
# National Health Strategic Plan 2022-2026

Ministry of Health, Seychelles
January 2022


**The National Health Strategic Plan 2022-2026**

# Executive Summary

The **National Health Strategic Plan (NHSP) 2022-2026** has been developed at a time when Seychelles, like the rest of the world, is confronting an ongoing COVID-19 pandemic. A new direction in health is now imperative, as we strive to **protect pre-pandemic health gains, address past pervasive non – achievements and recover from the pandemic stronger**.

The NHSP was developed using a participatory approach engaging stakeholders within and beyond the Ministry of Health (MoH). A review of the implementation of the NHSP 2016-2020 showed that there was progress in the last five years, in particular: MoH offered a wider range of specialist services; primary health care services are well integrated with medical, oral health and rehabilitative services offered under one roof in regional centers. A new health facility, the Family Hospital was inaugurated in 2017; a record number of Seychellois doctors joined the MoH; and key health policies and Acts were developed and implemented. The country has made progress towards protecting and improving Universal Health Coverage (UHC) as reflected by the increasing UHC index (77.6)

However, despite notable progress, an analysis of the current situation of the health of the population and health systems revealed urgent issues that have to be addressed in the next five years and beyond.

The health profile of the nation, shows some worrying trends, in particular, there is disproportionate number of deaths every year among young men and the previous **NHSP's target for life expectancy (LE) of men was not reached** and **premature mortality from non-communicable diseases (NCD) remains unacceptably high**. Among risk factors for health, there is an **alarming rise in obesity among school children**. There was an important change in the pattern of cause of death in 2021 with **COVID-19 related deaths being the second leading cause of mortality**.

Analysis of the **health system**, the organization of people, entities and resources, that deliver services and safeguard health, revealed several **weaknesses and gaps**.

Health is complex and the 'production' of good health requires resources, the need for which will increase as the population ages and the country deals with new health threats like pandemics and climate change. The country **spent 3% to 5% of GDP on health prior to the COVID-19 pandemic**, while this is relatively high compared to other African countries, it is well **below the OCED average of 8.8%**. The country has invested in human resources for health, however, there is still reliance on expatriates for clinical care and there is a **lack human capacity** for health economics, disease surveillance, health regulation, data governance and monitoring and evaluation.

While it is true that the sector lacks some critical inputs, it is also true that it does **not always succeed to transform inputs into results**. The service delivery model has remained rigid over many years and digital **technology is not used adequately** to improve services. Monitoring and evaluation is patchy and available health **data is not sufficiently mined** and used to improve health and efficiency.

Health gains that took years and efforts to secure can be quickly eroded. The **COVID-19 pandemic has adversely affected the health and wellbeing of the population, as well as all the building blocks of the health system**.

The NHSP 2022-2026 commits to the national vision for health - the ***"attainment, by all people living in Seychelles, of the highest level of physical, social, mental and spiritual health and living in harmony with nature"***. The achievement NHSP of goals requires bold and innovative actions. Over the next five years, the health sector has to do three key things:

- Protect health gains secured so far.
- Fix what did not work in the past.
- Identify and implement solutions for new health challenges.

The new NHSP is a comprehensive document outlining the health sector's goals and strategic directions (SDs).The goals are coherent with national, regional and global commitments.

- Increase life expectancy and healthy life expectancy.
- Achieve and sustain all dimensions of UHC.
- Prepare, prevent, detect early and respond to all health emergencies.
- Promote healthy populations.

To achieve NHSP goals, MoH needs to implement new interventions and also transform the way it was implementing some old interventions; this is captured through six SDs.

**SD1 Strengthen Leadership, Governance and Administration**: Promote a culture of hard work and accountability, ensure entities transform resources into results, build partnership and successfully steer the sector to achieve goals.

**SD2 Protect and Improve Universal Health Coverage**: Provide people of all ages and all health needs with health services. Transform primary health care. Use a proactive approach to prevention, work on achieving all dimensions of quality care.

**SD3 Address Health Security**: Identify outbreaks and other health threats. Improve crisis response and protect the health of the population.

**SD4 Promote Healthy Populations**: In collaboration with other sectors, support the creation of conducive environment to support well-being, healthy living, reduce risk factors for health and address social ills. Strengthen community health systems.

**SD5 Invest in Health**: Ensure appropriate resources are available and efficiently used. Financial resources should be commensurate with expected results, human capacity for health is reviewed and strengthened.

**SD6 Improve Data for Impact**: Increase the availability, quality, value and use of timely and accurate strategic health information.

Successful implementation of the objectives of the NHSP requires leaders and health workers to demonstrate **conviction, commitment and hard work** as well meaningful **engagement and participation of the population**.

While there is unity of purpose and collective ownership of the NHSP goals, entities within the sector have been assigned clear roles and responsibilities and MoH will ensure the necessary structures and processes are in place for monitoring and reporting on progress in line with the **Results-Based Management Framework** and will make sure appropriate **remedial actions** are implemented when needed.

The NHSP has been developed during a pandemic and there are **several known and unforeseen risks** that can thwart successful implementation; mitigation strategies have been developed to counter key known risks.

Health is a societal resource and asset, but also a product of development. A complex array of interlinked factors outside the purview of MoH influence health and well-being. MoH will redouble its efforts to provide health care, however, **good health is the product of effective policy across all parts of government**. MoH will build new platforms for **health in all policies, for partnership, collaboration and joint actions, to promote good health and well-being**.

# Acknowledgements

The National Health Strategic Plan 2022-2026 was developed with the combined efforts and support of several people.

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We would also like to express our thanks to all those who participated in the various consultative meetings. Your positive contributions have helped to forge the way for the next five years.

# Foreword

The sight of Seychelles Government remains firmly riveted on the attainment of the health sustainable development goals through lasting universal health coverage, and ensuring that no one is denied the opportunities to enjoy the fortunes of good health.

The 2022-2026 National Health Strategic Plan intends to build on the health gains of the Seychellois nation while at the same time addressing the shortcomings and failures of the health system so that, above all, people are able to live healthy and fulfilling lifestyles. There is no doubt that the level of investment needed to keep the Seychellois nation healthy will bring about numerous social and economic returns.

Primary health care is the foundation for better health, for this is where most of the primary prevention and early detection of diseases take place. It must therefore become stronger and more prominent on the health agenda. The Government vows to quickly introduce and assiduously drive structures and processes that will bring the desired outcomes in primary health care and beyond.

Now more than ever before, the Government understands that an All-of-Government and All-of-Society approach is a prerequisite to address adequately the challenges of poor nutrition, substance abuse and sedentary lifestyles common in all segments of the population. The stomping effects of such lifestyles on the nation's health and purse are so direct, devastating and deadly that we must all leverage every effort needed to reverse the trend.  Health in all policies is the answer.

It is unfortunate that for many, the Ministry of Health's focus is perceived to be ill-health and diseases. This is often reinforced by the manner in which services are organised and national measures of health expressed in the form of rates of diseases. It is incumbent upon health professionals, whether operating in clinical services, health promotion or heath policy-making, to change this disease-oriented outlook on health, to better communicate the value of good health and to engage with others in the pursuit of wellbeing. The edification of utilitarian public health policies that seek to do the greatest good for the greatest number of people and favour prevention over cure, need not only good will and shrewdness, but also experience and knowledge in equal measure.

I thank the team who has worked so diligently to put together this National Health Strategic Plan. I thank every single person who contributed time and ideas to crown this so very important opus and those who will now be at the forefront of the implementation fray.

The work begins anew.

**Peggy Vidot**
Minister for Health

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## Tables

**Boxes**

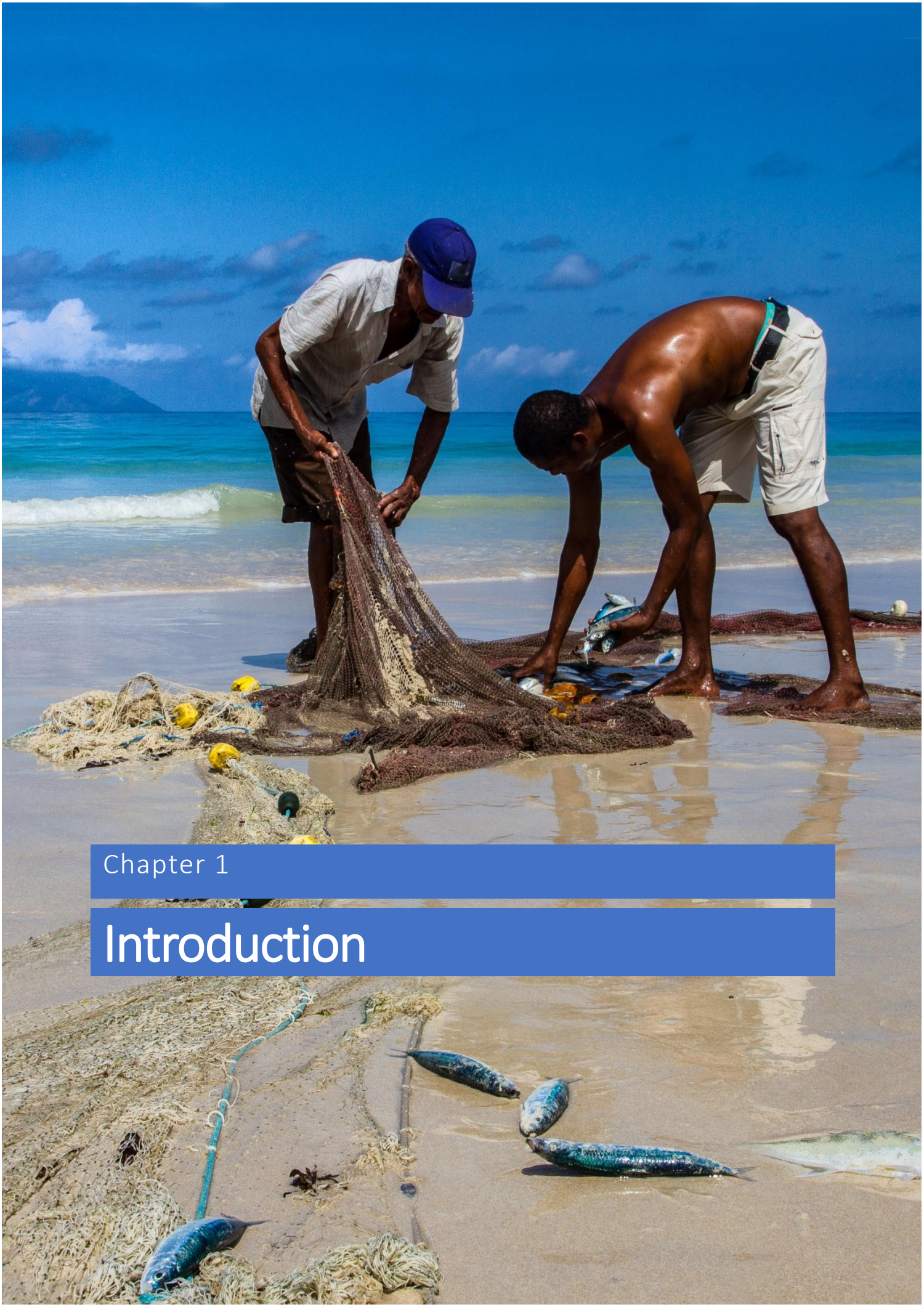
# List of Acronyms

| Acronym | Full form |
|---|---|
| A&E | Accident & Emergency |
| AIDS | Acquired Immunodeficiency Syndrome |
| ANC | Antenatal Care |
| APR | Annual Health Sector Performance Report |
| ART | Antiretroviral Therapy |
| ASFF | Alliance of Solidarity for the Family |
| AU | African Union |
| CDCU | Communicable Diseases Control Unit |
| CEHS | Centre for Environmental Health Services |
| CIC | Consultant in Charge |
| CPD | Continuous Professional Development |
| CRD | Chronic Respiratory Diseases |
| CVD | Cardiovascular Diseases |
| DALY | Disability Adjusted Life-Years |
| DSRU | Disease Surveillance and Response Unit |
| eHealth | Electronic Health |
| eHIS | Electronic Health Information System |
| EPI | Expanded Programme on Immunization |
| GBV | Gender-Based Violence |
| GDP | Gross Domestic Product |
| GLASS | Global Antimicrobial Resistance Surveillance System |
| HALE | Health-Adjusted Life Expectancy |
| HASO | HIV/AIDS Support Organization |
| HBV | Hepatitis B Virus |
| HCA | Health Care Agency |
| HCV | Hepatitis C Virus |
| HCW | Heath Care Workers |
| HDI | Human Development Index |
| HIA | Health Impact Assessment |
| HiAP | Health in All Policies |
| HIV | Human Immunodeficiency Virus |
| HRH | Human Resources for Health |

| Acronym | Full form |
|---|---|
| IHME | Institute for Health Metrics and Evaluation |
| IHR | International Health Regulations |
| IMR | Infant Mortality Rate |
| IPC | Infection Prevention and Control |
| IT | Information Technology |
| KPIs | Key Performance Indicators |
| LE | Life Expectancy |
| LoTC | Long Term Care |
| M&E | Monitoring and Evaluation |
| MDAs | Ministries, Departments and Agencies |
| mHealth | Mobile Health |
| MoEdu | Ministry of Education |
| MFTIEP | Ministry of Finance, Trade, Investment and Economic Planning |
| MoH | Ministry of Health |
| MPI | Multidimensional Poverty Index |
| NBS | National Bureau Statistics |
| NCDs | Non-Communicable Diseases |
| NDS | National Development Strategy |
| NEET | Not in Employment, Education or Training |
| NGO | Non-Governmental Organisation |
| NHA | National Health Accounts |
| NHSP | National Health Strategic Plan |
| NHWA | National Health Workforce Accounts |
| NIC | Nurse in Charge |
| NIHSS | National Institute of Health and Social Studies |
| NM | Nurse Manager |
| NSP | National Strategic Planning |
| OECD | Organisation for Economic Cooperation and Development |
| PBM | Performance-Based Management |
| PDA | Personal Digital Assistants |
| PHA | Public Health Authority |
| PHC | Primary Health Care |
| PHEOC | Public Health Emergency Operations Centre |

| Acronym | Full form |
|---|---|
| PLHIV | People Living with HIV |
| PM&E | Performance Monitoring and Evaluation |
| PMO | Principal Medical Officer |
| PMS | Performance Management System |
| PNO | Principal Nursing Officer |
| PPBB | Programme Performance Based Budgeting |
| PWID | People Who Inject Drugs |
| PWUD | People Who Use Drugs |
| QI | Quality Improvement |
| QoC | Quality of Care |
| RBM | Results Based Management |
| RMNCAH | Reproductive, Maternal, New-born, Child and Adolescent Health |
| RTA | Road Traffic Accidents |
| SIDS | Small Islands Developing States |
| SAMOA | SIDS Accelerated Modalities of Action |
| SARA | Service Availability and Readiness Assessment |

| Acronym | Full Form |
|---|---|
| SD | Strategic Direction |
| SDG | Sustainable Development Goals |
| SOP | Standard Operating Procedure |
| SOW | Statement of Work |
| STI | Sexually Transmitted Diseases |
| TA | Technical Assistance |
| TFR | Total Fertility Rate |
| TGHE | Total Government Health Expenditure |
| THE | Total Health Expenditure |
| TOP | Termination of Pregnancy |
| ToR | Terms of Reference |
| TWG | Technical Working Group |
| UHC | Universal Health Coverage |
| UN | United Nations |
| UNAIDS | Joint United Nations Program on HIV/AIDS |
| VNR | Voluntary National Review |
| WASH | Water Sanitation and Hygiene |
| WHA | World Health Assembly |
| WHO | World Health Organisation |
| YLL | Years of Life Lived |



Chapter 1

# Introduction

# 1 Introduction

## 1.1 Background to the National Health Strategic Plan

The origins of the current Seychelles Public Health System date back to the late seventies, to the years immediately following the 1976 independence. The country had inherited a rudimentary health system and it was imperative to develop one that would respond to the needs and aspirations of the young Seychellois nation. Inspired by the global Health for All movement[1], Seychelles embraced the primary health care approach promoted by WHO as of 1978. In the early years, the focus was on improving geographic and financial access to care, by developing a network of primary healthcare centres, free at point-of-use. At the same time, secondary care, based primarily at and around the Seychelles Hospital (then Victoria Hospital) expanded at a steady pace. Through sustained political commitment and investment in the health sector, the government managed over the years to improve health outcomes - infant mortality rates dropped from 43.2 in 1977[2] to 11.6 in 2020[3], life expectancy at birth increased from 69.5 years in 1980[4] to 77.3 years in 2020.

The right of the citizens to health care, the state's obligation to make health care available to all its citizens and the emphasis on individual responsibility for one's health are anchored in Article 29 of the 1993 Constitution of the Third Republic.

The period 1993 to date has seen drastic changes in the socio-political and health landscape. An increasingly more educated and health literate population, a widely travelled population, freedom of expression, access to health information via widely available internet and social media, the rapid expansion of the private health sector and the introduction of new health technologies have resulted in a vocal population with very high expectations on the quality of health care services.

The health system has not always been able to meet or manage these expectations. The mismatch between expectation and level of satisfaction of the population with the health care services they received prompted the government to set up a Health Task Force in 2013 to cast a critical look at the health sector and propose a way forward to improve health service delivery and health outcomes. The Health Task Force presented its findings and recommendations in the Health Task Force Report 2013, which laid the foundations for the "modernisation" of the health sector and led to the development of the Seychelles National Health Policy 2015. The "modernisation process" bestowed leadership and oversight role to the Ministry of Health, delegating health service delivery and regulatory functions to statutory entities under its portfolio. The first National Health Strategic Plan (NHSP) of the "modernisation era" took effect in 2016, for the five years to 2020.

[1] *Mahler, Halfdan "The meaning of health for all by the year 2000"." World Health Forum. Vol. 2. 1981.*
[2] *Population and Vital statistics mid-year estimates 2015, NBS, Seychelles*
[3] *Annual Performance Review 2020, MoH*
[4] *Population and Vital Statistics December 2016, NBS, Seychelles*

## 1.2 Overview of the Existing Policy Foundations

Human health and sustainable development are inextricably linked. Health strategies therefore must be consistent with national and global agendas for sustainable development.

Seychelles' long-term vision for sustainable and equitable development, 'Vision 2033', is based on six key pillars: Good Governance; People at the Centre of Development; Social Cohesion; Innovative Economy; Economic Transformation and Environmental Sustainability; and Resilience. The National Development Strategy (NDS) 2019-2023 is the first of three strategic plans to achieve Vision 2033.

The NDS goal for health, anchored in Pillar 2, is 'the attainment of the highest level of health and well-being'. This goal is well-aligned with Goal 3 of the Sustainable Development Framework[5] and Goal 3 of the African Union (AU)'s 'Agenda 2063: The Africa We Want'[6]. Two broad strategic priorities for the health goal are firstly, to pursue effective health protection, promote empowerment and personal and societal responsibility for holistic health, and secondly, to build a high-quality integrated healthcare system with a focus on people-centred care.

