPON GENERAL HOSPITAL

(Dr. Manuel B. Veloso Memorial Hospital)

Mabini Street
11°2'43" N 124°23'36" E

Health facility name: Palompon General Hospital (Dr. Manuel B. Veloso Memorial Hospital)
Health facility short code: 528
Level: 1
Bed capacity: 75
Ownership: Provincial Government of Leyte
Health workforce:

- Doctors (7)
- Nurses (23)
- Midwives (12)
- Dentists (2)

Estimated population served: 168,507
Catchment areas: Isabel, Palompon,Tabango, Villaba
Average no. of patients (per day): 50-100
Services:

Emergency care services
Admissions
Outpatient clinics
Laboratory diagnostic services

PhilHealth accredited: Yes

Estimated cost of damage

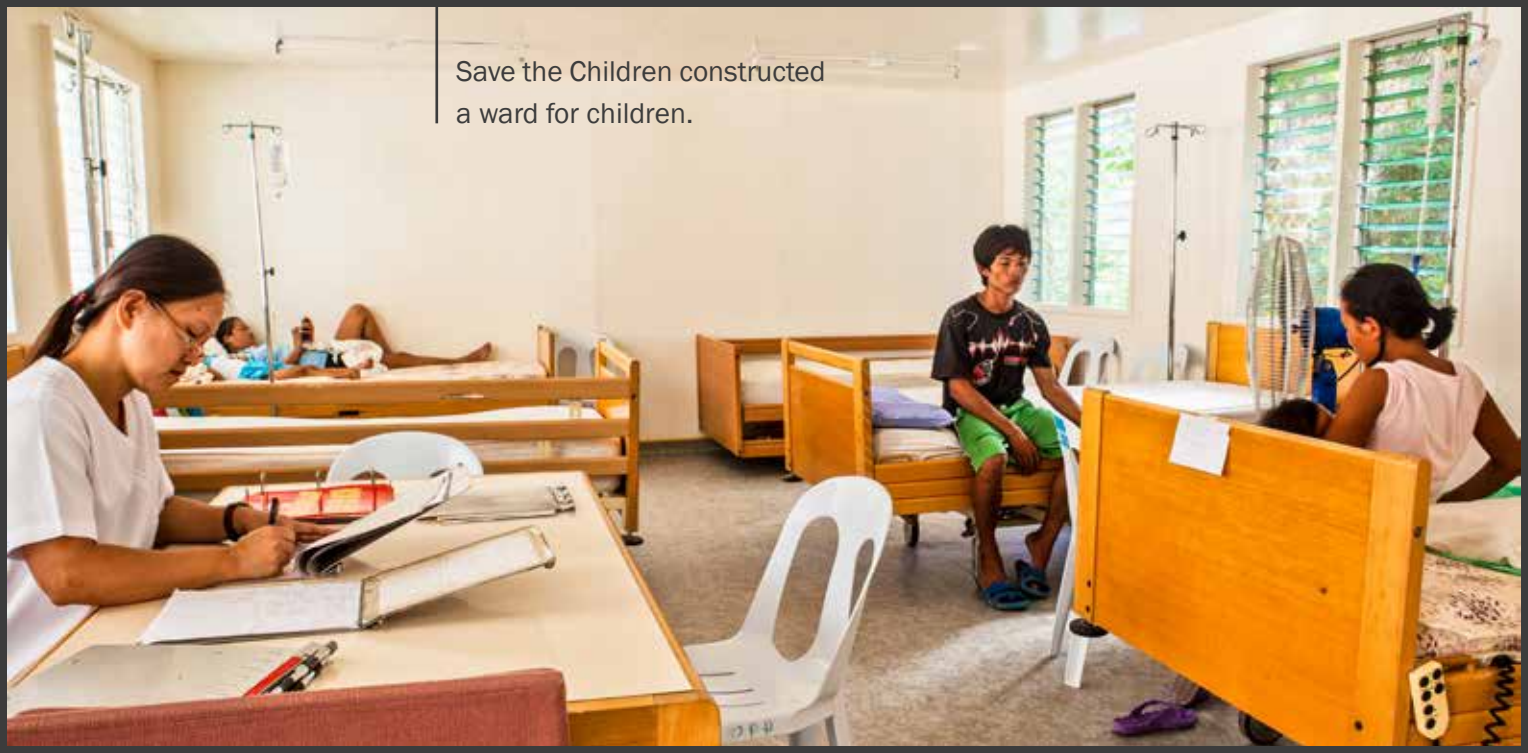
Equipment: PHP 1,000,000
Infrastructure: PHP 5,000,000

Availability of medicines: All the time
Medical records: Paper-based
Plans for reconstruction:

Gift of the Givers South Africa repaired the damaged wards and roofing of the hospital. Save the Children constructed a transitional pediatrics ward. The Provincial Government of Leyte is going to build a new hospital.

Stocks of supplies donated to Palompon General Hospital

Interior of repaired ward at Palompon General Hospital with new beds from donors



Save the Children constructed a ward for children.

ABUYOG DISTRICT HOSPITAL

Abuyog, Leyte
10°45'32" N 125°0'15" E

Health facility name: Abuyog District Hospital
Name of Respondent/ Designation:
Dr. Felicidad D. Sales
Officer-In-Charge, Chief of Hospital
Health facility short code: 401
Level: 1
Bed capacity: 75
Ownership: Provincial Government of Leyte
Health workforce:

- Doctors (7)
- Nurses (19)
- Midwives (2)
- Dentist (1)
- Auxilliary staff (1)
- Pharmacist (1)
- Medical technologist (1)

Estimated population served: 114,442
Catchment areas: Abuyog, Mayorga, McArthur, Javier
Services:
Outpatient services
Emergency care
PhilHealth accredited: Yes
Estimated cost of damage
Equipment: PHP 300,000
Infrastructure: PHP 5,000,000
Availability of medicines: All the time
Medical records: Paper-based
Plans for reconstruction:
Reconstruction and rehabilitation will be funded by DOH.


ABUYOG GENERAL HOSPITAL
Rabies Treatment Center
STRICTLY NO PARKIN

What remains of the medical records of Abuyog District Hospital

At the Emergency Room of Abuyog District Hospital

Site of the to-be-constructed Abuyog District Hospital

X-ray machine repaired and ready to be used again

Roofs, walls and ceilings were repaired by local and foreign teams with materials donated by the people of Abuyog.

BALANGIGA DISTRICT HOSPITAL

(Albino M. Duran Memorial Hospital)

Balangiga, Eastern Samar
11°6'29" N 125°23'15" E

Health facility name: Albino M. Duran Memorial Hospital

Name of Respondent/ Designation:

Dr. Benedicto O. Garcia
Chief of Hospital

Health facility short code: 420

Level: With temporary License to Operate as Infirmary for 2014. Currently for upgrading to Level 1 Hospital

Bed capacity: 25

Ownership: Provincial Government of Eastern Samar

Health workforce:

- Doctors (4)
- Nurses (7)
- Midwives (0)
- Dentists (2)
- Auxilliary staff (26)

Estimated population served: 50,249

Catchment areas: Balangiga, Lawaan, Giporlos, Quinapondan

Services:

Outpatient services
Emergency care
National Tuberculosis Program
Expanded Program on Immunization
Animal Bite Center

PhilHealth accredited: Yes

Estimated cost of damage

Equipment: PHP 3,000,000
Infrastructure: PHP 10,000,000

Availability of medicines: All the time

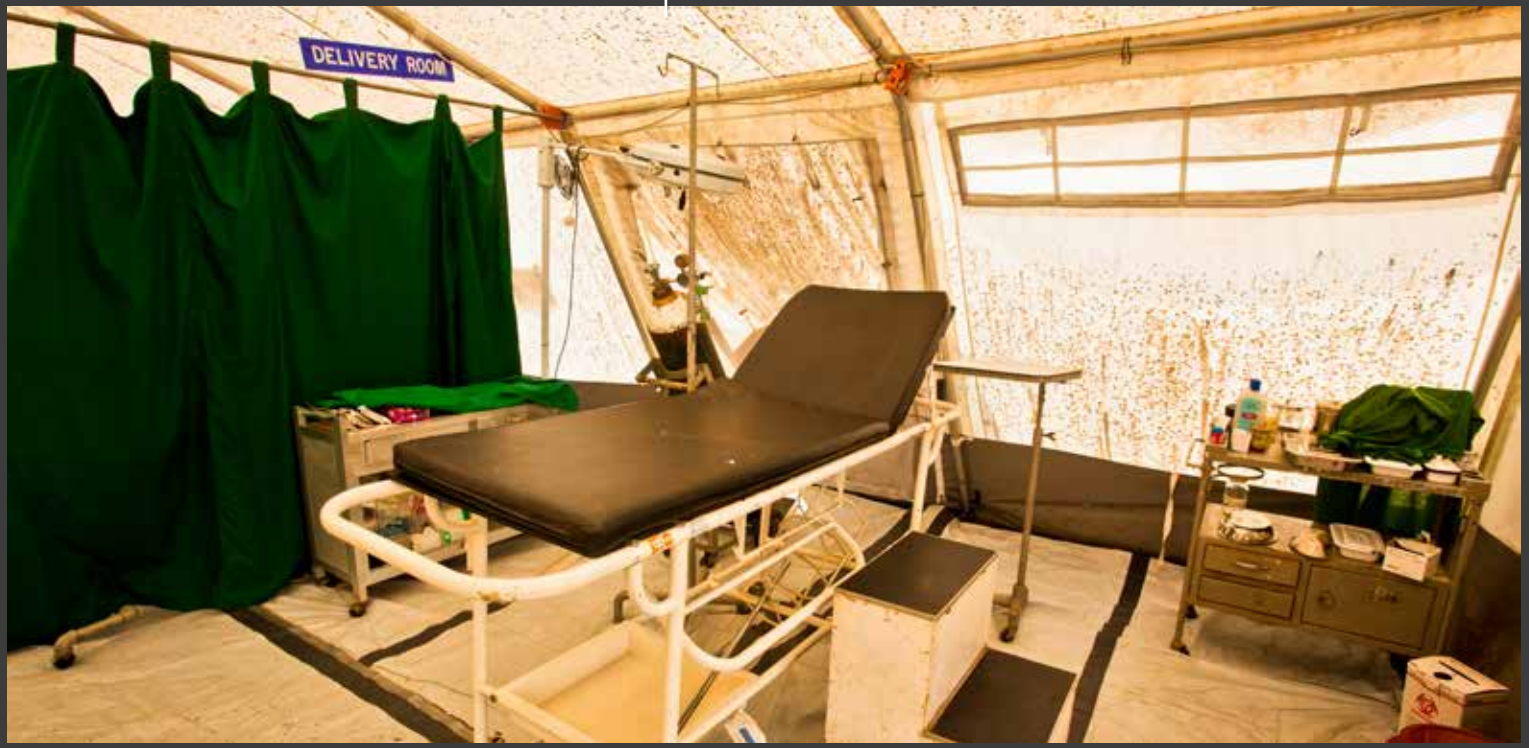
Medical records: Paper-based

Plans for reconstruction:

Reconstruction will be jointly done by the International Committee of the Red Cross (ICRC) and the DOH.

AMDM Staff

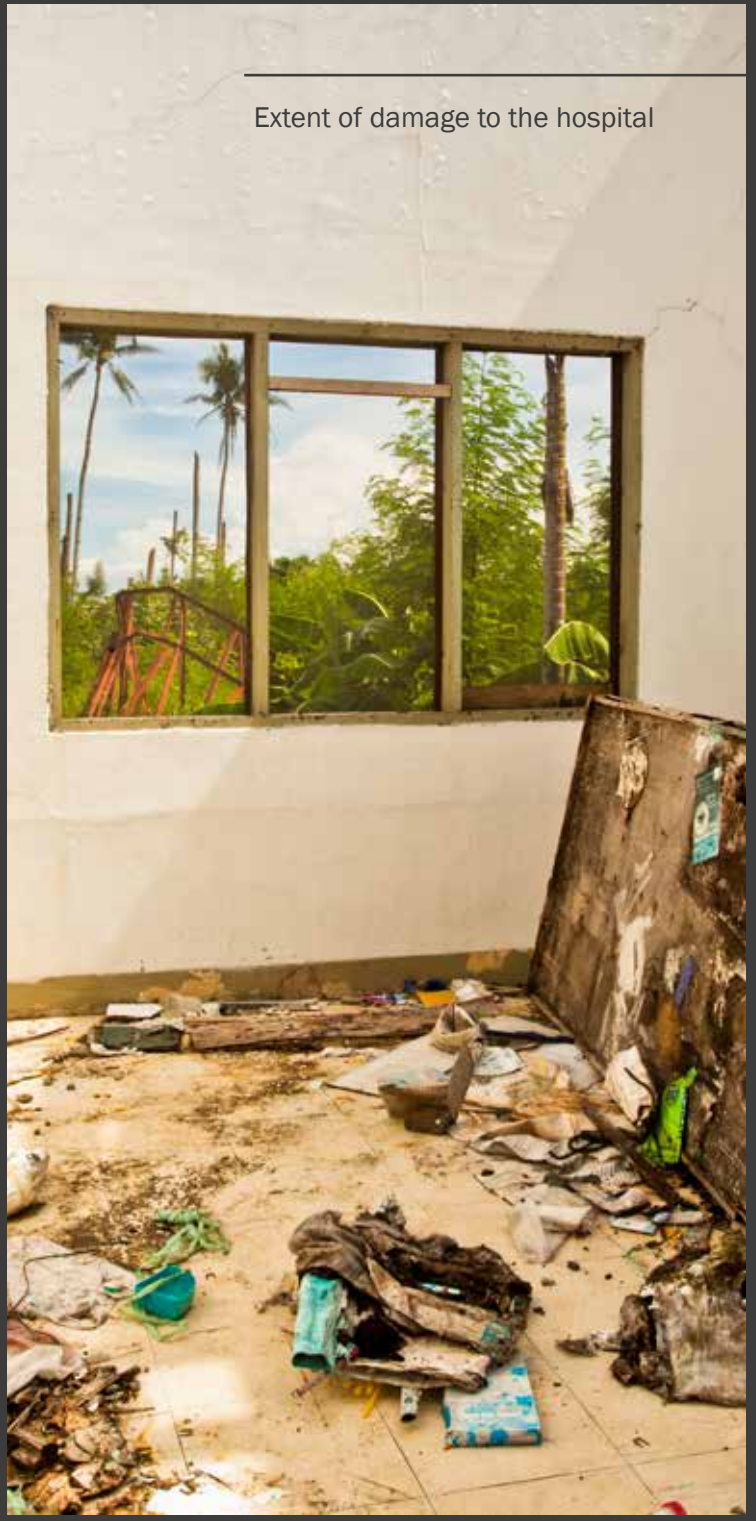
Tent and clinic in a can from ICRC are used as temporary clinics while the hospital is yet be repaired.




