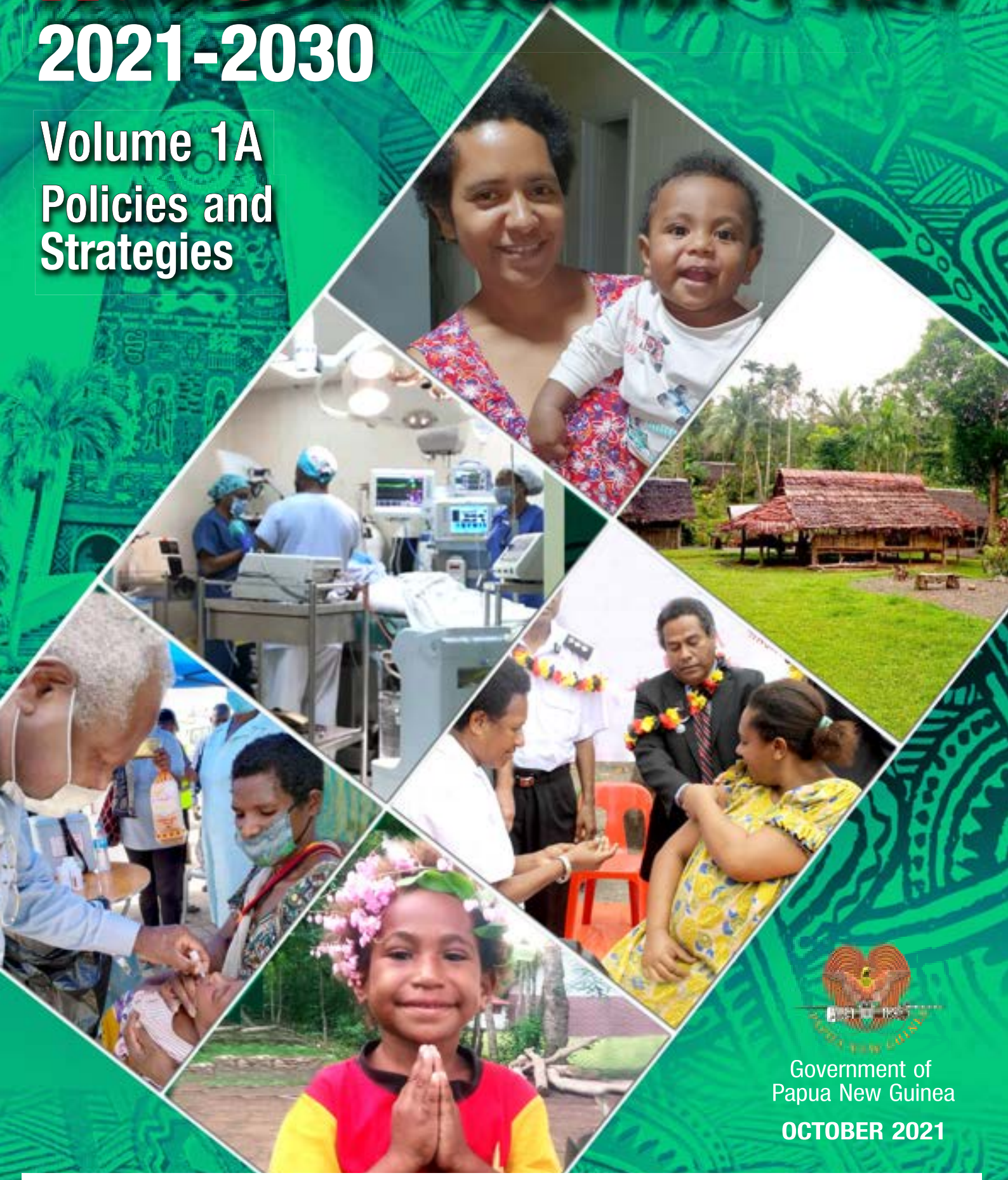
National Health Plan 2021-2030

Volume 1A
Policies and Strategies



Government of
Papua New Guinea

OCTOBER 2021

BUILDING THE HEALTH OF OUR PEOPLE
LEAVING NO-ONE BEHIND IS EVERYBODY'S BUSINESS

National Health Plan 2021-2030

The policy component of this plan was approved by the National Executive Council on the 14th of July 2021 and the costing component was approved on the 06th of October 2021.

The development of this plan was co-ordinated by the Policy, Planning and Economics Branch of National Department of Health.
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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACRONYMS

ADB	Asian Development Bank
AIP	Annual Implementation Plan
ART	Anti-Retroviral Therapy
CHP	Community Health Post
CHW	Community Health Worker
CPHL	Central Public Health Laboratory
DDA	District Development Authorities
DHS	Demographic and Health Survey
DHIS	Discharge Health Information System
DoT	Department of Treasury
DPLLGA	Department of Provincial and Local Level Government Affairs
DSIP	District Service Improvement Program
DSP	Development Strategic Plan
eNHIS	Electronic National Health Information System
FBOs	Faith-Based Organisations
FPH&SSHCP	Free Primary Health and Subsidised Specialised Health Care Policy
GoPNG	Government of Papua New Guinea
HIV and AIDS	Human Immunodeficiency Virus and Acquired Immune Deficiency Syndrome
HRH	Human Resources for Health
HSSDP	Health Sector Service Delivery Program
ICT	Information Communication Technology
IHR	International Health Regulations
PNG IMR	Papua New Guinea Institute of Medical Research
LLG	Local Level Government
ITN	Insecticide Treated Nets
KRAs	Key Result Areas
MDA	Mass Drug Administration
MDGs	Millennium Development Goals
MEL	Monitoring, Evaluation and Learning
MQCL	Medicine Quality Control Laboratory
MTDP	Medium Term Development Plan
NCD	Non-Communicable Disease
NDoH	National Department of Health
NGOs	Non-Government Organisations
NHAA	National Health Administration Act
NHIS	National Health Information System
NHP	National Health Plan
NHPSA	National Health Plan Situational Analysis
NHSS	National Health Service Standards
NIPH	National Institute of Public Health
NRL	National Reference Laboratory
NTD	Neglected Tropical Diseases
OLP&LLG	Organic Law on Provincial and Local Level Government
PAF	Performance Assessment Framework
PHA	Provincial Health Authority

PHC	Primary Health Care
PHI	Public Health Institute
PMGH	Port Moresby General Hospital
PMTCT	Prevention of Mother to Child Transmission
PNG	Papua New Guinea
PNG DSP	PNG Development Strategic Plan
SDG	Sustainable Development Goal
SLOS	Social and Law and Order Sector
SOPs	Standard Operating Procedures
SPAR	Sector Performance Annual Review
STIs	Sexually Transmitted Diseases
TB	Tuberculosis
UHC	Universal Health Coverage
UPNG	University of Papua New Guinea
VA	Verbal Autopsy
VHA	Village Health Assistant
WAN	Wide area network
WaSH	Water, Sanitation, Hygiene

MESSAGE FROM THE MINISTER FOR HEALTH AND HIV/AIDS

The future of our country depends on the decisions we make today, charting the pathway for the health sector as we move towards the objectives contained in our Vision 2050. For every man, woman, and child to live in peace, grow and be happy, they must be healthy both mentally and physically.

The Government of Papua New Guinea has set the direction for our country based on experiences learned from implementing previous health plans. We see health as an investment that will enhance development for our country.

The goal of our last National Health Plan 2011–2020 was to strengthen primary healthcare for all and improve service delivery for the rural majority and urban disadvantaged. We focused on rehabilitating primary healthcare facilities and establishing community health posts in strategic locations. Some of this work is unfinished, and we will continue to implement unfinished initiatives under this new National Health Plan 2021–2030.

In this National Health Plan 2021–2030, we aim to leave no-one behind. We must work together and consider all our people from infants to the elderly, and those living with disabilities and special needs, because the vulnerable in our communities have many social determinants of health that are not being met.

Additionally, our country is now confronted with an issue that has affected the entire world. There are many lessons learnt that compel us to build and strengthen our health system to mitigate future emergencies through implementing the Sustainable Development Goals and International Health Regulations (2005) and having a National Action Plan for Health Security that will enable us to work in partnership with stakeholders.

Provincial Health Authorities are an important mechanism for implementing health programs at sub-national levels. We must amend the Provincial Health Authorities Act 2007 (PHA Act) and other health governance laws to make the health system effective and achieve health outcomes. Implementing the new National Health Plan 2021–2030 needs a competent and committed workforce. We must build our workforce to serve our rural and hard-to-reach areas and educate our people to take ownership of their own health.

In order that 'no-one is left behind', we will need commitment from all our stakeholders and partners. We will work with existing partners to coordinate effectively and work efficiently to maximise our limited resources. We need central agencies to support our implementation strategies and to create an enabling environment.

To conclude, I encourage everyone involved in the health sector in Papua New Guinea to implement all principles and priorities in National Health Plan 2021–2030, because **"Leaving no-one behind is everybody's business!"**

Honorable Jelta Wong, MP
Minister for Health, HIV & AIDS

FOREWORD FROM THE SECRETARY FOR HEALTH

The National Health Plan 2021–2030 is our single most important strategic policy document that will guide the health sector's planning and implementation for the next 10 years. This is our seventh plan since independence. The plan has been developed during one of most challenging times when we are experiencing a global COVID-19 pandemic that has overwhelmed our health system, compounded by an associated economic downturn.

Despite these challenges, we need to move forward, taking into account our past experiences, assessing our current situation and charting the way forward as responsible citizens of our country.

Despite facing a tough economic situation ahead, we are determined to ensure that no-one is left behind. A key factor for the duration of this plan, is to reverse our poor health indicators by empowering our population to take ownership of their own health, their families' health and their communities' health.

Our key focus is to identify essential packages of care that align with the National Health Services Standards, targeting primary healthcare interventions. In addition, we will remove and amend policies and legislation that hinders effective and efficient delivery of health services at all levels of the health sector.

We will dedicate ourselves to promoting good governance through organisational excellence. We will ensure our limited resources are used wisely to target strategic priorities that will bring about better outcomes for our population.

We must build our workforce and ensure they are competent and retained at strategic locations. We must ensure services are affordable and accessible to our people especially in rural, remote, and hard- to-reach areas.

We will be vigilant to emerging and the re-emergence of pandemics and the impacts of natural disasters by working with all key stakeholders to build our core capacities to implement the International Health Regulations (2005). The business of health extends beyond health itself and involves working in partnership with all stakeholders is the key to successfully implementing the National Health Plan 2021–2030.

We will not deviate away too much from the National Health Plan 2011–2020 as there are unfinished priorities to be completed. We aim to achieve Vision 2050 goals, Sustainable Development Goals and implement the International Health Regulations (2005). It is critical we progressively work together in a sustainable manner to reach our targets.

I urge all health workers and partners to be committed, innovative and work together to implement this plan. Concerted and coordinated efforts will yield better outcomes and leave no-one in Papua New Guinea behind.

I endorse this plan for implementation in the next 10 years. God will lead and guide all the people of this country as we embark on this journey together.

Dr. Osborne Liko
Secretary for Health

EXECUTIVE SUMMARY

The theme for this National Health Plan 2021–2030 (NHP 2021–2030) is **"Leaving no-one behind is everybody's business"**. This plan aims to empower people to take ownership of their own health and wellbeing and to decide, plan and implement health priorities for their families and communities.

Implementing this plan will enable the National Department of Health (NDoH) to work in partnership with all sectors to achieve the directions of Vision 2050, Sustainable Development Goals (SDGs) and International Health Regulations (IHR) (2005). It is important to chart the pathway for the health sector every ten years so that all individuals, inclusive of their ethnicity, faith and age group, grow up to live healthy and happy lives, both physically and mentally.

The implementation of the plan will be guided by the experiences from previous plans. Health as an investment. The plan will set the director for the health sector that will help to propel forward the development of Papua New Guinea (PNG).

The NHP 2021–2030 is divided into two volumes: Volume 1 and Volume 2. Volume 1a outlines the policies, strategies, and key implementation directions of the plan, while Volume 1b contains key program interventions.

Chapter One of Volume 1a sets out the direction and guidance used in developing and implementing the NHP 2021–2030 as mandated by the *National Health Administration Act 1997 (NHAA)* Section 4 (2).

Chapter Two describes the alignment between the NHP 2021–2030, the Government of Papua New Guinea's (GoPNG) overall strategies and plans, and international obligations and commitments. Linkages to Vision 2050 are delivered through the PNG Development Strategic Plan 2010–2030 (PNG DSP) and cascade down and are reflected in the new NHP. This NHP is important as we move from the Millennium Development Goals (MDGs) to the SDGs to meet our international obligations.

In 2019, a situational analysis of the period covered by the NHP 2011–2020 was conducted and is summarised in **Chapter Three.** The situational analysis reflects the impact of the current health situation on health services across the country. Non-communicable diseases (NCDs) account for most deaths in PNG (40.3%); however, infectious diseases remain a major cause of death (21.3%) due to increased deaths related to malaria. HIV rates are stable at 0.83%, with increasing drug resistance at 18.4%, which is one of the highest in the world. Some form of disability is likely to affect 1.3–1.4 million people in PNG, with deaths from injuries (19.1%) accounting for more than double the global rate (8%). The opportunities for health are not uniform across the country, with a spectrum of 17 years difference in life expectancy across provinces. Rural populations continue to have poorer health statuses than their urban peers, although there is growing concern around urban settlement populations. The NHP 2021–2030 will continue to implement some of the priority strategies from the NHP 2011–2020 by focusing on the key result areas, objectives and strategies outlined in Chapter Four.

Chapter Four outlines the policy directions for the next 10 years. The policy directions will ensure that communities are engaged by working in partnership to implement universal health coverage (UHC) and address targeted priorities. The health system will be strengthened by building strong and sustainable health systems, including accountable governance and leadership to achieve functional health facilities. Regularly updated online information for monitoring and evaluation of the health sector will also be strengthened to enable enhanced decision making, delivered through research and innovation.

The key objectives and strategies are outlined under five Key Result Areas (KRAs):

- KRA 1: Healthier communities through effective engagement
- KRA 2: Working together in partnership
- KRA 3: Increase access to quality and affordable health services
- KRA 4: Address disease burdens and targeted health priorities
- KRA 5: Strengthen health systems.

Chapter Five describes the implementation process that will ensure policies and key interventions are coordinated for better alignment and effective and efficient delivery, considering the economic and socio-political environment. To achieve better results, we will enhance coordination with partners and stakeholders in accordance with the *National Planning Act 2016*.

Chapter Six relates to having a well-resourced health workforce. Adequate human resources are the key to the success of the implementation of this plan. A well-trained workforce is critically important at all levels of the health sector to ensure services are provided for everyone. In this plan, the Village Health Assistant Program will be used in a coordinated manner to bridge the gap between our rural communities and the formal health service delivery system.

Pre-service training in line with the government's vision and policies will be implemented by educational institutions. There is a plan to absorb, motivate and retain the health workforce through a program of continuous upskilling to maintain and sustain their competencies. Multi-skilling will be promoted as we continue to scale-up workforce development in PNG.

Chapter Seven discusses medical supply chain management through a number of reforms, with the ultimate aim of strengthening the pull system. The pull system is the procurement and distribution of medical supplies that is driven by consumer demand will be dictated by patient load and disease burden.

Chapter Eight describes financing the NHP 2021–2030 as the primary responsibility of the GoPNG. Health is predominantly funded by the government, supported by development partners, who fill in the gaps. The capacity to absorb out-of-pocket expenditure by communities is relatively low, and any options to increase this contribution to improve overall health sector financing are not considered sustainable in the current environment. Innovative options to finance the health sector are important to guide implementation and are included as part of this plan.