This NHSP is also aligned to the National Health Policy formulated in 2015[7], which places health and well-being at the centre of national development, both as a beneficiary of and contributor to socioeconomic development. It reaffirms the right to health enshrined in the Constitution and emphasises individual responsibility in health matters. Together with other Small Island Developing States (SIDS), Seychelles, in 2014, was a signatory to the SAMOA (SIDS Accelerated Modalities of Action) Pathway[8] for sustainable development, which articulates the sustainable development pathways and aspirations for SIDS for the next ten years.

Seychelles has endorsed various other commitments, including World Health Assembly resolutions, the UN General Assembly Political Declaration on Non-Communicable Diseases[9], and the UNAIDS Getting to Zero declaration[10]. This NHSP will take into account these commitments as well as targets set out in various national policies and strategic plans (Annex 1: List of National Health Commitments).

## 1.3 Overview of Seychelles Efforts to Achieve the Sustainable Development Goals

In 2017, Seychelles had an SDG index[11] of 67 compared to 85 for Singapore and 71 for Mauritius. The country developed a baseline SDG report in 2019 based on local specificity and available data and submitted a Voluntary National Review (VNR) in 2020. Although Seychelles has achieved most of targets for four SDGs, namely SDG 4 Quality Education; SDG 10 Reduced Inequalities; SDG 11

[5] *https://www.un.org/sustainabledevelopment/development-agenda/*
[6] *https://au.int/en/agenda2063/overview*
[7] *Seychelles National Health Policy, MoH 2015*
[8] *https://sustainabledevelopment.un.org/samoapathway.html*
[9] *https://digitallibrary.un.org/record/710899/?ln=en*
[10] *https://www.unaids.org/sites/default/files/sub_landing/files/JC2034_UNAIDS_Strategy_en.pdf*
[11] *https://vizhub.healthdata.org/sdg/*

Sustainable Cities and Communities, and SDG 12 Responsible Consumption and Production, there is still room for improvement. The country is well on track to meet the other SDGs. Seychelles progress on the SDGs is summarised in Annex 2: Seychelles Progress on SDGs.

While displaying areas of progress towards achieving the SDGs, the Voluntary National Review has also highlighted gaps and weaknesses that may impede further progress on the goals[12]. It is, therefore, necessary to identify alternative and innovative financing mechanisms to implement and monitor development projects. Weak intergovernmental and stakeholder coordination results in lack of synergy and coherence in policy planning. Improved coordination will not only contribute towards better harmonisation of policies but also identify areas of duplication. Reporting on the SDGs has identified data collection, utilisation, and dissemination gaps – required data are often unavailable, while available data often lack disaggregation and granularity.

## 1.4 Rationale for the NHSP 2022-2026

In 2020 with all attention being on the response to the COVID-19 pandemic, the Ministry of Health (MoH) extended the lifespan of the NHSP 2016-2020 to 2021.

The COVID-19 crisis has negatively affected all the building blocks of the health system, as well as jobs, livelihood, and the economy as a whole. This NHSP process has reviewed the strategic priorities in the context of the current health landscape and socioeconomic situation. A thorough analysis of the implementation of the current NHSP provided insight into achieved targets, remaining gaps and challenges as well as some of the root causes for persistent failures.

The NHSP 2022-2026 gives direction, sets milestones, and proposes goals to guide the nation and the health sector during the next five years.

## 1.5 NHSP Development Process

Strategic planning is a core component of the Results-Based Management (RBM) Framework advocated by the successive Governments of Seychelles. The development process for this NHSP, therefore, is closely aligned to national guidelines.

The development of the NHSP under the leadership of the MoH Secretariat, started with wide consultations within the MoH and its statutory entities, the private health sector, health-related civil society organisations (CSOs), and partner Ministries, Departments and Agencies (MDAs) – see Annex 3: List of in-person Consultations.

The NHSP Steering Committee constituted different technical working groups to review the implementation of the NHSP 2016–2020, conduct a situation analysis and identify priorities for the next five years, assess perspectives of leadership, service providers and beneficiaries on health and

[12] *VNR 2020, Republic of Seychelles, Economic Planning Department, Ministry of Finance, Trade, Investment and Economic Planning*

draft and validate the strategic plan.  The tasks and objectives of each technical working group are outlined in Annex 4: Tasks and Objectives of the TWGs.

The Technical Working Groups (TWGs) worked in parallel to provide a comprehensive overview of the state of the sector and identify emerging priorities. The Steering Committee presented the work of the TWGs to leadership and senior management for discussion through a series of workshops. The aim of the workshops was to build consensus on strategic priorities for the next five years.

From the outcomes of the workshops, the Steering Committee formulated the broad strategic directives with key interventions and milestones. Further consultations and workshops followed with different target groups (from primary care, secondary and specialised care, programmes, support services and the inner islands) leading to a zero draft. The draft was shared with reviewers including the Department of Economic Planning and the World Health Organization country and regional offices for their inputs.

The Steering Committee engaged non-MoH and non-health stakeholders in the NHSP development process (Table 1).

*Table 1 External Stakeholders engaged in NHSP 2022-2026 Development process*

| Lead | Process Stage | Non-MoH/Non-Health Stakeholders |
|---|---|---|
| **TWG 2** | Situation Analysis (Health System) | Private health sector, including Seychelles Private Clinics Association |
| **TWG 3** | Perspectives of service providers (Non MOH facilities) and beneficiaries | ◆ Seychelles Medical Services<br>◆ Seychelles Prison Services<br>◆ SDF Medical Centre<br>◆ Private Physiotherapists<br>◆ STC Clinic |
| **TWG 4** | Drafting the NHSP | ◆ Department of Economic Planning<br>◆ External Reviewers |

Chapter 2

# Review of implementation of NHSP 2016-2020

# 2 Review of implementation of NHSP 2016-2020

## 2.1 Achievement of NHSP 2016-2020 Goals

The TWG1 reviewed the implementation of NHSP 2016-2020 strategic investment priorities, achievement of set targets and identified unfinished agendas. Progress has been uneven, with certain goals achieved fully, others partially, and still others with little-to-no progress. Table 2 outlines progress across the main goals of the NHSP 2016-2020.

*Table 2 Progress towards Main Goals of NHSP 2016-2020*

| Goals | Indicator | Baseline (2015) | 2020 Results | End-term Target |
|---|---|---|---|---|
| **Increased expectation of life at birth** | LE/Years | M: 72<br>F: 78 | M: 72.7<br>F: 82<br>Both: 77.3 | M: 74<br>F: 80 |
| **Reduced incidence, prevalence and mortality associated with priority non-communicable and communicable diseases** | Mortality (30-70 years) from NCDs (as % of all deaths) | 60.32% | 59% | <40% |
| | AIDS -related deaths (per 100,000 pop.) | 15 | 10 | <0.25[13] |
| | Deaths from RTAs (% of all deaths) | 1.8% | 1.6% | <1% |
| **Increased level of satisfaction of people and health professionals with existing health services** | Surveys | Patient Satisfaction Survey 2013 (16 areas assessed) | SARA 2017 (Increased satisfaction for 11 of 16 areas) | No Target |
| **Improved overall wellbeing of all people in Seychelles** | Surveys | No Baseline | Not Measured | No Target |

## 2.2 Review of 2016-2020 Strategic Priorities

The NHSP 2016-2020 set the following strategic investment priorities:

1. **Strengthening integrated health care**

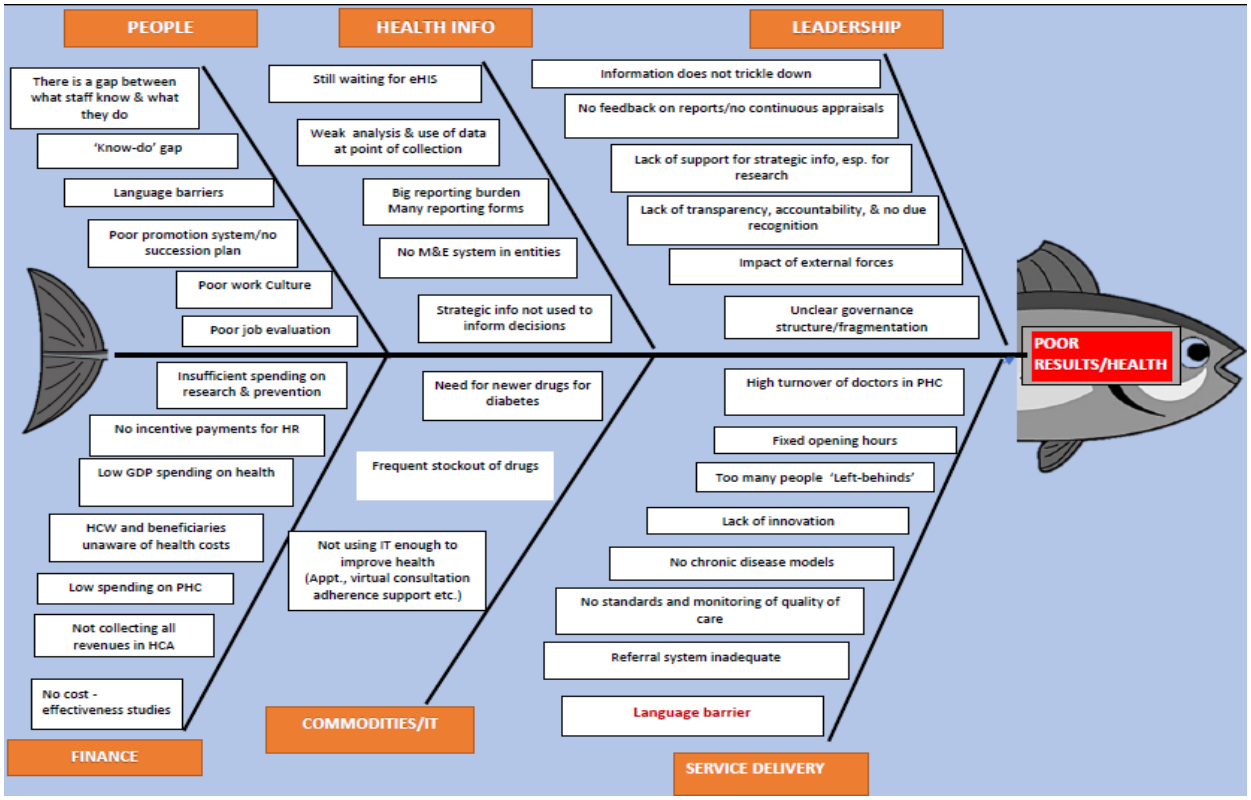
[13] *Target not clearly defined in NHSP 2016-2020.*

2. **Promoting and protecting health**
3. **Human resources for health**
4. **Sustainable financing for health**
5. **Research and innovation**
6. **Partnership and cooperation**
7. **Governance and leadership**

A review of the strategic priorities showed mixed results. While some specific objectives have been achieved, important gaps remain (see Annex 5: Strategic Investment Priorities).

Root cause analysis to evaluate the pillars of the health system (Figure 1) revealed the following

*Figure 1 Review of Health System Issues - Fishbone diagram (TWG 1)*



The TWG identified the following as lessons learnt:

- The NHSP 2016-2020 was not widely disseminated and communicated to stakeholders within and beyond MoH – the majority of health workers did not understand /know that their routine work should be contributing to the achievement of sector goals and targets.
- A lack of ownership of specific targets and objectives – good and poor results were not owned by one particular entity/unit/person.
- A disconnect between the NHSP set targets/objectives and what was done in practice (the NHSP did not guide the development of budgets, work plans, disease-specific strategic plans etc.).
- Absence of a formal monitoring and evaluation framework prevented
- There was no accountability framework across all levels of the health system.
- The work of PHA, in particular, on emergency preparedness and response was not well included in the NHSP plans and targets
- A mid-term review was not conducted to assess progress made
- The 'quality of care' indicators were not monitored.
- The annual performance reports (APR), which report on sector core indicators and targets, were not disseminated, discussed and used to guide implementation of remedial actions.

## 2.3 Stakeholders' perspectives

The task of TWG3 was to capture the perspectives of various stakeholders on health-related matters. The group consulted with MoH leadership, which included chairpersons of entity boards and chief executives and also with clinical and non-clinical staff, professional councils, allied health professionals, the private health sector and beneficiaries.

### Knowledge of NHSP 2016-2020

Knowledge of the NHSP 2016-2020 was evident among leaders, some of whom participated in that strategic plan's development process. Among clinical staff, many had limited knowledge of the NHSP. For others with more understanding of the NHSP, alignment of NHSP to operational plans was limited. NIHSS and NAC are guided by their specific strategic plans with some coherence with the NHSP. Although there is a good working relationship between the MoH and the private health facilities, many private health providers had insufficient knowledge of the NHSP. The same applies for beneficiaries, however, some health-related associations have a good understanding of the NHSP, which guides their area of work.

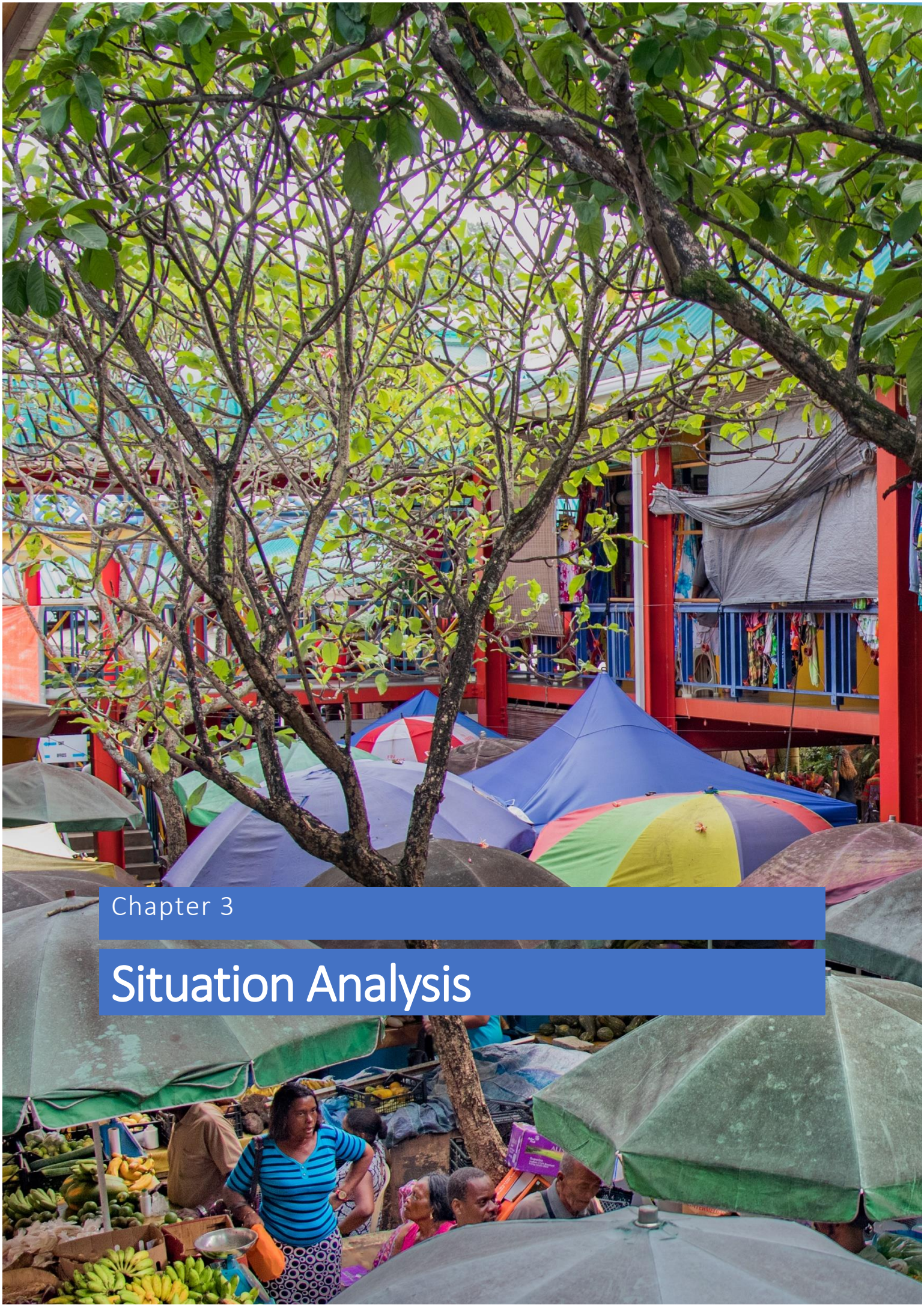
### Achievement of NHSP 2016-2020 Goals and Objectives

Health leaders acknowledged some progress in the last five years; however, some felt they could have achieved more with more resources and effective coordination among entities. Some health care workers felt that lack of proper communication, accountability and commitment have led to

inconsistent quality of care and hindered the achievement of set targets. Some nurse managers did not see the value of PPBB and felt that it did not help achieve sector goals.

## Key considerations for New NHSP (2022-2026)

- New NHSP must be disseminated widely for buy-in.
- Human resource units needed to be more proactive than just transactional. Additionally, more should be done during the next five years to improve staff welfare and remuneration.
- More targeted capacity building is needed to strengthen the skills of all health workers.
- Establish formal M&E in the health sector (public and private).
- Fully implement eHIS.
- There is a need to strengthen the referral system between different levels of health facilities, including private ones.
- Remove communication barriers (doctors who do not speak local languages).
- Improve health infrastructure.