UNHCR
UNHCR

AMDM medical records
destroyed


Pampers
Comfort



Extent of damage to the hospital

FELIPE ABRIGO MEMORIAL HOSPITAL

Guiuan, Eastern Samar
11°2'5" N 125°44'1" E (transitional site)

Health facility name: Felipe Abrigo Memorial Hospital

Name of Respondent/ Designation:

Dr. Lilia D. Daguinod
Chief of Hospital

Health facility short code: 4439

Level: 1

Bed capacity: 50

Ownership: Provincial Government

Health workforce:

- Doctors (4)
- Nurses (14)
- Midwives (3)
- Dentists (0)
- Auxilliary staff (34)

Estimated population served: 100,000

Catchment areas: Hernani, MacArthur, Guiuan, Salcedo, Mercedes

Services:

Internal medicine
General surgery
Obstetrics and gynecology
Paediatrics

PhilHealth accredited: Yes

Estimated cost of damage

Equipment: PHP 5,000,000
Infrastructure: PHP 30,000,000

Availability of medicines: All the time

Medical records: Paper-based

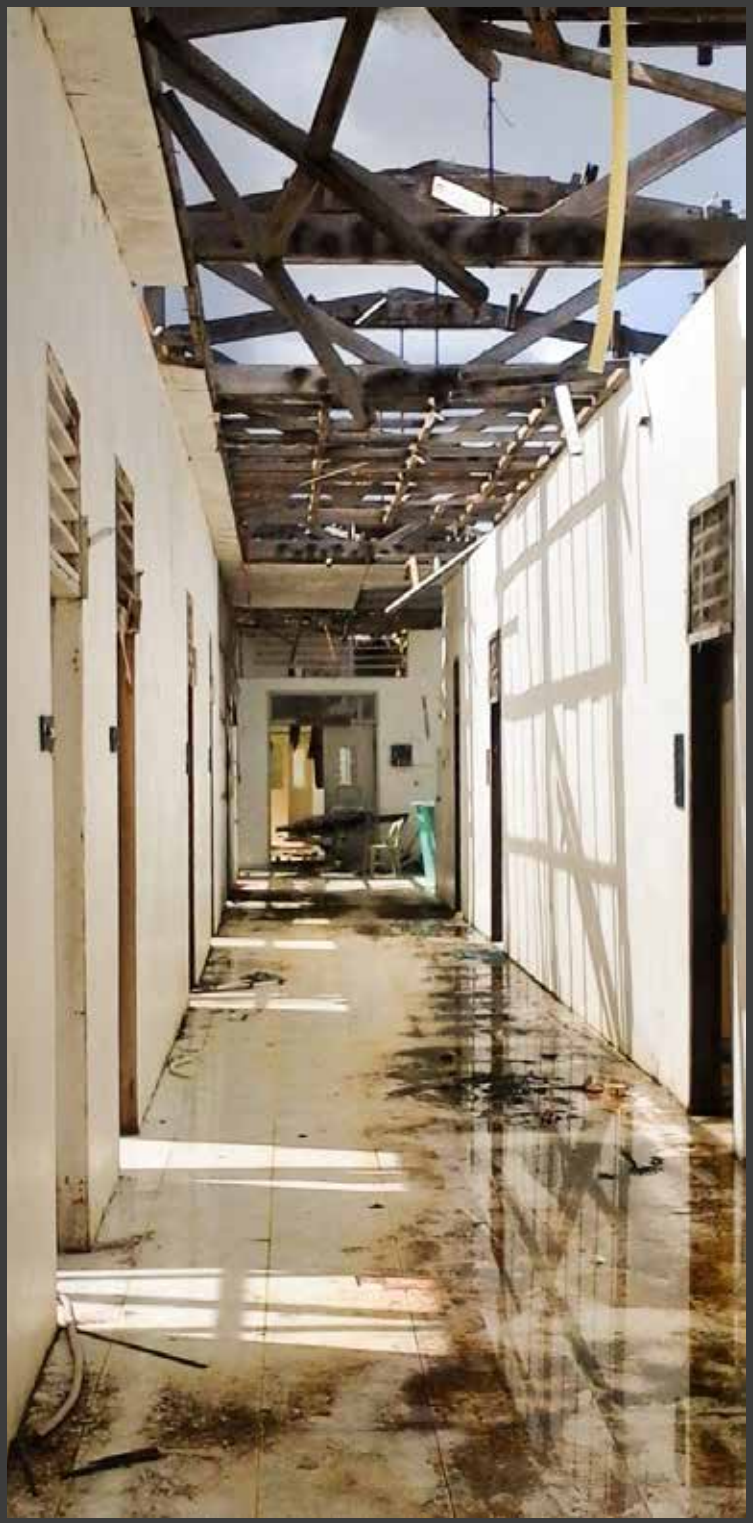
Plans for reconstruction:

A transitional hospital was made possible through the support of Médecins Sans Frontières (MSF) Belgium. MSF completed handover of the transitional hospital to the Provincial Government on July 31, 2014. The Korean International Cooperation Agency (KOICA) is committed to reconstructing the new permanent hospital.

Signage for the transitional hospital

Interior of transitional hospital ER

Covered walkways connecting the different wards and offices of the transitional hospital constructed with the assistance of MSF Belgium




MORTUARY
LAUNDRY
POWER PLANT

Extent of damage to the old hospital building

Extent of damage to the
old hospital building

BASEY DISTRICT HOSPITAL

San Miguel Street, Basey, Western Samar
11°16'45" N 125°3'55" E

Health facility name: Basey District Hospital
Name of Respondent/ Designation:
Alma A. Maranga
Acting Administrative Officer
Health facility short code: 5792
Level: Infirmary
Bed capacity: 25
Ownership: Provincial Government
Health workforce:

- Permanent resident physicians (3)
- Visiting consultants (6)

Estimated population served: 103,620
Catchment areas: Marabut, Sta Rita and Basey
Services:
Outpatient services
Internal medicine
Surgery
Obstetrics and gynecology
Basic diagnostic laboratory services
PhilHealth accredited: Yes
Estimated cost of damage
Equipment: PHP 300,000
Infrastructure: PHP 5,000,000
Availability of medicines: All the time
Medical records: Paper-based
Plans for reconstruction:
Rehabilitation will be done by ICRC and DOH.

Patients consult at the tent clinic set up while the hospital is being repaired.

Temporary clinics held in tents while the hospital is being repaired

Basey District Hospital Staff

On-going repairs


BASE


EY DISTRICT HOSPITAL

PRIVATE HOSPITALS

Immaculate Conception Clinic and Hospital
Divine Word Hospital
Bethany Hospital
Mother of Mercy Hospital

IMMACULATE CONCEPTION CLINIC AND HOSPITAL

Guiuan, Eastern Samar
11°1'51" N 125°43'30" E

Health facility name: Immaculate Conception Clinic and Hospital

Name of Respondent/ Designation:

Dr. Alfredo Perez

Health facility short code: No data available

Level: 1

Bed capacity: 15

Ownership: Private

Health workforce:

- Doctors (7)
- Nurses (22)
- Midwives (0)
- Dentists (0)

Estimated population served: 100,000

Catchment areas: Hernani, MacArthur, Guiuan, Salcedo, Mercedes

Services:

Outpatient services
Internal medicine
Surgery
Obstetrics and gynecology
Basic diagnostic laboratory services

PhilHealth accredited: Yes

Estimated cost of damage: No official statement

Availability of medicines: All the time

Medical records: Paper-based

Plans for reconstruction:

The hospital is fully functional after repairs have been done but the equipment that was lost may take time to be replaced. The hospital has applied for the interim reimbursement scheme from PhilHealth, which is a scheme for hospitals and rural health units (RHUs) to avail of as they were badly damaged by Typhoon Yolanda. It is an advance payment scheme for hospitals down to RHUs or clinics that are being utilized for birthing.

Facade of Immaculate
Conception Clinic and Hospital

DIVINE WORD HOSPITAL

Avenida Veteranos, Tacloban City
11°16'45" N 125°3'55" E

Health facility name: Divine Word Hospital
Name of Respondent/ Designation:
Sister Amadea Dornadilla, OSB – Administrator
Sister Ana Maria Raca, OSB – Finance Director
Ms. Barbette S. Costelo – Asst. Director of Nursing
Health facility short code: No data available
Level: 3
Bed capacity: 140 (as per License to Operate as of 2014)
Ownership: Private (mission)
Health workforce:

- Doctors (158)
- Nurses (152)
- Midwives (14)
- Dentists (3)

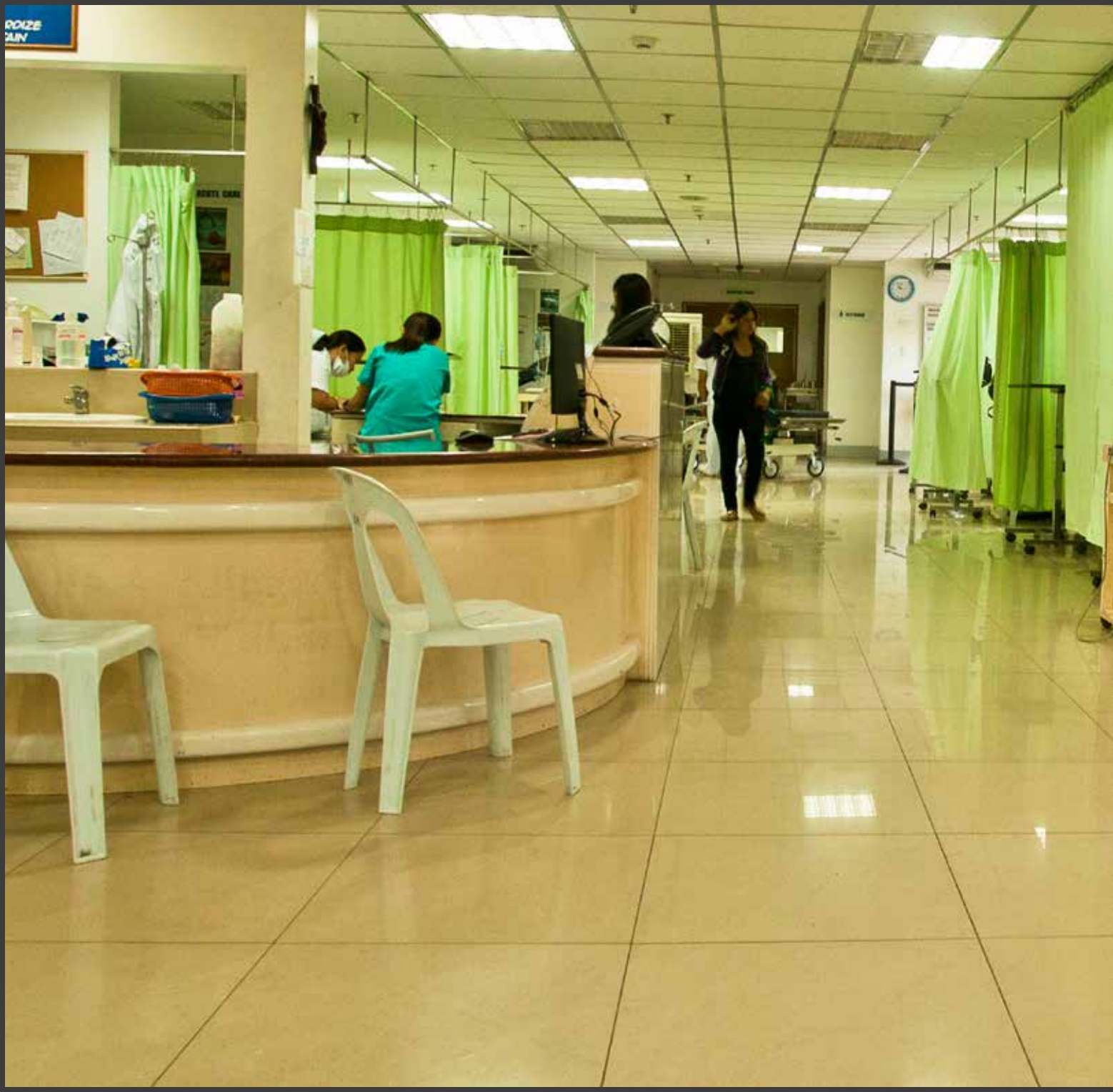
Estimated population served: 4,101,322
Catchment areas: Region 8
Services:
Tertiary
Teaching/Training (pediatrics and internal medicine)
PhilHealth accredited: Yes (Center of Excellence)
Estimated cost of damage: No official statement
Availability of medicines: All the time
Medical records: Paper-based
Plans for reconstruction:
Repairs are being completed. The hospital has received donations that have enabled it to procure equipment and fund the reconstruction of the hospital.

Traces of damage to the Divine Word Hospital facade are no longer visible.

The oxygen generator is now housed in an elevated structure to decrease risk of damage from floods.

Divine Word Hospital's rehabilitation clinic sits beside a creek, which overflowed when the typhoon hit.

New medical and diagnostic equipment is now placed on the second floor, a lesson they learnt from the typhoon when all equipment were inundated because they were on the ground floor.



The emergency room is now completely rehabilitated and functional.

BETHANY HOSPITAL

Real Street, Tacloban City
11°13'57" N 125°0'10" E

Health facility name: Bethany Hospital
Name of Respondent/ Designation:
Marife Garfin
Chief Nurse, Program Coordinator
Health facility short code: No data available
Level: 3
Bed capacity: 125
Ownership: Private
Health workforce:

- Doctors (115)
  - » Residents in training (15)
  - » Consultants (100)
- Nurses (140)
- Midwives (4)
- Dentists (2)
- Auxilliary staff (290)

Estimated population served: 4,101,322
Catchment areas: Region 8
Services:
Tertiary
2D echo
CT scan
Endoscopy
PhilHealth accredited: Yes
Estimated cost of damage: No official statement
Availability of medicines: All the time
Medical records: Electronic
Plans for reconstruction:
Repairs are put on hold until the pending labor dispute involving the hospital is resolved.