PNG will require ongoing support from donors as the country grapples with emerging economic challenges, such as the rapid decline in export revenue and the negative effects of the COVID-19 global pandemic. The pandemic has impacted domestic economic performance and has also heavily impacted PNG's fragile health system.

Chapter Nine describes the strategy for monitoring and measuring health sector performance. The Monitoring, Evaluation and Learning (MEL) Plan will provide quantifiable indicators to measure health sector performance for the next 10 years. Selection of indicators to track the progress of the NHP will be guided by national and international reporting obligations under the five KRAs. The indicators and their baseline targets in the NHP will be outlined in the Performance Assessment Framework (PAF). The PAF is critical for guiding the progress of the targets, outcomes, and the time for conducting activities. The main indicators to measure are:

- the **input** indicators
- the **output** indicators
- the **outcome** indicators
- the **impact** indicators.

The evaluation will be completed within the framework of health services delivery of the NHP 2021–2030. Joint evaluations of the NHP are planned through annual and mid-term assessments (2024) and a comprehensive end-of-term review (2029). In addition, reporting obligations to parliament, central agencies, and as part of our global commitments, will be undertaken and completed with quality, accuracy, and timeliness. PAF progress reports will be published annually to offer a sector-wide snapshot of advancement towards the goals and targets set. This comprehensive assessment will offer performance-based information by province to further discuss the steps needed to meet the gaps in health service delivery.

Volume 1b of the NHP 2021–2030 outlines the major interventions under each KRA and the indicators of what will be measured. **Volume 2a** provides several snapshots of the health status and disease burden of the country through the situational analysis of the NHP 2011–2020, which was conducted in 2019, and a summary of the Health Demographic and Health Survey (2016–2018). **Volume 2b** describes the district health profiles in terms of population and diseases. Information from Volumes 2a and 2b provided the basis of the position paper that progressed the development of key strategies outlined in Chapter Four of this plan.

Community public health awareness

CHAPTER ONE: INTRODUCTION

PURPOSE AND ROLE OF THE NATIONAL HEALTH PLAN 2021–2030

The NHP 2021–2030 is the governing policy document for the PNG health sector, as mandated by the *National Health Administration Act 1997 (NHAA)* Section 4 (2). This plan provides direction for all stakeholders in the health sector in PNG. It defines policy directions and priority areas for investment across the health sector, guided by national and international policies and obligations outlined in Chapter Two. The plan aims to maximise collective efforts among all stakeholders by improving coordination and strengthening partnerships to address the health needs of the population.

The NHP 2021–2030 is divided into two volumes: Volume 1 and Volume 2. Volume 1a outlines the policies, strategies, and key implementation directions of the plan, while Volume 1b contains key program interventions. Volume 2a provides several snapshots of the health status and disease burden of PNG, including a situational analysis based on the NHP 2011–2020, while Volume 2b provides a profile of the health and disease status of districts and provinces.

PROCESS FOR DEVELOPING THE PLAN

The development of this plan evolved over 12 months, with wide consultation held across a range of stakeholders. A situational analysis on the health status of the country was undertaken as the first stage of the plan development. The analysis provided the basis on which investment decisions were made. There were two distinctive aspects to this exercise:

1. to understand, to the best extent possible, what is the current state of health in PNG (Chapter Three) and what are the priorities that should be addressed
2. to identify key interventions (Chapter Four) that are founded on evidence, best practice, and experience, to enable these priorities to be achieved.

The analysis examined the achievements and challenges of the National Health Plan 2011–2020 and the lessons learnt and documented a position paper, which moved the process forward and identified the key drivers for the NHP 2021–2030, with the overall goal of "Leaving no-one behind is everybody's business".

The key objectives and strategies of the NHP are outlined under five Key Result Areas (KRAs):

- KRA 1: Healthier communities through effective engagement
- KRA 2: Working together in partnership
- KRA 3: Increase access to quality and affordable health services
- KRA 4: Address disease burdens and targeted health priorities
- KRA 5: Strengthen health systems.

The NHP is a policy document that is supported by additional volumes that give guidance on implementation. Health sector stakeholders will work collaboratively to achieve the strategies and implement innovative interventions that align to the standards, global obligations, and relevant clinical, health policies and program strategies. An Implementation Plan for the key interventions is in Chapter Five. Provincial Health Authorities (PHAs) will use the NHP to update their own Corporate Plans and Health Services Development Plans, which, in turn, will

inform Annual Implementation Plans. The NHP also identifies two key health systems components that require reform and strengthening: building a competent workforce for the future (Chapter Six) and reforming and strengthening the medical supply chain and procurement management system (Chapter Seven). Options for financing this plan, including exploring innovative self-financing options, are detailed (Chapter Eight).

A MEL Plan will be developed, which will set targets for the health sector. A PAF detailing what indicators are to be collected, by whom and at what level of government is summarised (Chapter Nine). Annual monitoring of the PAF, a mid-term review, and a final evaluation of the NHP, and major reporting obligations to track the performance of the health sector are also outlined in Chapter Nine.

NDoH Senior Executive Management Team

NDoH Internal Consultation

CHAPTER TWO: PNG'S POLICY FRAMEWORK AND INTERNATIONAL OBLIGATIONS

GOVERNMENT'S FRAMEWORK OF PLANNING

The NHP 2021–2030 is the GoPNG's single most important policy document for health and provides the roadmap for the strategies of the sector. The plan is informed by higher-level government policies and strategies and reflects changing international practice and approaches. The NHP is both implemented within, and supported by, a legislative framework that provides direction to not only health workers, but to all people across PNG.

The hierarchy of PNG's broad policy agenda aligns with the wider vision to fulfil the constitutional aspirations defined in Vision 2050. The vision is underpinned by seven strategic focus areas that, together, are expected to deliver on the promise of a "Smart, wise, healthy and happy society". Vision 2050 is the GoPNG's long-term strategy that maps out the future direction for the country and reflects the aspirations of the people of PNG. Table 1 highlights the linkages between Vision 2050's seven pillars and the NHP's KRAs.

Table 1: Linkages between the National Health Plan and the Government of Papua New Guinea's Vision 2050

Vision 2050 Seven Pillars	Alignment with the National Health Plan's Key Result Areas
Human capital development, gender, youth and people empowerment	KRAs: 1, 3, 4
Wealth creation	KRAs: 1, 2, 3, 5
Institutional development and service delivery	KRAs: 1, 2, 3, 4, 5
Security and international relations	KRAs: 1, 2
Environment sustainability and climate change	KRAs: 1,2, 3, 4, 5
Spiritual, cultural and community development	KRAs: 1, 2
Strategic planning, integration, and control	KRAs: 1, 2, 5

Vision 2050 is delivered through the PNG Development Strategic Plan (DSP) 2010–2030. Health is one of the vital elements in the development strategies with the aim to "achieve an efficient health system which can deliver an internationally acceptable standard of health services". The DSP, in turn, is implemented through defined objectives within five-year Medium-Term Development Plans (MTDP). Health is emphasised as a priority in the current MTDP 111 to achieve "quality health services accessible and efficient" over the next five years. Table 2 shows the alignment of the PNG DSP's Key Health Targets with the NHP's KRAs.

Table 2: Alignment of National Health Plan's Key Result Areas with Papua New Guinea's Development Strategic Plan Key Health Targets

PNG Development Strategic Plan's Key Health Targets	National Health Plan Key Result Areas
By 2030 increase life expectancy from 65 to 70	KRAs: 1, 2, 3, 4
By 2030 reduce mortality rate of children under 5 from 45/1,000 to below 20/1,000	KRAs:1, 2, 3, 4
By 2030 reduce the maternal mortality ratio from 171/100,000 to below 100/100,000	KRAs: 1, 2, 3, 4

Table note: The current targets for the PNG DSP are from the MDGs. SDGs will be captured in the next PNG DSP.

There are a number of inter-sectoral policies that directly impact health programming and drive prioritisation of resources and planning, such the National Population Policy 2015–2024, the National Nutrition Policy 2016–2026, the Water, Sanitation and Hygiene Policy 2015–2030 and the Gender Equity and Social Inclusion Policy. All policies are linked to the government planning framework to drive the achievement of Vision 2050. Table 3 shows how intersectoral policies align with the NHP's KRAs.

Table 3: Alignment of inter-sectoral policies and the National Health Plan

National policy	National Health Plan Key Result Areas
National Population Policy 2015–2024	KRAs: 1, 2, 3, 4
National Nutrition Policy 2016–2026	KRAs: 1, 2, 3, 4
Water, Sanitation and Hygiene Policy 2015–2030.	KRAs: 1, 2, 3, 4
Gender Equity and Social Inclusion Policy	KRAs: 1, 2, 3, 4, 5

In 2019, the GoPNG released its principal policy position of "Take back PNG" and make it the "Richest black Christian nation by 2030" where "No child is left behind", with a focus on organisational excellence and promoting greater efficiency and a strong performance culture within the public service. The new policy is driving change across both the social and economic sectors. The implementation framework for the Social and Law and Order Sector (SLOS) calls for leaner public service structures, redistribution of the workforce to the frontline, and maximising tax and revenue opportunities and self-financing opportunities. The policy seeks to promote innovation and generate improved processes and break down the silos that constrain effective delivery of services where they are needed most.

International Commitments and Drivers

Sustainable Development Goals

The SDGs build on and extend the MDGs to tackle the "unfinished business" of the MDG era. The SDGs recognise that eradicating poverty and inequality, creating inclusive economic growth, and preserving the planet are inextricably linked, not only to each other, but also to population health. The SDGs aim to be universal, integrated and interrelated.

Goal 3 of the 17 SDGs is specific to health and is deliberately framed in broad terms that are relevant to all countries and all populations, "Ensure healthy lives and promote wellbeing for all at all ages". PNG, as a United Nations member state, has adopted the SDGs with targets set for achievement by 2030, which will drive NHP programming and prioritisation. These targets include reducing the current maternal mortality rate of 171/100,000 to 70/100,000, reducing the under 5 years mortality from its current level of 49/1,000 to 25/1,000, ending tuberculosis (TB), eliminating malaria, and halting the spread of HIV.

Table 4: PNG health targets for Sustainable Development Goal 3 and alignment with National Health Plan Key Result Areas

PNG Sustainable Development Goal 3 targets	National Health Plan Key Result Areas
3.1. By 2030 reduce global maternal mortality ratio to less than 70 per 100,000 live births	KRAs: 1, 3, 4
3.2. By 2030, end preventable deaths of newborn and children under 5 years, with all countries aiming to reduce neonatal mortality to at least as low as 12 per 1,000 live births and under 5 mortality to at least as low as 25 per 1,000 live births	KRAs: 1, 3, 4
3.3. By 2030, end the pandemics of AIDS, tuberculosis, malaria and neglected tropical disease and combat hepatitis, water-borne diseases, and other communicable diseases	KRAs: 1, 3, 4
3.4. By 2030, reduce by one-third premature mortality from non-communicable diseases through prevention and treatment and promote mental health and wellbeing	KRAs: 1, 3, 4
3.5 Strengthen the prevention and treatment of substance abuse, including narcotic drug abuse and harmful use of alcohol	KRAs: 1, 3, 4
3.6 By 2020, halve the number of global deaths and injuries and from road including financial risk protection, access to quality essential	KRAs: 1, 3, 4
3.7 By 2030, ensure universal access to sexual and reproductive healthcare services, including for family planning, information and education, and the integration of reproductive health into national strategies and programs	KRAs: 1, 3, 4
3.8 Achieve universal health coverage, including financial risk protection, access to quality essential healthcare services and access to safe, effective, quality, and affordable essential medicines and vaccines for all	KRAs: 1, 2, 3, 5

Universal Health Coverage

UHC is defined as ensuring that all people can use the promotive, preventive, curative, rehabilitative and palliative health services they need and that these services are of sufficient quality to be effective. UHC comprises two components: health service coverage and financial protection coverage. There is a strong relationship between the achievement of the SDGs and UHC. The target of UHC underpins all other targets and provides an opportunity to refocus efforts on a more sustainable approach through system-wide reform, based on the principles of efficiency and health service integration and people-centred care. The SDGs also fundamentally call for inter-sectoral action, acknowledging that attaining health goals is dependent not only on actions within the health sector, but also on economic, social, cultural, and environmental factors. Without UHC as the underpinning approach, there is a risk that pursuing the individual targets separately will lead to more fragmentation and confusion. UHC, rather than being one target among many, therefore needs to be seen as having an integrating role, underpinning a more sustainable approach to the achievement of the other health targets and creating a balance among them.

International Health Regulations

Strong health systems are essential to addressing global public health security risks such as SARS in 2002, Ebola in 2015 and COVID-19 in 2020. Strong health systems that are prepared to respond in an emergency and provide essential care during these times are critical to not only maintaining the health of the people of PNG, but to the economic security of the nation.

Strengthening local, provincial, and national capacities under the International Health Regulations[1] is therefore a critical element of UHC. Member states of the World Health Organization (WHO), including PNG, must have "the capacity to detect, assess, notify and report events"[2] and to also "promptly and effectively respond to public health emergencies of international concern"[3].

International partnership

[1] World Health Organization (2005). *International Health Regulations (2005)*. Third edition. Geneva.
[2] ibid., Article 5.
[3] ibid., Article 13.

CHAPTER THREE: CURRENT HEALTH SITUATION

CURRENT HEALTH SITUATION IN PNG

The NHP situational analysis is an assessment of the current health situation in PNG, including the government's policy context, and is fundamental to designing and updating national policies, strategies, and plans. The NHP situational analysis summary for 2020 describes the current state of health and health systems and the experience of implementing the NHP 2011–2020. The situational analysis formed the basis of the position paper that underpins the strategies of the NSP 2021–2030.

There are a number of positive elements of the health program that have been implemented since the NHP 2011–2020 was commissioned. Some of these elements are reforms and others are the result of diligent and insightful work within specific programs. At the highest level of indicators, children are better nourished and more likely to survive their early years. More generally, the community is living longer, although significant expectations exist, depending on location, resources, and educational opportunities. These achievements are all noteworthy given the institutional constraints experienced by the health sector in PNG.

PNG'S HEALTH STATUS AT A GLANCE

The population of PNG continues to grow at a rate of 2.7% annually, with an estimated population of 9.1 million people in 2020 and 12 million by 2030. Early childhood mortality has decreased from 159 per 1,000 births in 1967 to 49 per 1,000 in 2018; however, of the 313,000 births in 2020, over 15,000 of these children will die before their 5th birthday, with many dying as newborns. Maternal mortality has also declined from 733 per 100,000 in 2006 to 171 per 100,000 in 2016–2018; yet this still means that every day at least one woman in PNG due to childbirth complications.

Non-communicable diseases (NCD) account for most deaths in PNG (40.3%) with complications from diabetes, ischaemic heart disease, lung cancer and stroke the major contributors. Infectious diseases remain a major cause of death (21.3%) with increased malaria, especially in children under five years (8.8%). HIV rates are stable at 0.83%; however, there is increasing drug resistance at 18.4%, which is one of the highest in the world. There are 27,000 new cases of TB each year, with 3.4% of these new cases with multiple drug resistance. TB treatment completion rates at 69% are below the threshold needed for control. Some form of disability is likely to affect 1.3–1.4 million people in PNG. The national proportion of deaths from injuries (19.1%) is more than double global estimates (8%).

The opportunities for positive health outcomes are not uniform across the country, with a range of 17 years difference in life expectancy across provinces. Rural populations continue to have poorer health status than their urban peers, although growing concern around urban settlement populations exists.

SITUATIONAL ANALYSIS

Causes of death

Reliable data on the levels and causes of mortality are cornerstones for building a solid evidence base for health policy, planning, monitoring, and evaluation. Civil registration systems (recording and registering of all births and deaths) provide the most definitive approach to understanding the births and deaths in the nation. However, these systems are currently not in place in PNG, although in some districts "village recorders" keep this data. The National Health Information System (NHIS) and the Discharge (Hospital) Information System (DHIS) do not provide the complete picture, as only about a quarter of deaths occur in health facilities. Periodically, surveys are undertaken that enable an estimation of mortality rates.