Chapter 3

# Situation Analysis

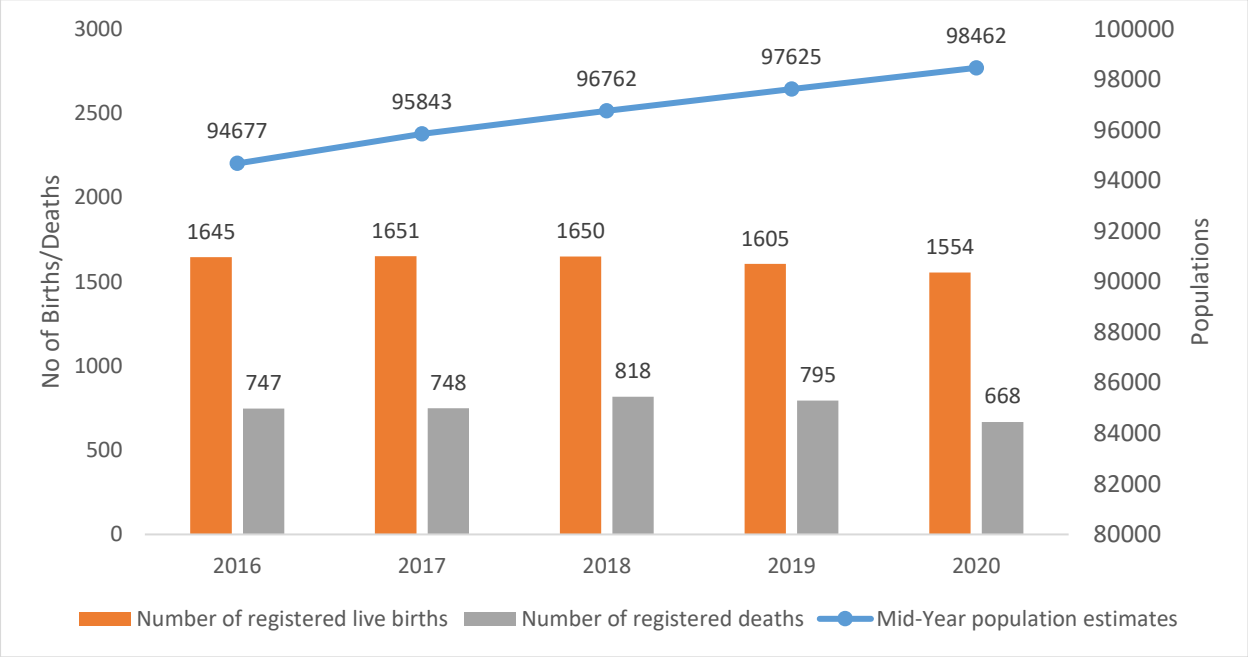
# 3 Situation Analysis

## 3.1 The Seychelles Context

The estimated mid-year population of Seychelles was 99,202 in 2021, representing an annual growth rate of 0.7% over the 2020 estimates. The annual number of registered live births in Seychelles has remained between 1600 and 1700 in the last five years (Figure 2).

The crude birth rate continued to decrease from 17.4 per thousand population in 2016 to 15.8 in 2020, while the crude death rate was seven per thousand population in 2020[14]. The population is projected to reach 108,000 in 2045 after which it is forecast to decrease (Table 3)[15].

*Figure 2 Population Trends 2016-2020, Seychelles*




*Source: National Bureau of Statistics (NBS), Seychelles*

[14] *Mid-Year Population Estimates 2021, National Bureau of Statistics Seychelles*
[15] *Seychelles in Figures, 2020 Edition, National Bureau of Statistics, Seychelles*

*Table 3 Projected Population of Seychelles, 2021 to 2050*

| Projected pop. (in 1000s) | 2021 | 2030 | 2035 | 2040 | 2045 | 2050 |
|---|---|---|---|---|---|---|
| **Male** | 50.4 | 52.9 | 53.3 | 53.4 | 53.3 | 52.9 |
| **Female** | 48.8 | 51.9 | 53.0 | 54.1 | 54.7 | 54.8 |
| **Total** | 99.2 | 104.8 | 106.3 | 107.5 | 108.0 | 107.7 |

*Source: National Bureau of Statistics (NBS), Seychelles*

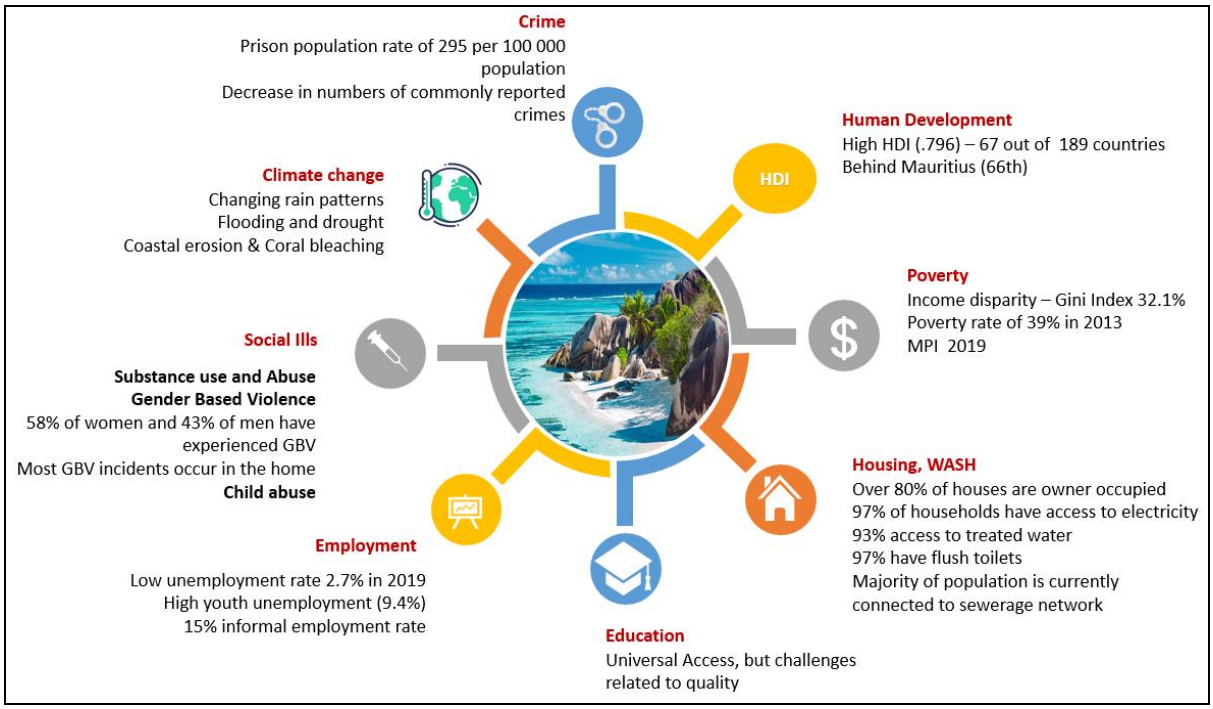
The percentage of the population, aged 65 years and above, increased from 9.6% in 2017 to 12.0% in 2021. This percentage is expected to reach 13.1% in 2030 and 21.3 % in 2050. This gradual shift towards an ageing population will increase the demand for health and social care.

Like all other SIDS, Seychelles faces numerous challenges due to its small population size, small landmass and remote geographical location. Most of what is consumed come from external markets, due to Seychelles' narrow resource base and local manufacturing capacity. The country relies on a service-based economy, namely tourism and, in recent years, financial services. There is limited scope for diversification of the economy, and the country remains vulnerable to global economic shocks.

Seychelles' vulnerability was laid bare by the COVID- 19 pandemic with worldwide travel restrictions severely affecting the local tourism industry and causing massive depreciation of the Seychelles rupee against all international currencies, a resultant increase in the cost of living and an increase of the national debt burden.

As a small island state, Seychelles is also vulnerable to climatic phenomena, especially those associated with rising global temperatures, extreme weather events and rising sea levels. Over eighty per cent of economically productive activity are in low-lying coastal areas, with increased vulnerability to coastal erosion and flooding. The socioeconomic environment in which the MoH is developing a new national health strategic plan is outlined in Figure 3.

*Figure 3 Seychelles' Socioeconomic Environment*




The country enjoys political stability. Multi-party democracy was re-introduced in 1993. The general elections held in 2020 ushered in a new administration in a peaceful transition of power. Seychelles is ranked 67th out of 189 countries in the 2020 Human Development Index, scoring 0.796, one place behind Mauritius[16]. The country attained high-income status in 2015.

However, there is significant inequality in the distribution of wealth, as evidenced by 2013 report of the NBS[17], which estimated the Gini index, at 45.9%. The report further revealed a poverty rate of 39.3% based on the national poverty line of USD 15.22 (in 2013 Purchasing Power Parity USD) per person per day. However, the VNR of 2020 shows there is progress towards improving inequalities. A World Bank and National Bureau of Statistics study reported by the National Bureau of Statistics in February 2021 found that about 25 percent of Seychelles' population is living below the poverty line, which is SCR 4,376 ($206) per month per adult.

The Multidimensional Poverty Index (MPI) adopts a broader approach to poverty measurement, looking beyond traditional monetary measures. "In the third quarter of 2019, the poverty incidence (H) was 11.88%, and the average intensity (A) was 33.26%. The Multidimensional Poverty Index (MPI), which is the product of H and A (H*A) was 0.040"[18].

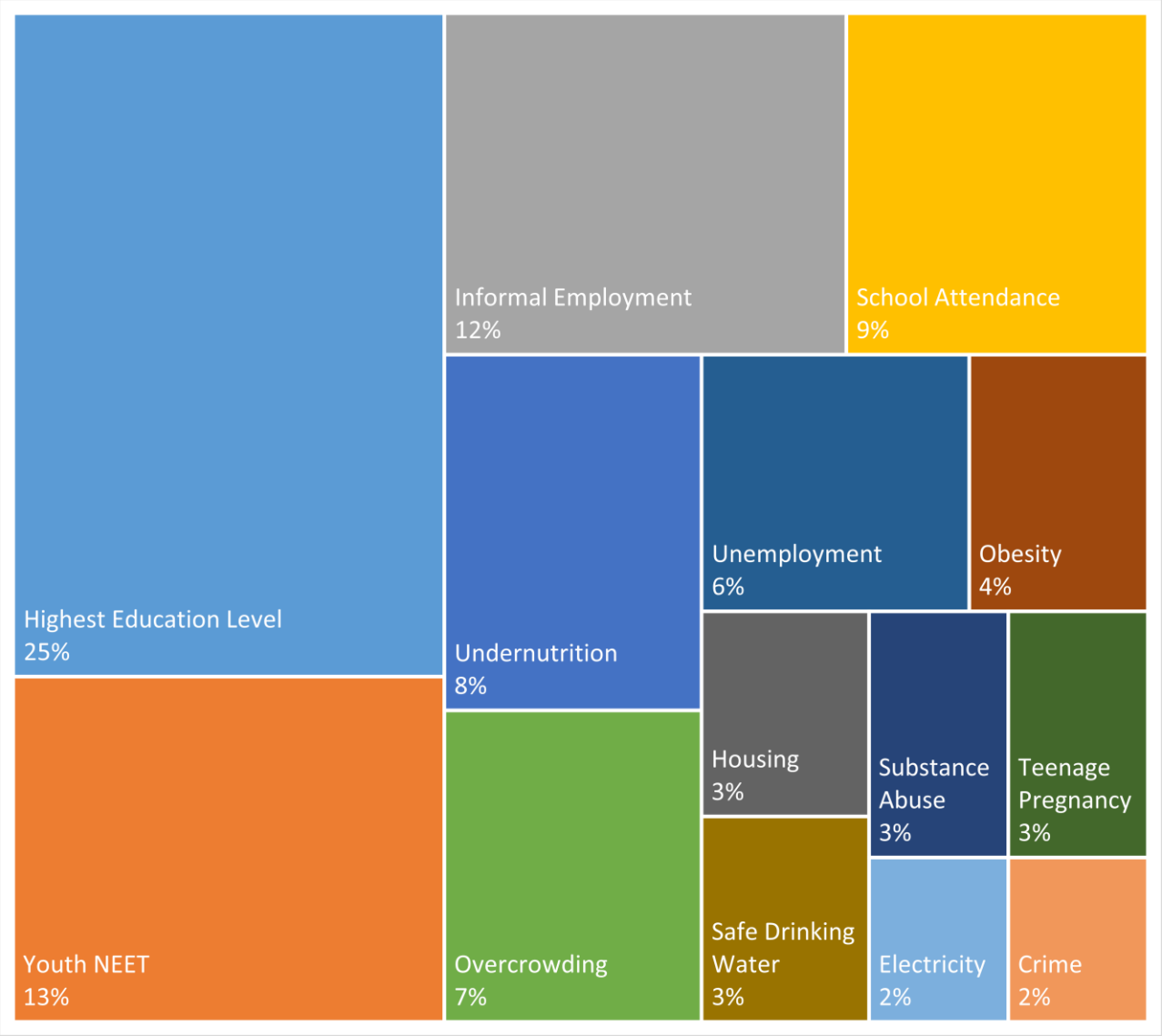
The study looked at four dimensions of poverty, namely Living standards, Health, Education and Employment. The largest contributor to poverty was deprivation in the highest level of education attained, i.e., at least one member of the household did not complete secondary education. Other

[16] *Human Development Report 2020,The Next Frontier: Human Development and the Anthropocene, 2020 - UNDP*
[17] *Poverty and Inequality Estimates – 2013, NBS*
[18] *Multidimensional Poverty Index Report 2019, NBS*

major contributors were Youth Not in Employment, Education or Training (NEET) and informal employment.

Figure 4 shows the contributions of each indicator towards multidimensional poverty in Seychelles. The MPI measures reflect the poor state of some of the social determinants of health, which are the root causes of ill health, influencing risk factors, health-seeking behaviours and health outcomes.

*Figure 4 Contribution of each MPI indicator to National MPI, Q3 2019.*




*Source: Data sourced from Multidimensional Poverty Index, 2019. NBS, May 2020.*

Since 2006, the country has been experiencing an increase in the use of illicit drugs, including heroin. It is estimated that people who use heroin represented 4.6% the total population of Seychelles in 2016. The estimated number of people who inject drugs increased by 28.3% from 2011 to 2016, from 1,671 to 2,144 (representing 2.3% of the total population in 2016)[19].

[19] *Benjamin Vel. Seychelles Biological and Behavioural Surveillance Of Heroin Users 2017: Round One Final Report APDAR. February 2018. http://www.apdar.com/wp-content/uploads/2018/05/IBBS-HU-FINAL-REPORT-2017-Version-8-21-03-2018-1.pdf*

The combination of widespread substance abuse, harmful use of alcohol and poverty is fertile ground for all forms of social ills, including gender-based violence (GBV) and child abuse - 57% of women report having experienced GBV at least once in their lifetime[20]. Most incidents of GBV, including intimate partner rape, occur in the home. There was significant association between alcohol consumption and intimate partner violence.

There was a decrease in most categories of crimes reported to the police between 2019 and 2020[21]. As at 31st March 2021, the total prison population was 292 (295 per 100 000 pop.), of which 7% were female, and 16% pre-trial detainees[22]. This is a significant decrease in the rate from 837 per 100 000 population in 2016, just before the enactment of the Misuse of Drugs Act 2016, which promotes treatment and rehabilitation for people dependent on drugs.

Despite the high HDI score, challenges remain in addressing some social determinants of health. These social ills may erode health gains and compromise the achievement of the objectives of this strategic plan.

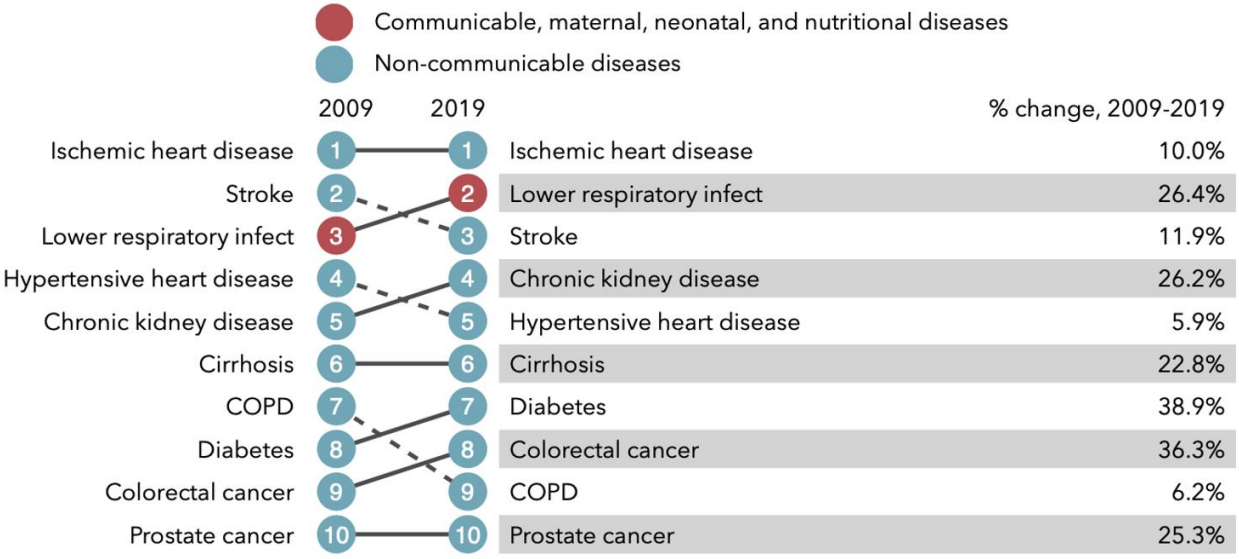
[20] *Peace begins @ home Gender Based Violence (GBV) National Baseline Study in Seychelles - Preliminary findings*
[21] *Crime Justice and Security Statistics, Q2-2021, National bureau of Statistics*
[22] *https://www.prisonstudies.org/country/seychelles*

# 3.2 Health Status

## 3.2.1 Mortality

Seychelles started to undergo the epidemiologic transition to chronic diseases more than three decades ago[23]. Until the end of 2019, non-communicable diseases (NCDs) were the most significant health burden (Figure 5).

*Figure 5 Comparison of top 10 causes of death in 2009 and 2019, all ages combined.*




*Source: Institute for Health Metrics and Evaluation (IHME) Seychelles profile.*

Despite the transition to chronic diseases, communicable diseases like HIV/AIDS, dengue and leptospirosis remain public health concerns and since 2020, COVID-19 is contributing significantly to morbidity and mortality.

After detecting the first case of COVID-19 in March 2020, the country experienced community transmission by the end of December 2020, and by September 2021, 21,470 cases had been reported[24].