Bethany Hospital facade

MOTHER OF MERCY HOSPITAL

B. Aquino Ave., Brgy. 50-B Youngfield, Tacloban City
11°13'50" N 124°59'59" E

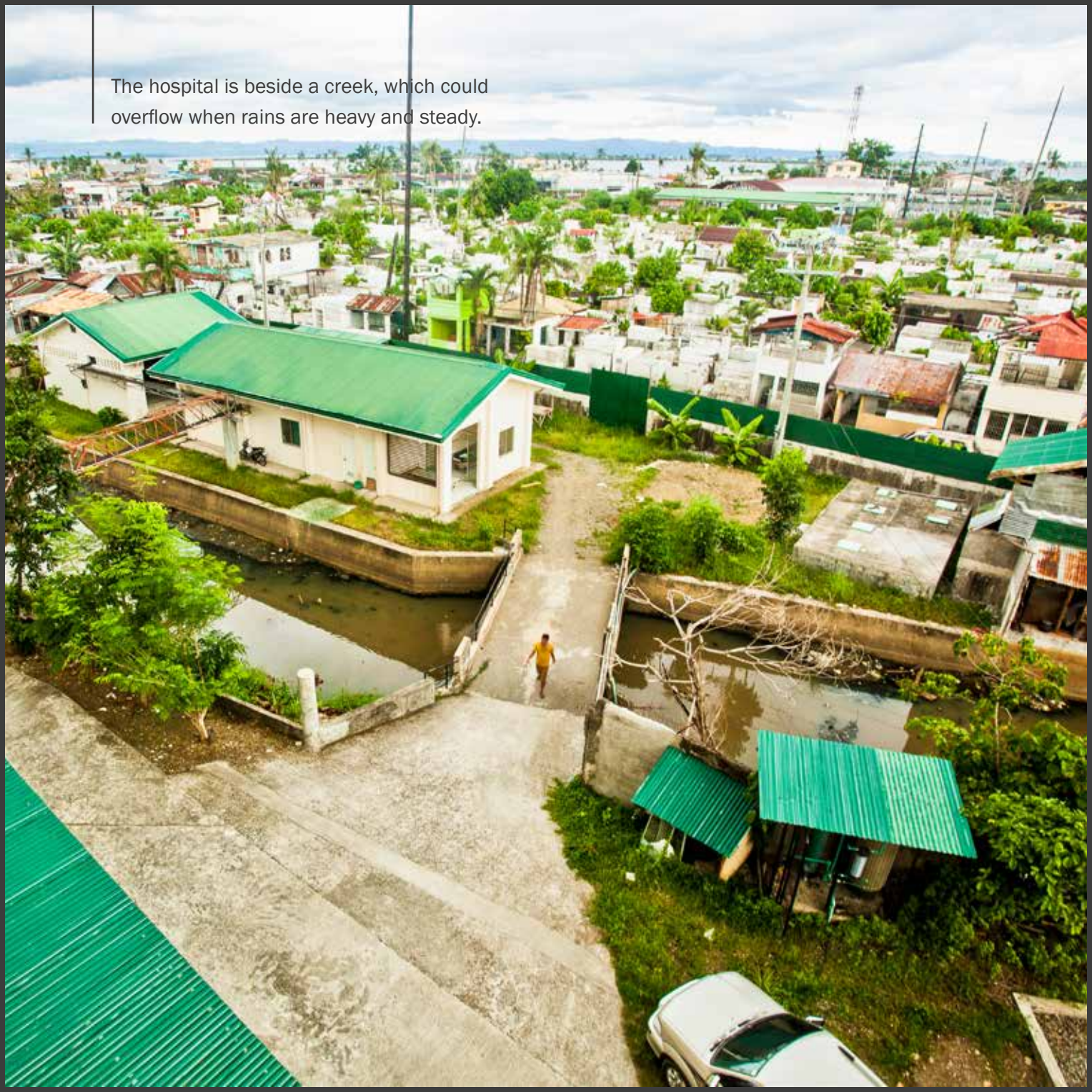
Health facility name: Mother of Mercy Hospital
Name of Respondent/ Designation:
Sister Ma. Lourdes G. Amascual, RSM
Hospital Administrator
Gina Luisita B. Cadales-Morallos
Chief Nurse
Health facility short code: No data available
Level: 2
Bed capacity: 50
Ownership: Private
Health workforce:

- Doctors (80)
- Nurses (58)
- Midwives (3)
- Dentists (1)
- Auxilliary staff (48)

Estimated population served: No data available
Catchment areas: Samar and Leyte Provinces
Services: Level 2 services
PhilHealth accredited: Yes (Center of Quality)
Estimated cost of damage
Equipment: PHP 3,000,000
Infrastructure: PHP 2,000,000
Availability of medicines: All the time
Medical records: Paper-based
Plans for reconstruction:
Humedica International funded the reconstruction of the hospital. It also augmented the capacity of the hospital in terms of human resources and operations for six months after the typhoon.

Mother of Mercy Hospital

Finishing repairs to the ceiling



The hospital is beside a creek, which could overflow when rains are heavy and steady.

TRAINING INSTITUTIONS

The training institutions included in this section have supplied the local health system with much needed health workforce. The University of the Philippines Manila School of Health Sciences in Palo, Leyte has a unique program dedicated to the education of scholars from rural communities, who are sponsored by their local government units to pursue midwifery, nursing and eventually medicine. In return, they go back to their communities to serve when they finish a course before they can move on to the next in the ladderized curriculum.

The Remedios T. Romualdez Medical Foundation is a privately owned training institution for medicine and allied medical professions. It accepts students from all over Region 8 who want to pursue careers in the health sector. The foundation owns one of the biggest hospitals in the region and is training ground for the students of the school.

The DOH Regional Health Training Center, Palo, Leyte is a central hub for training in the Eastern Visayas region. By training staff on health emergency response operations, this center is set to play a key role in the region.

UNIVERSITY OF THE PHILIPPINES MANILA SCHOOL OF HEALTH SCIENCES

The University of the Philippines Manila School of Health Sciences (UPM SHS) was founded in 1976 in response to the problem of brain drain and maldistribution of health workers in the country. It pioneered a step ladder curriculum to train students to progress from becoming barangay (community) health workers, to midwives, to nurses and finally physicians. Graduates are required to render service to their communities in between each training program. The school has educated more than 2,000 scholars who have remained and served in the most remote areas in the country.

The campus in Palo, Leyte was completely damaged and all of the buildings were completely stripped of their roofs. The administration of UP Manila has started planning for the reconstruction. In the meantime, students and faculty are hosted at the UP campus in Tacloban, in tents donated by the Buddhist Tzu Chi Foundation.

Temporary shelter, donated by Taiwan Buddhist Tzu Chi Foundation, is used as classrooms for the displaced students of UPM SHS.

Students of UPM SHS were among the first responders to give first aid to injured survivors in the aftermath of the typhoon.

The UPM SHS campus in Palo, Leyte

Interior of UPM SHS buildings

Courtyard of UPM SHS

Stairs leading to UPM SHS building

Interior of UPM SHS building

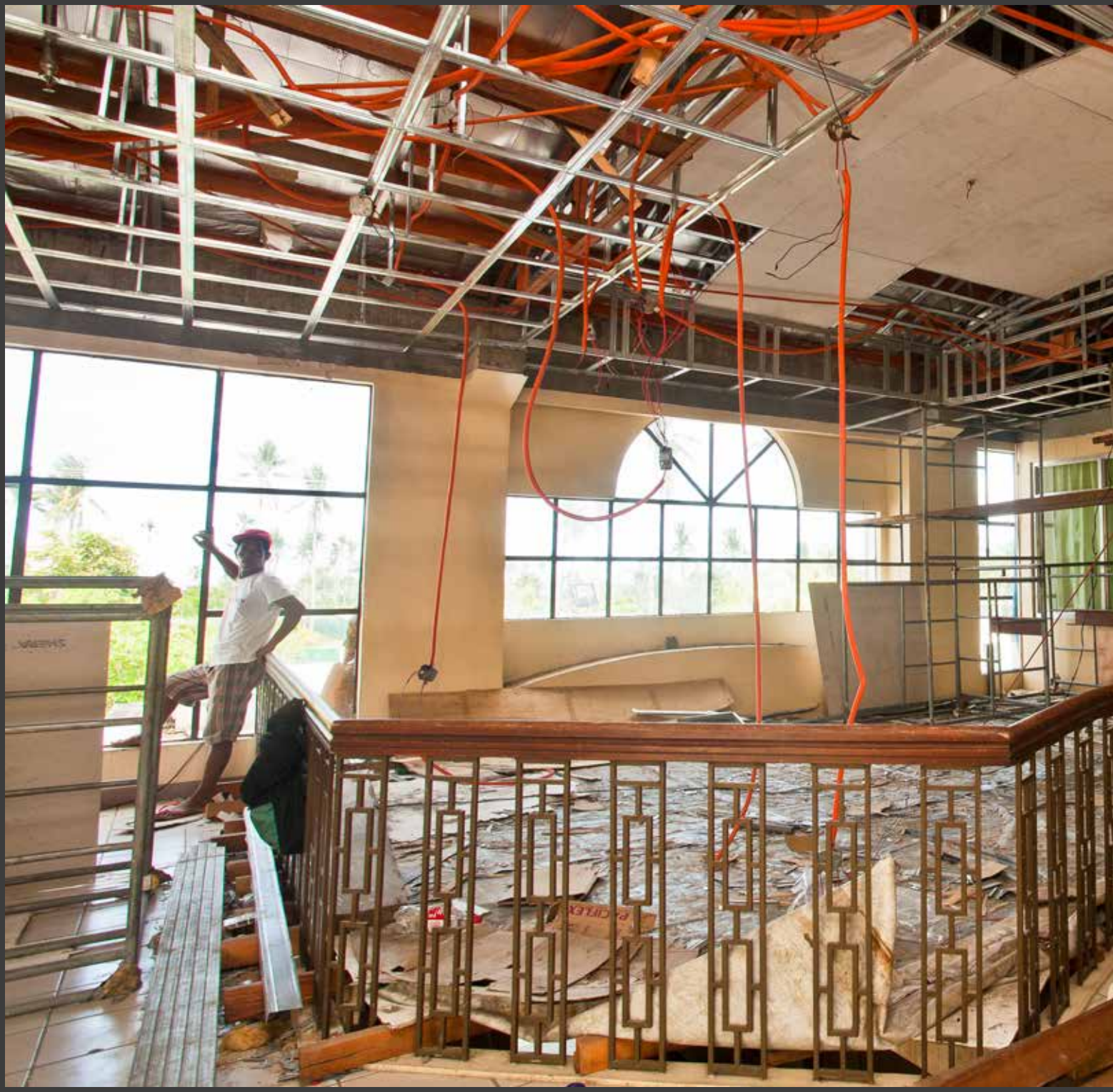
REMEDIOS T. ROMUALDEZ MEDICAL FOUNDATION

The Remedios T. Romualdez Medical Foundation (RTRMF) runs the school and hospital of the same name in Leyte. It is one of the largest private educational institutions dedicated to the education of health workers. It produces graduates of medicine and allied medical professions who eventually join the health workforce in the region. Founded in 1980, the thrust of the college is “to train students to a high level of competence as primary care physicians”.

Despite the damages to the roofs, elevators and equipment the hospital continued to operate during and after the typhoon. It also served as a temporary lodging site for foreign medical teams. The students who were displaced and whose dormitories were destroyed also sought and were given shelter at the hospital.

Rehabilitation of the school and hospital is being completed. The foundation has spent more than PHP 20 million to rehabilitate the damaged areas, incorporating more resilient design and construction materials in the process.

Facade of RTRMF Hospital



Remaining damage to the hospital that needs to be repaired

One of the private rooms for patients converted into a temporary dormitory for the students of RTRMF

The rehabilitated physical therapy and rehabilitation clinic of RTRMF

Patients at the dialysis center of the hospital benefiting from the dialysis machines donated to the hospital

REGIONAL HEALTH TRAINING CENTER, PALO, LEYTE

The DOH Regional Health Training Center suffered some damages in the typhoon that affected its functionality. While the structure of the building is intact, it suffered damages to its roof, ceiling and floor; windows and doors were damaged or destroyed; and electrical and plumbing works were disrupted.

WHO has committed funds to make the training center operational once again. Repairs are ongoing and nearing completion. Once the repairs are complete, it will serve as the central hub for trainings within the region. Training modules will be developed and rolled-out in the area of emergency preparedness, response and training. The center will also serve as a strategic structure for the roll out of the Public Health and Emergency Management in Asia and Pacific (PHEMAP) training at the national, sub-national and regional levels.


Repairs on-going

Repairs on-going


After repairs – “Built back better”

3 TOOLS AND REFERENCES

This chapter contains tools and references for structural, non-structural and functional components of safer hospitals. The first part presents guidelines for the planning and design of a hospital and other health facilities, and standard or model plans and perspectives from the DOH Health Facility Development Bureau for 25-bed, 50-bed and 100-bed hospitals.

Standards for Health Human Resources for Hospitals are described next. Standards for health care waste management and infection control are summarized to guide hospital administrators on the essentials of these subjects.

Mental health and rehabilitation issues are also highlighted in order to draw attention to these services, especially in the aftermath of any disaster.

Guidelines in the Planning and Design of a Hospital and Other Health Facilities

The DOH has set standards for the planning and design of hospitals and other health facilities in the Philippines. These standards conform to the codes, standards and laws on buildings in the Philippines and references on hospital building planning and design, which are listed below (Department of Health, 2004).

• Presidential Decree 1096	National Building Code of the Philippines and its Implementing Rules and Regulations
• Presidential Decree 1185	Fire Code of the Philippines and its Implementing Rules and Regulations
• Presidential Decree 856	Code on Sanitation of the Philippines and its Implementing Rules and Regulations
• Batas Pambansa 344	Accessibility Law and its Implementing Rules and Regulations
• Republic Act 1378	National Plumbing Code of the Philippines and its Implementing Rules and Regulations
• Republic Act 184	Philippine Electrical Code
• Department of Public Works and Highways (DPWH) Minimum Performance Standards and Specifications for Public Buildings	
• Manual on Technical Guidelines for Hospitals and Health Facilities Planning and Design by the DOH	
• Signage Systems Manual for Hospitals and Offices by the DOH	
• Health Facilities Maintenance Manual by the DOH	
• Manual on Health Care Waste Management by the DOH	
• Manual on Safe Hospitals in Emergencies and Disasters by the DOH	

The DOH has adopted the above laws, rules and regulations as guides and have recommended the following general guidelines:

1. **Environment:** A hospital and other health facilities shall be so located that it is readily accessible to the community and reasonably free from undue noise, smoke, dust, foul odor, flooding and shall not be located adjacent to railroads, freight yards, children's playground, airports, industrial plants and waste disposal facilities.

2. **Occupancy:** A building designed for other purposes and planned to be converted into a hospital shall be subjected first to rigorous review. The location of a hospital shall comply with all local zoning ordinances.

3. **Safety:** A hospital and other health facilities shall provide and maintain a safe environment for patients, personnel and public. The building shall be of such construction so that no hazards to life and safety of patients, personnel and public exist. It shall be capable of withstanding weight and elements to which it may be subjected.

    3.1 Exits shall be restricted to the following types: door leading directly outside the building, interior stair, ramp and exterior stair.
    3.2 A minimum of two exits, remote from each other, shall be provided for each floor of the building.
    3.3 Exits shall terminate directly at an open space to the outside of the building.