A recent study[4] demonstrated NCDs accounted for an increasing number of deaths; however, infectious diseases still contribute significantly to the overall mortality rate. Injuries accounted for 19.1% of deaths.

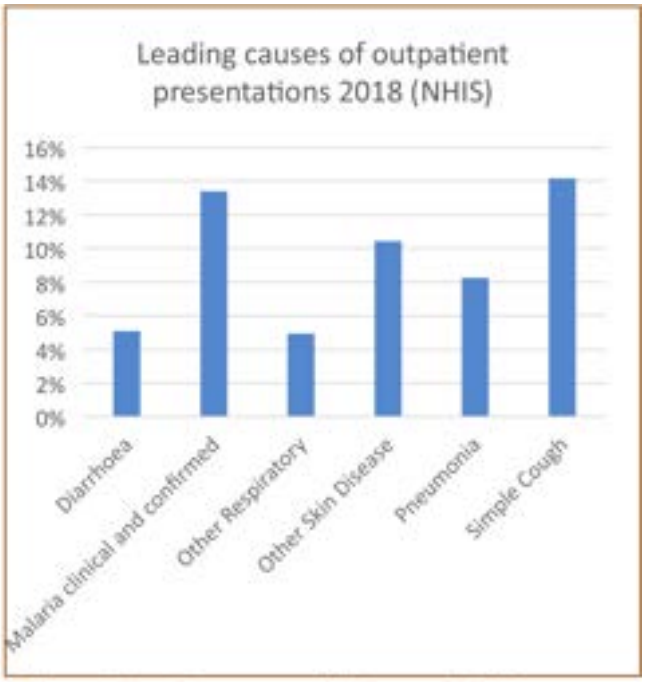

Figure 1: Leading causes of discharges in 2018

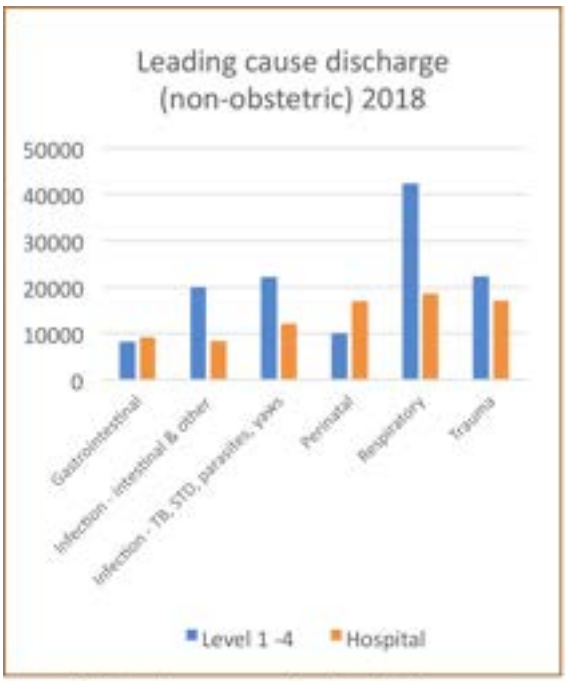

Figure 2: Leading causes of outpatient presentations in 2018

Key causes of presentation to health facilities

As shown in Figure 1, the leading reasons for presentation to health facilities in 2018 (NHIS) were upper and lower respiratory tract concerns, malaria, skin disorders and diarrhoeal disease. There has been very little change in these proportions over the previous five years.

As shown in Figure 2, an analysis of DHIS from 2016–2018 shows respiratory conditions, infections, and trauma as the leading causes for admissions, outside of obstetric condition

[4]Gouda et al.,2019, The epidemiological transition in Papua New Guinea: new evidence from verbal autopsy studies. *International Journal of Epidemiology*, pp. 1–12

Early childhood morbidity and mortality

Early childhood is the most vulnerable period of life, with relatively high levels of mortality and potential lifelong debility if serious illness is encountered. There have been overall declines in early childhood mortality since 1970 with neonates (newborn–28 days of life) accounting for just over a third of all childhood deaths as demonstrated in Figure 3 and Figure 4.

Neonatal Mortality Rate	Infrant Mortality rate	Under 5 Mortality rate
•20/1000 live births	•33/1000 live births	•49/1000 live births

Figure 3: Impact indicators for children under 5 years

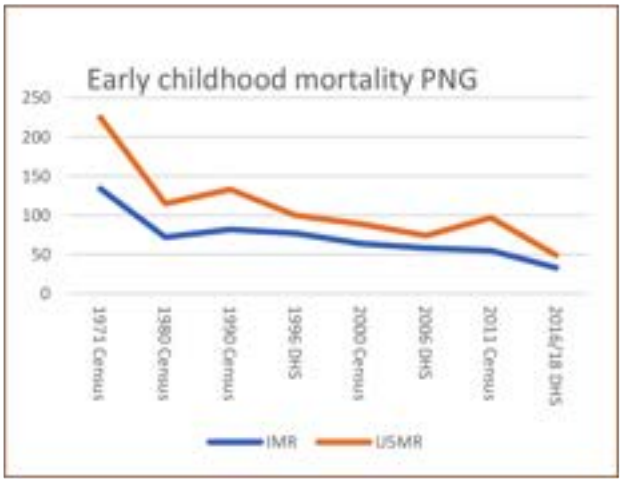

Figure 4: Outreach clinics held per 1,000 children under 5 years

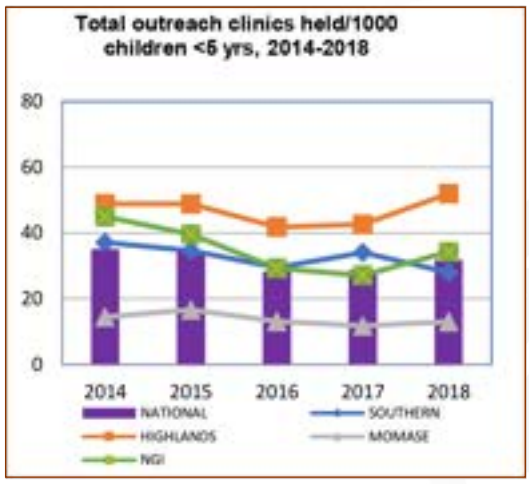

Figure 5: Early childhood mortality in PNG

Good nutrition during the early years of development is essential to ensure cognitive growth and enable a child to reach his or her potential in life.

About 10% of all paediatric hospital admissions are children who are severely malnourished. In 2018, about 12.4% of these children died during that admission, although this was an improvement on previous years statistics. Stunting is a significant concern, with nearly half of children in PNG affected.

Maternal and child health outreach has been a feature of the PNG health system for over 60 years. It remains an important function for all levels of facilities, and a critical service for communities. There is a correlation between outreach service provision and immunisation coverage. When outreach activity has declined, so too has immunisation coverage, as shown in Figure 5.

Pneumonia is the most common reason for admission to hospital for children under 5 years (21%); other leading causes of admissions to hospitals include diarrhoea (11%), tuberculosis (9%), malaria (4%) and meningitis (3%).

In the 2016–17 malaria survey, 9.5% of children under 5 years (<1600 m altitude) were infected with malaria parasites, and the rates of insecticide resistance have increased since 2015.

Tuberculosis has grown as a concern in children, with increasing case numbers and the emergence of multi-drug resistant strains. However, improvements in management have led to a decreased case fatality rate since 2013.

Mother-to-child transmission rates of HIV at the Port Moresby General Hospital clinic are 25%, with 17% in Mount Hagen. With an effective Prevention of Maternal to Child Transmission (PMTCT) program, this rate should be <10%, and most countries achieve 5%. A solid focus on reaching mothers, providing treatment where needed, and diligent assessment of the at-risk child will address this concern.

Adolescent health

Adolescents (10–19 years) are 22.65% of the total population. The period of transition from childhood to adulthood, where important physical, physiological, mental and social changes occur, shapes future health needs and influences their impact on the community.

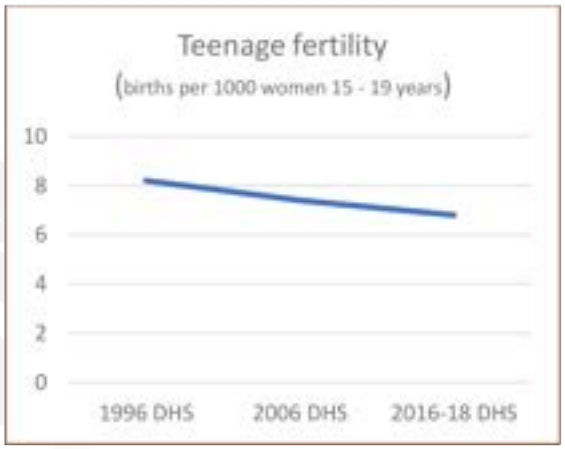

Figure 6: Fertility rate in teenagers

The WHO estimates that nearly two-thirds of premature deaths and one-third of the total disease burden in adults are associated with conditions or behaviours initiated during adolescence.

Adolescent pregnancy is associated with two to five times higher maternal mortality, as well as a higher neonatal and infant mortality among their children, compared to women in their twenties.

The birth rate during adolescence is measured at 68 per 1,000 (Demographic Health Survey (DHS) 2016–18), which has been decreasing over a 20-year period. Among those adolescent women surveyed in the DHS 2016–2018, 12% had begun childbearing. Among married teenagers, 18% are using some type of family planning.

Maternal health

The DHS 2016–2018 puts the current maternal mortality rate at 171 per 100,000 births. While significantly less than the rate reported in the last DHS (2006), the rate is high in comparison to PNG's Pacific neighbours. The rate increases to 205 per 100,000 births if those pregnancy-related deaths caused from violence or injury are included.

Maternal Mortality Rate	Total Fertility Rate
•171/100,000	•4.2 births in a women lifetine

Figure 7: Maternal health impact indicators

The total fertility rate (the average number of children that a woman bears in her lifetime) is 4.2. There has been a very slow decline over some decades, yet this remains high compared to other countries of similar level of socioeconomic development.

Antenatal care provides an important point of contact for women during pregnancy, an opportunity for a check of their health and the growth of their baby, screening for complications and preparing for a facility delivery. The DHS (2016–18) reports that 76% of women who gave birth in the last five years attended at least one antenatal visit. However, only half the women had four or more visits.

Support in childbirth by trained health providers is a safer environment for mother and infant. Currently, about half (51%) of rural women and 85% of urban women deliver in a health facility (DHS 2016–18).

The DHS 2016–2018 also reports that 59% of women aged 15–49 have experienced physical or sexual violence, and a quarter of all women have experienced both physical and sexual violence.

Living with disability

Data on disability in PNG is limited. Disability is a complex phenomenon, reflecting the interaction between features of a person's body and features of the society in which they live.

The rise of diabetes and cerebrovascular disease (leading to stroke) in the population is likely to contribute to increased disability, including visual impairment and amputation. A 2011 study[5] on visual impairment in people over 50 years of age in PNG estimated 40,746 people to be blind (5.6% of the population), a further 21,519 severely visually impaired (2.9%), and 79,463 moderately visually impaired (10.9%). The majority of these people have from cataracts (88.6%), which is a treatable condition.

Non-communicable diseases

There is evidence that NCDs are becoming more common in PNG. Verbal autopsy (VA) data gathered across three sites from 2009–2014 showed a large increase in the number of deaths from 'emerging' NCDs (cardiovascular disease, diabetes, stroke, and lung cancer).

During the period 2016–2018, hospital discharge data (incomplete) shows that cancers account for about 3% of all discharges. PNG has among the highest estimated burdens of cervical cancer globally, with an incidence 6.3 times that of Australia and New Zealand. It is estimated that there are 20,609 people living with cancer, and about 7,500 deaths each year.

Recent data suggests that injury is increasingly having a major impact in PNG. The Global Burden of Disease modelling shows road trauma as the fifth largest contributor to Disability Adjusted Life years in PNG.[6]

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[5] *World Health Organization 2011. World Report on Disability 2011.*

[6] *Naghavi et al., 2017. Global, regional and national age–sex specific mortality for 264 causes of death, 1980–2016: a systematic analysis for the Global Burden of Disease Study 2016, Global Health Metric. Vol. 390, Issue 10100, pp. 1151–1210, September.*

Human Immunodeficiency Virus

The HIV burden in PNG is concentrated in some sub-populations and geographic locations.

The prevalence of Human Immunodeficiency Virus (HIV) in PNG in 2018 was estimated at 47,413 persons (0.83% of population). This has increased from 31,450 (0.71% of population) in 2010. Women (15 years and older) account for 59% of infected persons, with 7% being children less than 14 years. Prevalence of HIV is high among female sex workers (14.9%), among men-who-have-sex-with-men (8.6%) and transgender people in the National Capital District. The burden is highest in the Highlands region.

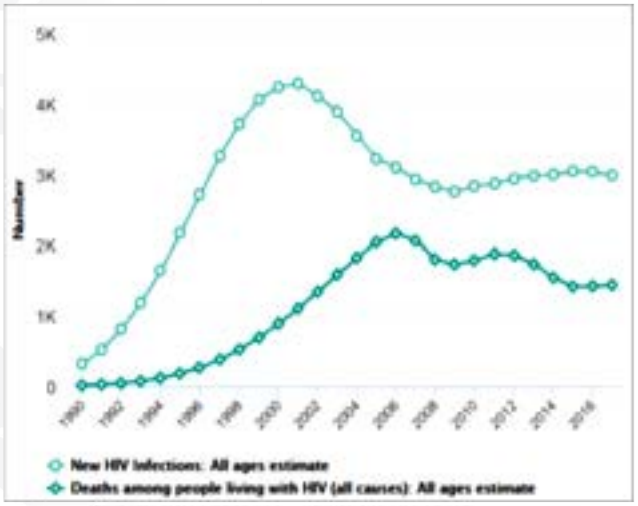


Figure 8: HIV infections vs HIV deaths, all ages

In 2018, there were 3,300 new infections (40 cases for every 100,000 population), and higher in the female population (45/100,000). This has increased from 2,260 new cases for every 100,000 population in 2010.

Between 2010 and 2017, the number of people living with HIV in PNG had increased by 26%. Annual deaths from AIDS-related illnesses have decreased about 26% since 2010, yet still number about 1,000 a year.

Prevention of mother-to-child transmission requires testing in pregnancy to determine the presence of the virus and providing treatment during pregnancy to minimise risk of vertical transmission (to child). A total of 76,896 women were tested for HIV in antenatal care and labour ward in 2017. Of these women, 593 (0.8%) were confirmed HIV positive. Forty one percent of these patients commenced anti-retroviral therapy.

Malaria

The current prevalence of malaria is 7.1% of people living below 1,600 m altitude, increasing from less than 1% in 2013–14.

There has been a 15% increase in malaria presentations to health facilities during the past three years. During 2018, there were 115 presentations to health facilities for every thousand population. Overall, 8.8% of children (under 5 years) are infected with malaria.

Two recent surveys, the Institute of Medical Research's Malaria Indicator Survey 2016–17[7] and the DHS 2016–18, examined current usage of insecticide treated nets. Overall usage of the nets by individuals is 46% (urban) and 51% (rural).

[7] Hetzel. M., et al. 2018. *Papua New Guinea Malaria Indicator Survey 2016–2017: Malaria Prevention, Infection and Treatment, Papua New Guinea*. Institute of Medical Research, Goroki, 6 April.

Neglected tropical diseases

Neglected tropical diseases (NTD) are a collection of infectious diseases that carry a high burden on the community. In PNG, NTDs include lymphatic filariasis, dengue, treponematosis, yaws, congenital syphilis, trachoma and Buruli ulcers.