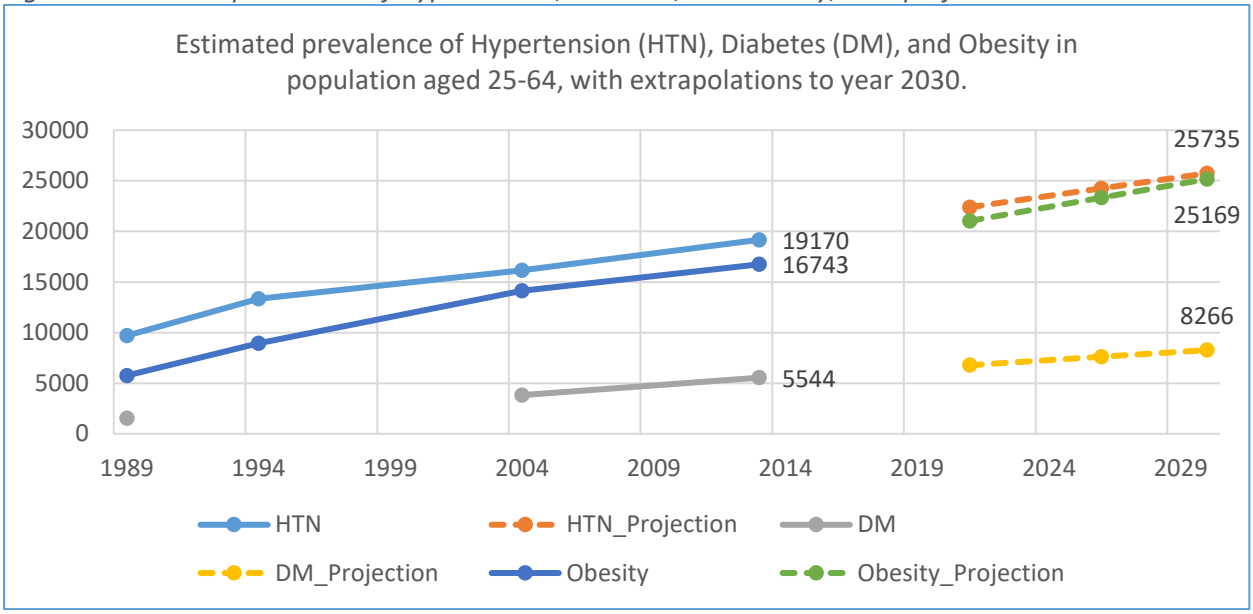
### *Projected burden of disease from key NCDs*

From available routine data and survey estimates, the key NCDs of hypertension, diabetes and cancer, and the associated major risk factor for all three (poor nutrition, sedentary lifestyle and substance abuse), all show a steady and increasing trend. Extrapolating these trends can provide rough estimates of the projected disease burden in the coming years.

[23] *Pascal Bovet for the Investigators of the Seychelles Heart Study. The epidemiologic transition to chronic diseases in developing countries: Cardiovascular mortality, morbidity, and risk factors in Seychelles (Indian Ocean). Soz Präventivmed 40, 35–43 (1995). https://doi.org/10.1007/BF01615660*

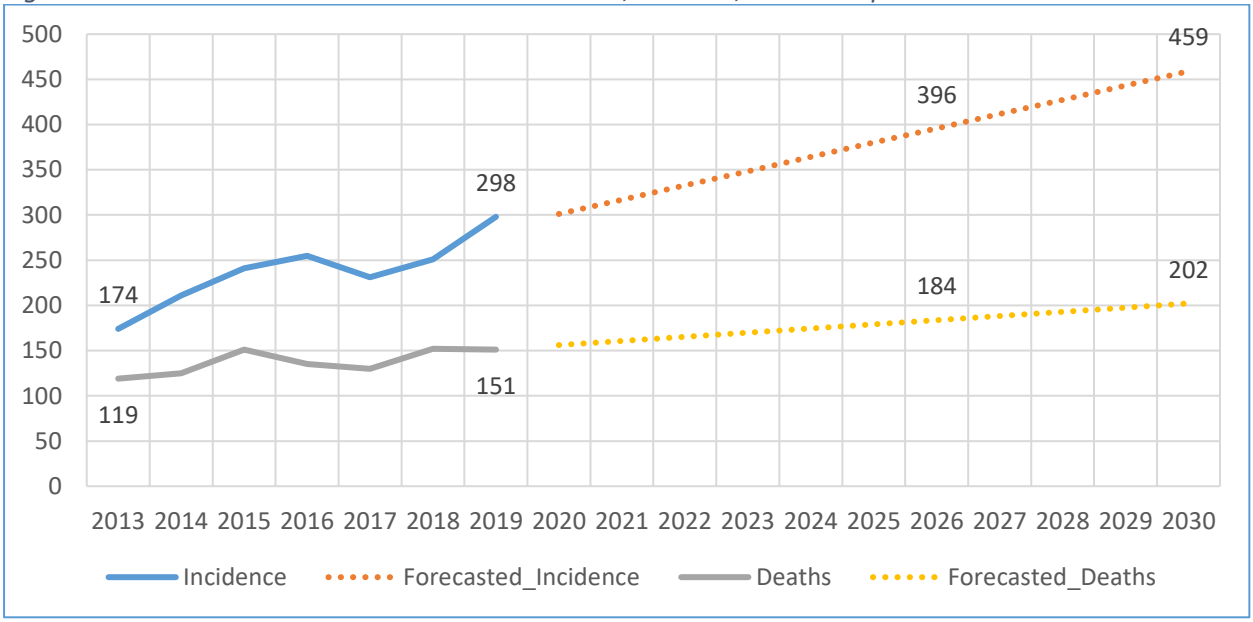
[24] *Annual Health Sector Performance Reports 2020.*

*Figure 6 Estimated prevalence of Hypertension, Diabetes, and Obesity, with projections to 2030*




*Source: Seychelles Heart Study series (I-IV), UPCCD.*

*Figure 7 Cancer incidence and cancer-related deaths, 2013-19, with extrapolations to 2030*




*Source: Seychelles Cancer Registry, 2020*

The incidence of cancer is expected to almost double within the next decade, with over 450 cases and 200 deaths per year by 2030 (see Figure 7). In comparison, the prevalence of hypertension, diabetes and obesity is estimated to increase by 34%, 49% and 52%, respectively, by 2030, over 2013 estimates (see Figure 6).

This prediction has serious implications for life expectancy, population health and wellbeing, impacts on economy and society, provision of health services, and health sector planning. Noting that these conditions have downstream costly complications – namely heart disease and kidney disease – there is a domino effect on their true burden on the health system.

The potential benefits of strong investment in preventive and promotive health services, creating an environment and society that readily supports healthy living, and revisiting treatment guidelines and protocols to include newer therapeutics will be significant.

However, it is evident that there will be increased spending on healthcare in the medium term.

## *Maternal and Child Mortality*

The annual number of maternal deaths in Seychelles has varied from zero to three since 1978. The country did not achieve the NHSP 2016-2020 infant mortality target of <10/1000 live births but has reached the SDG target. In 2020, the rates for stillbirth, neonatal and perinatal mortality were lower than the five-year average (see Table 4).

*Table 4 Maternal and Infant Deaths, 2019-2020.*

| SDG | Indicator | 2019 | 2020 | 2016-2020 Average | NHSP 2016-2020 Targets |
|---|---|---|---|---|---|
| **3.1.1** | Maternal Mortality Ratio/100,000 live births | 62.3 | 64.4 | 61.7 | 0 |
| **3.2.2** | Neonatal mortality rate/1000 live births | 8.7 | 9.0 | 10.2 | <5 |
| | Infant mortality rate/1000 live births | 16.8 | 11.6 | 14.3 | <10 |
| **3.2.1** | Under-five mortality rate/1000 live births | 17.4 | 14.2 | 16.0 | < 12 |
| | Perinatal mortality rate/1000 total births | 8.1 | 8.3 | 13.2 | No target |
| | Still birth rate/1000 total births | 5.0 | 5.1 | 8.0 | No target |
| **3.2.2** | Neonatal mortality rate/1000 live births | 8.7 | 9.0 | 10.2 | <5 |

## *Life Expectancy (LE)*

There was an increase in life expectancy (LE) at birth for both sexes in 2020 to 77.3 years (Table 5); this was partially due to decreased deaths due to external causes, following restrictions of movement due to COVID-19 public health measures. It is likely that this gain has been reversed in 2021.

*Table 5 Life Expectancy at Birth (Years), 2016-2020.*

| LE by Sex/y | 2016 | 2017 | 2018 | 2019 | 2020 | 2016-2020 Average | NHSP 2016-2020 Target |
|---|---|---|---|---|---|---|---|
| **Male** | 69.5 | 70.3 | 68.5 | 69.7 | 72.7 | 70.1 | 74 |
| **Female** | 80.8 | 78.5 | 77.3 | 78.4 | 82.0 | 79.4 | 80 |
| **Both** | 74.8 | 74.3 | 72.6 | 73.9 | 77.3 | 74.6 | No target |

In 2020, the LE at birth for women was above the NHSP end-term target of 80 years, while the target of 74 years for men was not reached[25]. Despite the increase in LE in 2020, the average LE for the last five years for both sexes is below the NHSP end-term targets. The average annual death rate for 2016-2020 was less than 10/1,000 population[26], and data show that men disproportionately die young. There remains a wide gap in LE between men and women.

*Figure 8 Life Expectancy at Birth, by gender, 1980-2020.*

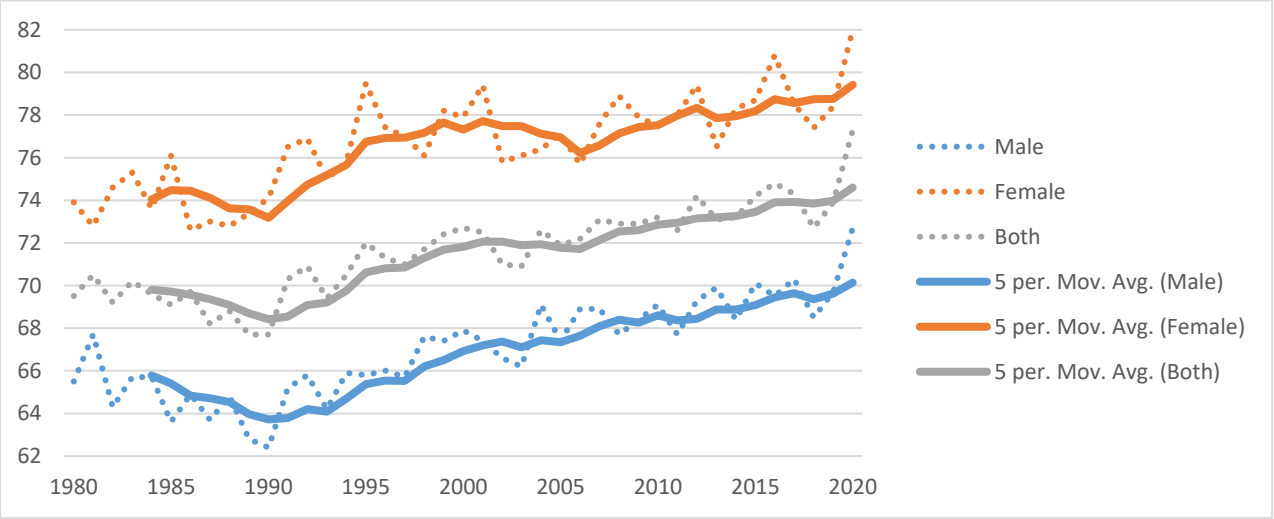


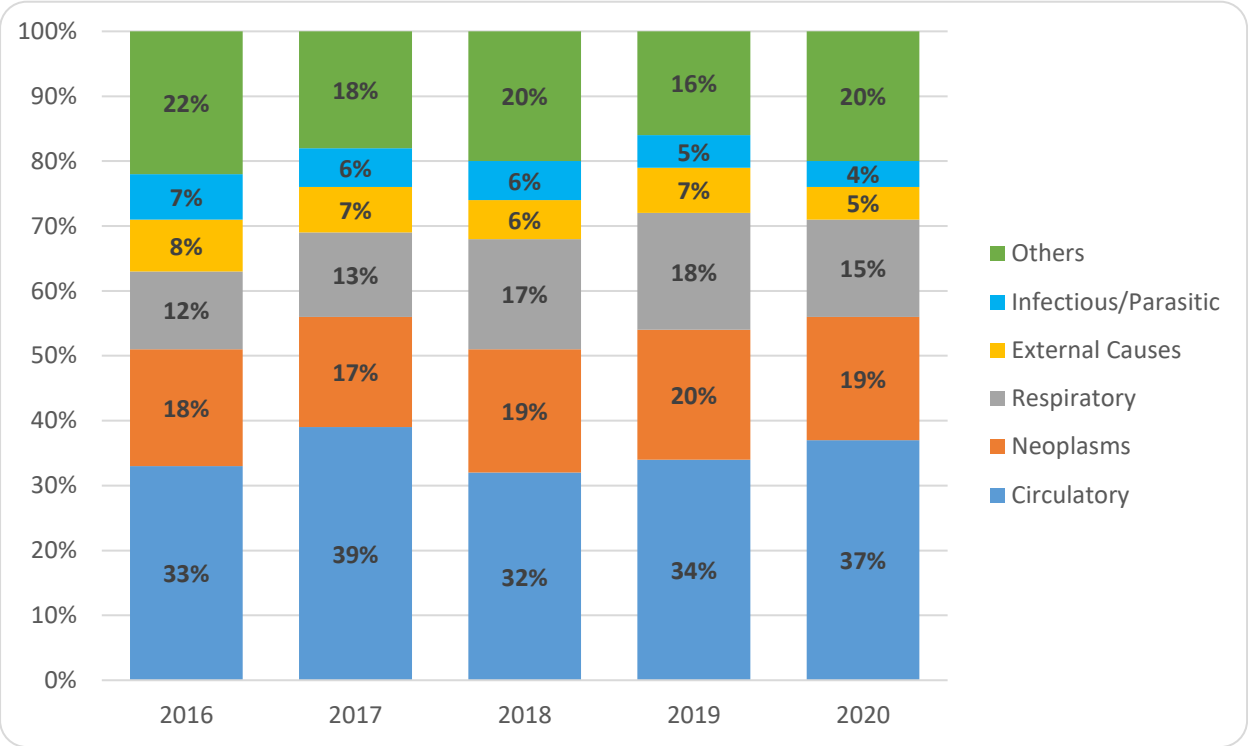

Figure 8 shows the trend in LE for the past 40 years; women live on average live ten years longer than men do. There is a difference of approximately 10 years between LE and health-adjusted life expectancy (HALE)[27]. LE and HALE are key health indicators, which are highly influenced by the socioeconomic determinants of health. The gap between LE and HALE has implications for health services and social care.

[25] *Ministry of Health, Seychelles: National Health Strategic Plan 2016-2020.*
[26] *Annual Health Sector Performance Report, 2020.*
[27] *Annual Health Sector Performance Report, 2020.*

## *Main Causes of Mortality*

The leading causes of mortality in Seychelles have remained the same in the last decade (Figure 9), with the majority of deaths caused by NCDs. Pneumonia in particular, contributes a large proportion of deaths. Mortality from external causes (injuries, accidents, poisoning, assaults, etc.) accounts for approximately 6-10% of deaths – 80% of those deaths occur in young men.

*Figure 9 Leading causes of Death in Seychelles, 2016-2020.*



## 3.2.2 Impact of COVID-19 on Life Expectancy

In 2021, Seychelles experienced a surge in COVID-19 cases from January to July. Registered COVID-19 related deaths were highest in persons aged 65+ years and those with co-morbidities. COVID-19 related deaths were the second leading cause of death in Q1-Q3 of 2021 (Table 6).

*Table 6 Top five causes of Death, Seychelles, Q1-3, 2019-2021.*

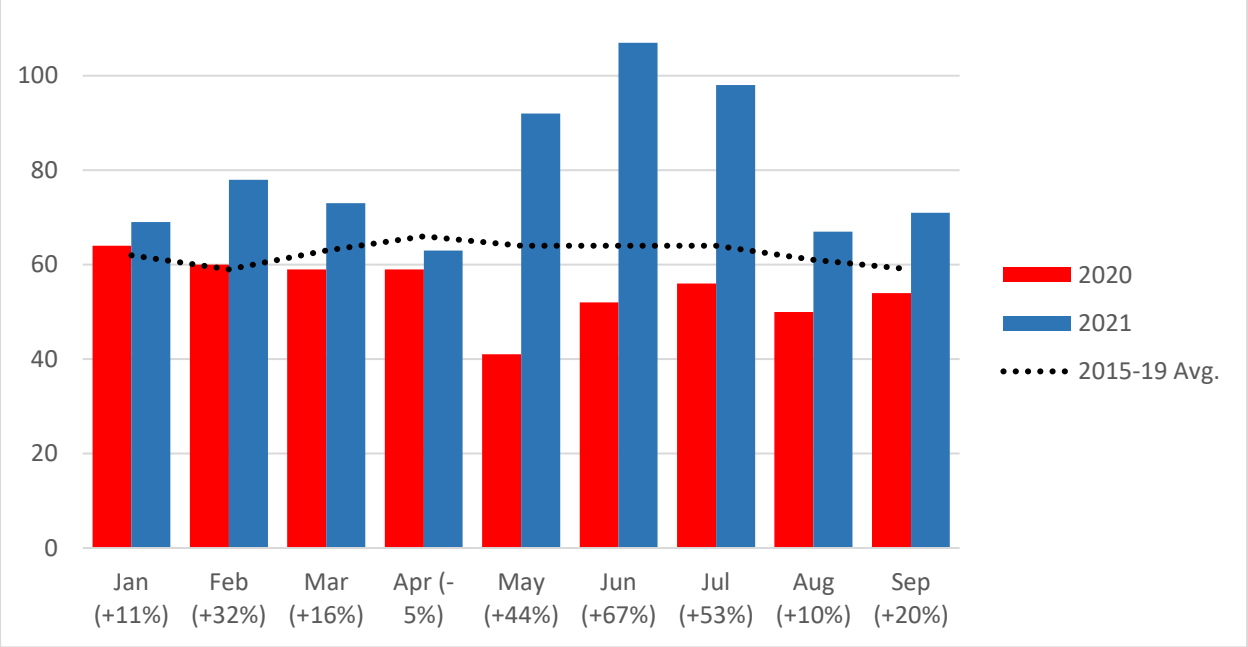
| ICD-10 Mortality (Condensed codes) | Leading Causes of death | Jan-Sep 2019 | Jan-Sep 2020 | Jan-Sep 2021 |
|---|---|---|---|---|
| | Total Deaths | 587 | 495 | 718 |
| **1064-1071** | Diseases of the Circulatory system | 186 | 191 | 209 |
| **U07.1*** | COVID-19 related deaths[28] | - | - | 180 |
| **1026-1047** | Neoplasms | 111 | 86 | 96 |
| **1072-1077** | Diseases of the Respiratory system | 98 | 81 | 69 |
| **1095-1103** | External causes of mortality | 36 | 26 | 22 |
| **1001-1025** | Infectious and parasitic diseases | 35 | 20 | 17 |
| | Other causes of death | 121 | 91 | 125 |

COVID-19 related deaths reported by the Statistics Unit are from registered causes of death by the Civil Status Office, However, the Public Health Emergency Operations Committee (PHEOC) reported only 116 deaths during the same period, 'directly' caused by COVID-19 through their assessment.

The country also experienced excess deaths, defined as the difference between the observed numbers of deaths from all causes during a crisis and expected numbers of deaths in the same period under "normal" circumstances. Figure 10 compares the monthly number of deaths (all-cause mortality) for January to September 2020 and 2021 with the five-year average, clearly demonstrating an excess of deaths in 2021.