4. **Security:** A hospital and other health facilities shall ensure the security of person and other property within the facility.

5. **Patient Movement:** Spaces shall be wide enough for free movement of patients whether they are on beds, stretchers or wheelchairs. Circulation routes for transferring patients from one area to another shall be available and free at all times.
    5.1 Corridors for access by patients and equipment shall have a minimum width of 2.44 meters.
    5.2 Corridors in areas not commonly used for bed, stretcher and equipment transport may be reduced in width to 1.83 meters.
    5.3 A ramp or elevator shall be provided for ancillary, clinical and nursing areas located on the upper floor.

5.4 A ramp shall be provided as direct emergency exit for surgical, delivery and ICU areas.

5.5 A ramp shall be provided as access to the entrance of the hospitals not on the same level of the street or roadway.

6. **Lighting:** All areas in a hospital and other health facilities shall be provided with sufficient illumination to promote comfort, healing and recovery of patients to enable personnel in the performance of work.

7. **Ventilation:** Adequate ventilation shall be provided to ensure comfort of patients, personnel and the public. The use of natural ventilation is promoted.

8. **Auditory and Visual Privacy:** A hospital and other health facilities shall observe acceptable sound level and sufficient visual seclusion to achieve the acoustical and privacy requirements in designated areas allowing the unhampered conduct of activities.

9. **Water Supply:** A hospital and other health facilities shall use an approved public water supply system whenever available. The water supply shall be potable, safe for drinking and adequate, and shall be brought into the building free of cross connections.

10. **Waste Disposal:** Liquid waste shall be treated before it is discharged into an approved public water sewerage system whenever available, and solid waste shall be collected, treated and disposed of in accordance with applicable codes, laws or ordinances.

11. **Sanitation:** Utilities for maintenance of the sanitary system, including water supply and sewerage system, shall be provided through the buildings and premises to ensure a clean and healthy environment.

12. **Housekeeping:** A hospital and other health facilities shall provide and maintain a healthy and aesthetic environment for patients, personnel and the public through daily upkeep of grounds and buildings.

13. **Maintenance:** There shall be an effective building maintenance program in place. The buildings and equipment shall be kept at all times in a state of functionality. Proper maintenance shall be provided regularly to prevent untimely breakdown of building and equipment.

14. **Material Specification:** Floors, walls and ceilings shall be of sturdy materials that shall allow durability, ease of cleaning, low maintenance and fire resistance.

15. **Electrical Supply and Emergency Power:** A hospital and other health facilities' electrical system shall be connected to main lines of the local electrical company and shall provide for emergency power supply.

16. **Fire Protection:** There shall be measures for detecting fire such as fire alarms in walls, peepholes in doors or smoke detectors in ceilings. There shall be devices for quenching fire such as fire extinguishers or fire hoses that are easily visible and accessible in strategic areas. There shall be a functional automatic fire sprinkler system for fire suppression.

17. **Signage:** There shall be an effective graphic system composed of a number of individual visual aids and devices arranged to provide information, orientation, direction, identification, prohibition, warning and official notice considered essential to the optimum operation of a hospital and other health facilities.

18. **Parking:** A hospital and other health facilities shall provide a minimum of one (1) parking space for every twenty-five (25) beds and parking space for the disabled.

19. **Zoning:** The different areas of a hospital shall be grouped according to zones as follows:
    - 19.1 Outer Zone – areas that are immediately accessible to the public: emergency service, outpatient service and business office; they shall be located near the entrance of the hospital.
    - 19.2 Second Zone – areas that receive workload from the outer and inner zones: laboratory, pharmacy, radiology and administrative service; they shall be located near the outer zone.
    - 19.3 Inner Zone – areas that provide nursing care and management of patients: nursing service; they shall be located in private areas but accessible to visitors.
    - 19.4 Deep Zone – areas that require asepsis to perform the prescribed services: surgical service, delivery service, nursery, intensive care, and central sterilizing; they shall be segregated but still accessible to the outer, second and inner zones.
    - 19.5 Service Zone – areas that provide support to hospital activities: dietary service, laundry and linen, housekeeping service, maintenance and motor pool service and mortuary; they shall be located in areas away from normal traffic.

20. **Function:** The different areas of a hospital shall be functionally related with each other.
    - 20.1 The emergency service shall be located in the ground floor to ensure immediate access. A separate entrance to the emergency room shall be provided.
    - 20.2 The administrative service, particularly admitting office and business office, shall be located

near the main entrance of the hospital. Offices for hospital management can be located in private areas.

20.3 The surgical service shall be located and arranged to prevent non-related traffic. The operating room shall be as remote as practicable from the entrance to provide asepsis. The dressing room shall be located to avoid exposure to dirty areas after changing surgical garments. The nurse station shall be located to permit visual observation of patient movement.

20.4 The delivery service shall be located and arranged to prevent non-related traffic. The delivery room shall be as remote as practicable from the entrance to provide asepsis. The dressing room shall be located to avoid exposure to dirty areas after changing to surgical garments. The nurse station shall be located to permit visual observation of patient movement. The nursery shall be separate but immediately accessible from the delivery room.

20.5 The nursing service shall be segregated from public areas. The nurse station shall be located to permit visual observation of patients. Nurse stations shall be provided in all inpatient units of the hospital with a ratio of at least one (1) nurse station for every thirty-five (35) beds. Rooms and wards shall be of sufficient size to allow for workflow and patient movement. Toilets shall be immediately accessible from rooms and wards.

20.6 The dietary service shall be away from the morgue with at least 25-meter distance.

20.7 The wards shall observe segregation of sexes. Separate toilets shall be maintained for patients and personnel, male and female, with a ratio of one (1) toilet for every eight (8) patients or personnel.

21. **Space:** Adequate area shall be provided for people, activities, furniture, equipment and utilities.

Table 1 Standard Space Requirements for a Hospital

Space	Area in sqm
Administrative Service	
Lobby	
Waiting Area	0.65/person
Information and Reception	5.02/staff
Toilet	1.67
Business Office	5.02/staff
Medical Records	5.02/staff
Chief of Hospital Office	5.02/staff
Laundry and Linen Area	5.02/staff
Maintenance and Housekeeping Area	5.02/staff
Parking Area for Transport Vehicle	9.29
Supply Room	5.02/staff

Waste Holding Room	4.65
Dietary	
Dietitian Office	5.02/staff
Supply Receiving Area	4.65
Cold and Dry Storage Area	4.65
Food Preparation Area	4.65
Cooking and Baking Area	4.65
Serving and Food Assembly Area	4.65
Washing Area	4.65
Garbage Disposal Area	1.67
Dining Area	1.40/person
Toilet	1.67
Cadaver Holding Room	7.43/bed
Clinical Service	
Emergency Room	
Waiting Area	0.65/person
Toilet	1.67
Nurse Station	5.02/staff
Supply Receiving Area	4.65
Examination and Treatment Area with Lavatory/Sink	7.43/bed
Observation Area	7.43/bed
Equipment and Supply Storage Area	4.65
Wheeled Stretcher Area	1.08/stretcher
Outpatient Department	
Waiting Area	0.65/person
Toilet	1.67
Admitting and Records Area	5.02/staff
Examination and Treatment Area with Lavatory/Sink	7.43/bed
Consultation Area	5.02/staff
Surgical and Obstetrical Service	
Major Operating Room	33.45
Delivery Room	33.45
Sub-sterilizing Area	4.65
Sterile Instrument, Supply and Storage Area	4.65
Scrub-up Area	4.65
Clean-up Area	4.65
Dressing Room	2.32
Toilet	1.67
Nurse Station	5.02/staff
Wheeled Stretcher Area	1.08/stretcher
Janitor's Closet	3.90
Nursing Unit	
Semi-private Room w/ Toilet	7.43/bed
Private Room	7.43/bed
Toilet	1.67
Isolation Room with Toilet	9.29
Nurse Station	5.02/staff
Treatment and Medication Area with Lavatory/Sink	7.43
Central Sterilizing and Supply Room	
Receiving and Releasing Area	5.02/staff
Work Area	5.02/staff
Sterilizing Room	4.65
Sterile Supply Storage Area	4.65

Nursing Service	
Chief Nurse Office	5.02/staff
Ancillary Service	
Primary Clinical Laboratory	
Clinical Work Area with Lavatory/Sink	10.00
Pathologist Area	5.02/staff
Toilet	1.67
Radiology	
X-ray Room with Control Booth, Dressing Area and Toilet	14.00
Dark Room	4.65
Film File and Storage Area	4.65
Radiologist Area	5.02/staff
Pharmacy	15.00

Notes:

1. 0.65/person – Unit area per person occupying the space at one time
2. 5.02/staff – Work area per staff that includes space for one (1) desk and one (1) chair space for occasional visitor and space for aisle
3. 1.40/person – Unit area per person occupying the space at one time
4. 7.43/bed – Clear floor area per bed that includes space for one (1) bed, space for occasional visitor and space for passage of equipment
5. 1.08/stretcher – Clear floor area per stretcher that includes space for one (1) stretcher

Ensuring Accessibility of Hospital Buildings

The Accessibility Law or Batas Pambansa 344 provides for minimum requirements and standards on how to make buildings and facilities for public use accessible for persons with disabilities (PWDs). This law aims to enhance the mobility of PWDs by requiring certain buildings, institutions and public utilities to install facilities and other devices (National Council on Disability Affairs, 2014).

In the aftermath of a disaster and in rebuilding the structures that were destroyed, this law should be taken into account. The rise in disabilities from injuries suffered during a disaster like Typhoon Yolanda should prompt builders to ensure that guidelines set by the Accessibility Law are adhered to. The design of hospitals and other health facilities must consider accessibility for all, including those with mobility, visual, hearing, speech, mental and intellectual impairments.

The Accessibility Law defines six basic physical planning requirements (Rule II, Section 1.3), namely:

1. Accessibility – The built environment shall be designed so that it shall be accessible to all people. This means that no criteria shall impede the use of facilities by either the PWD or non-PWD citizens.
2. Reachability – Provisions shall be adapted and introduced to the physical environment so that as many places or buildings as possible can be reached by all.
3. Usability – The built environment shall be designed so that all persons, whether having disabilities or not, may use and enjoy it.
4. Orientation – Finding a person's way inside and outside of a building or open space shall be made easy for everyone.
5. Safety – Designing for safety insures that people shall be able to move about with less hazards to life and health.
6. Work Ability and Efficiency – The built environment shall be designed to allow PWDs to participate and contribute to development goals.

The following table describes the minimum requirements for accessibility for public buildings and facilities taken from Accessibility in Post-Yolanda Philippines: Guidance Note in Applying Law and Standards in Yolanda-affected Areas.

Table 2 Minimum Requirements for Accessibility for Public Buildings and Facilities

Accessibility Feature	Planning Principle
A. Outside and Around Buildings	
1. Dropped Curbs	• Changes in level walkways should be by a dropped curb.
2. Curb Cut-outs	• Dropped curbs should be provided at pedestrian crossings and at the end of walkways of a private street or access road.
3. Walkways and Passageways	• Walkways should be kept as level as possible and provided with slip-resistant material. • Walkways should provide clear, obstruction-free, level, continuous and wide pathways for the convenience of all users, especially blind people and people with mobility problems.
4. Handrails	• Handrails should be installed at both sides of ramps and stairs at the outer edges of dropped curbs to avoid risks of fall. • Handrails at dropped curbs should not be installed beyond the width of any crossing so as not to obstruct pedestrian flow. • Handrails must be easy to grip.
5. Open Spaces	• Where open spaces are provided, people with vision impairments can become particularly disoriented. Therefore, it is extremely helpful if any walkway or paths can be given defined edges either by the use a of planter with low height walls or a grass verge or similar, which provides a texture different from the path.

6. Signage	• Directional and informational signs should be located at points conveniently seen even by a person in a wheelchair and those with visual impairments. • Signs should be kept simple and easy to understand. • Signage should be made of contrasting colors and contrasting gray matter to make detection and reading easy.
7. Crossings	• Facilitate the safe and independent crossing of pedestrians, especially those with reduced mobility and visual impairment.
8. Parking	• Provide accessible parking facilities as close as possible to the point of destination.
B. Inside Public Buildings and Structures	
1. Entrances	• Entrances should be accessible from arrival and departure points to the interior lobby.
2. Ramps	• Changes in level require a ramp, except when served by a dropped curb, an elevator or other mechanical device. • Ramps shall have a minimum clear width of 1.20 m. • The maximum gradient shall be 1:12.
3. Doors	• Facilitate the passage of all people and especially wheelchair users through doors.
4. Thresholds	• Thresholds shall be kept to a minimum. Whenever necessary, thresholds and sliding door tracks shall have a maximum height of 25 mm and preferably be ramped.
5. Switches	• Provide different operating mechanisms and fixed features for the use of the public in reachable zones.
6. Signage	• Same as outside and around buildings.
7. Corridors	• Provide wide corridors without difference in level and obstructions to facilitate the passage of all users and the maneuvering of wheelchair users.

8.	Washrooms and Toilets	• Communal and shared toilets must also comply with the Accessibility Law. There must be sufficient accessible space inside toilet facilities, with all fixtures and fittings being within easy reach. • Wash basins need to be installed at a height that can be reached by wheelchair users with space below to accommodate the knees.
9.	Stairs	• Provide safe and well-dimensioned staircases for the comfort of people with reduced mobility and those with visual impairment.

HOSPITAL PLANS AND PERSPECTIVES

The following illustrations are model plans and perspectives for hospitals of varying bed capacities. The Health Facility Development Bureau developed these designs as models for the construction of hospitals in the Philippines. Included here are plans and perspectives for 25-, 50-, and 100-bed capacity hospitals.

These model plans and perspectives are also available for download at the Building Back Better Website with the following link: http://buildingbackbetterhealth.doh.gov.ph/downloads.