Yaws is now entrenched as a public health problem in the Islands region and the Madang and Morobe provinces, with an increasing trend over the past seven years resulting from incomplete initial intervention coverage.

Lymphatic filariasis is highly endemic in PNG. Mass drug administration has been implemented in New Ireland Province, a high endemic island province, with plans to cover the rest of the Islands region before moving to mainland PNG.

Tuberculosis

TB prevalence is determined on a biannual basis through population screening. By international comparison, screening rates are low. In PNG, there have been 0.2% (2011), 0.4% (2014) and 0.4% (2016) of total population screened, (compared for example to screening rates in Cambodia of 1.1% in 2013). About 15% of those screened were smear positive.

In 2018, the estimated incidence of TB was 432 per 100,000 population or about 37,000 cases were smear positive, with 74% of cases notified. Extra-pulmonary TB accounts for 42% of all cases. There is a concentration of TB in several provinces. National Capital District, Western, Gulf and West New Britain Provinces each have a case notification rate above 600 per 100,000 population.

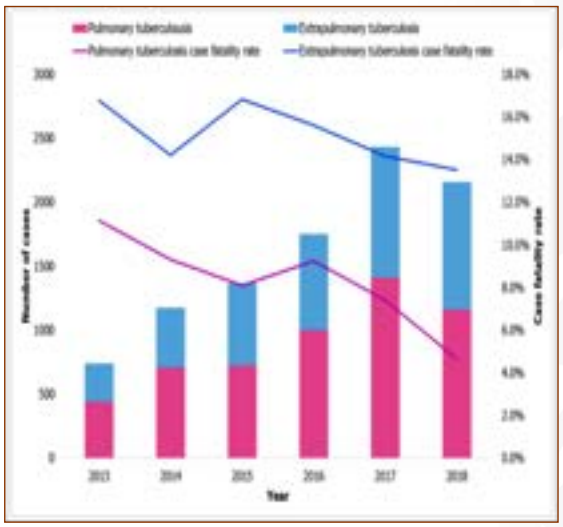


Figure 9: Case fatality rates for all forms of TB 2013–2018

COVID-19 pandemic

In March 2020, PNG announced its first positive case of COVID-19. By March 2021, the number of cases, deaths and provinces impacted had increased significantly and the ramifications on the economy are being felt across the country. PNG introduced the Niupela Pasin (new normal) policy framework, which sets the scene for a new way of living post the pandemic. Budgets for the period to 2025 are likely to be impacted as PNG navigates the post-pandemic period.

ORGANISATION AND GOVERNANCE

The health sector in PNG is governed by five key sector-specific acts:

- Organic Law on Provincial and Local Level Governments (OLPLGA) 1998
- Provincial Governments Administration Act 1997

- National Health Administration Act (NHAA) 1997
- Public Hospitals Act 1994
- Provincial Health Authorities (PHA) Act 2007.

Other legislation also supports and regulates the health sector. In the NHP 2021–2030, PHAs are the vehicles for implementation at the provincial level. To strengthen PHAs and to address the complexities of conflicting legislation, a program of legislative reform will be undertaken, including a comprehensive new health governance laws that will set the foundation for the future.

PNG's health sector operates within a decentralised environment. PHAs have now been established in all provinces. Development partners continue to contribute to about 20% of sector expenditure, although, increasingly, this contribution is outside NDoH processes. There has been a strong commitment to policy reform and development.

Health services and public health programs in PNG are predominantly government funded. The roles and functions of 813 facilities across PNG are governed by the National Health Service Standards.

INPUTS AND RESOURCES

Funding to the health sector has decreased in real terms. Total per capita health expenditure from the GoPNG has declined from K123/person (in 2011) to K67/person (in 2018).

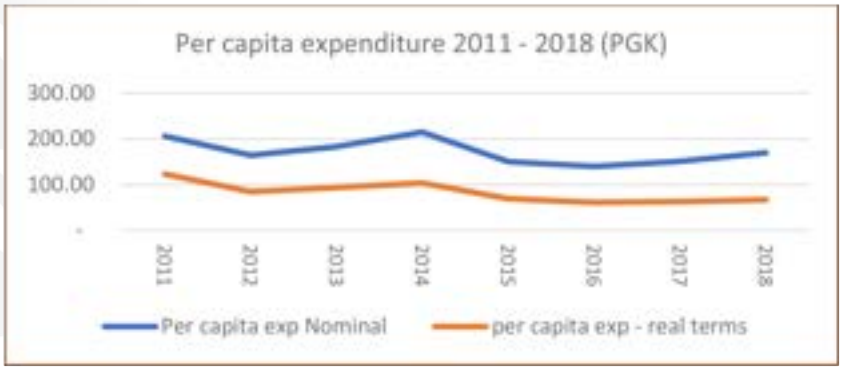


Figure 10: Per capita expenditure 2011-2018 (PGK)

Workforce population ratios have reduced across all disciplines from 1.27 per 1,000 population in 2011 to 0.97 per 1,000 population in 2018. Staff ceilings are not being funded and met, with an overall 27% vacancy rate in the health sector. Pre-service training institutions are well short of capacity to produce the required workforce. PNG has the lowest ratio of both doctors and nurses per 1,000 population across the Pacific, with 0.07 doctors and 0.53 nurses per 1,000 population.

Facilities: Between 30% and 60 % of Level 3 health facilities (health centres in rural regions and urban clinic) and Level 4 health facilities (district hospitals) need significant remediation. Services to the most remote rural populations have decreased (48% aid post closures); although there has been investment in the development of new rural facilities (32 community health posts).

Service utilisation: Utilisation of facilities is declining, including outpatient attendance, antenatal care, supervised delivery, outreach, and immunisation coverage.

Medical supply chain continues to be punctuated by interruptions to the stock levels of essential medications. Some basic drugs were reported as not being available on a continuous basis in many facilities. The present first-line treatment drugs for malaria, artemether-lumefantrine, were available in only 59% of Level 3 and Level 4 public sector health facilities. Similarly, the availability index for vaccines in Level 3 and Level 4 facilities was 73.7%.

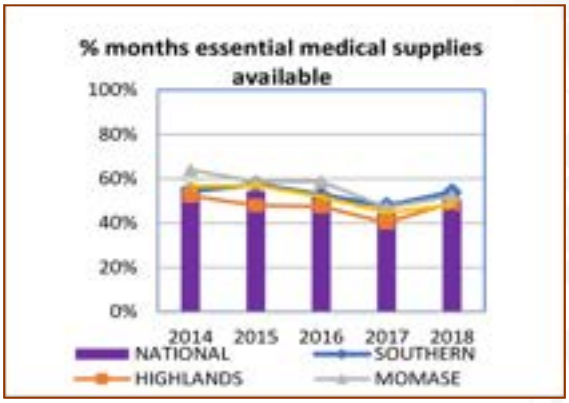


Figure 11: Essential medical supplies availability

Information systems, including management and service and program databases, while strong in capacity, lack integration, are perceived to be compromised in quality and do not serve the need in an integrated manner.

SUMMARY

There are significant challenges and issues that continue to threaten the health sector in PNG. These challenges and issues include the decline in funding to the sector, the continuing deterioration of health facilities, and the inability to meet or further develop workforce requirements. These concerns are further complicated by the complex decentralisation of governance and management of health services at the provincial and district levels and in rural areas where the majority of people live.

The problems of service provision will be challenged by the country's growing population exerting pressure on limited government resources, coupled with challenges affecting the global economy due to the COVID-19 pandemic. There is an urgent need to address priority health issues and to ensure that quality services carry programs to villages, communities, health centres, community health posts and hospitals throughout the country.

Programmatic interventions would require ongoing vigilance, especially for communicable diseases and NCDs, taking into account needs of life stages from newborn, child, adolescent, reproductive and aging. There is also a need for greater focus on the emergence of cancer, injury and mental health issues. Addressing these issues requires effective approaches with a focus on prevention, engaging the community and effective health service.

Well baby clinic

CHAPTER FOUR: POLICY DIRECTIONS FOR THE NEXT TEN YEARS

OUR VISION: A healthy and prosperous nation where health and wellbeing are enjoyed by all.

OUR GOAL: Preventing ill health, identifying, and addressing health risks and emerging diseases and providing accessible and affordable quality healthcare for all.

OUR MISSION: Communities, government and partners working together to promote health and wellbeing and deliver compassionate, equitable and quality healthcare for all.

ESSENTIAL PRINCIPLES AND VALUES OF THE HEALTH SYSTEM

- **People-centred:** Services that are focused on people, family, environment, and culture that are comprehensive, accessible, and community-based to meet health needs of people throughout their life course.
- **Equity:** Services that are equitably distributed and reach all people, regardless of their sex, age, political affiliation, religion, culture, gender, or ethnicity.
- **Partnerships:** Working with all partners across all levels of the health system.
- **Health services adapted to community needs:** Accessible to quality and affordable healthcare that is responsive to specific needs.
- **Integrated approaches:** Balanced interventions address primary, secondary and tertiary care of healthcare system.
- **Evidence-based innovation:** Pursues high-quality and safe health outcomes through research, science and technology that meets international standards.

CORE PRIORITIES FOR THE NEXT TEN YEARS

Lessons learnt from the previous ten years, as demonstrated in the situational analysis, and confirmed during stakeholder consultations require a rethink of the current policy directions. If we are to meet the SDGs and the targets within the PNG DSP by 2030, we must rethink our priorities and focus on what matters.

The NHP 2021–2030 is a simple, realistic, and affordable plan influenced by the expectation that financial resources will be limited for at least the next five years. Despite these constraints, the NHP seeks to deliver a **system for everyone**, **leaving no-one behind** and focusing on our key challenges and building our readiness for future health challenges.

The NHP 2021–2030 is underpinned by the following themes:

- **A focus on people and their home environments.** PNG is steeped in tradition that honours our culture and the family. Attaining and maintaining health, which is determined as much by environments and lifestyle as it is by biology and health services, is guided by person, spirituality, and culture.

- **Engagement with the social sectors and partners.** The determinants of health lie in nutrition, education, household income, shelter, water, and environments. Servicing health needs at the community level has greater opportunity for success if working collaboratively with other social service sectors and partners. We can't do this alone.

- **One System Tasol.** In fulfilling the legislative obligation that supports the Constitution of Papua New Guinea, notably the *Organic Law of Provincial and Local Level Government*, the health sector has transitioned to a new National Health System, where Provincial Health Authorities (PHA) take carriage of service needs of their communities at the provincial level. The NDoH has a support role in setting policies and standards and facilitating synergies in health systems and public health programs and holding programs and provinces accountable to the communities.

- **Development of services that are responsive to need and available to all**. When illness or disability besets an individual, it is the right of that individual to access affordable and quality healthcare, where they need and when they need it. The health sector will commit to engendering UHC in all its plans, programs, and activities to ensure no-one is left behind.

- **A focus on disease prevention and health promotion.** PNG faces the dual burden of both communicable and non-communicable disease. Wherever possible, effort will be made to strengthen the individuals and their environments to protect populations from experiencing disease. While recognising that there is a need for specialised and quality care to address illness, greater reach and less suffering can be expected through preventing the onset (primary prevention) and progression (secondary prevention) of illness. This requires considered balance between the primary and tertiary levels of health service. Prevention efforts are defined by the "Healthy Islands" approach, encompassing behaviour modification and risk mitigation, addressing environments, and utilising policy and legislative approaches to support better health.

Specific Objectives and Strategies

The vision, goal, and mission of the NHP 2021–2030 will be achieved through emphasising the following five KRAs that are accompanied by their detailed objectives and strategies:

- Healthier communities through effective engagement
- Working together in partnership
- Increase access to quality and affordable health services
- Address disease burdens and targeted health priorities
- Strengthen health systems.

KRA 1: Healthier Communities Through Effective Engagement

Strategies:

1.2.1 Increase individuals' and communities' involvement in sustaining their own health.
1.2.2 Strengthen community engagement in planning and implementing health services at their level.
1.2.3 Increase engagement with non-government organisations, churches local-level governments (LLGs) and District Development Authorities (DDAs) for community-based programs.

Objective 1.2: Implement sustainable community-based options for delivering health promotion, awareness, and preventive activities.

Strategies:

1.2.1 Ensure greater recognition of the primary healthcare role played by Village Health Assistants (VHAs), supported by Community Health Workers.
1.2.2 Develop sustainable incentive packages for VHAs that focus on health promotion and disease prevention and are responsive to individual settings.

Objective 1.3: Strengthen primary care through health promotion, prevention and protection.

Strategies:

1.3.1 Strengthen implementation of the Healthy Island Concept at community settings.
1.3.2 Strengthen health promotion and preventative functions at community levels.
1.3.3 Assess and manage risk factors affecting health and environment.

KRA 2: Working Together In Partnership

Objective 2.1: Work with partners to deliver an integrated and inclusive approach that is responsive to communities' needs and priorities.

Strategies:

2.1.1 Strengthen engagement with non-government organisations including service recipients in planning and delivery of health services with a focus on health promotion and disease prevention.
2.1.2 Improve collaboration between PHAs, provincial administration and other inter-government agencies including DDAs to establish and deliver integrated community-focused health services at provincial, district, and village levels.

2.1.3 Collaborate with community-based organisations to provide health services such as disability, mental health, and social change services.
2.1.4 Collaborate with government agencies and other stakeholders to establish an integrated birth and death reporting system.

Objective 2.2: Collaborate with all partners to implement a single national health sector plan for PNG.

Strategies:

2.2.1 Strengthen engagement and coordination with all churches and faith-based organisations, NGOs and the private sector to implement the NHP 2021–2030 and the National Health Service Standards.
2.2.2 Improve inter-governmental engagement to coordinate implementation of the NHP 2021–2030 and the National Health Service Standards and maximise resources for health service delivery.
2.2.3 Strengthen engagement and coordination with development partners at national level to ensure technical and financial support is directed into key priority interventions.
2.2.4 Strengthen public–private partnerships to increase and maximise the available resources for health.
2.2.5 Partner with other relevant government departments to address social determinants of health such as law and order, roads, transport, and infrastructures that affect the implementation of health plans.

KRA 3: Increase Access To Quality And Affordable Health Services

Objective 3.1: Improve quality of care at all levels of services delivery.

Strategies:

3.1.1 Strengthen integration of clinical services, public health interventions & primary health care at all levels of care (Essential Health Intervention Package).
3.1.2 Improve quality and efficacy of medical drugs and consumables.
3.1.3 Improve clinical interventions with the aim of identifying proven efficiency and effectiveness.
3.1.4 Strengthen pre-service and in-service training at all health facilities.

Objective 3.2: Increase access to health care services for all with greater focus on the disadvantaged communities.

Strategies:

3.2.1 Increase provision of special needs services and homecare support at all levels of care.
3.2.2 Introduce user friendly, comprehensive and innovative health incentive schemes that increases utilisation of facilities.

3.2.3 PHAs implement user friendly incentive schemes for women and communities that increase number of women accessing antenatal care, supervised delivery and postnatal care and family planning.
3.2.4 Strengthen process of referring patients from primary healthcare levels to the next appropriate level for continuum of care.
3.2.5 Strengthen the capacity of PHAs and hospitals to increase integrated outreach services.

Objective 3.3: Improve range and availability to affordable health care services.

Strategies:

3.3.1 All partners support the revised Free Primary Health Care and Subsidized Specialized Health Services Policy implementation.
3.3.2 Increase utilisation of user-friendly services through better client care management.
3.3.3 Explore options to reduce out of pocket payments.
3.3.4 Build provincial hospital capacity to deliver specialized services and health hubs of excellence.
3.3.5 Strengthen capacity of the national referral and teaching hospital.

KRA 4: Address Disease Burdens And Targeted Health Priorities

Objective 4.1: Reduce burden of communicable diseases to achieve global obligations.