[28] *COVID-19 related deaths reported are from registered causes of death by the Civil Status Office, However, PHEOC reported only 116 deaths during the same period, assessed to be 'directly' due to COVID-19.*

*Figure 10 Registered deaths by month, Jan-Sep 2020 and 2021, compared to 5y Average (2015-19)*




*Note: Registered deaths by month, absolute numbers, January to September, for 2015-19 averages, 2020 and 2021. Excess deaths in 2021 expressed in brackets under each month, as % change from 2015-19 average.*

*Source: Statistics Unit, MoH*

## 3.2.3 Mortality due to NCDs

NCDs include cardiovascular diseases (CVD), neoplasms, diabetes and chronic respiratory diseases (CRD). The total number of deaths due to NCDs in 2020 was 400 (231 Males, 169 Females), representing 60% of total deaths. Of these deaths, 245 (61%) were from diseases of the circulatory system, 128 (32%) from neoplasms, 14 (4%) from diabetes and 13 (3%) from CRD.

There is underreporting of diabetes as an underlying cause of death. The end-term NHSP 2016-2020 target for premature deaths from NCDs was 'less than 40% of total deaths in the age group 30-70 years', while the target in the Seychelles Strategy for the Prevention and Control of NCDs is 'a 25% relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes and CRD by 2025'. The probability of dying from any CVD, cancer, CRD between age 30 and 70 years for Seychelles in 2019 was 21.1%[29] (compared with Norway at 8.7% and Mauritius, 23.2%).

### *Mortality from Neoplasms*

A total of 307 (161 Males, 146 Females) new cancer cases were reported in 2020, representing an increase from the 281 new cases reported in 2019 and also higher than the 222 and 216 new cases reported in 2018 and 2017, respectively (See APR 2020). Clearly, efforts to address preventable cancers are urgently needed[30].

[29] *World health statistics 2021: monitoring health for the SDGs, sustainable development goals. https://reliefweb.int/sites/reliefweb.int/files/resources/whs-2021_20may.pdf*
[30] *WHO, IAEA, IARC – imPACT Review on Cancer Control Capacity and Needs Assessment Report (2019).*

### *Mortality from Diabetes*

Diabetes and its complications contribute to NCD mortality. Information is under-reported and not always captured when registering the underlying cause of death. Diabetes is also the leading cause of end-stage kidney disease, which itself is a significant cause of mortality[31].

## 3.2.4 Mortality from key Communicable Diseases

Among infectious and communicable diseases, pneumonia, leptospirosis, dengue fever, and HIV/AIDS are the most important in Seychelles. Data on the number of notified cases of leptospirosis and dengue are not available for most of 2020, and 2021.

### *Leptospirosis*

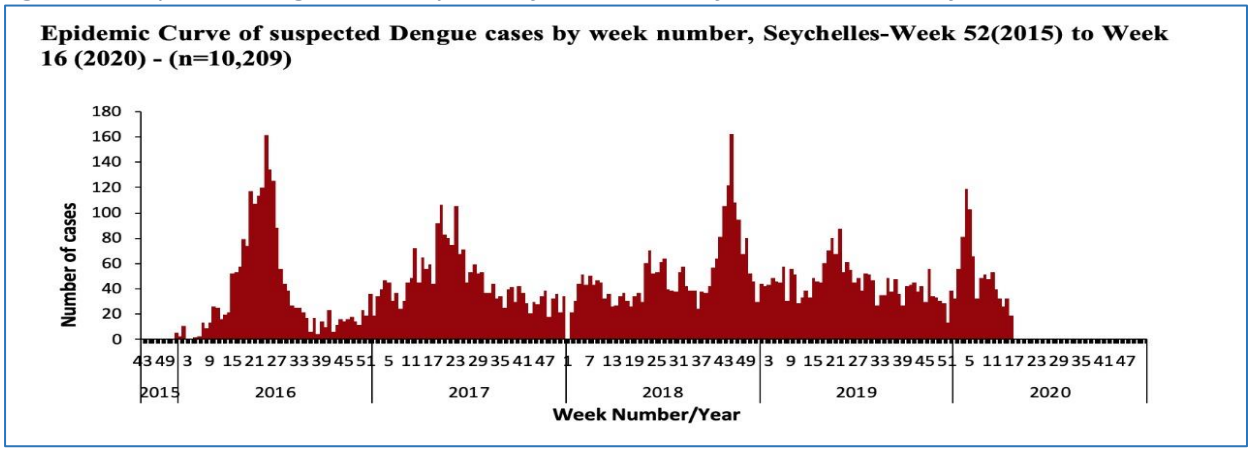
There were three deaths (all male) due to leptospirosis in 2020, less than the seven and six deaths reported in 2019 and 2018, respectively. The NHSP end-term target for leptospirosis mortality is a case fatality rate of <10%. Like in 2019, this was not calculated in 2020, as accurate data for the total number of cases diagnosed was not available.

### *Dengue Fever*

Dengue fever is a common infectious disease in Seychelles. The country is experiencing a sustained epidemic starting end of 2015 (Figure 11). In 2020, 185 patients had a discharge diagnosis of dengue (Male Medical Ward 101; Female Medical Ward 44; Paediatric Ward 40), and dengue fever accounted for two deaths (one man and one woman).

The case fatality rate for dengue could not be calculated in 2020, as accurate data for the total number of cases diagnosed was not available, due to interruption of routine disease notification systems.

*Figure 11 Suspected Dengue cases, by week; from week 52 of 2015 to week 16 of 2020.*




*Source: Disease Surveillance and Response Unit (DSRU).*

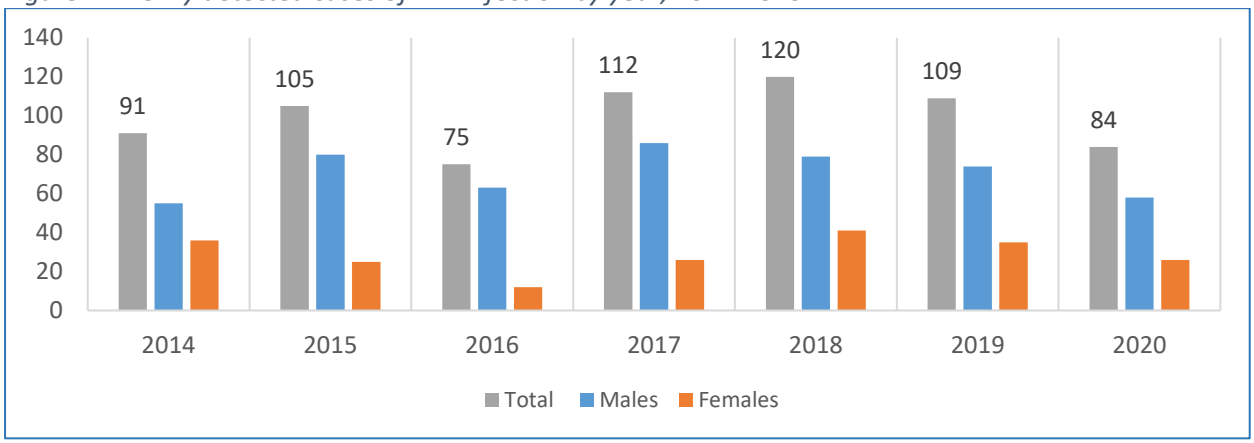
[31] *Annual health Sector performance Report, 2020.*

## *HIV/AIDS*

HIV/AIDS remains an important communicable disease. The number of newly detected HIV cases (84) decreased in 2020 (Figure 12) compared to previous years but remained above the NHSP end-term target of 60. Similar the preceding years, the majority (69%) of cases were detected among men.

Surveillance surveys indicate that Seychelles has a concentrated HIV epidemic among key populations with the highest prevalence among people who inject drugs (PWIDs); however, the proportion of people PWID has decreased among annual new cases of HIV detected in the last three years.

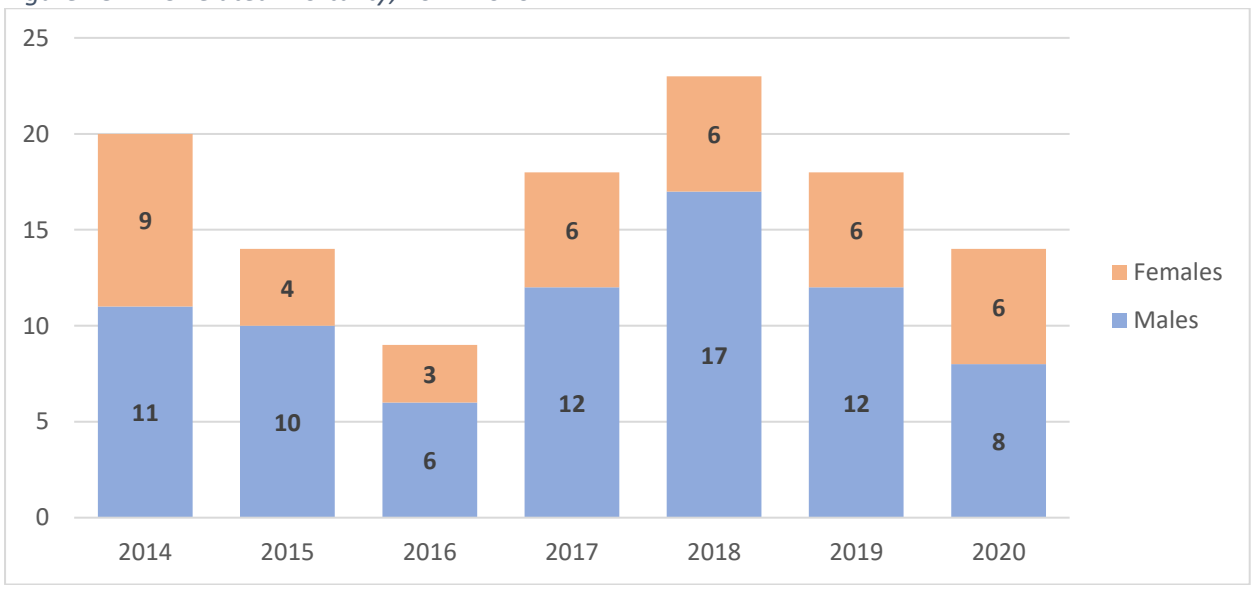
*Figure 12 Newly detected cases of HIV infection by year, 2014-2020.*




*Source: Communicable Disease Control Unit (CDCU).*

AIDS-related mortality decreased in 2019 and 2020, after a spike in 2018 (Figure 13).

*Figure 13 AIDS-related Mortality, 2014-2020.*




*Source: Communicable Disease Control Unit (CDCU).*

## 3.2.5 Other Causes of Mortality

### *Mortality due Road Traffic Accidents*

External causes of mortality are responsible for a significant number of deaths in young men. The main causes are falls, road traffic accidents (RTA) and drowning. The country has reported seventy-four deaths from RTA since 2015. The majority of the victims were young men. The death rate from RTAs [SDG 3.6.1] in 2020 was 11.2/100,000 population. RTAs were responsible for 1.6% of all deaths in 2020, higher than the NHSP end-term target of less than 1%.

### *Intentional Self-harm*

There was a steady decrease in reported cases of intentional self-harm from 2016 to 2019, but the numbers increased in 2020 compared to 2019. Of the cases in 2020, 21 were males, and 37 were females. The NHSP end-term target for intentional self-harm is less than 100 cases, and this target has consistently been achieved since 2016[32]. Three suicide deaths (all males) were reported in 2020, giving a suicide rate of 6.1 per 100,000 population [SDG 3.4.2].

## 3.2.6 Fertility

The total fertility rate (TFR) was 2.29 in 2020[33]. This is above the average replacement fertility[34] of 2.05 births per woman[35]. The number of registered live births to young girls aged 10-19 years was 193 in 2020 (Table 7), representing 12% of total live births.

For the last five years, the birth rate among adolescents aged 15-19 was approximately 60 per thousand. This figure is above the global average of 42.5 for 2015-2020, and the average for the European region of 21, but lower than the African region average of 102.

*Table 7 Registered Live births to Teenage girls, 2015-2020.*

| Ages | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|---|---|---|---|---|---|---|
| **10-14y** | 5 | 3 | 3 | 5 | 9 | 4 |
| **15-19y** | 187 | 206 | 201 | 212 | 228 | 189 |

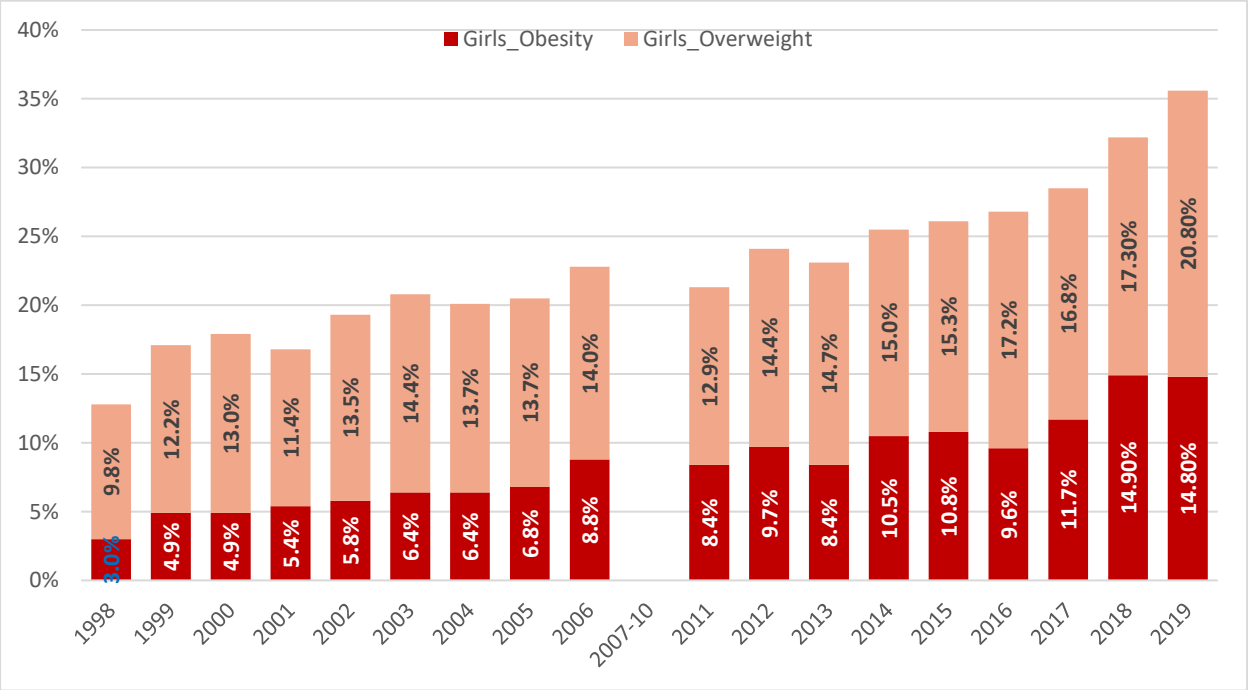
*[32] Refer to Annual Performance Report 2020 for additional information.*
*[33] Population and Vital Statistics, 2021/1. National Bureau of Statistics, 2021.*
*[34] Replacement Fertility rate is the TFR at which a population replaces itself from generation to generation, assuming no migration.*
*[35] Institute for Health Metrics and Evaluation (IHME). Findings from the Global Burden of Disease Study 2017. Seattle, WA: IHME, 2018*

## 3.2.7 Risk Factors for Health

NCDs have remained the leading cause of death in Seychelles in the last few decades. Several behavioural risk factors increase the disease burden of both communicable and non-communicable diseases.

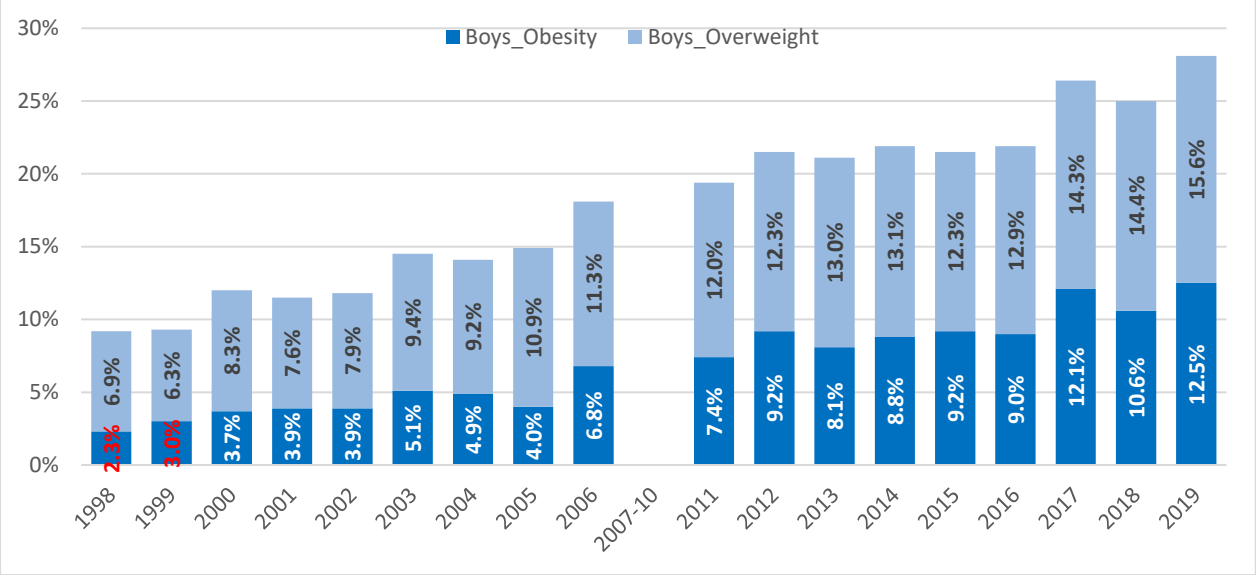
Annual analysis of data from the School Health Programme shows increasing trends in obesity among school children. From 1998 to 2019, the combined prevalence of overweight and obesity increased steadily in school children from 13% to 36% in girls and 9% to 28% in boys, respectively (Figure 14 and Figure 15). In comparison to European countries, overweight or obese among 15-year-olds was at an average of 19% in 2018 and 16% in 2010[36].

*Figure 14 Prevalence of Obesity and Overweight in Girls, 1998-2019.*




[36] *OECD/European Union (2020), Health at a Glance: Europe 2020: State of Health in the EU Cycle, OECD Publishing, Paris, https://doi.org/10.1787/82129230-en.*

*Figure 15 Prevalence of Overweight and Obesity in Boys, 1998 to 2019.*




*Note: Measures are made of students in Primary 4 (Avg. age 9.2y), Secondary 1 (Avg. age 12.2) and Secondary 4 (Avg. age 15.1) to estimate above rates of Overweight and Obesity.*
*Source: Mangroo G, Marie G, Bovet P. School Screening Programme: Update of the prevalence of overweight and obesity between 1998 and 2019.*

Four national NCD surveys[37] conducted in 1989, 1994, 2004, and 2013 in the population aged 25-64 years showed the following:

- A marked 25-year downward trend for smoking (due to the strict implementation of national measures in line with WHO FCTC);
- Slightly downward trends for high blood pressure and high blood cholesterol; and
- Marked upward trends for diabetes and obesity.