Two-Storey, 25-Bed Hospital Level One

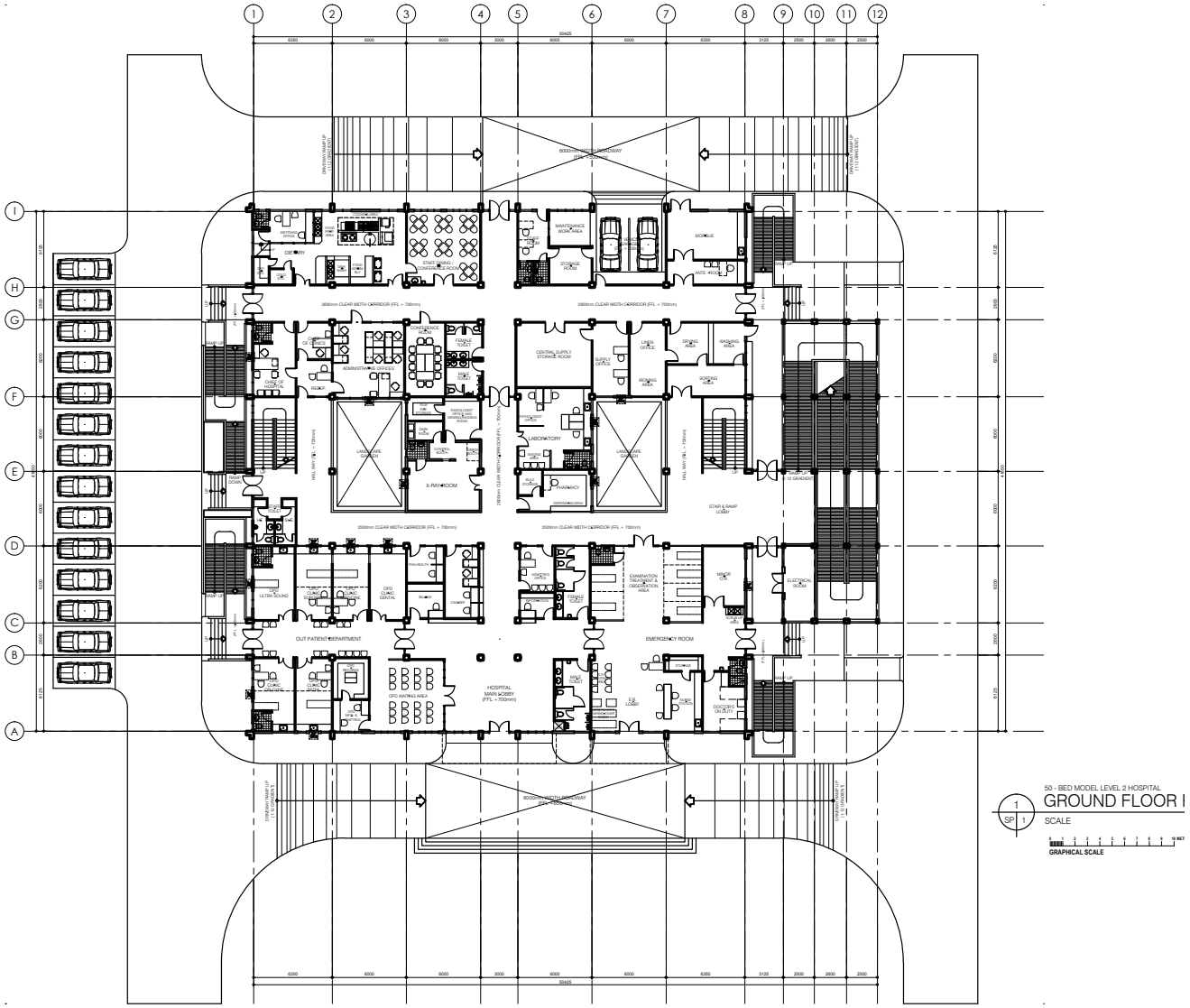


Figure 1 Two-Storey, 25-Bed Hospital Level One: Ground Floor Plan

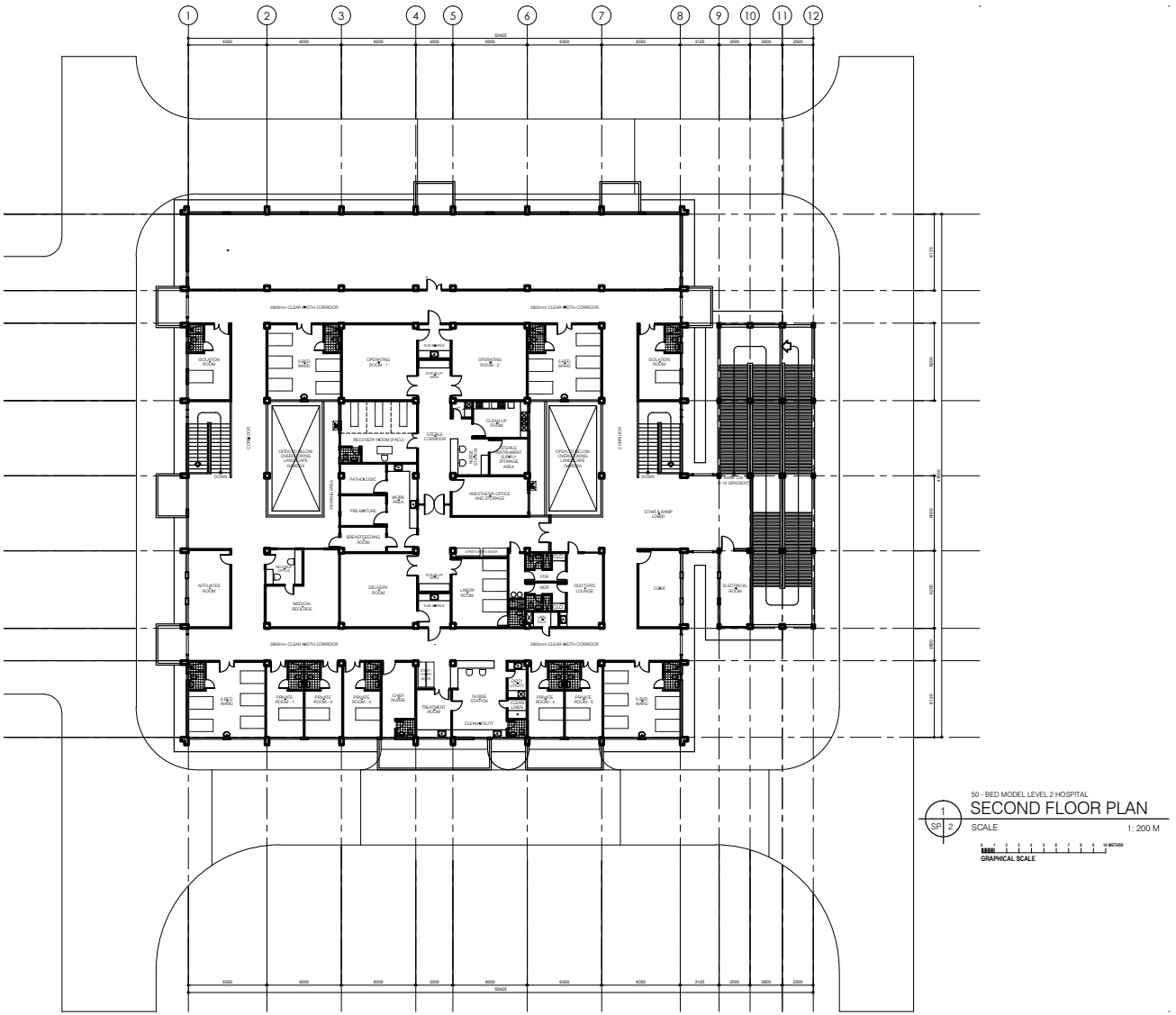


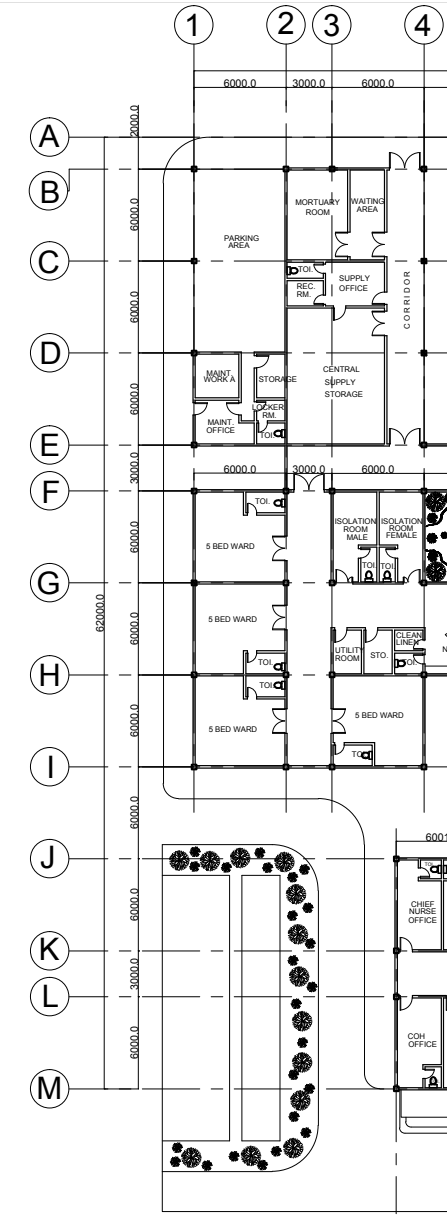
Figure 2 Two-Storey, 25-Bed Hospital Level One: Second Floor Plan