Strategies:

4.1.1 Increase the capacity of the health sector to prevent, promote and treat communicable diseases such as TB, HIV and malaria.
4.1.2 Build capacity of PHAs to conduct surveillance of communicable diseases, and respond and report in a timely manner.
4.1.3 Raise awareness of the importance of ownership, stakeholder engagement, collaboration, and alignment to meet PNG and global obligations.

Objective 4.2: Reduce the morbidity and mortality of non-communicable diseases.

Strategies:

4.2.1 Increase the population's awareness of emerging lifestyle-related diseases to make informed decisions about their health.
4.2.2 Increase awareness on substance abuse and mental health, especially in youths and adolescents.
4.2.3 Strengthen screening, prevention and treatment of lifestyle diseases including oral health services.

Objective 4.3: Reduce morbidity and mortality of cancer.

Strategies:

4.3.1 Strengthen screening, prevention, and early detection of cancer.
4.3.2 Improve the quality and affordability of cancer treatment.
4.3.3 Empower communities to provide home-based continuum of care.

Objective 4.4: Reduce morbidity and mortality of trauma.

Strategies:

4.4.1 Increase the health sector's response to the prevention of injuries and violence that impact families and communities.
4.4.2 Improve accessibility and affordability of trauma management.
4.4.3 Improve stakeholder engagement to increase awareness about trauma- related harm among different age groups.

Objective 4.5: Strengthen family health programs at all levels of care.

Strategies:

4.5.1 Increase access healthcare services for women, including antenatal care, supervised delivery, postnatal care, and family planning.
4.5.2 Increase and strengthen infant and young child survival programs.
4.5.3 Increase coverage of immunisation in all provinces.
4.5.4 Improve programs for sexual and reproductive health for youth and adolescents, men's health, and gender-based violence.
4.5.5 Improve collaboration with relevant stakeholders to implement nutrition programs.

Objective 4.6 Strengthen environmental health to ensure the right to an environment that is conducive to health and wellbeing.

Strategies:

4.6.1 Improve the performance of environmental health by ensuring policies, plans and regulatory frameworks support individual and community environmental health efforts.
4.6.2 Collaborate with key stakeholders to prevent foodborne and waterborne diseases.
4.6.3 Research new insights and innovative solutions into environmental health problems.
4.6.4 Maintain international border controls and ensure compliance with International Health Regulations core capacity requirements.

Objective 4.7: Improve preparedness for disease outbreaks and emerging population threats, including pandemics.

Strategies:

4.7.1 Establish the Public Health Institute, encompassing the National Reference Laboratory.
4.7.2 Increase preparedness and capacity of the health sector to identify, respond to, monitor, and report on emerging and re-emerging health threats.
4.7.3 Strengthen capacity of the Central Public Health Laboratory to supervise and monitor quality of testing across the sector.
4.7.4 Strengthen the testing capacity of all provincial hospital laboratories.
4.7.5 Strengthen the capacity of the health sector to report on notifiable diseases in accordance with international health regulations.

KRA 5: Strengthen Health Systems

Objective 5.1 Improve health leadership, governance, and management at all levels of the health system.

Strategies:

5.1.1. Strengthen the NDoH's capacity to provide oversight and strengthen PHA board governance, monitor compliance to standards, and evaluate overall PHA performance.
5.1.2. Build capacity of PHAs to improve and strengthen corporate and clinical governance to be responsive to local priorities.
5.1.3. Strengthen a culture of organisational excellence that is reflected in all clinical and corporate plans.
5.1.4. Ensure legislation on health systems and health functions are reviewed, amended and developed to drive reform.
5.1.5. Strengthen regulatory authorities' roles and functions to align with national and international standards and legislation.
5.1.6. Improve mandatory quality assessment and accreditation programs to support excellence in consumer and patient care management.

Objective 5.2: Improve health facility infrastructure and equipment to meet the approved standards.

Strategies:

5.2.1. Improve existing health facilities to be user-friendly and build new ones according to standards.
5.2.2. Integrate comprehensive health promotion, prevention and curative health from Level 1 to Level 6 health facilities.
5.2.3. Strengthen health services planning in line with the National Health Service Standards to reflect population, disease burden, geography, and community priorities.
5.2.4. Strengthen Level 6 hospital as the national referral, research and teaching hospital for the country.
5.2.5. Strengthen capacity of hospitals to perform specialist services and conduct research and training.
5.2.6. Improve and upgrade medical equipment across the country in accordance with the National Health Service Standards.

Objective 5.3: Improve financial management and resource mobilisation for health.

Strategies:

5.3.1. Improve and consolidate health sector planning, budgeting, implementation, and monitoring.
5.3.2. Strengthen governance across the health system to enhance accountability and transparency.
5.3.3. Strengthen public financial management to improve effectiveness of health service delivery.
5.3.4. Introduce facility-based budgeting across all PHAs to improve the visibility of budget allocations and ensure that funding follows health sector functions.

5.3.5. Explore options to introduce activity-based budgeting as a means of improving resource allocation and implementation of strategies.
5.3.6. Explore options for self-financing, including the establishment of the Health Endowment Fund.

Objective 5.4: Strengthen human resource governance and management systems to meet present and future workforce requirements.

Strategies:

5.4.1. Improve the recruitment, deployment, and retention of competent health workers.
5.4.2. Explore options to build a strong performance culture with increased accountability and transparency.
5.4.3. Improve the capacity of accredited health educational institutions to increase production of competent health professionals.
5.4.4. Improve in-service and upskilling training for all workforce.
5.4.5. Increase the number of priority cadre of health professionals in line with the NHP 2021–2030 and the National Health Service Standards.

Objective 5.5: Improve the medical supply chain to ensure adequate, affordable, and continuous availability of safe and good- quality medicines that can be used rationally at all times.

Strategies:

5.5.1. Implement the medical supplies reforms agenda in a phased manner to achieve an effective pull system, driven by consumer demand.
5.5.2. Build the capacity of the NDoH and the PHAs to manage and sustain the quantification, procurement, contracting, inventory control, and supply and distribution of medical supplies.
5.5.3. Explore options to outsource medical supplies procurement to a procurement mechanism, in a way that is aligned to GoPNG-mandated procurement systems.
5.5.4. Improve planning, budgeting, and reporting to secure adequate and regular funding.
5.5.5. Build capacity of pharmaceutical standards to monitor and ensure safe, efficacious, and high-quality medicines are available at all levels.

Objective 5.6: Upgrade and integrate the use of innovative and evolving ICT solutions that deliver quality and timely information for informed decision making.

Strategies:

5.6.1. Explore options to establish a common hospital management information system in all hospitals.
5.6.2. Improve ICT infrastructure to support monitoring and evaluation and improve patient care management.
5.6.3. Improve the management capacity of the sector to implement and sustain a modernised IT system.
5.6.4. Ensure all health sector data and information are secured using a reliable system.

5.6.5. Integrate all e-health systems and establish telemedicine into a single information management and reporting hub at the national level.

Objective 5.7: Strengthen health information and research at all levels.

Strategies:

5.7.1 Collaborate with research institutions to conduct and manage medical and health system research to support policy development for decision making.

5.7.2 Strengthen information capacity for data management and utilisation at all levels of service delivery.

5.7.3 Strengthen and sustain functions of monitoring and evaluation in all health programs and institutions.

A Healthy Community setting

Kokopo Market: A Healthy Market setting

CHAPTER FIVE: IMPLEMENTING THE NATIONAL HEALTH PLAN

Implementation is key to turning policies into reality. In the life span of this plan, opportunities will be sought to strategise and coordinate better for alignment and effective health service delivery, considering the changing economic and socio-political environment.

PLANNING, HIERARCHY AND ALIGNMENT

The *National Planning Act 2016* provides the guidance for all sectors to align their plans to the Vision 2050, the PNG DSP and the MTDP. The NHP 2021–2030 sits within the framework of overall government planning, budgeting, and resourcing for results, as reflected in Figure 12.

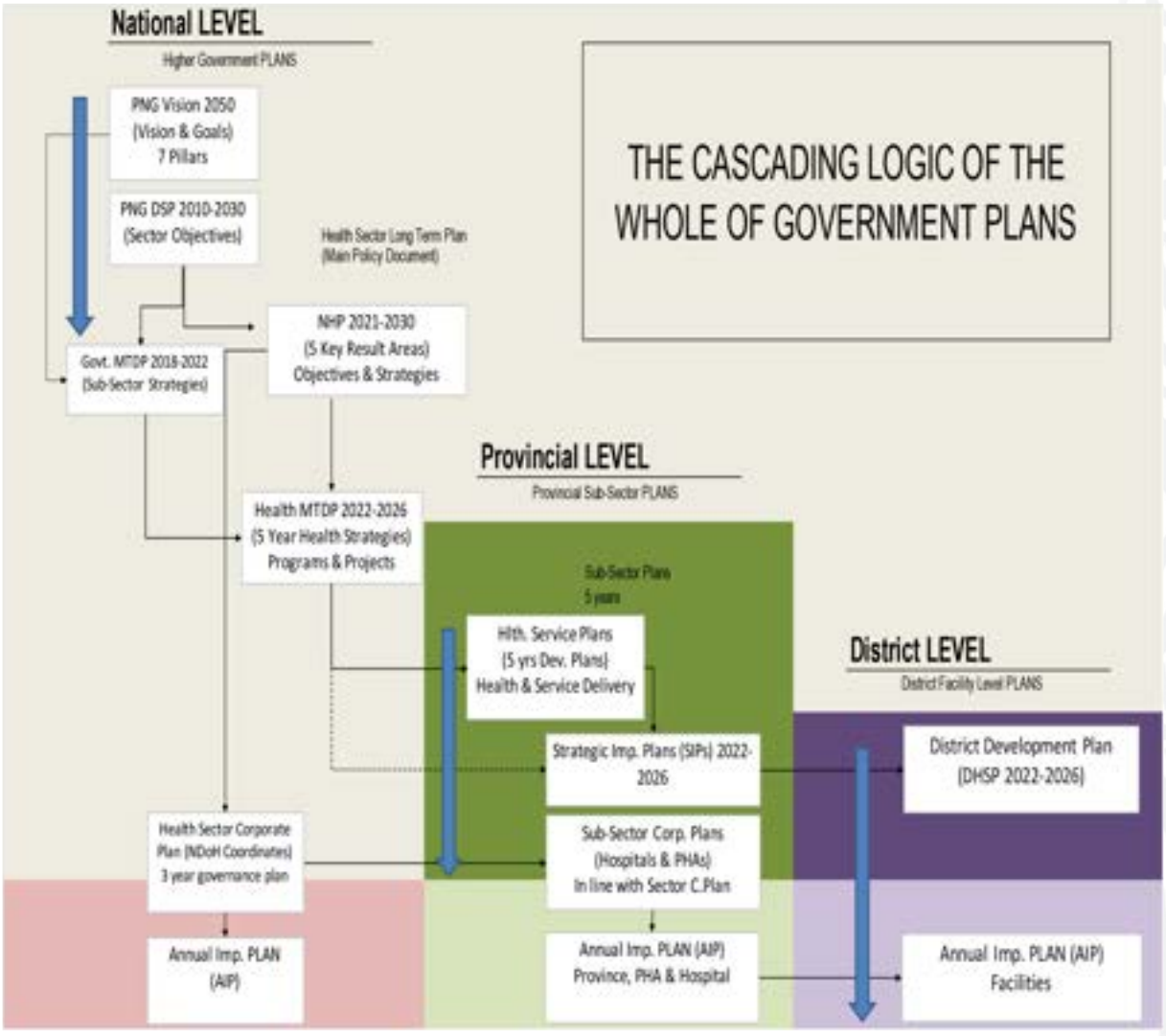


Figure 12: Cascading logic of whole-of-government plans

The NHP strategies outlined in this document (Volume 1a) are further detailed in Volume 1b: Key interventions. Volume 1b contains the implementation framework for each strategy, with detailed interventions, activities, and key performance indicators. It also outlines specific targets (or benchmarks) that the health sector expects to achieve in the medium term (2025) and long term (2030).

The strategies will be operationalised through a cascade of medium-term and short-term plans in line with their functions and responsibilities. Each agency will develop provincial health service plans, corporate plans, strategic implementation plans and annual implementation plans (AIPs). Similarly, all key public health programs will develop relevant policies and program specific strategic plans.

BUDGETING

All public agencies, including churches, are required to plan and budget for their annual funding. Proper and effective planning, budgeting, and reporting is key to complying with the *Public Finance Management Act 1995*.

MAINTAINING COORDINATION AND CONSISTENCY FOR IMPLEMENTATION

The Organic Law on Provincial and Local Level Government (OLPLLG) has placed implementation responsibilities on provinces and LLGs. Additionally, the *District Development Authorities Act 2014* places some health responsibilities under the district administrations through the District Service Improvement Program (DSIP). The *Provincial Health Authorities Act 2007* (PHA Act) provides the framework to transfer provincial health functions to the PHAs following agreement between the Minister for Health and the Provincial Governor. All provincial health services, including hospitals, have been successfully reformed under the PHA Act.

While PHAs are in place, there are ongoing complexities around conflicting mandates under the three different legislations governing health functions. Strong partnerships will ensure well-coordinated and harmonised arrangements for effective health service delivery at all levels of health service delivery system.

The National Department of Health (NDoH) is established under the *National Health Administration Act 1997* as the lead agency for the health sector in PNG. Under the NHP 2021–2030, the role of the NDoH will be to coordinate the health sector's delivery of health services as required by legislation. It will set policies, set standards, monitor, and evaluate sector performance. Furthermore, the NDoH will work with all PHAs to build and strengthen their capacities to effectively deliver provincial health services to reach the majority of people. The NDoH will develop its Corporate Plan to implement related strategies according to its mandate under legislation. It will also develop the health sector MTDPs to guide development and capital works programs.

The NDoH's role of coordinating and advising the health sector implementers, especially the PHAs on the impacts of whole-of-government reforms, is important for the success of the NHP 2021–2030.

Provincial Health Authorities (PHAs) are established under the PHA Act. Their role is to liaise with NDoH and central agencies, including the provincial governments, for effective health service delivery in their provinces. PHAs coordinate with the DDAs and LLGs and other partners operating in the province to ensure health policies, standards and priority interventions are aligned to local priorities and implemented and reported in accordance with their corporate and health service plans.

District Development Authorities (DDAs) are established under the *District Development Authorities Act 2014* to coordinate integrated service delivery at the district level. Health services are an integral part of this process and PHAs will work with DDAs to implement the NHP at the district level.

Local level governments (LLGs) are established under the *Organic Law on Provincial and Local Level Government* (OLPLLG) and are important agencies responsible for working closely with DDA administration, provincial administration and PHAs to ensure implementation takes place.

Church and faith-based partners are important stakeholders in the health sector and are responsible for health services to majority of our rural health services at the community levels. They work with their local government agencies such as LLGs, DDAs and PHAs to coordinate implementation and reporting at their respective levels.

Other stakeholders, such as community-based organisations, non-government organisations (NGOs) and private interest groups, are responsible for community-based interventions. They work with ward-level councillors, LLGs members and community leaders to design and implement community-based health programs that are local, context-specific, and culturally accepted.

Private health service providers, including extractive industries based and agriculture-based health service providers play an important role in the communities they operate in. They are required to work with the LLGs, DDAs and the PHAs to ensure they comply with standards and their reports are captured in the NHIS.

ACHIEVING VISION 2050 THROUGH STANDARDS REFORM AND INTEGRATED APPROACH

This NHP is the second of four plans to achieve the health sector's deliverables from Vision 2050. By the time the NHP 2021–2030 is completed, implementation will be progressively measured against the PNG DSP to determine progress.

The quality of healthcare, including accessibility, is structured around the Essential Health Packages of Care that are guided by the National Health Service Standards. Accordingly, both

public health and clinical services will be integrated to serve the needs of communities in a coherent manner.