The increasing trend in obesity among adults and schoolchildren is a serious public health concern, increasing the risk of NCDs and severe COVID-19 disease[38].

## *Harmful use of alcohol and use of illicit drugs*

Harmful use of alcohol has been a major risk factor for health for many years in Seychelles. In 2016, the total annual alcohol consumption per capita (persons aged 15 years and more) was the equivalent of 20 litres of pure alcohol for men and 4 litres for women[39]. Globally in 2019, the annual consumption of alcohol was 5.8 litres per capita[40].

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*[37] Ministry of Health. National Survey of Non-Communicable Diseases in Seychelles 2013-2014 (Seychelles Heart Study IV): methods and main findings. Seychelles : 2015. http://www.who.int/chp/steps/Seychelles_2013_STEPS_Report.pdf*
*[38] Caussy C, Wallet F, Laville M, Disse E. Obesity is Associated with Severe Forms of COVID-19. Obesity (Silver Spring). 2020 Jul; 28(7):1175. doi: 10.1002/oby.22842.*
*[39] World Health Organization – Non-communicable Diseases (NCD) Country Profiles, 2018. https://apps.who.int/iris/handle/10665/274512*
*[40] World health statistics 2021: monitoring health for the SDGs, sustainable development goals. https://reliefweb.int/sites/reliefweb.int/files/resources/whs-2021_20may.pdf*

An integrated bio-behavioural study conducted in 2016 among heroin users estimated the number of heroin users to be 4,318 and the number of persons who inject heroin 2,144[41]. The same study found an HIV prevalence of 8% and hepatitis C prevalence of 35% among heroin users. The HIV prevalence among PWID increased from 5.8% in 2011[42] to 12.7% in 2017[43].

[41] *Seychelles Biological and Behavioural Surveillance of Heroin users, 2017. APDAR.*
[42] *Integrated bio-behavioural Study among people who inject drugs, 2011, MoH.*
[43] *Seychelles Biological and Behavioural Surveillance of Heroin users, 2017. APDAR.*

## 3.3 State of Health System

### 3.3.1 Governance and leadership

Based on a review of the health system by a special task force in 2013, the health system was restructured to separate the service delivery functions, provided by the Health Care Agency (HCA), from regulatory functions, by the Public Health Authority (PHA), and oversight functions, by the MoH.

In the practical implementation of the new structure, many areas remain undefined to date, such as clear reporting lines by entities as well as roles and responsibilities of administrative boards of entities. Feedback and accountability mechanisms need to improve, and policy and legal frameworks may require updates to address evolving needs, such as introducing an electronic health information system.

Since 2020, in response to the COVID-19 pandemic, leadership has operated under an emergency governance structure that takes into account the functions of different entities within the health system as well as incorporating the presence of other key national bodies.

In light of the changing health landscape, as well as the continued evolution of the health system, a review of the effectiveness of the present structure at delivering effective health services is warranted.

### 3.3.2 Health Financing

Health services in public health institutions are free at the point of delivery, with the Government being the principal financier for health services (from tax-based revenues). Spending on health services has increased steadily in the past decade (Table 8), with a concurrent increase in out-of-pocket (OOP) spending for health.

*Table 8 Spending on Health, 2014-2020.*

| Total Health Expenditure (THE) | 2014 | 2016 | 2018 | 2020 |
|---|---|---|---|---|
| **THE as % of total government expenditure** | 9.7% | 9.9% | 11% | 11% |
| **THE as a % of nominal GDP** | 3.8% | 5.4% | 5.6% | 5.8% |

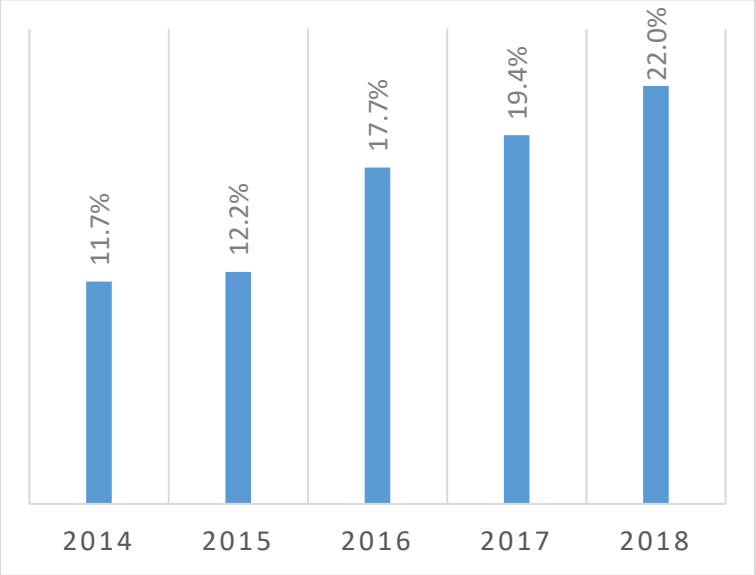
*Source: National Health Account Reports (MoH); National Budget 2020 (Amendment), MFTIEP.*

OOP expenditure accounted for an estimated 23.1% of CHE in 2018, compared to 23.8% and 25.3% in 2017 and 2016, respectively[44]. This mirrors the rapid expansion of the private health sector (including complementary health) in recent years.

[44] *National Health Accounts 2016-202017 and 2018, MoH Seychelles*

The largest share of the budget is allocated to the HCA, with haemodialysis, overseas treatment and cancer care being major cost drivers in relation to number of patients benefiting from them. The NHA also shows an increasing trend in spending on preventive care in recent years (see Figure 16).

*Figure 16 Share of Current Health Expenditure (CHE) spent on Preventive Care, 2014-2018.*




*Source: National Health Accounts series, 2014–2018.*

The MoH has fully implemented Programme Performance Based Budgeting (PPBB) framework as prescribed by the Ministry responsible for Finance. However, this has not brought about expected improvements in performance. This is likely due to the inflexibility of the PPBB structure, line managers being unware of budget allocations, and misalignment with actual service delivery.

There is inadequate information on the cost-efficiency of services, which presents challenges in making cost-conscious policy decisions. Many services have been outsourced over the years without the necessary additional contract management and monitoring mechanisms in place; this has led to an apparent cost escalation, as well as multiple complaints; the quality and cost-efficiency of these services are in question. Weak administration of user fees and delayed payments for produced supplies and services also present challenges to effective management of health finance.

### 3.3.3 Infrastructure

MoH owns most of the service delivery infrastructure. However, many facilities are dated and may not meet ideal requirements for modern standards of care delivery. Many safety risks remain chronically unaddressed – fire, flood, storm, chemical, biological and radiological. Preventive maintenance systems are weak, and repairs/replacements often much delayed.

Safe storage space is a major challenge, prompting the need to rent off-site storage space and leading to storage of medical supplies in clinical areas and along corridors. There is need for expertise in project management and an infrastructure management plan. The Seychelles Hospital Masterplan, although conceived at significant cost, is yet to be implemented.

### 3.3.4 Commodities

An elaborate essential medicines list supports good treatment access. However, there is no such list to-date for medical technologies and supplies. Notable challenges include occasional stock-outs of certain medicines and supplies, and the need for more effective in-country stock-management and distribution of medicines and supplies. There is a need for more involvement of line managers when planning any supply cuts to minimise negative impacts on service delivery.

The maintenance and servicing of medical equipment have improved, directly attributable to a more effective biomedical engineering unit. Maintenance of more advanced equipment (such as MRI scanners) remains a challenge.

The sector receives many donations of supplies and medicines, but these donations are often not tailored to needs and/or are not of adequate standard/quality for local use.

### 3.3.5 Service delivery

The Seychelles public health system is widely accessible geographically, and without financial barriers to Citizens. It provides decentralised access to emergency services across the main islands, has elaborate diagnostic capacity, and provides access to an expanded list of medicines and therapeutic services.

Multiple initiatives, such as patient-centred care and maternal death reviews, have taken root in recent years, with the aim of improving quality. But the health system does not routinely measure quality of care. The need for a stronger clinical governance model is evident to improve accountability and support safe, effective and quality services. The relative neglect of preventive, promotive and long-term care services, including palliative care, also needs to be addressed.

Referral systems are weak, systems for back-referrals and feedback are lacking and/or require more streamlining. Language barriers pose another chronic challenge; itself linked to high dependence on and quick turnover of an immigrant health workforce.

The COVID-19 pandemic has moved public health to the forefront of the health system. The PHA as the main guarantor of public health, has robust legal frameworks. However, the regulatory wing and relevant enforcement mechanisms, require further strengthening.

Health programmes focus principally on supporting promotive and/or preventive services. They access much technical assistance and engage wieldy with external stakeholders. But programme managers often work alone, and there is poor coordination and cooperation across programmes.

The private health sector is growing rapidly. Communication between MoH and the private sector is still poor; private-sector regulatory frameworks are weak, with inadequate reporting.

### 3.3.6 Impact of COVID 19 on the health system

COVID-19 has affected the whole country, the health and wellbeing of the population, as well as all aspects of the health system.

The COVID-19 response has nudged the health system to promote remote-work, and improve coordination across different departments and service areas. This is reflected in the increased use of instant messaging platforms for sharing information and coordinating work, electronic platforms for data management around testing and surveillance, video conferencing systems for meetings, social media platforms and e-mails for risk communication, etc. There is a renewed emphasis on infection prevention and control, with more complete guidance, training, monitoring and enforcement.

In addition to direct illness, admissions and deaths, the COVID-19 pandemic has increased the workload on healthcare workers (HCWs) and imposed a chronic strain on the health system. Most HCWs were redeployed, and many services were (temporarily) interrupted. The response also revealed key weaknesses in the health system around data management and effective, timely communication and coordination.

## 3.4 Identified Priorities

Based on the unaddressed agenda (unfinished business) from the implementation of the NHSP 2016-2020, and the situation analysis, the different TWGs and stakeholders identified the following priorities for health system and health status (see Table 9).

*Table 9 Identified priorities to improve Health System and Health Status, by building blocks.*

| Health System Building Block | Key Health System Priorities |
|---|---|
| **Leadership and Governance** | ◆ Adopt a Proactive and long-term approach to sector planning.<br>◆ Ensure Participatory decision-making.<br>◆ Strengthen HR and financial management capacities.<br>◆ Strengthen legal and regulatory frameworks for health. |
| **Human Resources for Health (HRH)** | ◆ Improve appraisal systems.<br>◆ Improve staff welfare, retention mechanisms, health and safety.<br>◆ Develop an HRH strategy. |
| **Health Financing** | ◆ Review revenue generation and user-fees structure.<br>◆ Review tender process and performance of outsourced services.<br>◆ Improve cost-benefit awareness. |
| **Health Infrastructure** | ◆ Address fire, flood, storm, chemical, biological and radiological risks, across the sector.<br>◆ Improve preventive maintenance and ensure timely repairs.<br>◆ Systematically consider disability access.<br>◆ Invest in MoH-owned safe storage space. |
| **Medicines and supplies** | ◆ Improve stock management and forecasting.<br>◆ Develop a Donation policy to guide responsible donations.<br>◆ Ensure rational use of medicines and supplies.<br>◆ Use a Standardised list of medical equipment. |
| **Health Information systems** | ◆ Adequate IT infrastructure with strong technical support.<br>◆ Prompt implementation of the eHIS.<br>◆ Develop data management and research policies.<br>◆ Invest in digital solutions for health.<br>◆ Establish Central data warehousing. |

| | |
|---|---|
| **Health Service Delivery** | ◆ Develop SOPs and clinical guidelines.<br>◆ Establish Quality improvement initiatives; standards of care.<br>◆ Strengthen communication and coordination.<br>◆ Improve referral and appointment systems.<br>◆ Introduce new service/programmes to address existing gaps.<br>◆ Strengthen regulatory wing of PHA.<br>◆ Consolidate and improve reporting systems. |
| **Private Health Sector** | ◆ Establish regular communications platform.<br>◆ Share and monitor adherence to guidelines, SOPs, regulations. |

**Health Status Priorities**

- Maintain high Life Expectancy (LE) for women.
- Increase LE for men and close gap in LE between men and women.
- Increase healthy life expectancy.
- Continue to improve maternal and child health.
- Decrease morbidity and premature mortality due to NCDs.
- Decrease mortality due to external/accidental causes especially in men.
- Reduce morbidity and mortality due to priority[45] infectious diseases.
- Reduce number of cases and mortality due to COVID-19.
- Address risk factors for health (especially obesity in adults and children, harmful use of alcohol, abuse of drugs).
- Track and improve non-fatal outcomes for priority diseases.
- Prevent, prepare and respond to health emergencies.
- Implement the Health in All Policies (HiAP) approach to address social determinants of health.

[45] *Priority diseases include Pneumonia, HIV/AIDS, Dengue and Leptospirosis.*

Chapter 4

# Strategic Agenda for 2022-2026

# 4 Strategic Agenda for 2022-2026

## 4.1 Vision, Mission, Goals

As articulated in the National Health Policy 2015, the national vision for health is the "***attainment, by all people living in Seychelles, of the highest level of physical, social, mental and spiritual health and living in harmony with nature***".

True to this vision, the mission of the sector is "***to relentlessly promote, protect and restore health and quality of life and dignity of all people in Seychelles with the active participation of all stakeholders, through the creation of an enabling environment for citizens to make an informed decision about their health***".

The NHSP 2022-2026 is the second strategic plan of the National Health Policy 2015. Like the first medium-term plan, this NHSP embraces the guiding principles of "***Health for, Health by all and Health in all***".

The goals of this strategic plan are to:

- Increase life expectancy and healthy life expectancy
- Achieve and sustain all dimensions of Universal Health Coverage (UHC)
- Prevent, Prepare for, detect early and respond adequately to all health emergencies
- Promote healthy populations

The NHSP proposes bold changes to maintain and build on health gains for all people in Seychelles throughout the life-course. It recognises that promoting, protecting and restoring health in the fragile and unpredictable post-pandemic social and economic situation requires bold and innovative approaches. It recognises that health gains can be easily eroded; and that renewed and sustained investment is needed.

## 4.2 The NHSP 2022-2026 Framework

This NHSP has six strategic directions represented by the six pillars (see Figure 17):

1. **SD1 Strengthen leadership, governance and administration**
2. **SD2 Protect and improve UHC**
3. **SD3 Address health security**
4. **SD4 Promote healthy populations**
5. **SD5 Invest for results**
6. **SD6 Improve data for impact**

What the sector is planning to achieve is captured under SD2, SD3 and SD4, while critical inputs required to achieve these results are captured under the other three pillars (SD1, SD5 and SD6). See Table 10 for an overview of broad objectives.

The NHSP sets out the priorities for each pillar for the next five years. While there is collective ownership of this five-year plan, the different entities will be responsible for delivering on specific objectives under these pillars.

*Figure 17 NHSP 2022-2026 Framework*

*Table 10 NHSP Framework: Strategic Directives with Key Objectives*

| SD1 Strengthen Governance, Leadership & Administration | SD2 Protect & Improve UHC | SD3 Address Health Security | SD4 Promote Healthy Populations | SD5 Invest for Results | SD6 Improve Data for Impact |
|---|---|---|---|---|---|
| **General Objective (GO):** To ensure MoH Governance and Leadership has appropriate structures and processes necessary to successfully steer the health sector. | **GO**: To protect and improve UHC throughout the life-course and address priority diseases. | **GO**: To promote and protect health security. | **GO**: To advocate for a conducive environment that supports healthy living, safe & healthy neighbourhoods, and improve wellbeing of people. | **GO**: To ensure effective, efficient and sustainable investment in health and the health system. | **GO**: Build an integrated Health Information System (HIS), and strengthen efforts to collect, process, report and use health data. |
| **Specific Objectives (SO):**<br>1.1 Build strong governance and leadership structure<br>1.2 Renew stewardship function of MoH<br>1.3 Ensure accountability at all levels<br>1.4 Implement effective coordination and communication systems<br>1.5 Engage the community<br>1.6 Build meaningful relationships<br>1.7 Implement RBM | **SO**:<br>2.1 Improve health services across the life-course and address priority health conditions.<br>2.2 Champion Quality Improvement across health system<br>2.3 Improve collaboration with private health sector and health-related NGOs<br>2.4 Mitigate risks and mainstream resilience across the health system | **SO**:<br>3.1 Strengthen the One Health approach.<br>3.2 Implement the IHR to prevent, detect and manage outbreaks<br>3.3 Implement IDSR<br>3.4 Strengthen regulatory functions of the PHA<br>3.5 Improve public health standards and legislation<br>3.6 Strengthen public health programmes | **SO**:<br>4.1 Promote healthy living for different age-groups<br>4.2 Address risk factors for health.<br>4.3 Revitalise HiAP<br>4.4 Promote good mental health and address substance abuse<br>4.5 Promote and advocate for effective public health | **SO**:<br>5.1 Human Resources for Health<br>5.2 Health Financing<br>5.3 Medicines and Health Technologies<br>5.4 Infrastructure<br>5.5 Information Technologies | **SO**:<br>6.1 Set-up one integrated HIS<br>6.2 Improve data governance<br>6.3 Enable data use<br>6.4 Implement eHIS<br>6.5 Invest in health data<br>6.6 Strengthen research capacity<br>6.7 Improve health information products |
| ↓ **Lead Entity: MoH** | ↓ **HCA** | ↓ **PHA** | ↓ **MoH** | ↓ **MoH/HCA** | ↓ **MoH** |
| **- Entity two-year Operational Plans -** | | | | | |
| **- Sector, Entity and Disease-specific Monitoring and Evaluation Plans -** | | | | | |

# SD1 Strengthen Governance, Leadership and Administration

Leaders in health are responsible for developing and implementing national health strategies, setting health goals and targets for improving health, delivering quality health care services, and monitoring the population's health. The health sector is also responsible for ensuring that the policies of other sectors promote and positively impact health.

Governance and leadership is one of the six building blocks of the health system, essential for guiding the health sector towards achieving its strategic vision. However, governance is generally poorly defined and may be difficult to operationalise. The WHO definition of governance and leadership includes "ensuring strategic policy frameworks exist and are combined with effective oversight, coalition-building, regulation, attention to system-design, and accountability"[46].

Good governance is transparent, inclusive and based on a robust system of mutual accountability. MoH needs solid formal governance structures and processes to lead and engage all health providers and the community in a shared purpose and vision.

## SD1 Outstanding Issues

### *Governance structure*

Since the 2013 reform of the MoH[47], functions of the MoH have been assigned to several semi-autonomous statutory entities with their own governing boards, while the MoH Secretariat, headed by the Minister, is responsible for political leadership, sector stewardship, accountability and performance monitoring.