To download, please visit: http://buildingbackbetterhealth.doh.gov.ph/downloads

Figure 3 Two-Storey, 25-Bed Hospital Level One: Perspective

One Storey, 50-Bed Hospital Level One

Figure 4 One-Storey, 50-Bed Hospital Level One: Ground Floor Plan



GROUND FLOOR PLAN

Figure 5 One-Storey, 50-Bed Hospital Level One: Perspective

Two-Storey, 50-Bed Hospital Level One

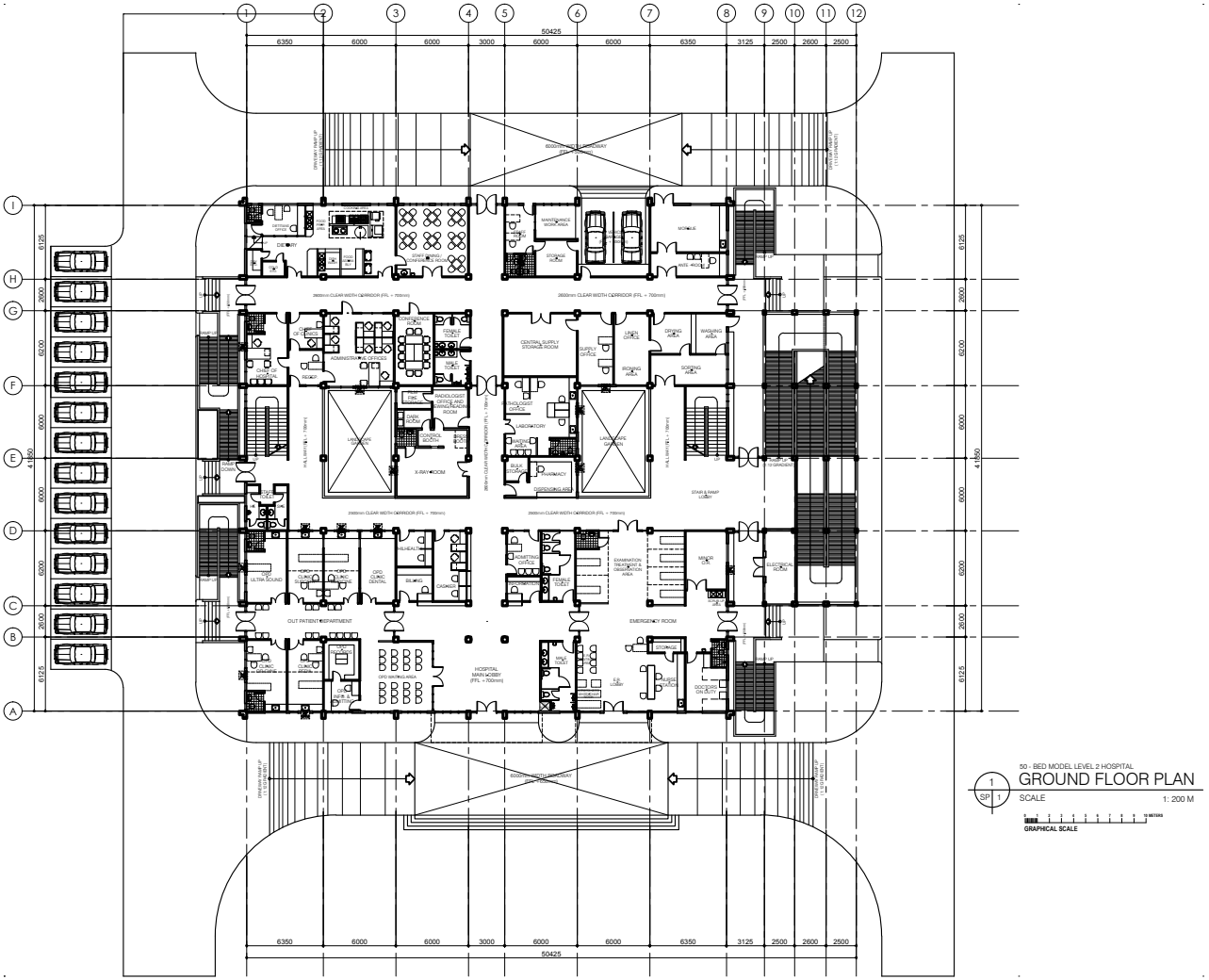


Figure 6 Two-Storey, 50-Bed Hospital Level One: Ground Floor Plan

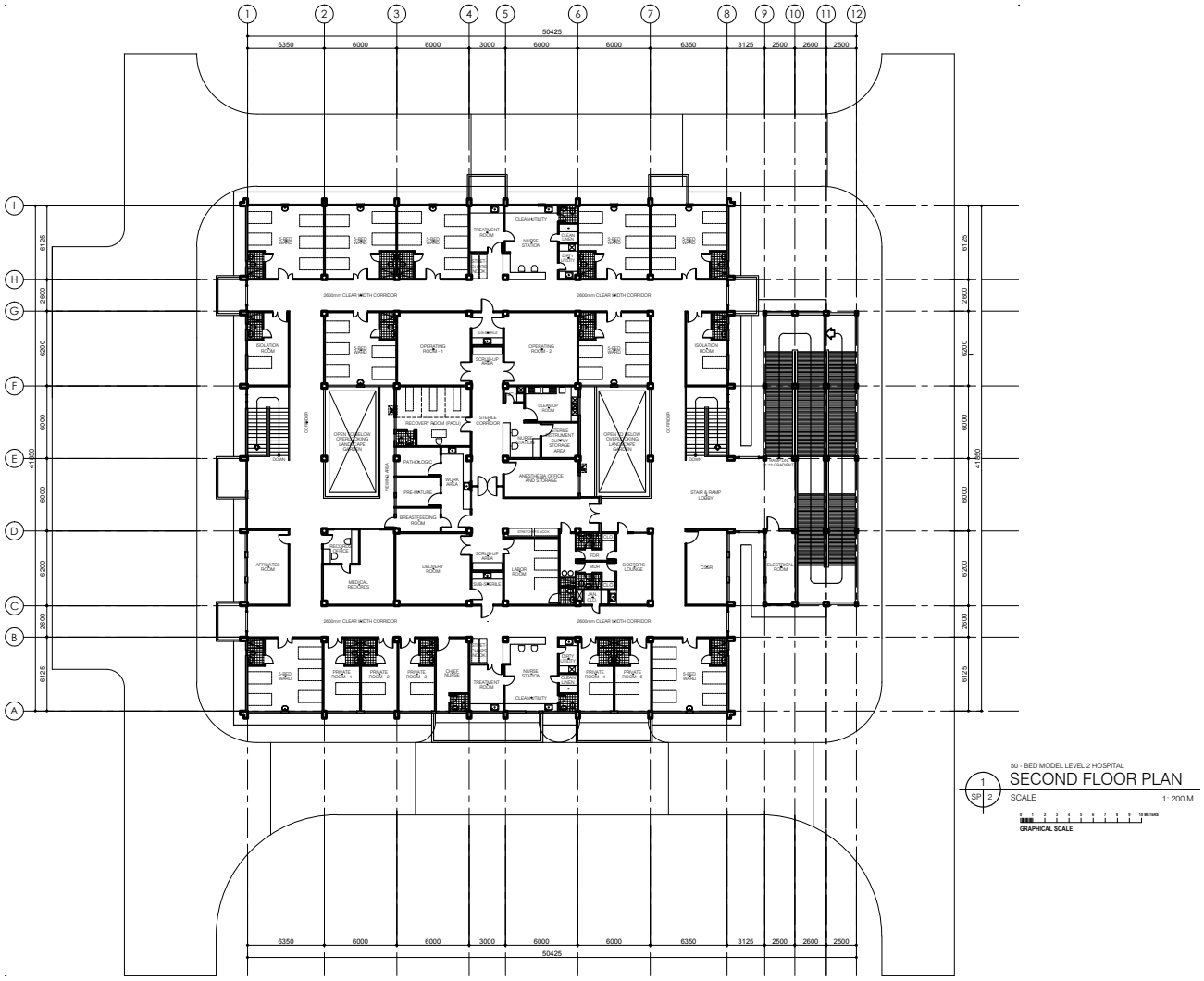
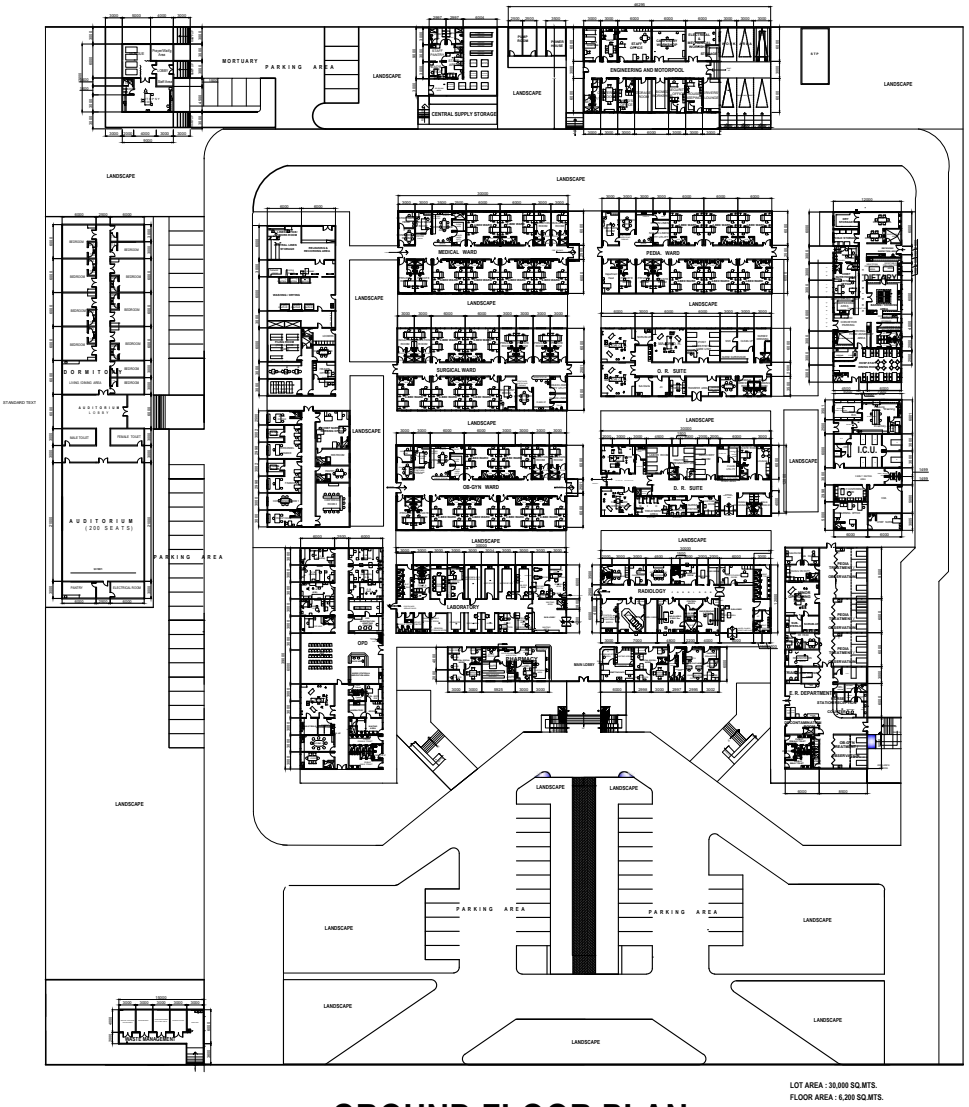


Figure 7 Two-Storey, 50-Bed Hospital Level One: Second Floor Plan

To download, please visit: http://buildingbackbetterhealth.doh.gov.ph/downloads

Figure 8 Two-Storey, 50-Bed Hospital Level One: Perspective

One-Storey, 100-Bed Hospital Level Two



GROUND FLOOR PLAN
100-BED, ONE-STOREY HOSPITAL

Figure 9 One-Storey, 100-Bed Hospital Level Two: Floor Plan

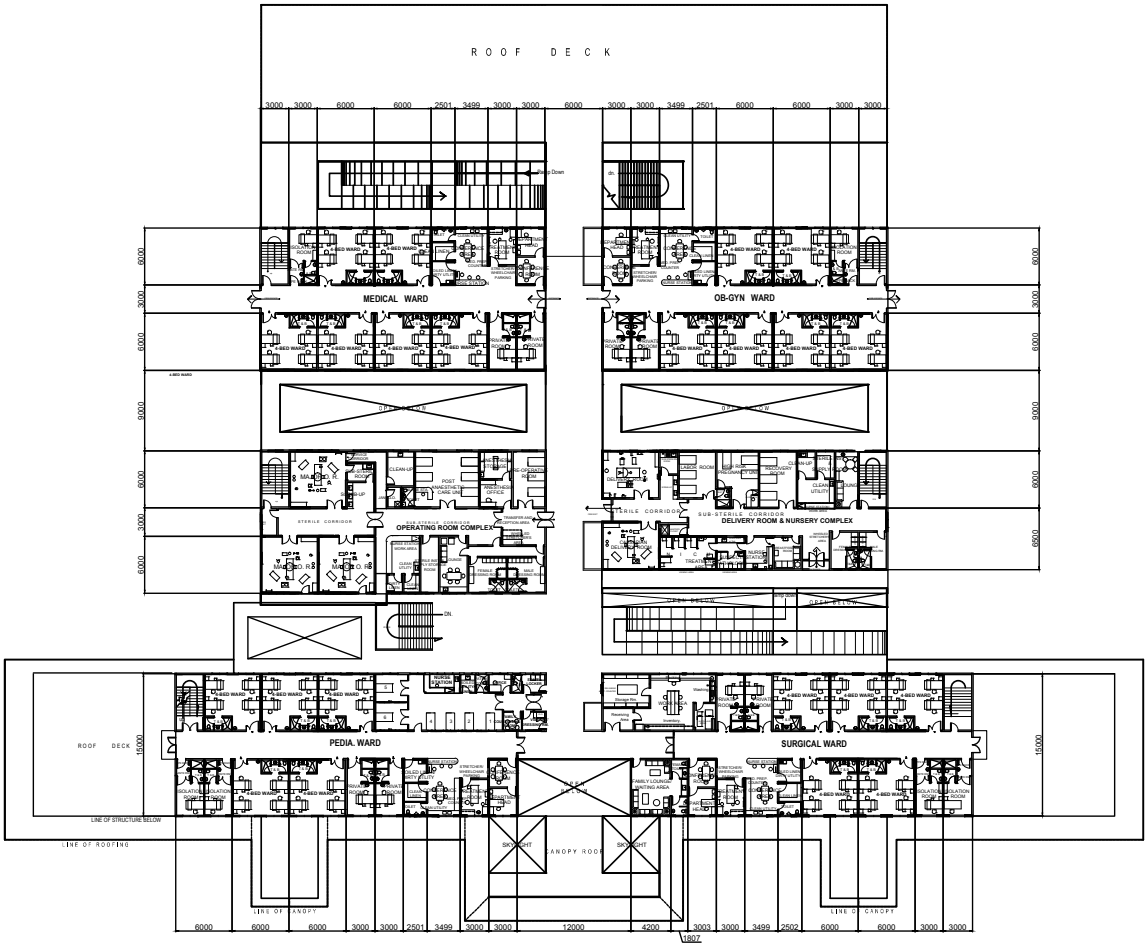
Figure 10 One-Storey, 100-Bed Hospital Level Two: Perspective

To download, please visit: http://buildingbackbetterhealth.doh.gov.ph/downloads

Two-Storey, 100-Bed Hospital Level Two

GROUND FLOOR PLAN
100-BED, TWO-STOREY

Figure 11 Two-Storey, 100-Bed Hospital Level Two: Ground Floor Plan



SECOND FLOOR PLAN

100-BED, TWO-STOREY

Figure 12 Two-Storey, 100-Bed Hospital Level Two: Second Floor Plan

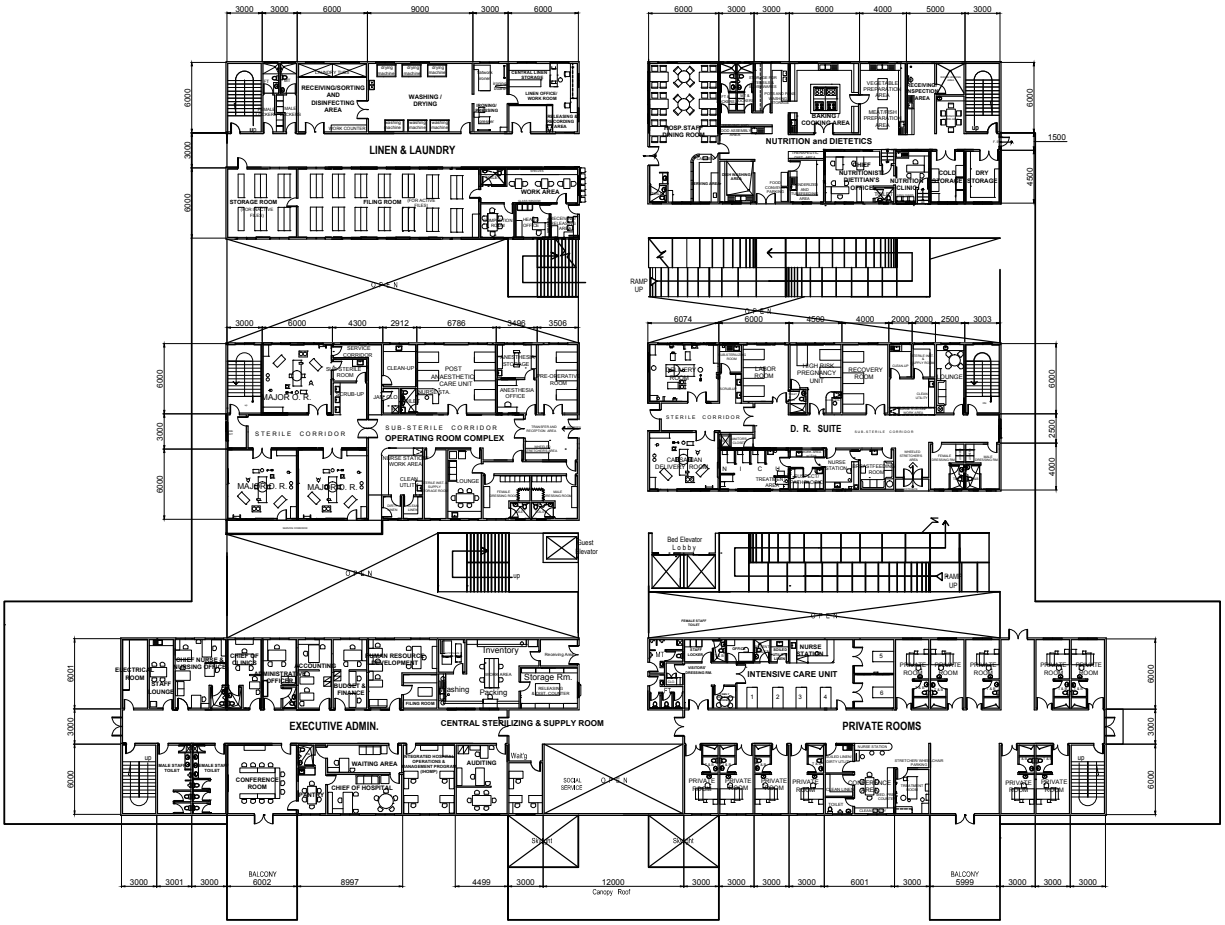
To download, please visit: http://buildingbackbetterhealth.doh.gov.ph/downloads