In the past 10 years, the healthcare delivery system was categorised under seven levels. These levels have affected healthcare behaviours where people leave their home environments and travel to seek specialised health services. This impact is starting to positively change, especially after the PHA reforms. PHAs are now able to recruit specialist medical services across the country. Therefore, the healthcare delivery system will now be categorised under six levels, as shown in Figure 13.

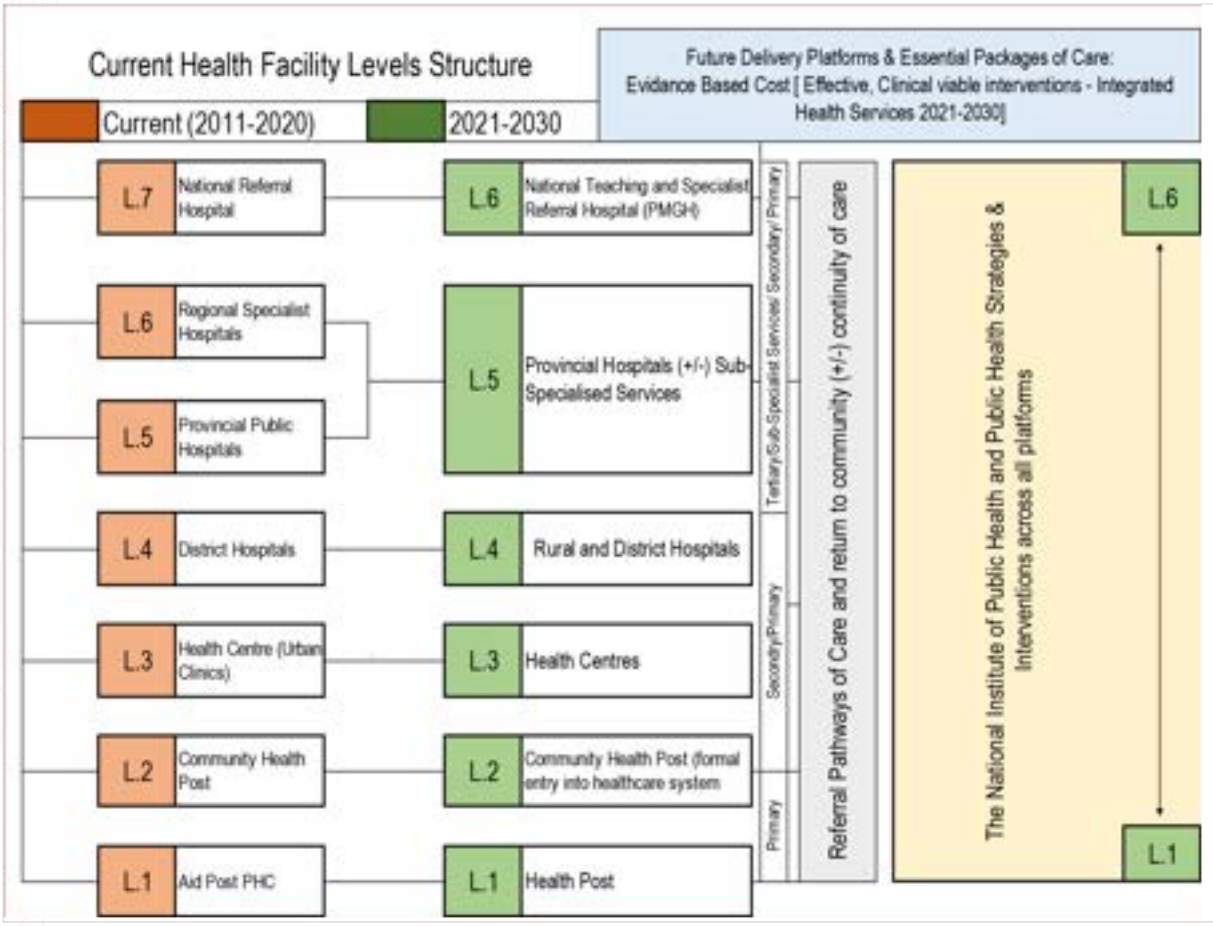


Figure 13: Current health facility level structure vs the new structure under the PHA reforms

National Teaching and Specialist Referral Hospital (Port Moresby General Hospital) (Level 6) will be the country's leading referral hospital for urgent and critical care needs that are beyond the capacity of other public hospitals in PNG. It will also be the centre of excellence for postgraduate and continuing medical education, including training aimed at improving technical skills and competencies of all medical, allied, and other ancillary staff from public hospitals in PNG.

This facility is classified as the nation's centre of excellence in medical research in collaboration with other national or international institution such as the University of Papua New Guinea's School of Medicine and Health Sciences, PNG Institute of Medical Research (IMR), other provincial hospitals and training institutions, including overseas partners.

To build and strengthen its capacity and meet the National Health Service Standards, the hospital will develop its corporate plan and health service plan. These plans will guide decision making in the long term.

Provincial hospitals (Level 5) are the responsibility of the PHAs. They will be gradually rehabilitated and upgraded to meet their provincial health needs. Provincial hospitals are the provincial hub of multi-faceted specialist clinical patient care management and coordination, including referrals for sophisticated specialist treatments within the province. Health promotion, protection and improvement will be planned and coordinated, together with clinical specialist care services. Provincial hospitals will build their capacities to become the provincial centre of excellence in postgraduate medical, nursing, and other allied health training and skills development. Additionally, provincial hospitals will coordinate referrals to the National Teaching and Specialist Referral Hospital (Level 6). The Central and Jiwaka provincial hospitals will be fully established. Nonga, Gerehu, Tari, Boram and Kimbe provincial hospitals will be rehabilitated and upgraded to fully functional provincial hospitals. Depending on the Autonomous Region of Bougainville's Development Plan, Buka and Arawa hospitals may also be upgraded and developed to Level 5. The new Enga Provincial Hospital will be fully operational during the life of this NHP.

District and rural hospitals (Level 4) will be rehabilitated according to the PHAs' health service plans. District and rural hospitals will be the hub for clinical health services delivery within and across districts to the feeder health centres and community health posts. The aim is to have a rural medical officer posted to cover all district hospitals to achieve Vision 2050 aspirations. Training and professional skills development for the district will be coordinated through the PHAs.

Health centres (Level 3) established in strategic locations will be rehabilitated to meet local needs and requirements. This level of health facilities will continue to remain the intermediary referral hubs between the community health posts (CHPs) and district hospitals.

Community health posts (Level 2) will continue to be built in strategic locations to meet the demands of the communities. CHPs will be guided by the Provincial Health Service Development Plans.

Health posts (Level 1) are the lowest level of health facilities at the community level, rebranded from what was previously known as aid posts. These facilities will be the interface between the community and the formal health system.

The National Institute of Public Health (NIPH) will be established incorporating the centres for Disease Control and Health Policy Management. The NIPH will start by establishing the National Reference Laboratory, which will be the focal point of networked laboratory services throughout the country. The NIPH will be responsible for standardisation of laboratory tests and equipment, timely response to disease outbreaks and surveillance including monitoring of anti-microbial drug resistance and medicine quality testing. It will be developed gradually to include other aspects of the Public Health Institute.

eHealth capacities will be developed and standardised to facilitate professional education and real time reporting and information sharing for improved patient management decision making.

Risk Management

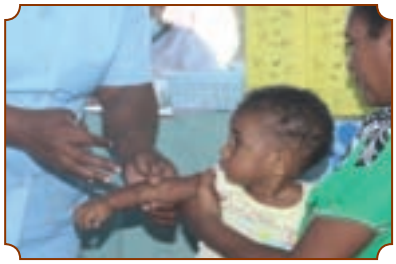
The NHP 2021–2030 is developed at a time when the country, and indeed the entire world, is going through a devastating pandemic that has impacted economies and capacity to fund the health services needed to address the challenges of diagnosing and treating COVID-19. The successful implementation of this plan will depend on how the health sector is able to respond to this increased demand for health services.

While the NHP 2021–2030 outlines many competing priorities and strategies, the strongest focus is under KRA 1: Healthier communities through effective engagement and KRA 2: Working together in partnership. It is critical we try to mitigate risks through this time of uncertainty and economic downturn and ensure people take ownership of their own health in their community settings.

Patient care

Immunisation

Immunisation in Kavieng, New Island



Well baby clinic in NCD

Immunisation in Kandep, Enga

Immunisation in Bosava, Hela Province

CHAPTER SIX: BUILDING A WORKFORCE FOR THE FUTURE

Sufficient and effective human resources for health (HRH) is the key to the NHP being implemented successfully. HRH are strategic resources that influence access, quality and costs of healthcare and the effective delivery of services to all.

HRH are the main enabler of the health system. They represent the face of health service delivery to the citizens of PNG. A well-trained, motivated, and competent workforce is the key to the fulfilment of the aspirations and goals of PNG's health system. The National Health Service Standards provide minimum staffing requirements from Level 1 health posts to the National Teaching and Specialist Referral Hospital at Level 6. Therefore, these different levels require a mixture of skills to provide quality healthcare across a range of services. Over the next 10 years, with the support of international and national stakeholders and partners, healthcare professionals at the various levels of facilities will be trained to be competent and responsive in their different specialties and expertise to provide the healthcare needed.

The current health workforce falls short of reaching international patient-to-health worker ratios across all cadres of health workers to meet the growing population's health demands, compounded by an aging workforce and ineffective recruitment of new graduates. With a current workforce of 15,000 health workers to meet the estimated population of nine million, it is challenging to provide the breath of services required, as well as providing the quality of care needed.
There is an imbalance between the nursing, medical, dental, and other allied health workforces. A GoPNG directive in the NHP 2011–2020 led to the establishment of new nursing and community health worker schools and colleges. As a result, more nurses and community-based health workers were trained.

It is envisaged that the numbers from each cadre of health workers will need to double by 2030, increasing the ratio of health workers to population from 1.01 to 1.62 per 1,000 population between 2018 and 2030. The projected numbers are listed in the last column of Table 5.

Table 5: HRH distribution by agency based on 2021–2030 projections

Categories of health workers	Government	Churches	Private & NGOs	Total	Total in 2030
Medical doctors	526	14	62	602	1500
Dental	137	1	4	142	284
Health extension officers	238	40	35	313	626
Nurses	2762	982	197	3941	8000
Community health workers	3101	1276	92	4469	9000
Pharmacy professions	79	6	30	115	230
Medical laboratory staff	216	37	35	288	576
Allied health professionals	343	19	33	395	800
Health administrative and support staff	3357	486	44	3887	8000
Management	137	17	4	158	360
Total	**10,896**	**2,878**	**536**	**14,310**	**29,376**
Total (percentage)	**76%**	**20%**	**4%**	**100%**	**100%**

An emphasis of the NHP 2021–2030 is for more strategic actions to be taken to improve the number of intakes for all cadres of health workers in all accredited health colleges and universities. These intakes will drive the implementation of the PNG Sustainable Development Plan and Vision 2050 to meet the need of an increased population of 12 million population by 2030. It is now time to make drastic changes in the enrolment of students into health training institutions.

The NDoH must explore options with key stakeholders to build a standalone tertiary medical training institution to increase the intake and graduation of medical officers and allied health workers for the country. In addition, other tertiary institutions, in addition to the UPNG, must be accredited by the regulatory authority to train more medical and allied health workers.

A competent health workforce must be deployed across all six strategic levels of health facilities to deliver appropriate primary and curative health priorities. Community health posts must be supported by PHAs, and district and local level governments to offer basic health services to communities, which would have a significant impact on meeting the National Health Service Standards and Vision 2050.

Postgraduate specialist training

Training more specialist clinicians and health professionals in the country to provide specialist skills for Level 5 and Level 6 hospitals is required to have sufficient medical, nursing, dental, laboratory and radiology staff.

There has been an increase in enrolment in post-registration nursing programs to improve specialised nursing in hospitals and health centres, such as midwives, child health nurses, acute care nurses and mental health nurses. There is still a gap in training for other nurse specialists in public health to support medical officers to provide curative health services for treat NCDs and communicable diseases.

Apart from in-country training, continuous support to train medical specialists abroad will be encouraged. This training would further contribute towards providing specialist care in the public hospitals to be accessed by rural and other unreached population.

Village health assistants

With the focus of the NHP being to engage communities and reducing the gap in the health workforce, especially in the "hard to reach" areas, village health assistants (VHA) will be deployed at the community level and, as highlighted by the National Health Service Standards, they will act as intermediaries between the community and the formal health system. The training and deployment of VHAs to deliver health promotion activities will be managed by respective PHAs in partnership with their communities and professional healthcare providers. Much of VHAs' tasks will be to conduct preventive and promotive health activities. They will be trained using a standardised curriculum approved by the NDoH and the PNG Nursing Council for a period of 12 months, with an opportunity for future career progression. On successful completion of the VHA training, these graduates will be issued a practicing licence that is renewable every year by the PNG Nursing Council.

Multi-skilling

Multi-skilling of VHA, CHWs and nurses will strengthen health promotion and health awareness in rural and urban communities, which is a focus of the NHP 2021–2030.

Credentialing of the health workforce

Medical and nursing education institutions must be able to meet educational and professional minimum standards for graduates to be registered and licensed to practice. It is important that educational health institutions are accredited by the relevant regulatory bodies to produce competent and safe practitioners. The enactment of the approved Health Practitioner's Bill will set up the PNG Medical Board and PNG Nursing Board to enable them to operate independently. Their strengthened roles and responsibilities will safeguard the lives of the public. The health workforce must be duly registered and licensed to practice according to their scopes of practice. Renewing licences every two years will be a legal requirement. The public deserves quality health services from the health workforce at all six levels.

Information and communication technology support

Installation of information and communication technology (ICT) systems to support data collection and dissemination about the health workforce is an integral component of the national HRH performance assessment and systems strengthening frameworks. Functional models will be developed to standardise processes for data input and management for accurate, timely, and comprehensive profiles of workforce size, composition, and deployment. These models will influence policy and decision makers to address a variety of HRH issues, such as efficient recruitment and deployment of the workforce.

Estimated heath resources for health costing for 2021–2030

The HRH Strategic Plan 2021–2030 will be the guiding document for implementing the workforce component of NHP 2021–2030. The estimated cost to implement the HRH Strategic Plan is around PGK 6.8 billion. Provision of an incentive package for staff in rural areas, rehabilitation of the training institutions, preservice training and investment in doubling workforce numbers over the 10 years of the NHP are included as part of the total cost.

Building a workforce for the future

CHAPTER SEVEN: MEDICAL SUPPLY CHAIN MANAGEMENT

One of the priorities of the NHP 2021–2030 is maintaining the medical supply chain management to ensure adequate stocks of essential supplies that are safe, effective, and good quality at all levels of health facilities.

The medical supply chain management involves appropriate selection of essential supplies, proper quantification for procurement, good storage, good distribution, and good pharmacy practices from the start to the finish of the chain to ensure that supplies are available at the service delivery point. Quality assurance is crucial to ensuring the safety, efficacy, and quality of these products through pre- and post-market regulatory activities and will be facilitated through a strengthened regulatory function.

The current system of drug procurement is a mixture of both pull and push systems—pull in the sense that procurement demand driven estimates are submitted though area medical stores and collated for procurement. The revised Medical and Dental Catalogue contains a list of selected medicines that require procurement for all public health facilities.

The push system involves the kit system where prepacked supplies in the form of aid post and health centre kits are procured and delivered through outsourced logistic service providers to primary health facilities. This is a generic kit system and is not designed for specific needs. The disadvantage of the push system is an accumulation of unused and outdated items, adding to wastage of drugs and essential commodities such as vaccines, and consequently shortage of other supplies.