The situation analysis for the development of the current NHSP noted that there had been no review of the objectives of the 2013 reforms and inadequate clarity around roles, responsibilities and boundaries of various leadership posts and bodies.

### *Communication, coordination and collaboration*

There are weaknesses with the flow of information within and across entities within MoH and communication from MoH to other sectors and the private health sector. There is a need for mechanisms to allow clear and timely communication within MoH and with other sectors and the community.

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*[46] WHO. https://www.who.int/health-topics/health-systems-governance#tab=tab_1*

*[47] Health Task Force Report, 2013, Strengthening and Modernising Seychelles Health System to Improve Health Outcomes*

## *Accountability*

One of the reasons for not achieving desired health outcomes is the lack of accountability in the health sector. Accountability refers to the act of holding public officials/service providers answerable for processes and outcomes and imposing appropriate measures if specified outputs and outcomes are not delivered to the minimum expected standards.

Technical leads develop and submit regular progress reports but do not receive feedback from leadership. Roles and responsibilities of professional councils and entity leadership about disciplinary actions are blurred.

To improve health system performance and achieve desired outcomes, there is a need for all in MoH to be accountable. Formal mechanisms are required to make workers at all levels answerable for professional conduct and performance, focusing on utilisation of resources, outputs, and results. Accountability also applies to the private health sector, monitored by the PHA.

Leadership should shape organizational culture.

## *Policy and Planning*

MoH has developed many policies over the years; however, less effort has been made to plan policy implementation, review progress and its impact. For the next five years, MoH will assess and understand policy gaps and develop urgently needed policies such as policies on donation and quality of care. Additionally, mechanisms will be developed to periodically review policy implementation to understand and report on policy failures and successes. MoH will seek buy-in for an inter-sectoral policy platform, to advance the HiAP approach.

## *Partnership*

Health is complex, and efforts to promote better health requires using a whole-of-government and whole-of-society approach by engaging all partners, including the community, private health providers and other line ministries. The MoH will initiate inter-sectoral interventions to advance the health agenda, act as a health advocate while engaging the community in health policy formulation, research and sector monitoring.

MoH's efforts to promote and protect health can only achieve results when the community is empowered and actively engaged. Despite some efforts, there are still untapped opportunities to involve the community and support citizen and patient empowerment to improve health outcomes, health system performance, and satisfaction with health care.

MoH also works with important global partners, particularly the WHO. MoH, with support from global partners, will work to advance the national health agenda and also to achieve regional and global commitments.

### *Results-Based Management (RBM)*

The government has approved the rollout of RBM consisting of four pillars: Strategic planning, Programme Performance Based Budgeting (PPBB), Performance Monitoring and Evaluation (PM&E) and Performance Management System (PMS).

MoH, like other sectors, needs to establish a performance-driven work culture where accountability for results is continually strengthened. Lead portfolio institutions have been tasked to establish a portfolio-level RBM Committee to oversee the implementation of all RBM pillars and ensure harmonization of the strategic plan with all other pillars of RBM.

The MoH Secretariat will continue to conduct sector monitoring by tracking and reporting on a set of core indicators annually through the annual health sector performance report; however, sector and entity M&E frameworks were not developed for the previous NHSP.

## SD1 Priority Areas

1. Clarify and strengthen MoH governance structures and processes.
2. Improve communication, coordination and collaboration within and beyond MoH.
3. Ensure accountability at all levels of the health sector (public, private and non-health actors).
4. Develop needed synergistic health policies.
5. Engage the community and build meaningful partnerships.
6. Implement the RBM strategy.
7. Drive the quality in health agenda and mobilise high-level engagement for HiAP.

## SD1 General Objective

Ensure that MoH governance and leadership has the appropriate structures and processes necessary to successfully steer the health sector to:

- Provide strategic vision and guidance
- Ensure accountability, effectiveness and efficiency
- Develop and monitor implementation of synergistic policies
- Foster community engagement and build meaningful partnerships
- Ensure cooperation and policy synergy across public and private sectors and civil society
- Monitor performance and achievement of desired outcomes and goals.

## SD1 Specific Objectives

*Table 11 SD1 Strengthen Leadership, Governance and Administration: Specific Objectives*

| SD 1: Strengthen Leadership, Governance and Administration | | | | |
|---|---|---|---|---|
| **Specific Objectives** | **Key Interventions** | **Milestones** | **Lead Entity** | **Contributing Entity** |
| **1.1 Build strong governance and leadership structure** | Conduct a review of the objectives and implementation of 2013 health reforms (Fit for purpose, need for new governance architecture etc.) | Report of review of 2013 reforms with recommendations | MoH | PHA; HCA; NIHSS; NAC |
| | Develop a framework for governance defining clear roles and responsibilities and reporting lines of MoH, entities and entity boards | Governance framework developed and disseminated | MoH | |
| | Develop key indicators/milestones to monitor governance and leadership functions | Indicators developed and monitoring conducted | MoH | |
| | Conduct annual assessments and develop reports on health governance and leadership | Annual governance report developed and disseminated | MoH | |
| | Develop a governance structure for health emergencies with clear roles and responsibilities | Health Emergency governance structure developed and validated | PHA | MoH |
| **1.2 Renew stewardship function of MoH** | Conduct a review of existing health policies and policy gaps | Policy review report and recommendations | MoH | |
| | Formulate strategic policy directions as required (Priorities: quality of care, donation) | Required policies developed and disseminated | MoH | |
| | Review implementation of key health policies and make recommendations | Report of review of policy implementation | MoH | |
| | Develop a shared policy platform with key sectors and monitor health coherence | Policy platform developed and functional | MoH | |
| | Collect and use health intelligence to develop policy briefs | Policy briefs developed and disseminated | MoH | |
| | Continue to strengthen professional councils. | Councils strengthened and independent. | MoH | |
| | Build confidence of HCWs in leadership by ensuring clear direction, commitment. | All HCWs understand organisational culture and leadership actions are consistent with sector vision, values and strategy. | MoH | |

| | | | | |
|---|---|---|---|---|
| **1.3 Ensure accountability at all levels** | Develop accountability framework to define accountability requirements at all levels (who is accountable, for what and to whom) – leaders, managers, HCWs, councils, entity boards. | Health Sector accountability framework developed, and accountability monitored. | MoH | HCA<br>PHA |
| | Monitor and report on the implementation of all pillars of RBM | Entity and sector RBM committees set up<br>Annual RBM reports | MoH | HCA<br>PHA |
| | Develop and disseminate annual health sector performance reports and follow up on the implementation of remedial actions as necessary | Annual health sector performance report developed and disseminated within and beyond MoH<br>Remedial measures identified, discussed and implemented by relevant entities | MoH | |
| | Develop entity annual performance report | Annual entity performance reports developed and disseminated, achievements and failures discussed and plans for remedial actions developed (HCA, PHA, NAC, NIHSS) | HCA<br>PHA<br>NIHSS<br>MoH | |
| | Use progress report as a management tool<br>◆ Review format/frequency of progress report<br>◆ Review format for feedback and monitor | ◆ New format for progress report developed and used.<br>◆ Feedback is given for all reports submitted. | PHA<br>HCA | |
| | Develop and disseminate annual Drug Observatory Report | ◆ Annual Drug Observatory report developed and disseminated.<br>◆ Follow-up action plan developed and implemented. | MoH | |
| | Revise scope of work of CIC and nurse managers to include clear roles and responsibilities | Revised scope of work of CIC and nurse managers | HCA | |
| **1.4 Implement effective coordination and communication system** | Develop formal coordination mechanisms within and across entities and for actors beyond MoH (circulars, information bulletins, leadership blogs, forums, committees, platforms). | Formal coordination mechanisms developed by MoH and entities. | MoH<br>PHA<br>HCA<br>NIHSS | |
| | Ensure weekly decisions of senior executive committee reach all health care workers in MoH (and the private sector when needed) | Decisions of the senior executive committee are shared every week and as needed. | MoH | HCA<br>PHA |
| | Conduct annual coordination meetings with the private health sector and civil society and bi-annual PHC/Hospital coordination meetings | ◆ Annual coordination meetings conducted with private health care providers and NGOs.<br>◆ Annual coordination meetings conducted PHC and hospital services. | HCA<br>PHA<br>MoH | |
| | Develop and implement effective communication strategies | Communication strategies implemented | MoH | PHA<br>HCA |
| **1.5 Engage the community** | Include community consultation in the development process of all health policies/strategies and understand their values and preferences | Meeting reports of community consultations. | MoH | PHA<br>HCA |

| | | | | |
|---|---|---|---|---|
| | Disseminate and explain key findings from annual performance report and other important reports to the community and obtain feedback | Annual meetings on Mahé, Praslin and La Digue | MoH | |
| | Build community leadership for priority health conditions (rf. SD2 p. 47). | Community leaders for NCDs and key communicable diseases identified, trained and supported. | MoH<br>PHA | HCA |
| | Develop mechanisms to engage vulnerable and key populations and their advocates in relevant policies and programmes | Vulnerable and key populations engaged in the development of programmes and services that target them | MoH | PHA |
| **1.6 Build meaningful partnership** | Map key partners and develop a framework to guide the engagement of local and external partners in health. | Mapping report of key partners in health<br>Framework to guide partnership developed and disseminated. | MoH | |
| | Develop a policy to guide donations to MoH. | Policy on donation developed, disseminated and used. | MoH | HCA<br>PHA |
| | Develop annual reports on grants, TA and donations (on aid effectiveness). | Annual reports on donations and aid effectiveness in health. | MoH | HCA<br>PHA |
| | Develop brief outlines of key priority projects that are above budget allocation to inform donation requests. | Project outlines developed. | MoH<br>PHA<br>HCA | |
| | Define key areas/projects where external technical support (e.g. WHO/UN agencies) is required, at start of each year. | Annual TA needs developed jointly by MoH and entities. | MoH | HCA<br>PHA<br>NIHSS |
| | Contribute to the development and monitor implementation of WHO biennial work plans. | WHO biennium plans developed jointly and are in line with national health agenda. | MoH | HCA<br>PHA<br>NIHSS |
| | Review, jointly with UN agencies, the mechanisms for recruitment and engagement of TA. | Recruitment and engagement of TA from UN agencies are structured to add value to partnership | MoH | HCA<br>PHA |
| **1.7 Implement Results-Based Management (RBM)** | Sensitise managers on RBM and theory of change. | Sensitisation workshops conducted. | MoH | |
| | Finalise and disseminate NHSP 2022-2026. | NHSP 2022-2026 developed and disseminated. | MoH | |
| | Each entity develops a two-year operational plan | Operational plans developed. | MoH<br>PHA | HCA<br>NIHSS |
| | Set up entity and sector RBM committees with ToRs as specified by MFTIEP and report to government | RBM committees set up and functioning. | MoH | PHA<br>HCA |
| | Develop sector and entity PM&E frameworks with support from DPA/TA | PM&E frameworks developed. | MoH | PHA<br>HCA |
| | Develop indicator protocol to monitor core health indicators. | Indicator protocol developed. | MoH | PHA<br>HCA |
| | Monitor and report on sector and entity core indicators. | Annual reports from MoH and entities on core indicators. | MoH<br>PHA | |

| | | | | |
|---|---|---|---|---|
| | | | HCA | |
| | Strengthen M&E capacity with support from government | Recruit M&E officers for entities | MoH | PHA<br>HCA |
| | Conduct a mid-term review of the NHSP 2022-2026 and Drug-control Master Plan | Drug-control Master Plan and NHSP mid-term review report and recommendations developed and disseminated | MoH | |
| **1.8 Drive changes required to improve quality in health** | Define and agree on purpose and quality goals and assign leaders | Quality leads assigned to PHC, in-patient care, specialised services, programmes and in private health sector | MoH<br>PHA<br>HCA | |
| | Develop a framework to drive quality in health, and support and monitor implementation of QI initiatives | ◆ Framework on quality in health developed and disseminated.<br>◆ Reports QI projects. | MoH<br>PHA<br>HCA | |
| | Share local best practices within the health sector | Best practices identified and shared | MoH | HCA<br>PHA |
| | 'Get Boards on board' – to provide insight, monitor performance and hold managers accountable | Entity boards to put quality on the agenda<br>Set up 'quality committees' on boards. | PHA<br>HCA<br>NIHSS | MoH |
| | Re-engineer health processes so that quality becomes a disciplined and integrated management system. | Quality governance and management system set up. | PHA<br>HCA | |
| **1.9 Mobilise commitment and action for HiAP** | Mobilise buy-in for HiAP by sensitising Cabinet and NA, and obtain pledges | HiAP meetings held with Cabinet and NA. | MoH<br>PHA | |
| | Advocate for extended health impact assessment before the development of key projects | Health impact assessment conducted. | MoH | PHA |
| | Conduct annual review of HiAP commitments | Annual HiAP Report | MoH | |

# SD2 Protect and Improve Universal Health Coverage

Health services are free, easy to access geographically and have high utilisation rates. However, quality, equity, outcomes and user experience and satisfaction are not adequately measured. This may imply certain population groups may be 'left behind', but not picked up by current routine monitoring – making a case for stronger measurement of these aspects of care. While public health sector services remain free of user charges, a series of NHA reports show increasing out-of-pocket spending on health, chiefly driven by increasing utilisation of private health services.

The two seminal global conferences on primary care (Alma-Ata, 1978, and Astana, 2018) have emphasised the importance of primary care as the key vessel to deliver quality health services to all, to improve everyone's health and wellbeing. In recent years, UHC (defined in Box 1) has been the flagship approach of the WHO (and the wider United Nations) for improving health and wellbeing within the Sustainable Development Agenda 2030 framework[48]. The principle aims to expand the range of health services provided, at high quality, to the whole population, with maximum financial protection. The ideals of achieving and improving UHC through strengthening primary care, are well aligned with both the global health goals (SDG 3) and the National Vision for Health.

*Box 1 Definition of Universal Health Coverage (UHC)*

> ***"Universal health coverage means that all people have access to the health services they need, when and where they need them, without financial hardship on them. It includes the full range of essential health services, from health promotion to prevention, treatment, rehabilitation, and palliative care… high quality health services… through people-centred primary care."***
>
> ***– Definition of Universal Health Coverage, World Health Organisation***

Primary care and the achievement of UHC are intricately linked to public health (aimed at prevention), health promotion (aimed at prevention and promotion), and health systems strengthening (provides the supports to improve the platform through which UHC services are delivered).

Seychelles has a relatively high UHC index of 71[49]. WHO criteria and targets are, however, generally not tailored for high-income contexts, and do not accurately reflect changes to UHC in the Seychelles context. As such, particularly in the context of an economic crisis, there is risk for erosion of past gains in UHC, which may go undetected in the annual standard UHC index measurements, hinting at a need for

[48] *https://www.who.int/health-topics/universal-health-coverage#tab=tab_1 (accessed 24 Nov 2021).*
[49] *World Health Statistics Report, WHO, 2021, p67.*

more tailored criteria and thresholds. There are also a need to measure equity and quality of health services.

## SD2 Outstanding Issues

- Urgent need to address priority diseases: NCDs (cancer, diabetes and cardiovascular disease outcomes) and communicable diseases (COVID-19, HIV, Viral Hepatitis).
- Measurements and reporting are mortality-centric; non-fatal outcomes are not well measured.
- Weak clinical governance mechanisms:
  - Lack of standardisation of care – great variation across health system.
  - Gaps in clinical care: inadequate guidelines, unclear care pathways, no clinical audit cycles, weak referral systems, no standards for care, inadequate measurement of quality and safety in services, lack of a quality policy, and no formal clinical audit.
  - Traditionally tertiary-care-centric role of clinical specialities – need for oversight and responsibility for improving care and services under the relevant speciality for the whole country, and not just the specific hospital unit.
  - Lack of a clear policy on process for overseas treatment, a major cost-driver.
- Only a few innovations in care delivery; inadequate modernisation of services; outdated service delivery models.
- Majority of health funding focused on curative care, much less on primary care, promotive and/or preventive health services.
- Effectiveness, efficiency and cost-benefits of services are not measured.
- Equity is not measured – possibly leaving behind certain groups.
- Communication barriers – with public, and within health system.
- Fragmentation of operations within health system; weak coordination mechanisms.

## SD2 Priority Areas

1. Use a combination of life-course (RMNCAH, men's health, healthy ageing, etc.) and disease-specific (cancer, CVDs, COVID-19, HIV, etc.) approaches to address health needs.
2. Innovate and modernise care delivery – new service delivery models aimed at improving outcomes of prevention and care.
3. Make quality a top priority in service delivery.
4. Increase spending on preventive and primary healthcare services.
5. Strengthen and promote a preventive care agenda.
6. Ensure no one is left behind: Measure and improve equity in access to health services, and health outcomes.
7. Improve health system resilience.

## SD2 General Objective

To protect and improve Universal Health Coverage (UHC), through continued provision of quality preventive, promotive, curative and palliative health services to everyone in-need, without undue financial risks, and establish a system of continuous quality improvement. The key strategic domains to guide the direction are:

- Improve health services across the life-course and address priority health conditions.
  - New direction for primary health care.
  - Improve secondary and tertiary care.
  - Innovate and modernise health programmes.
- Champion quality improvement across the health system.
  - Implement a quality framework.
  - Develop and implement a clinical governance model.
  - Improve efficiency and effectiveness of services.
- Improve collaboration with private health sector and health-related NGOs.
  - Partnership to provide services.
- Mitigate risks and mainstream resilience across the health system.
  - Improve health and safety and staff wellbeing supports.
  - Climate change mitigation and adaptation in health sector.
  - Institutionalise COVID-19 response functions and build resilience.