Figure 13 Two-Storey, 100-Bed Hospital Level Two: Perspective

Three-Storey, 100-Bed Hospital Level Two

GROUND FLOOR PLAN
100-BED, THREE-STOREY HOSPITAL

Figure 14 Three-Storey, 100-Bed Hospital Level Two: Ground Floor Plan

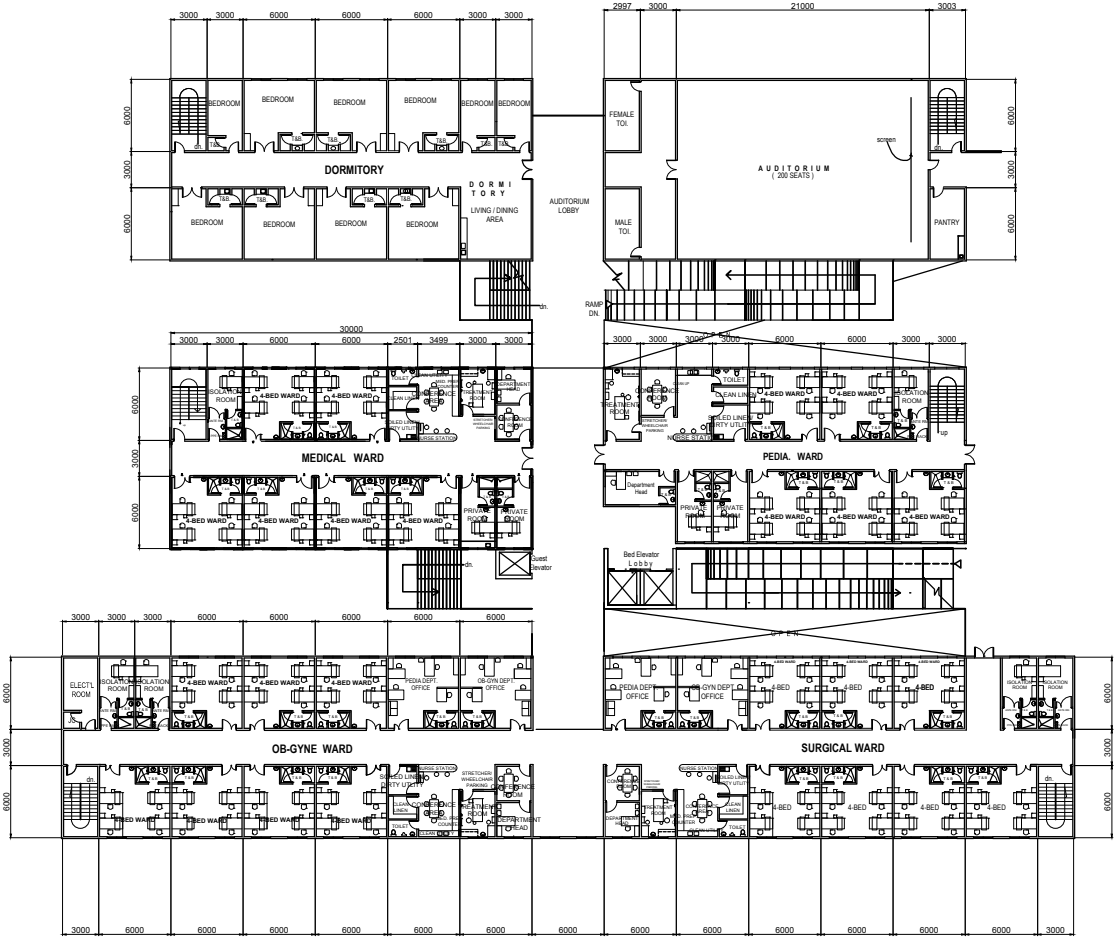


SECOND FLOOR PLAN

100-BED, THREE-STOREY HOSPITAL

Figure 15 Three-Storey, 100-Bed Hospital Level Two: Second Floor Plan

To download, please visit: http://buildingbackbetterhealth.doh.gov.ph/downloads



THIRD FLOOR PLAN
100-BED, THREE-STOREY HOSPITAL

Figure 16 Three-Storey, 100-Bed Hospital Level Two: Third Floor Plan

To download, please visit: http://buildingbackbetterhealth.doh.gov.ph/downloads

Figure 17 Three-Storey, 100-Bed Hospital Level Two: Perspective

STANDARDS FOR HEALTH HUMAN RESOURCE IN GOVERNMENT HOSPITALS

Human resources are key to the proper functioning of hospitals. Health facilities could go on functioning for days with limited to no supplies or damaged infrastructure, but they are immediately crippled when human resources are compromised. The hospital staff are stewards of health facilities and providers of care and must be given due attention in any attempt to build, rebuild or build back better health facilities.

The DOH Health Human Resource Development Bureau developed the Revised Organizational Structure and Staffing Standards for Government Hospitals in 2013 (Department of Health, 2013). This document provides a comprehensive guide on model organizational structure and standard staffing patterns for government hospitals. The standards are summarized in the following sections.

Organizational Configuration

Factors considered in the new standards on organizational structure and staffing patterns in government hospitals include:

1. Minimum DOH licensing requirements and PhilHealth accreditation requirements
2. New hospital licensing category (Level 1, Level 2, Level 3 hospitals) based on DOH Administrative Order No. 2012-0012
3. Specialty society training accreditation requirements (particularly for medical staff)
4. Distribution of medical staff to cover the outpatient department emergency room and inpatient hospitals areas; and
5. Health human resource master plan

The four basic organizational units are the Chief of Hospital Office; Medical Service; Nursing Service; and Hospital Operations and Patient Support Service. These four basic units should be present in Level 1 and Level 2 hospitals.

In Level 3 hospitals, a finance service is added to the four basic units. This division-level entity is responsible for accounting, budgeting, cashiering, billing and claims and cash operations and is also tasked to improve capacity to generate revenues.

The functions of these units are the following:

1. **Chief of Hospital Office/Medical Center Chief** – responsible for the overall management and administration of the hospital; formulation of policies, plans, programs and strategies to ensure implementation of health standards for the attainment of quality health care and high standards of clinical training for medical and allied medical personnel; and the day-to-day supervision and administration of the functional units.

2. **Medical Service** – responsible for providing quality inpatient and outpatient care and high standards of clinical training for medical and allied medical personnel; provision of ancillary and allied health services to patients; promotion of research activities; implementation of a clinical resource management system; and advising and assisting the chief of hospital in the formulation and implementation of policies, plans and programs of the hospital.

3. **Nursing Service** – responsible for implementing nursing programs for total quality health care; providing nursing care to medical cases; and developing, coordinating and implementing relevant training programs for nursing personnel.

4. **Hospital Operations and Patient Support Service (formerly Administrative Service)** – provision of administrative services relating to personnel management, administrative records management, property and supply management, general services, engineering and security.

5. **Finance Service** – responsible for the provision of financial services relating to budgeting, accounting, cash operations, billing and claims.

Model Organizational Structure for Government Hospitals

The following tables list the model organizational structure for different levels of hospitals and for each authorized bed capacity per level.

Table 3 Model Organizational Structure for Level 1 Hospital (25 to 75-Bed Capacity)

Organizational Unit	Number of Positions		
	Bed Capacity		
	25	50	75
A. Chief of Hospital Office	**3**	**3**	**3**
B. Medical Service	**52**	**64**	**75**
1. Outpatient	5	5	5
2. Emergency Room	5	9	12
3. Clinical Units	11	14	16
4. Clinical Laboratory	5	6	7
a. Blood Station	3	3	3
5. Radiology	4	5	7
6. Dental	2	2	2
7. Health Information Management	3	3	3
a. Admitting/Information	4	4	4
8. Nutrition and Dietetics	4	5	6
9. Pharmacy	4	5	6
10. Medial Social Work	2	3	4
C. Nursing Service	**39**	**51**	**61**
1. Nurse Supervisor Office	1	1	1
2. Clinical Nursing Units	13	24	34
3. Operating Room	6	6	6
4. Recovery Room	6	6	6
5. Isolation Room	4	4	4
6. Delivery Room	9	10	10

D. Hospital Operations and Patient Support Service	**19**	**26**	**28**
1. Office of the Administrative Officer	2	2	2
2. Human Resource Management	2	2	2
3. Procurement, Property and Supply	2	2	2
4. Engineering and Facilities Management	5	9	11
5. Housekeeping/Laundry	2	3	3
6. Accounting	2	3	3
a. Billing and Claims	2	2	2
7. Cash Operations	2	3	3
8. Security	To be contracted out		
Total Number of Positions	**113**	**144**	**166**

Table 4 Model Organizational Structure for Level 2 Hospital (100 to 200-Bed Capacity)

Organizational Unit	Number of Positions		
	Bed Capacity		
	100	150	200
A. Chief of Hospital Office	**4**	**4**	**5**
1. Office of the Medical Center Chief	2	2	2
2. Integrated Hospital Operations and Management Program	2	2	3
B. Medical Service	**122**	**161**	**192**
1. Office of the Chief of Medical Professional Staff	2	2	2
2. Outpatient Department	9	11	12
3. Emergency Medicine Department	19	26	31
4. Clinical Departments	26	35	48
5. Special Care Areas	4	6	6
6. Department of Pathology	2	2	2
a. Blood Bank	6	8	9
b. Anatomic and Clinical Laboratory	13	18	20
7. Department of Radiology	8	11	11
8. Dental	3	3	4
9. Health Information Management	5	7	9
a. Admitting/Information	5	6	7
10. Nutrition and Dietetics	9	13	15
11. Pharmacy	7	8	10
12. Medical Social Work	4	5	6
C. Nursing Service	**122**	**180**	**227**
1. Office of the Chief Nurse	4	4	4
2. Clinical Nursing Units	55	83	108
3. Operating Room	14	21	26
4. Delivery Room	11	17	21

5. Special Care Areas			
a. Post Anesthesia Care Unit	7	10	11
b. Intensive Care Unit	6	9	10
c. Neonatal Intensive Care Unit	14	21	27
d. Pulmonary/Respiratory Unit	6	8	11
D. Hospital Operations and Patient Support Department	**44**	**59**	**69**
1. Office of the Administrative Officer	2	2	2
2. Human Resource Management	4	5	6
3. Procurement	4	5	5
4. Materials Management	5	6	7
5. Engineering and Facilities Management	8	13	15
a. Housekeeping/Laundry	3	5	5
6. Budget	3	3	3
7. Accounting	5	6	7
a. Billing and Claims	5	7	9
8. Cash and Operations	5	7	10
9. Security	To be contracted out		
Total Number of Positions	**292**	**404**	**493**

Table 5 Model Organizational Structure for Level 3 Hospital (200 to 500-Bed Capacity)

Organizational Unit	Number of Positions			
	Bed Capacity			
	200	300	400	500
A. Office of the Medical Center Chief	**12**	**14**	**14**	**14**
1. Office of the Medical Center Chief	4	4	4	4
2. Professional Education and Training	5	5	5	5
3. Integrated Hospital Operations and Management Plan	3	5	5	5
B. Medical Service	**306**	**455**	**592**	**727**
1. Office of the Chief of Medical Professional Staff	2	2	2	2
2. Outpatient Department	14	19	22	25
3. Emergency Medicine Department	34	49	64	76
4. Clinical Departments	95	167	231	311
5. Special Care Areas	15	17	19	21
6. Department of Pathology				
a. Blood Bank	12	17	21	24
b. Anatomic and Clinical Laboratory	34	51	63	70
7. Department of Radiology	20	26	33	37
8. Dental	5	7	8	8
9. Health Information Management	16	18	22	25
a. Admitting/Information	8	12	15	17
10. Nutrition and Dietetics	23	26	34	37
11. Pharmacy	**20**	**32**	**42**	**54**
12. Medical Social Work	8	12	16	20
C. Nursing Service	**211**	**299**	**389**	**469**
1. Office of the Chief Nurse	5	5	5	5
2. Clinical Nursing Units	84	125	165	205
3. Operating Room	32	44	57	69

4. Special Care Areas	31	44	57	69
5. Pulmonary/Respiratory Unit	11	14	19	21
6. Obstetrics Complex	5	7	9	9
a. Labor Room	5	8	10	12
b. Delivery Room	16	21	26	31
c. Obstetrical Operating Room				
i. Caesarian Section/Operating Room	8	12	16	19
ii. Ligation Room	2	2	3	3
d. Recovery Room	5	8	10	12
7. Central Supply and Sterilization	7	9	12	14
D. Hospital Operations and Patient Support Service	**44**	**58**	**72**	**76**
1. Office of the Administrative Officer	3	3	3	3
2. Human Resource Management	8	9	11	11
3. Procurement	5	7	8	8
4. Materials Management	5	7	8	8
5. Engineering and Facilities Management	18	25	32	35
a. Housekeeping/Laundry	5	7	10	11
6. Security	To be contracted out			
E. Finance Service	**36**	**44**	**55**	**63**
1. Office of the Finance Officer	2	2	2	2
2. Budget	3	4	4	4
3. Accounting	8	10	12	13
a. Billing and Claims	13	15	20	24
4. Cash Operations	10	13	17	20
Total Number of Positions	**609**	**869**	**1,122**	**1,349**

Standard Staffing Pattern

The assigned classification, bed capacity and organizational structure of the hospital determines its staffing pattern. In general, the staffing pattern includes the medical staff, the nursing staff and other hospital professional personnel in indirect patient care services.

1. **Medical Staff**

   General practitioners and specialists such as surgeons, internists and obstetricians make up the medical staff. The number of general practitioners needed for each hospital is based on the ratio of one general practitioner for every 1,000 patients. The number and type of specialists depend on the services offered and the specialties and sub-specialties.

   A. Medical Staff Positions

   The standard used by the DOH for medical staffing is based on the Shannon formula, which is the result of a study on Developing Metrics for Hospital Medical Workforce Allocation (Shannon, et al., 2007). This formula considers the last average increase in inpatient discharges and outpatient visits for each level to determine the needed staff per level and bed capacity of the hospitals in the last three years. The formula is as follows:

   a. Computation of the required number of medical specialists
      (Average Inpatients x 0.489)/1,000 + (Average Outpatients x 0.252)/1,000
   b. Computation of the required number of medical officers
      (Average Inpatients x 0.737)/1,000 + (Average Outpatients x 0.181)/1,000

   B. Computation of Additional Medical Staff for Teaching and Training Hospitals

   The level of care, number of inpatients and outpatients, authorized and implementing bed capacity, specialty services, capability of the hospital based on the physical structure, availability of equipment, and the presence of an accredited residency program are all considered in determining the number and types of medical specialists. In general, the standard ratio of one surgeon for every 50 beds is applied.

The specialty requirements for training are:

Table 6 Specialty Training and Required Staff

Specialty	Ratio
1. Pediatrics	1 consultant[1] : 4 resident[2] physicians
2. Surgery	1 consultant : 1 resident physician minimum of 3 fellows[3] for 8 or fewer residents a fellow is added for every 2 additional residents
3. Neurology	3 training neurologists : 3 resident physicians 1 faculty member responsible for each of the following: neuroanatomy, psychiatry and behavioral sciences, internal medicine, pediatric sciences, neurology, neuropathology, neuroimaging
4. Dermatology	1 consultant : 3 resident physicians
5. Nuclear Medicine	at least 3 nuclear medicine full time physicians, diplomate status for every gamma machine, and at least 3 training residents for every accredited nuclear medicine residency training facility
6. Anesthesiology	1 consultant : 2 resident physicians
7. Radiation Oncology	1 consultant : 3 resident physicians
8. Obstetrics and Gynecology	1 consultant : 2 resident physicians
9. Urology	1 consultant : 1 resident physician
10. Otolaryngology	1 consultant : 1 resident physician

2. Nursing Staff

The factors determining nursing staffing needs include patients' acuity of illness, special treatment and procedures, type of hospital, ratio of professional to non-professional nursing personnel, turnover of patients and nursing personnel, hospital policy and patient care classification systems.