There has been slow progress to improve procurement, storage, and distribution networks in PNG. A major concern is the lack of adequate storage facilities for transit of safe medicines, vaccines, and intravenous fluids for efficient distribution to provinces, health centres and health posts. Health managers also need skills in management of drugs and supplies, including controlling theft and illegal sale of medical supplies, which is not uncommon.

The new NHP is building strong, resilient health systems and directs implementation of medical and drug supplies procurement and supply systems that are efficient and effective and minimise drug shortages and stock outs. These outcomes will be achieved through medical supplies reforms, including strengthening the pull system, outsourcing options, sustainable capacity building at NDoH and PHA levels in the areas of quantification, procurement, contracting, inventory control, supply, and distribution. Improved planning, budgeting, and reporting, and capacity building in the regulatory function will also be required.

The ten-year Master Plan for Medical Supply Chain Management is based on "greater ownership of responsibilities through devolution of responsibilities". This means strengthening and building capacity for ownership and sustainability. Procurement and contracting functions will gradually be outsourced to a procurement mechanism, while provincial distribution will be the responsibility of PHAs. This concept promotes a cultural change with a patient welfare focus over bureaucracy, flexibility to achieve better value-for-money outcomes, processes

consistent with the country's devolution of responsibilities, and a risk management process that determines the pace of devolution, greater public–private partnerships to be harnessed.

Development of a procurement and supply chain manual and standard operating procedures (SOPs) for all key activities is important, including for procurement planning, which should be decentralised to PMGH, provincial hospitals and district hospitals. Appropriate staff will require capacity building for these functions and be allocated a designated budget. Procurement contracting will be undertaken depending on the types of procurement threshold values. Monitoring and evaluation are important components of the medical supply chain to avoid stock-outs.

The Pharmaceutical Services Standards and Medical Supplies Strategic Implementation Plan 2016–2020 (extended to 2021–2025) complements the Ten-Year Master Plan Medical Supply Chain Management, with a focus on addressing workforce planning and development, medical supplies reforms, pharmacy and medical stores infrastructure rehabilitation and development and pharmaceutical regulatory strengthening.

Delivering medical supplies

CHAPTER EIGHT: RESOURCE REQUIREMENTS

Health Financing

PNG's health system will continue to be financed predominantly through tax-based government sources at the national level, with around 20–30% of support from donors and development partners. Private healthcare contributions, insurance schemes and out-of-pocket spending on healthcare is limited.

The GoPNG continues to face challenges in the medium term to stabilise the economy and national budget to maintain macro-fiscal discipline; the health sector will consider new strategies of attracting additional financing from donors, the private sector, and provincial and district governments, by enhancing public financial management practices across all 27 government agencies and developing greater accountability and credibility for the sector.

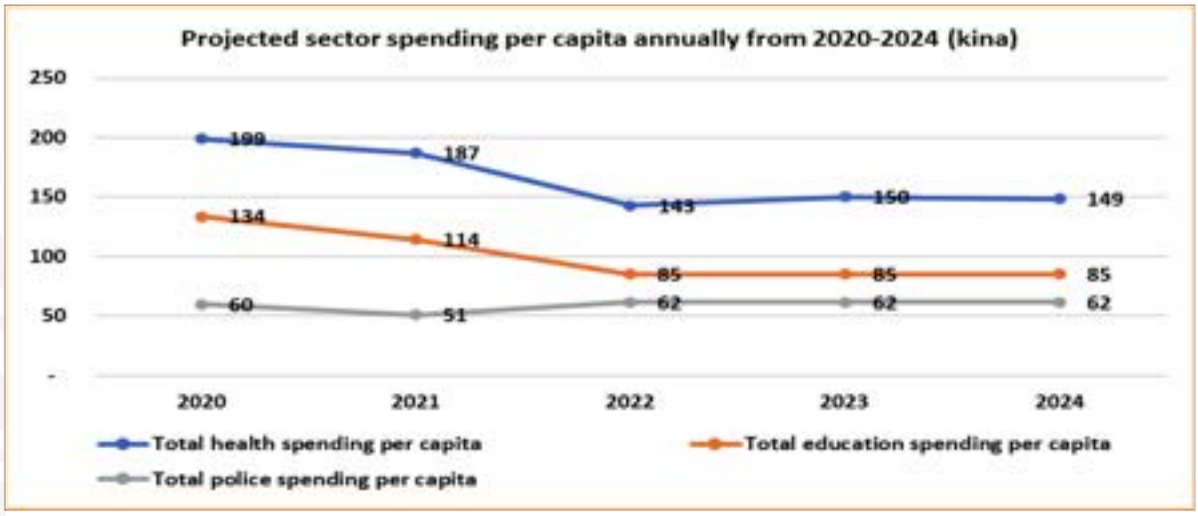


Figure 14: Projected spending from 2020–2024.

Source: Government of Papua New Guinea Budget Books 2021 (forecasts for 2021–2024 only)

Current Department of Treasury estimates forecast per capita reductions in spending across the health sector from 2022 onwards. These forecasts will be revised and extended to be in line with the MTDP and NHP 2021–2030 when the Department of Treasury releases new forecasts for 2021–2025. Additionally, these forecasts may be further revised as a result of improved health sector engagement with central agencies and a sector-wide approach to national budget formulation, implementation, monitoring and review.

National government reforms and commitment to health

Effective national government support to finance the NHP 2021–2030 will focus on building resilience and protecting health sector funding through better bottom-up expenditure estimates to ensure that basic health services remain functional regardless of external shocks, natural disasters, and fiscal constraints.

In an effort to improve and enhance the predictability and consistency of national-level appropriations to PNG's health system, central agencies will work in partnership with all health sector agencies to align national 3-to-5-year resource commitments to the NHP 2021–2030, 5-year service delivery plans in each province, and district development plans.

A base threshold for essential resource requirements for human resources, medical supplies, and rural primary healthcare (levels 1 to 4) will be established for the sector to buffer it against potential macroeconomic shocks and other threats to the financing of the NHP 2021–2030.

The establishment of budget appropriations for all 21 PHAs in 2021 marks a turning point in the sector's management of public resources for the NHP. What this means in terms of good public financial management (PFM) is that all 21 PHAs can now be responsible for and held to account against their allocations of public spending from the national budget, in comparison to previous years when funding did not follow the functional responsibility of delivering health services as per the *Provincial Health Authorities Act 2007*.

The enhanced control and management over provincial health service resources, coupled with strengthened public financial management practices, should address and overcome previous funding bottlenecks and ensure there is consistency and predictability of financing flows from the national government for effective service delivery.

Enhanced provincial, district and lateral sources of funding

With the establishment of all 21 PHAs, PNG's health system has been fully decentralised and there are several opportunities to acquire additional funding through lateral support from provincial, district and local level governments for the next 10 years. PHAs have the opportunity to build their partnerships with lower-level governments through strong advocacy and community engagement to increase the prospect of monetary and in-kind contributions from provincial administrations, local businesses and private sector groups, donor partners, NGOs, faith-based organisations, community members and leaders, elected members and charitable organisations.

Plans for revising the Free Primary Health and Subsidised Specialised Healthcare Policy

The GoPNG will continue to have discussions on how to fund UHC viably and sustainably through the Free Primary Health and Subsidised Specialised Healthcare Policy; however, the principle of "leaving no-one behind" should be built into all proposed planning and funding considerations across all 22 provinces. Additional efforts will be made to establish an Essential Health Package at all levels of care so that quality health services are available and affordable.

Key agreements on reducing wasteful, administrative budget allocations that "have no value for money or service delivery potential or relevance" will be a priority for the sector to improve the "depth" of coverage to extend services to people that are hard to reach, thus avoiding the need to entirely abolish the Free Primary Health and Subsidised Specialised Healthcare Policy in the short term.

Provincial and district hospitals will continue to review their fee structure annually as a potential source of revenue; however, they should continue to observe the 2013 Statutory Instrument issued on 29 November 2013 by the Governor-General, which amended the Public Hospitals (Charges) Regulation (Chapter 116) to revise hospital charges for specific services, particularly services that are scheduled to be provided for free as a mandatory requirement, including antenatal care consultation, supervision of delivery and ambulatory services.

Hospitals (Charges) Regulation (Chapter 116) to revise hospital charges for specific services, particularly services that are scheduled to be provided for free as a mandatory requirement, including antenatal care consultation, supervision of delivery and ambulatory services.

Strengthening regulations for the collection of fees

Strengthening the regulatory process to enhance oversight for the collection of fees from registered private medical practices and practitioners, as well as fees and charges collected from health inspection activities such as food outlets, will also support the sector's efforts to consolidate all resources that should be subsumed under the sector for its own purposes.

A health endowment fund for Papua New Guinea

Creating a health endowment fund for PNG is an idea that has been discussed at the policy level in the health sector for some time. Theoretically, the fund would sustain itself by re-investments. Revenue from the funds will be used to provide a targeted or specific set of health programs in the country. A portion of the fund would also be used to build the skills and capacity of existing health professionals. As it is a revolving fund, a health endowment fund does not need to be funded by the government using tax revenue.

The viability of the fund needs further researched, to gather data that will support its introduction and it will be explored in the new NHP. It is one of the innovative ideas that policy makers in health have been considering. It has been trialled in other countries with positive results. PNG can also learn from the experience of countries that have successfully adopted and established health endowment funds. It can then be tailored to suit PNG's context. Most importantly, the fund must be managed by people who have the skills required to make it work.

A health promotion trust fund

The establishment of a health promotion trust fund under the existing *Tobacco Control Act 2016* is being progressed by the GoPNG. Funds generated and deposited into this trust fund will consist mainly of taxes charged on tobacco products sold at retail and wholesale levels. Licensing fees will also be collected every year by the NDoH from the tobacco companies when they renew their licences. Revenue from the registration of tobacco products will also be deposited into the fund.

The health sector, in collaboration with the Department of Treasury will continue to review the potential introduction of "sin taxes", such as imposing taxes on the consumption of goods such as alcohol, to offset the additional burden to the health system and can generate revenue specifically for health programs.

Resource Requirements for 2021–2030

Motivated by the principle of "leave no-one behind", the NHP 2021–2030 formulates an ambitious set of initiatives intended to progress the goal of providing accessible and affordable healthcare to the population of PNG. While acknowledging the importance of enabling the people of PNG to be in charge of their own health, the NHP 2021–2030 intends to progress the delivery of healthcare services and their equitable distribution through major investments in infrastructure and human resources, continuing strengthening primary care services outlined in

the NHP 2011–2020, and targeting health priorities, such as TB, malaria, HIV, maternal and newborn health, and immunisation.

The financial commitments required to achieve the objectives proposed by NHP 2021–2030 amount to approximately PGK 42.7 billion (in 2020 prices) over the entire 10-year period of the plan, rising from approximately PGK 3.7 billion in the first year of the plan, to about PGK 4.8 billion by 2030. These estimates include requirements for proposed new investments in infrastructure and human resources for health, improved and more equitable access to drugs, funding for ongoing health sector functions of PHA, faith-based health services, NDoH, and other health sector institutions' spending on specific disease and public health priorities, as well as potential implications of new investments for subsequent recurrent funding as shown in Figure 15.

Two major and complementary initiatives envisaged under the NHP 2021–30 drive the resource requirements. The first is an ambitious agenda of investments in health infrastructure intended to strengthen provincial hospitals, Laloki psychiatric hospital and Port Moresby General Hospital, health facilities from levels 1 to 4, medical stores, and the establishment of the National Reference Laboratory. Taken together, this amounts to approximately PGK 21 billion over the period 2021–2030.

The second set of resource requirements stem from the accompanying government investments in human resources for health, as outlined under the Human Resources for Health Strategic Plan 2021–2030. Investments in HRH are necessitated not only by the expanded roles of provincial hospitals and PMGH envisaged under NHP 2021–2030, but also by the high priority the NHP places on promoting rural health services and meeting the National Health Service Standards. The Human Resources for Health Strategic Plan 2021–2030 aims to achieve a ratio of frontline health personnel (doctors, nurses, HEOs, and community health workers) to PNG population of 1.62 per 1,000 by 2030. The resulting resource requirements (including existing personnel and incentive payments) amount to approximately PGK 6.5 billion for human resources for health in government management over the 10-year plan period as shown in Figure 16. Pre-service training costs for these new staff would be an additional PGK 307 million, based on the per person costs of such training provided in the HRH Strategic Plan 2021–2030.

Disease surveillance

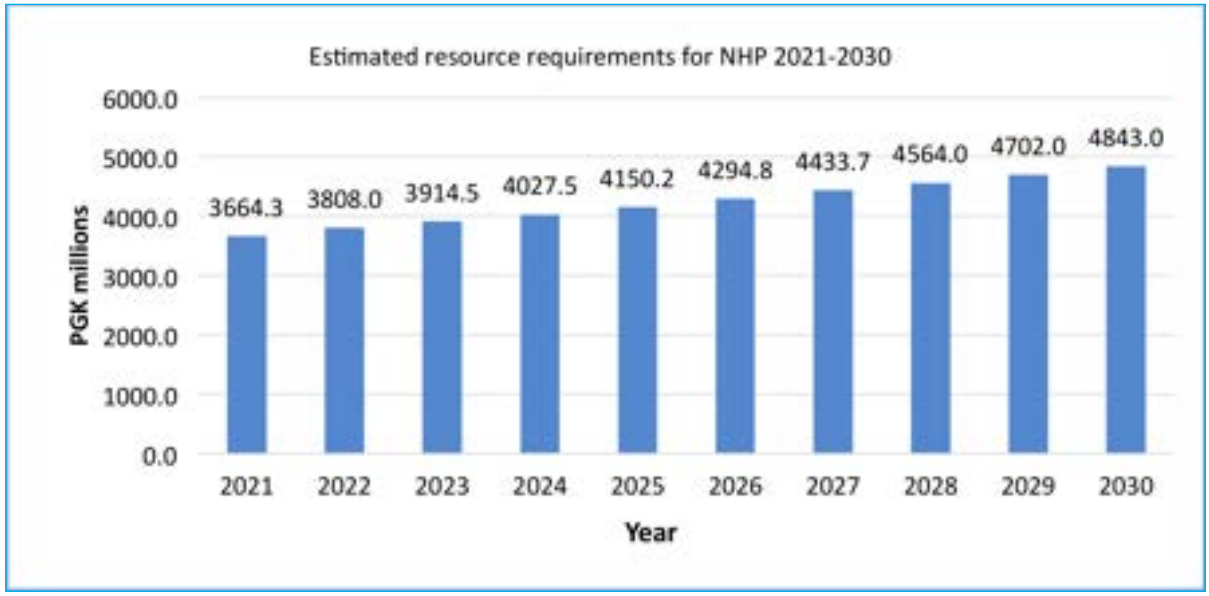


Figure 15: Estimated resource requirements for NHP 2021–30

Notes to Figure 15: Includes (a) infrastructure investments under the infrastructure plan for 2021–2030; (b) human resource investments under the HRH Strategic Plan 2021–2030 and pre-service training costs; (c) resource requirements for strategic plans in immunisation, TB, malaria, sexually transmitted infections and HIV, the Central Public Health Laboratory, the Medicine Quality Control Laboratory and others; (d) HRH and operations spending for faith-based health services, and increases likely expected under HRH strategic plan; (e) projected increases in spending on medicines and consumables; (g) projected operational spending for PHAs, the NDoH, and hospitals.

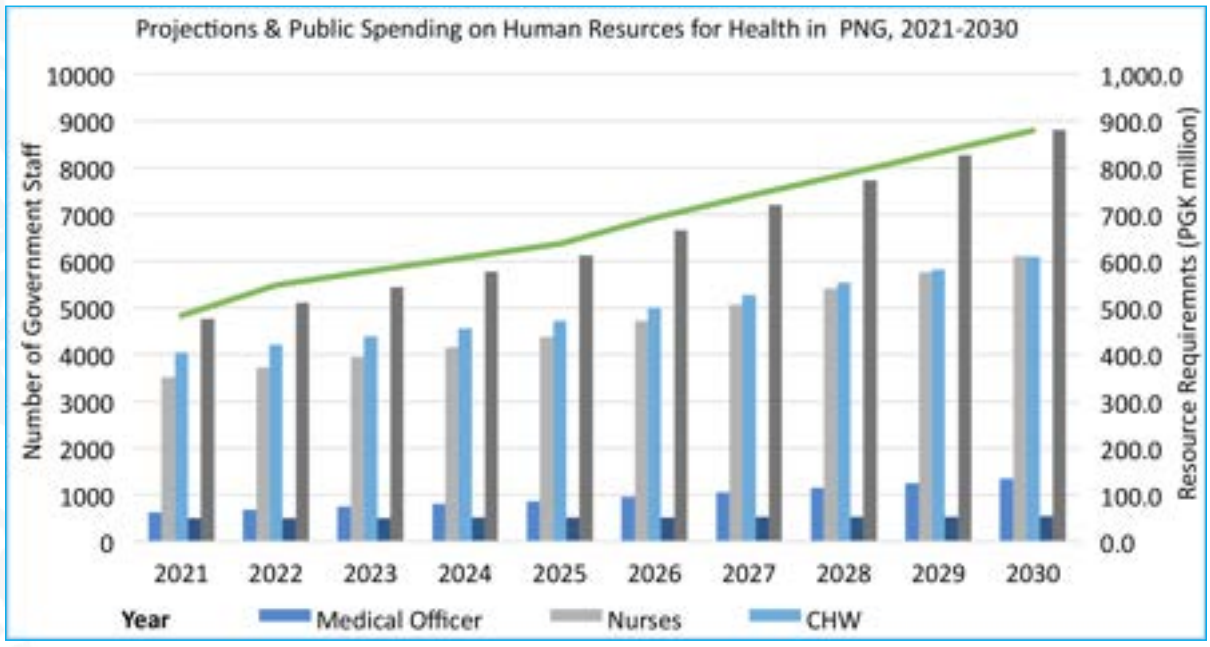


Figure 16: Resource requirements for wages and allowances for staff during 2021–2030

Notes to Figure 16: Estimates for salaries and allowances by staff category are based on data from a WHO technical consultant; projected numbers of frontline staff are only for those under government management and assume that one-third of the gap between existing human resources and the targeted level in 2030 will be filled by 2025, and the rest will be filled between 2026–30; estimates assume no cost-of-living adjustments in salaries and allowances; casual staff were not accounted for. Population figures used for constructing HRH to population ratios assumed a population of 9.2 million in 2020, rising to 11.8 million in 2030. Incentive payments and other strategic objective-related expenditures of approximately PGK 520 million (communication with HR branch of the NDoH and WHO technical consultant), and pre-service training costs of PGK 307 million over the 10-year period are also included.

CHAPTER NINE: MONITORING, EVALUATION AND LEARNING

The NHP 2021–2030 requires establishing a robust monitoring, evaluation, and learning (MEL) framework to provide direction for measuring progress towards the agreed targets. The MEL framework sets out what will be measured, when it will be measured, through what system and at what level of government an indicator will be measured.

The framework's development was guided by the four components of implementing a successful NHP:

1. an understanding of the information required to guide the health sector in attaining the NHP's vision (indicators specifying the targets and results)
2. ensuring there is a capacity to gather and manage data to guide decision making
3. detailed analysis and reflection of the performance and progress
4. decision making based on analysis and the strategies required to ensure that the objectives of the NHP are realised.

MONITORING AND MEASURING HEALTH SECTOR PERFORMANCE

The NDoH will measure the progress of the implementation of the NHP against the five KRAs and their objectives as outlined in Chapter 4. The implementation of the MEL framework will adhere to existing NHIS and M&E system guidelines. Further, it is envisaged that the NHIS and M&E system will be strengthened by:

- digitalisation of the current paper-based reporting at all health facilities through eNHIS (electronic NHIS)
- integration of existing parallel health information reporting systems into a single NHIS structure with an integrated data repository (data warehouse)
- improvement in NHIS infrastructure and capacity building for human resources, synthesis of evidence, and use of data for action
- enhanced networking of hospitals and establishing health sector wide area network (WAN)
- improvement in research in healthcare, including assessment of health facilities and regular population-based surveys
- incorporation of private sector reporting systems to NHIS (eNHIS).

A core set of indicators will be developed through a consultative process involving the key stakeholders, program managers, and M&E experts (from the NDoH, WHO, and the Health Sector Service Delivery Program (HSSDP). The indicators and their baseline and targets in the NHP will be agreed in the Performance Assessment Framework (PAF). The selection of indicators will be guided by national and international reporting commitments including PNG Vision 2050, SDGs and UHC, and will be categorised under inputs, outputs, outcome and impact indicators as described in Volume 1b:

- input indicators will measure mobilisation, distribution, and utilisation of resources
- output indicators will measure the usage of capabilities, coverage, and access to services
- outcome and impact indicators will measure the end result of interventions.

Performance monitoring indicators for measuring the inputs and results will be collected from five primary data sources:

1. facility and service data
2. administrative and management records and reports (financial, human resources and supervisions)
3. health facility assessment
4. household surveys, census and operational research
5. civil registrations and vital statistics.

An integrated NHIS will be implemented to collate data from various sources to a data warehouse that will be the repository of all health-related statistics (refer to Figure 17). The information will be disseminated through various reports as outlined in the following section and will be enhanced by using data visualisation platforms.

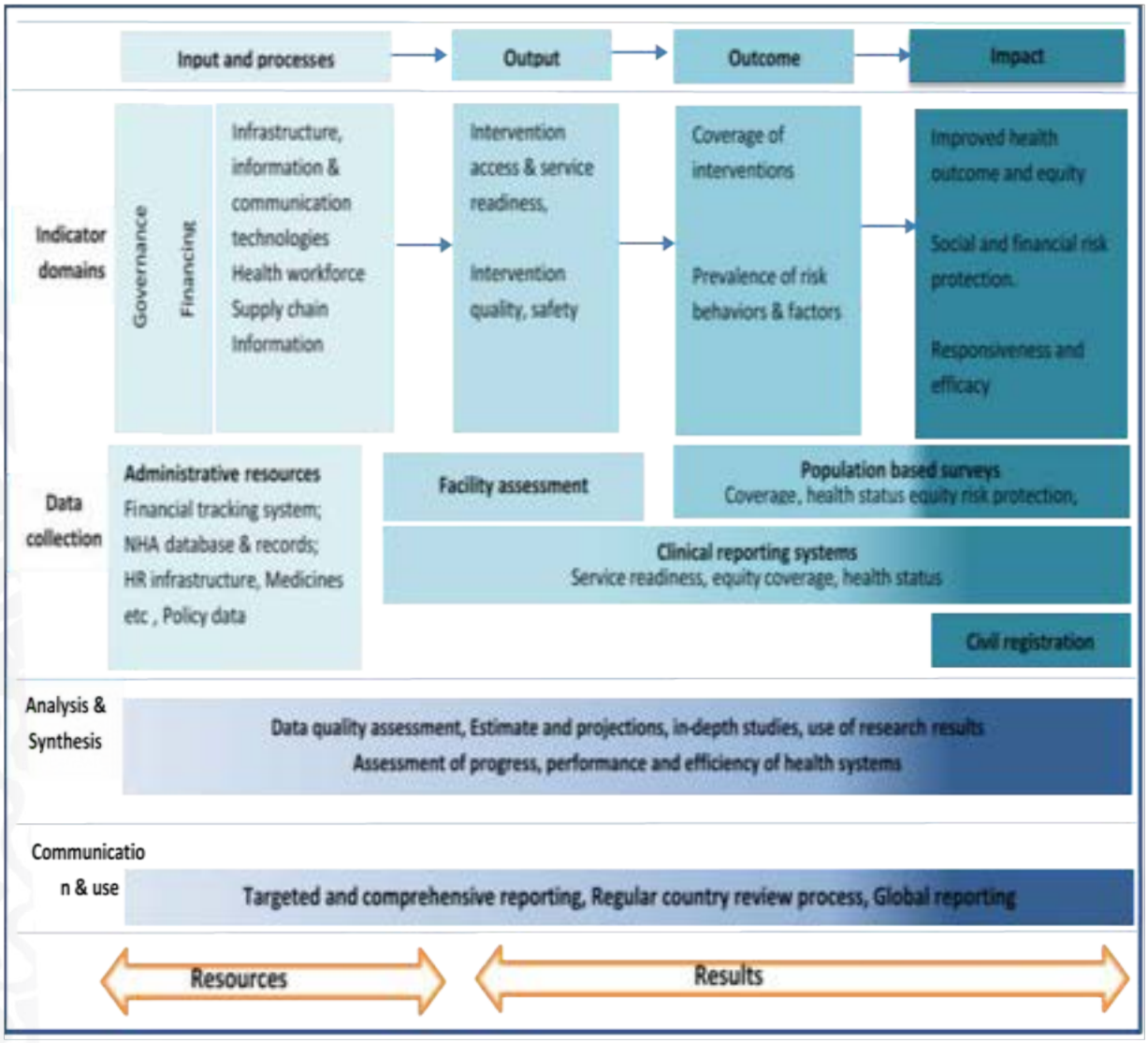


Figure 17: Monitoring and evaluation framework of the NHP 2021–2030

Reporting Obligations and Performance Review

Annual reporting to parliament: PHAs must provide an annual report of their activities to the Minister for Health and HIV and AIDS in the first quarter of each year. The National Health Board approves the Sector Performance Annual Review (SPAR), which includes reporting against key targets and indicators identified in the PAF. The Minister uses these reports to deliver an annual statement to parliament.

Central agency reporting: In addition, the central agencies require the health sector to describe progress and commitment towards implementing the globally agreed SDGs and the PNG Development Strategic Plan 2010–2030. Further, S119 reporting requires all PHAs to report to the Department of Provincial and Local Level Government Affairs annually.

Health sector annual performance reporting: A detailed national-level performance assessment will be undertaken quarterly to use as the feedback mechanism for informing sub-national stakeholders. A comprehensive review will also be conducted every year to track the NHP's progress against the set targets. Provinces are also required to conduct quarterly performance reviews to track the progress of the NHP targets in their respective provinces. Reporting requirements and performance appraisals will be incorporated into the existing accountability mechanism to allow provincial administrators to make informed responses to health issues.

The PAF progress reports will be published annually to offer a sector-wide snapshot of advancement towards the goals and targets. This comprehensive statement will offer performance-based information by provinces to further discuss the steps needed to meet the gaps in the requirements.

Mid-term review: A regular and transparent mid-term performance review will be conducted with broad involvement of stakeholders for periodic tracking of the implementation and monitoring of the NHP. The process aims to assess the progress towards meeting the NHP and the global targets. Additionally, it will check whether the plan implementers are on the right path and if the strategies applied are enough to achieve the desired results. The review will assess if further actions are required to address any barriers faced during implementation. The mid-term review results will guide the ongoing decision-making processes for resource allocation and disbursement of budgets.

End-of-term performance reporting: A final performance review will be conducted in 2029 to measure the overall progress of the implementation of this plan and to evaluate achievements against the goals and targets. This review will inform planning for the next plan from 2031–2040.

Evaluation

A broad accountability framework of health services delivery will be based on the NHP 2021–2030 and its validation process. Partners in health will participate in the development, review, approval, and use of the PAF and will contribute to the joint annual assessments, mid-term review (2024) and evaluation (2029) of the NHP. The procedure will be conducted by assessing the data gleaned through the PAF and probing deeper into the front-line and service delivery staff's achievements and problems.

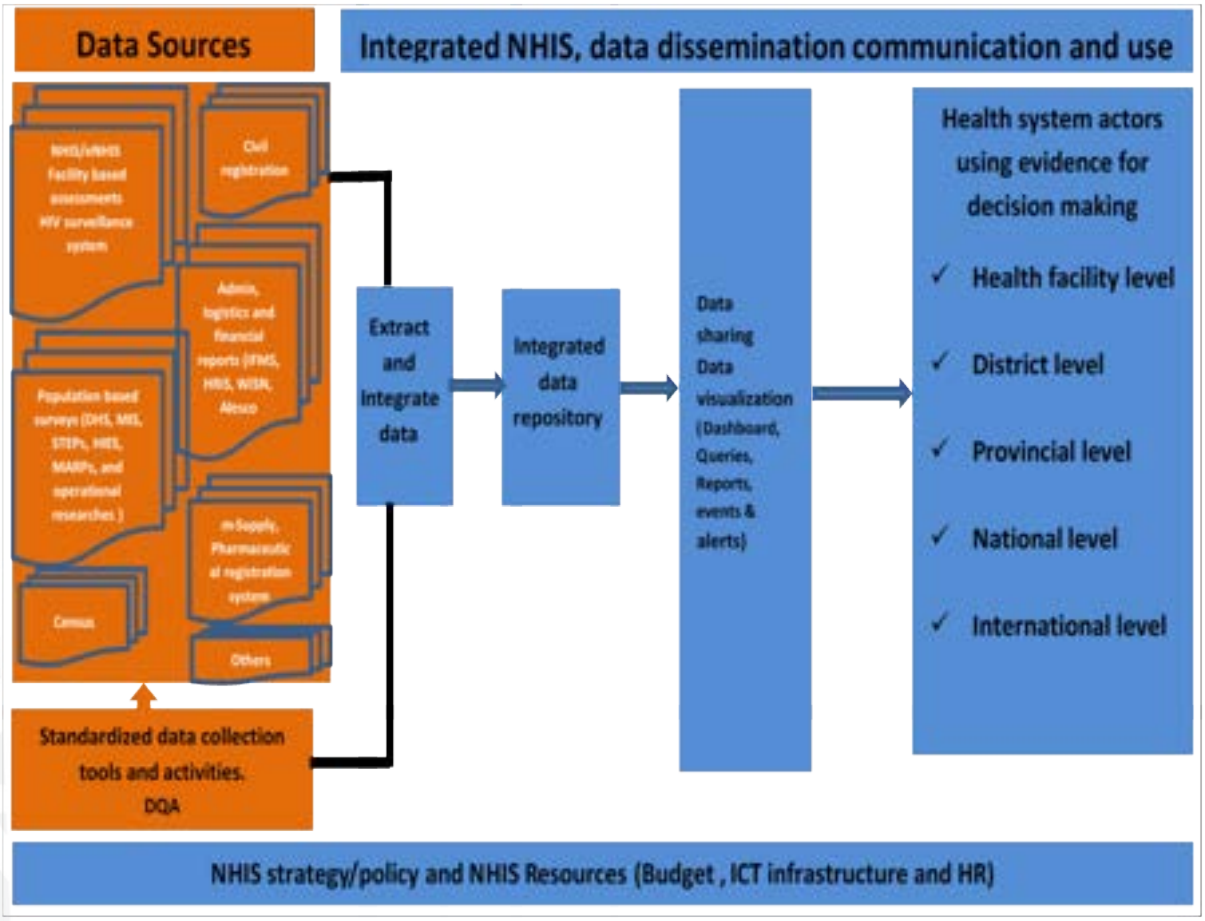


Figure 18: Integrated National Health Information System implementation framework

Medical waste management and infection control

ANNEX ONE: ACKNOWLEDGEMENT OF THE NHP SECRETARIAT, DRAFTING ADVISORY AND DEVELOPMENT MONITORING TEAMS

The NHP Secretariat Team

NHP Drafting Advisory Team

NHP Development Monitoring Team

ANNEX TWO: NHP CONSULTATIONS

National Health Plan Consultation 2019/2020/2021

NHP Community Consultation

PHA Staff Consultation

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