1 Consultants refer to those occupying medical specialist positions. These physicians are accredited by their respective specialty societies and are experts in their medical specialties. They act as training supervisors to residents.
2 Residents refer to medical officer positions that undergo specialty training programs under the supervision of the consultants.
3 Fellows refer to physicians who enter a training program in a medical specialty after completing residency; board-qualified specialist pursuing subspecialty training.

The nursing service staffing requirement should adhere to the following staff-patient/bed ratio:

Table 7 Nurse to Staff Ratio

Unit	Nurse to Staff Ratio
1. Ward	1 supervising nurse (nurse iii) : 50 staff nurses 1 head nurse (nurse ii) : 15 staff nurses 1 staff nurse (nurse i) : 12 beds per shift 1 nursing attendant : 24 beds per shift
2. Critical Care	1 supervising nurse (nurse iii) : 30 staff nurses 1 head nurse (nurse ii) : 15 staff nurses 1 staff nurse (nurse ii) : 3 beds per shift 1 nursing attendant : 15 beds per shift

3. Other Hospital Professional Personnel in Indirect Patient Care Services

A minimum of five personnel is required for units or sections with 24 hours services to fill the 24 hours seven days a week schedule. Thus, the emergency room, operating room, delivery room, x-ray, laboratory and pharmacy staff requirements will have to be calculated accordingly. In the dispensing pharmacy, the ratio of pharmacist to administrative assistant (pharmacy assistant) is one pharmacist to two administrative assistants. The ratios of staff to bed capacity in other units are listed in the below table.

Table 8 Ratio of Other Personnel in Indirect Patient Care Services to Bed Capacity

Unit	Ratio of Staff to Bed Capacity
Pharmacy	1:25
Nutritionist-Dietetics	1:60
Medical Social Work	1:25
Health Information Management (formerly Medical Records)	1:20

For the staffing pattern for each level of hospital and their respective bed capacity, refer to the Revised Organizational Structure and Staffing Standards for Government Hospitals CY 2013 Edition available at the DOH Health Human Resource Development Bureau.

Hospital Waste Management

Health care facilities generate waste that may be harmful to humans and animals. Health care waste includes all solid and liquid waste generated as a result of any of the following:

- diagnosis, treatment or immunization of human beings;
- research pertaining to the above activities;
- research using laboratory animals for the improvement of human health;
- production or testing of biological agents; or
- other activities performed by health care facilities.

The different categories of health care waste include:

- infectious;
- sharps;
- pathological and anatomical;
- pharmaceutical waste;
- chemical waste;
- radioactive waste; and
- non-hazardous or general waste.

As generators of health care waste, health facilities such as hospitals are responsible for the collection, handling, segregation, transport, treatment and disposal of the waste that they produce. International agreements and national laws and policies govern the management of health care waste – they are listed in the following table.

Table 9 International Agreements, Laws and Policies on Health Care Waste Management

Policies
International Agreements
1. The Montreal Protocol on Substances that Deplete the Ozone Layer (1987)
2. The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal (1989)
3. The United Nations Framework Convention on Climate Change (1992)

4.	The Kyoto Protocol to the United Nations Framework Convention on Climate Change (1997)
5.	The Stockholm Convention on Persistent Organic Pollutants (2001)
National Laws and Policies	
Republic Acts	
1.	Republic Act 4226 – Hospital Licensure Act (1965)
2.	Republic Act 6969 – An Act to Control Toxic Substances and Hazardous and Nuclear Wastes (1990)
3.	Republic Act 8749 – The Philippine Clean Air Act (1999)
4.	Republic Act 9003 – Ecological Solid Waste Management Act (2000)
5.	Republic Act 9275 – The Philippine Clean Water Act (2004)
Presidential Decrees	
1.	Presidential Decree 856 – The Code of Sanitation of the Philippines – Chapter XVII on Sewage Collection and Excreta Disposal (1976)
2.	Presidential Decree 8984 – Providing for the Revision of Republic Act 3931, commonly known as the Pollution Control Law, and for Other Purposes
3.	Presidential Decree 1586 – Environmental Impact Statement System (1978)
4.	Presidential Decree 813 & Executive Order 927 – Further Defining Certain Functions and Powers of the Laguna Development Authority (1983)
Executive Orders	
1.	Executive Order 301 – Establishing a Green Procurement Program for all Departments, Bureaus, Offices and Agencies of the Executive Branch of the Government
Administrative Orders	
1.	Department of Environment and Natural Resources (DENR) Administrative Order 34-1990 – Revised Water Usage and Classification/Water Quality Criteria Amending Section Numbers 68 and 69, Chapter III of the 1978 National Water and Air Pollution Control Commission Rules and Regulations (1990)
2.	DENR Administrative Order 35-1990 – Effluent Regulations (1990)
3.	DOH Administrative Order 70-A Series 2002 – Revised Rules and Regulations Governing the Registration, Licensure and Operations of Hospitals and Other Health Facilities in the Philippines
4.	DENR Administrative Order No. 26, Series 1992 – Amending Memorandum Circular No. 02, Series of 1981: Appointment/Designation of Pollution Control Officers

5. DENR Administrative Order 36-2004 – Revising DENR Administrative Order No. 29 Series 1992, to Further Strengthen the Implementation of Republic Act and Prescribing the Use of the Procedural Manual (2004)
6. DOH-DENR Joint Administrative Order 02-2005 – Policies and Guidelines on Effective and Proper Handling, Collection, Transport, Treatment, Storage and Disposal of Health Care Waste
7. DOH Administrative Order 2005-0029 – Amendment to Administrative Order No. 147 s. 2004: Amending Administrative Order No. 70-A Series of 2002 re: Revised Rules and Regulations Governing the Registration, Licensure and Operation of Hospitals and Other Health Facilities in the Philippines
8. DOH Administrative Order 2007-0014 – Guidelines on the Issuance of Certificate of Product Registration for Equipment or Devices Used for Treating Sharps, Pathological and Infectious Waste
9. DOH Administrative Order 2007-0027 – Revised Rules and Regulations Governing the Licensure and Regulation of Clinical Laboratories in the Philippines
10. DOH Administrative Order 2008-21 – Gradual Phase-out of Mercury in All Philippines Health Care Facilities and Institutions
11. DOH Administrative Order 2008-23 – National Policy on Patient Safety (July 30, 2008)
12. DOH Administrative Order 2010-0033 – Revised Implementing Rules and Regulations of PD 856 Code on Sanitation of the Philippines
13. DOH Department Memorandum 2011-0145 – Guidelines for the Temporary Storage of Mercury Waste in Health Care Facilities in Accordance with AO No. 0021 s. 2008 on the Gradual Phase-out of Mercury in All Philippine Health Care Facilities and Institutions
14. DOH Administrative Order 2011-0020 - Streamlining of Licensure and Accreditation
15. DOH Administrative Order 2012-0012 - The New Classification of Hospitals and Other Health Facilities
16. DOH Administrative Order 2006-004C - Amendment to Administrative Order No. 2006-0004-B Guidelines on the Certificate of Need in Establishing a New General Hospital

Guidelines
1. Health Care Waste Management Manual 2nd edition
2. Philippine Health Insurance Corporation Bench Book for Quality Assurance in Health Care (2001)
3. Operations Manual on the Rules and Regulations Governing Domestic Sludge and Septage (2008)
4. Bureau of Food and Drug Administration (BFAD) Memorandum Circular No. 22 Series of 1994: Inventory, Proper Disposal and/or Destruction of Used Vials or Bottles
5. BFAD Bureau Circular No. 16 Series of 1999 Amending BFAD Memorandum Circular (MC) #22 dated September 8, 1994, Regarding Inventory, Proper Disposal, and/or Destruction of Used Vials or Bottles

Infection Control

The DOH strongly advocates for measures to control infection in health care settings. The built environment is one of the key areas where strategies to control the spread of infection in health care facilities can be applied. Infection control programs must take into account how the built environment can help the health care workers in controlling the spread of infection from patient to patient and from health workers to patient and vice versa. Specific areas in the hospitals may have different technical specifications to prevent infection from spreading. For instance, the design of wards with several patients will have different requirements as compared to the design of critical care units. However, in general, there are principles that should be taken into consideration in the planning stages. Cited below are examples of design principles given by the United Kingdom Department of Health in the Health Building Note 00-09: Infection control in the built environment (DH, Estates and facilities, UK, 2013).

Table 10 Design Parameters for Infection Control in the Built Enviroment

Design to facilitate cleanliness & cleaning
• Use finishes that are impervious, smooth and seamless, as far as practicable.
• Run hard flooring up the walls for a short distance to provide an easy-to-clean coving.
• Eliminate or minimize dead-legs and blind ends in water systems, both in the original design and as the systems are modified.
• Consider hands-free operation of utilities (for example sensor taps, automatic lights, movement sensors for toilet flushes etc).
• Consider hands-free operation of other facilities (for example automatic doors, proximity-sensors etc).
• Consider integral blinds as an alternative to curtains at internal windows.

Encourage desired behavior (for example tidiness and hand hygiene)
• Provide sufficient space for activities to take place and to avoid cross-contamination between adjacent bed spaces.
• Provide sufficient storage for patients' possessions and for all supplies to discourage clutter.
• Ensure proper segregation and management of waste, including clinical waste and linen.
• Provide sufficient domestic waste receptacles.
• Provide bedside waste collection facilities for patient use.
• Avoid unnecessary horizontal surface (for example window sills) in order to discourage clutter.
• Provide enough wash-hand basins and antimicrobial hand-rub dispensers.
• Plan for separation of clean and dirty activities.
• Provide sufficient space for storage and preparation of cleaning equipment and materials.
• Provide suitable facilities for cleaning of equipment.
Design for easy cleaning
• Maintain a visibly clean environment that is free from dust and soilage and acceptable to patients, their visitor and staff.
• Good design can make cleaning immeasurably easier, for example:
» Use finishes that are easy to clean.
» In clinical areas, flooring should be seamless and smooth, slip-resistant, easily cleaned and appropriately wear-resistant.
» Use threshold matting on all external entrances. The type should allow for expected through traffic and easy cleaning.
» Supply pipework should always be concealed.
• Cheap is not always best. Pay attention to whole-life costs, including the costs of cleaning and maintenance.

Addressing Mental Health Post Yolanda

The DOH is cognizant of the fact that mental health problems will increase after any disaster and has been preparing and working to address this in areas hit by Typhoon Yolanda. The Department has a policy of integrating treatment for people with mental health problems into primary care. In order to achieve this objective, the DOH, in cooperation with the WHO, is training primary care physicians and nurses within Region 8 to address mental health problems in the community at the primary care level. It has been shown that this policy works effectively, and those primary care staff already trained are seeing a large number of patients. Most patients can be treated in their own community and near their own home.

However, occasionally a small number of patients will need to be admitted to the hospital, usually for short periods. One of the national plans is to upgrade the capability of secondary and tertiary hospitals to include wards for mental health services. WHO will be working with the DOH to develop a design template for model mental health wards at regional and provincial levels. These will be available soon.

In the interim, the following principles taken from the United Kingdom Department of Health's Health Building Note 03-01: Adult acute mental health units are a good starting point for builders who want to be guided by standards for the construction of mental health clinics and/or wards in hospitals. In particular, the notes on the design of acute care units for patients with mental health problems are instructive. The design of acute care unit should consider (DH, Estates and facilities, UK, 2013):

- Patient comfort and a therapeutic environment;
- Preservation of privacy, dignity and control over the environment as far as possible;
- Safety and security of patients and staff;
- An environment that can support meaningful activities; and
- Separation of different groups based on gender, vulnerability, physical frailty and acuity of illness.

References

Department of Health Health Facility Development Bureau, 2014. *Summary of Typhoon Yolanda Damage Report on Health Facilities (as of January 29, 2014)*, Manila: s.n.

Department of Health, 2004. *System Files*. [Online]
Available at: http://www.doh.gov.ph/system/files/planning_and_design_0.pdf
[Accessed 2014].

Department of Health, 2013. *Administrative Order No. 2013-0014 Policies and Guidelines on Hospitals Safe from Disasters.* Manila: Department of Health.

Department of Health, 2013. *Revised Organizational Structure and Staffing Standards for Government Hospitals CY 2013 Edition*. Manila: Department of Health.

Department of Health, 2014. http://www.doh.gov.ph/sites/default/files/2014_hfep_lgu.pdf. [Online]
Available at: http://www.doh.gov.ph/sites/default/files/2014_hfep_lgu.pdf
[Accessed 1 June 2014].

Department of Health, 2014. National Health Facility Registry v2.0. [Online]
Available at: http://uhmistrn.doh.gov.ph/doh_facility/rfacilities2list.php
[Accessed 14 May 2014].

DH, Estates and facilities, UK, 2013. Collection: DH Health Building Notes. [Online]
Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/147864/HBN_03-01_Final.pdf
[Accessed 2 July 2014].

DH, Estates and facilities, UK, 2013. Collection: DH Health Building Notes. [Online]
Available at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/170705/HBN_00-09_infection_control.pdf
[Accessed 2 July 2014].

Israel, D. C., 2012. *Typhoons, floods, and droughts: regional occurence and value of damages to rice farming in the Philippines*. Manila: Philippine Institute for Development Studies.

Kreft, S. & Eckstein, D., 2013. Global Climate Risk Index 2014: *Who Suffers Most from Extreme Weather Events? Weather-Related Loss Events in 2012 and 1993 to 2012*, s.l.: Germanwatch e.V.

National Council on Disability Affairs, 2014. *Accessibility in Post-Yolanda Philippines: Guidance Note in Applying Law and Standards in Yolanda-affected Areas*. Manila: s.n.

National Disaster Risk Reduction and Management Council, 2014. www.ndrrmc.gov.ph. [Online]
Available at: http://www.ndrrmc.gov.ph/attachments/article/1177/Update%20Effects%20TY%20YOLANDA%2017%20April%202014.pdf
[Accessed 2014].

Shannon, E. A., Brand, B. A., Ratcliffe, K. M. & Tranter, B. K., 2007. *Developing metrics for hospital medical workforce allocation*. Australian Health Review, 31(3), pp. 411-421.

RISING ANEW

HEALTH AT THE HEART OF HEALING

A photo book on the rehabilitation and rebuilding of Yolanda-ravaged hospitals

Typhoon Yolanda (Haiyan) was the strongest recorded typhoon to ever hit the Philippines. It ravaged the Eastern Visayas region in incalculable proportions, with the destruction leaving the economy and society devastated.

Aside from the massive damages to infrastructure and deaths, the region's health facilities were also significantly affected.

This photo book is in honor of the thousands of lives taken, the families left behind and the millions affected by the typhoon. We likewise honor those who continue to extend medical support for the health and the healing of the affected regions.

KALUSUGAN PANGKALAHATAN

REPUBLIC OF THE PHILIPPINES · DEPARTMENT OF HEALTH ·