## SD2 Specific Objectives

*Table 12 SD2 Protect and Improve UHC: Specific Objectives*

| SD 2: Protect and Improve UHC | | | | |
|---|---|---|---|---|
| **Specific Objectives** | **Key Interventions** | **Milestones** | **Lead Entity** | **Contributing Entity** |
| **2.1 Improve health services across the life-course and address priority health conditions.** | **2.1.1 A new direction for primary health care** | | | |
| | ◆ Operationalise package of services to be offered in primary care. | ◆ PHC package operationalised | HCA | PHA |
| | ◆ Reorganise community health services into a fit-for-purpose system, with clear organisational structure based on agreed criteria, to deliver effectively and efficiently on the PHC package.<br>◆ Repurpose/close health centres not meeting set criteria for delivery package. Redeploy any free resources. | ◆ Criteria for PHC defined.<br>◆ Organisational structure defined of PHC facilities and services.<br>◆ New Master Facility List available<br>◆ A population register for each clinic catchment area developed. | HCA | MOH<br>PHA |
| | ◆ Establish mechanisms for strong oversight and continuous service improvement. | ◆ Create a PHC council with mandate on quality and efficiency.<br>◆ PHC indicators and targets defined. | HCA | MOH<br>PHA |
| | ◆ Implement chronic disease care models to support self-management, treatment adherence and improve health literacy. | ◆ Service delivery model for chronic diseases developed and implemented. | HCA | MoH<br>PHA |
| | **2.1.2 Address challenges in operations of PHC services to maximise access and effectiveness of services.** | | | |
| | ◆ Fully implement appointment systems.<br>◆ Develop tools and processes for a seamless, active and timely referral system.<br>◆ Establish minimum language proficiencies for health service providers.<br>◆ Review operating hours of PHC facilities<br>◆ Improved coordination and support across services and centres, including with Praslin and La Digue. | ◆ PHC appointment system functional.<br>◆ Active seamless referral system in place.<br>◆ Coordination meetings between PHC and hospital services conducted at least twice a year. | HCA | |
| | ◆ Address discrimination and protect rights of vulnerable population groups (substance abuse, mental health, social ills). | ◆ Access for vulnerable populations to health and social services improved in existing facilities and planned for future facilities. | MoH<br>HCA<br>PHA | |

| | | | | |
|---|---|---|---|---|
| | | ◆ Targeted interventions to reach vulnerable populations developed. | | |
| | **2.1.3 Improve secondary and tertiary care** | | | |
| | ◆ Define needs, roles and package of services for inpatient and specialised care services. | ◆ Inpatient and Specialised Care package of services define and used to inform clinical guidelines and access to diagnostics and therapeutics. | HCA | |
| | ◆ Establish adequate management capacity for Seychelles Hospital and annexes. | ◆ Competent staff to fill all management positions/functions appointed | HCA | |
| | ◆ Strengthen governance and coordination of specialist outpatient, oncology and accident and emergency (A&E) services. | ◆ Governance structure for specialised services defined. | HCA | |
| | ◆ Review scope-of-work for specialist services, to ensure relevant broader health system and societal needs are incorporated. | ◆ Scope of work for clinical leads (PMOs, PNOs, NMs, CICs, Regional lead Dr) are redefined, with reporting/M&E and service improvement roles. | HCA | |
| | ◆ Review after-hours service provision based on needs, access and utilisation. | ◆ After-hours services package and requirements and location defined | HCA | |
| | ◆ Improve standards of inpatient care. | ◆ Define standards of operations and minimum requirements for all wards and units/services. | HCA | MoH<br>PHA |
| | ◆ Rationalise use of diagnostics and therapeutics. | ◆ Guidelines developed for access to diagnostics and therapeutics | HCA | |
| | ◆ Improve long-term care (LoTC) services.<br>◆ Closer coordination with social workers in care planning for vulnerable groups.<br>◆ Transfer 'Regional Homes' management to Ministry responsible for social affairs. | ◆ Package of services provided in LoTC facilities defined.<br>◆ Dedicated Social workers for different health services appointed.<br>◆ Regional homes transferred to relevant ministry. | HCA | |
| | ◆ Establish clear governance and accountability structure for overseas treatment.<br>◆ Establish overseas treatment policy to complement the Act.<br>◆ Conduct a review of overseas treatment (needs, costs, outcomes).<br>◆ Annual reports on overseas treatment services, with outcomes. | ◆ Governance structure for overseas treatment established.<br>◆ Overseas treatment policy developed.<br>◆ Review and annual report on overseas treatment developed. | HCA | MoH |
| | **2.1.4 Innovate and modernise health programmes** | | | |
| | ◆ Improve leadership, organization and management of health programmes<br>◆ Build capacity in programme leaders for M&E and quality improvement. | ◆ Organizational structure and coordination of programmes reviewed.<br>◆ Capacity building of programme leaders for M&E and quality improvement conducted. | HCA<br>PHA | MoH |

| | | | | |
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| | Strengthen programmes to address health needs across the life-course and across disease conditions. | ◆ Programmatic services on offer are better aligned with target population needs.<br>◆ Support the conduct of the next round of the Seychelles Heart Study series.<br>◆ Review implementation of new initiatives. | HCA<br>PHA | MoH |
| | ◆ Implement PHC package of services<br>◆ Monitor outcomes of programmes | ◆ Implement programmes according to PHC Package<br>◆ Key indicators and targets for each programme developed.<br>◆ Annual report of programmes developed and shared. | HCA<br>PHA | |
| | ◆ Build synergies across programmes through communities of practice.<br>◆ Develop and pilot an integrated preventive health services hub. | ◆ Communities of practice for related groups of programmes set up and running.<br>◆ Health Prevention Hub developed. | HCA | PHA<br>MoH |
| | ◆ Address policy support gaps for key programmatic services. | ◆ National Cancer Control Strategy developed.<br>◆ School Health Policy developed. | HCA<br>PHA | MoH |
| | ◆ Expand utility of vaccination in disease prevention<br>◆ Expand capacity of the Expanded Programme on Immunisation (EPI). | ◆ Revised EPI schedule for children.<br>◆ Capacity of EPI Unit strengthened.<br>◆ Review current vaccination schedule to include additional evidence-based vaccination in: (1) routine childhood vaccination, (2) routine adult vaccination, and (3) travel vaccination. | HCA | MoH |
| | ◆ Strengthen collaboration between programmes and health promotion.<br>◆ Develop a health promotion policy and strategy. | ◆ Coordination mechanisms for programmes and health promotion developed.<br>◆ Health promotion policy and strategy developed. | MoH | HCA<br>PHA |
| | Improve community engagement for addressing priority health conditions. | ◆ Focal persons in the community for key programme areas identified and sensitized. | MoH | HCA<br>PHA |
| | **2.1.5 Address priority health conditions** | | | |
| | **Substance abuse and Harmful use of Alcohol**<br>◆ Ensure continued, quality, service provision for mental health and substance abuse disorders.<br>◆ Institutionalise and consolidate essential services for substance abuse (prevention, treatment and after-care, as per the NDCMP).<br>◆ Expand services to address harmful use of alcohol.<br>◆ Integrate provision of substance abuse and mental health services into the PHC. | ◆ Quality indicators for harm reduction services developed and monitored.<br>◆ Programme to address harmful use of alcohol revived.<br>◆ Aspects of harm reduction services mainstreamed into PHC services. | MoH<br>HCA | PHA |

| | | | | |
|---|---|---|---|---|
| | **Key Non-Communicable Diseases**<br>◆ Revitalise implementation of the NCD Strategy.<br>◆ Support conduct of the next iteration of the Seychelles Heart Study series, and use information to inform review and update of the NCD Strategy 2016-2026.<br>◆ Review implementation of new disease-specific initiatives (such as SEYPEN). | ◆ Regular Monitoring and reporting on key priority diseases (HIV/AIDS, COVID-19, Cancer, Cardiovascular diseases, Viral Hepatitis, etc.).<br>◆ Annual report on implementation of NCD Strategy.<br>◆ End-term review of NCD Strategy conducted; new NCD Strategy developed.<br>◆ New Cancer Control Strategy developed.<br>◆ Report of the next Seychelles Heart Study survey results. | PHA | MoH |
| | **Key Communicable Diseases**<br>◆ Review the National Strategy for HIV/AIDS and Viral Hepatitis Strategy.<br>◆ Update and implement the COVID-19 response plan.<br>◆ Also refer to SD3 for COVID-19 response and priority vector-borne and zoonotic diseases. | ◆ End-term review of HIV/AIDS and Viral Hepatitis Strategy conducted.<br>◆ Updated policy and strategy on HIV/AIDS, Viral Hepatitis and STIs developed.<br>◆ Integrated COVID-19 response plan developed. Annual reports produced. | NAC<br>PHA | |
| **2.2 Champion Quality Improvement (QI) across the health system** | **2.2.1 Improve quality of health services** | | | |
| | Develop and implement a quality framework. | ◆ Quality Framework developed and operationalized.<br>◆ Regular clinical audits in all units and service areas conducted.<br>◆ HCWs and public sensitized on QI initiatives. | HCA | MoH |
| | Establish standards of care and quality indicators by service area. | ◆ Standards of Care and Quality indicators defined and implemented.<br>◆ Formal unit/service-area specific monthly CPD/CME system in place. | HCA<br>PHA | MoH |
| | Promote rational prescribing and antibiotic stewardship. | ◆ AWaRe classification of antibiotics, with monitoring through the implementation of GLASS framework used.<br>◆ Adherence to treatment protocol monitored regularly. | HCA | |
| | Define Care Pathways for key conditions/services. | ◆ Care pathways defined, disseminated and implemented. | HCA | |
| | **2.2.2 Improve efficiency and effectiveness of services at all levels** *(Subject to joint discussion with Department of Finance).* | | | |
| | ◆ Build capacity for monitoring efficiency in the health system.<br>◆ Improve technical and allocative efficiency in services. | ◆ Health economist recruited.<br>◆ Cost-benefit assessments for key services and health condition s conducted.<br>◆ Guidance for efficiency developed and used.<br>◆ Line managers and administrative staff aware of costs and benefits of common health services.<br>◆ A formal system for monitoring cost-efficiency, as part of wider M&E framework developed. | MoH<br>HCA | |
| | **2.3.1 Explore social franchising with private health sector and health-related NGOs.** | | | |

| | | | | |
|---|---|---|---|---|
| **2.3 Improve collaboration with private health sector and health-related NGOs** | ◆ Utilise private health sector and/or health-related NGOs to help deliver key preventive, promotive and primary care services.<br>◆ Build social franchise where appropriate. | ◆ Annual meetings with private sector conducted.<br>◆ Social franchise developed. | HCA<br>PHA | MoH |
| **2.4 Mitigate risks and mainstream resilience across the health system** | **2.4.1 Climate change mitigation and adaptation in health.** | | | |
| | ◆ Improve awareness of climate impacts on health. | ◆ Vulnerability and adaptation assessment for the health sector; Establish relevant CPD and training conducted<br>◆ Considerations of climate change mainstreamed in plans for health facilities | MoH<br>PHA | HCA |
| | ◆ Mainstream climate mitigation and adaptation through climate-informed health system strengthening. | ◆ Develop a Health National Adaptation Plan aligned with National Climate Change Policy. | MoH<br>PHA | HCA |
| | ◆ Access global climate finance for supporting wider health system strengthening. | ◆ Improved networking with Department of Climate Change to access climate funds for mitigation and adaptation projects. | MoH<br>PHA | HCA |
| | **2.4.2 Institutionalise COVID-19 services and build resilience** | | | |
| | ◆ Institutionalise COVID-19 care and other related considerations throughout the health system.<br>◆ Define essential health services; ensure their continuity. | ◆ Finalise and implement the Continuity of Essential Health Services (CEHS) plan.<br>◆ Emergency Operations Plan and SOPs.<br>◆ Define key Indicators for prevention, preparedness, etc. for health emergencies.<br>◆ Continue relevant up/cross-skilling of staff in basic COVID-19 response related functions across health system.<br>◆ Clear guidelines for care of long-COVID/post-COVID syndrome. | HCA<br>PHA | |
| | ◆ Ensure continued, dedicated isolation and treatment capacity. | ◆ Rational utilization of tier 2 and tier 3 COVID-19 care capacities.<br>◆ Full implementation of COVID-19 care pathway and clinical management guidelines. | HCA | |

# SD3 Address Health Security

Global health security is defined as the proactive and reactive activities required to minimise the danger and impact of acute public health events that endanger people's health across geographical regions and international boundaries.

Population growth, rapid urbanization, environmental degradation, and the misuse of antimicrobials are disrupting the equilibrium of the microbial world. New diseases, like COVID-19, are emerging at unprecedented rates, disrupting people's health and causing negative social and economic impacts. Billions of passengers travel on airplanes each year, increasing the opportunities for the rapid international spread of infectious agents and their vectors.

The use of chemicals in agriculture and industry has increased, as has an awareness of the potential hazards for health and the environment. Air quality may decline with increasing urbanisation and the increasing use of fossil fuels. As the globalisation of food production increases, so does the risk of tainted ingredients and foodborne diseases. With the world's population becoming more mobile and increasing economic interdependence, these global health threats increase. Traditional defences at national borders cannot protect against the invasion of a disease or vector. Pandemics, health emergencies, and weak health systems.

Climate change effects, including sea-level rise, coastal erosion, extreme weather events and flooding, hold immediate and long-term threats to health. Effects on the marine eco-systems will adversely impact food availability and quality and elevate the risk of toxicity.

## SD3 Outstanding Issues

### *One-Health Approach*

The One Health approach[50], which promotes multi-stakeholder collaboration to achieve better public health outcomes, is yet to be well understood and appreciated by the different sectors. One key aspect of One Health is the collaborative, multi-sectoral, and transdisciplinary approach working at the local, regional, national, and global levels, to achieve optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment. It aims at designing and implementing programmes, policies, legislation and research in which multiple sectors communicate and work towards the prevention of illnesses and disease outbreaks in people. There is an urgent need to build strong partnerships with non-health sectors to prevent effectively detect, prevent and respond to zoonosis and food safety problems.

[50] *WHO. https://www.who.int/news-room/questions-and-answers/item/one-health*

A Joint External Evaluation conducted in 2018 systematically evaluated the strengths and weaknesses of the different sectors and derived a plan of action for implementation by all the relevant sectors. The National Action Plan for Health Security will guide the process to strengthen this multi-sectoral collaboration.

### *Integrated Disease Surveillance and Response (IDSR) and IHR capacity*

Seychelles has validated the adapted 3rd Edition IDSR Technical Guidelines since August 2019. Rollout of the guidelines, including training, was planned for 2020, but has been delayed because of the COVID pandemic. These revised guidelines is will support the implementation of a robust disease surveillance system for early detection of outbreaks and swift response.

### *Non-Communicable Diseases*

NCDs cause considerable morbidity and are the leading causes of death. The country is implementing the National Strategy 2020- 2025 that was developed in line with global recommendations. While there has been a decrease in the prevalence of smoking over recent years, there are increases in obesity, and diabetes; in particular, rising obesity among children is alarming.

A more coordinated and integrated national approach and actions is vital for efficient and effective A more coordinated and integrated national approach is vital for efficient and effective intervention surveillance, prevention, detection, screening, treatment and control of NCDs and palliative care. These are key components of the response to NCDs to meet national and global targets to reduce the burden of NCDs.

### *Communicable Diseases*

Seychelles detected its first case of COVID-19 in March 2020 and moved quickly to implement required public health measures and health system response. The country experienced a surge in cases in April-June 2021, with COVID-19, directly and indirectly, leading to excess mortality in 2021. COVID-19 has also negatively affected all the building blocks of the health system and the national economy.

Other communicable diseases of importance for Seychelles are HIV/AIDS, Viral Hepatitis C, Dengue and Leptospirosis. Like the rest of the world, the country conducts surveillance for newly emerging or re-emerging diseases that threaten health security.

The country is committed to achieving the global goal to end HIV/AIDS as a public health threat by 2030. In the two years before the COVID-19 pandemic, HIV testing increased; however, more efforts are needed to implement effective biomedical prevention interventions at scale and for better HIV treatment and care outcomes.

Several factors contribute to the increase in dengue infections the country has recorded over the last five years; they include high mosquito density, susceptibility to circulating serotypes, favourable air

temperatures, precipitation, and humidity. Although no studies were done recently, these can be linked to change in weather patterns due to climate change.

Vaccine-preventable, foodborne, zoonotic, healthcare-related and communicable diseases pose significant threats to human health and may sometimes threaten international health security. Socioeconomic, environmental and behavioural factors, as well as international travel and migration, foster and increase the spread of communicable diseases.

### *Health Regulatory Structure*

The private health sector is expanding rapidly, and the number of private healthcare facilities has increased over the years, including pharmacies, health clinics, and diagnostic laboratories. There is a need for strong regulatory instruments and monitoring to ensure that all private health facilities adhere to norms, regulations and good practices. Currently, required legal instruments are either lacking or outdated and cannot respond to the continued development and expansion of the private health sector. Presently the Seychelles Licensing Authority licenses these activities and the concern is that once a license is issued, there is no follow up and ensure compliance. The PHA has been given the task of developing the necessary legislation, tools and processes for regulating the private health sector.

## SD3 Priority Areas

1. Strengthen the One Health approach.
2. Implement the IHR to prevent and swiftly detect outbreaks.
3. Implement IDSR.
4. Develop and strengthen regulatory function of the PHA.
5. Improve public health standards and legislative documents.
6. Strengthen public health law enforcement.
7. Strengthen public health programmes.

## SD3 General Objective

To promote and protect health security, through the:

- Strengthening and implementation, in collaboration with national and international partners, the One Health Approach, in line with the IHR and IDSR.
- Development and implementation of legal instruments and national standards in accordance with the provisions of the Public Health Authority Act 2013.
- Strengthening of public health programmes.

## SD3 Specific Objectives

*Table 13 SD3 Address Health Security: Specific Objectives*

| SD 3: Address Health Security | | | | |
|---|---|---|---|---|
| **Specific objectives** | **Key Interventions** | **Milestones** | **Lead Entity** | **Contributing Entity** |
| **3.1 Strengthen the One Health approach** | Establish coordination mechanism for One Health approach. | ◆ National One Health Coordination Committee established.<br>◆ Clear TOR developed.<br>◆ Formalized processes in place to guide communication between animal health and human health sectors. | PHA | |
| | Implement and monitor National Action Plan for Public Security (NAPHS). | ◆ A final and workable National Action Plan for Health Security NAPHS validated and operationalized.<br>◆ Performance indicators and targets defined<br>◆ Annual Progress reports from PHA and other sectors involved. | PHA | |
| **3.2 Implement the IHR to prevent, and swiftly detect and manage disease outbreaks** | Establish a functional team for the coordination and integration of relevant sectors in the implementation of IHR. | ◆ A functional team established.<br>◆ TOR developed. | PHA | |
| | Build, strengthen and maintain the IHR workforce capacity. | ◆ Staff including sectoral focal persons adequately trained.<br>◆ Public health workforce strategy developed.<br>◆ Local training capacity on field epidemiology developed. | PHA | |
| | Establish mechanisms for detecting and responding to public health threats and events or emergencies. | Mechanisms established and implemented. | PHA | |
| | Map priority public health risks and resources. | Mapping completed and disseminated. | PHA | MoH |
| | Monitor implementation of IHR. | ◆ Indicator and targets defined.<br>◆ State Party Annual Report (SPAR) submitted. | PHA | |
| **3.3 Implement IDSR** | Strengthen disease surveillance and response. | ◆ Revised IDSR guidelines widely disseminated<br>◆ SOPs for implementing surveillance developed.<br>◆ IDSR training rolled out to human and animal health staff. | PHA | |
| | Develop regulations to strengthen reporting from private facilities. | ◆ Regulations developed and implemented<br>◆ Real-time reporting from all reporting sites. | PHA | |
| | Improve analytical capacity to maximize the use of surveillance data. | ◆ Analysis modules in web-based surveillance system.<br>◆ Selected staff trained in biostatistics.<br>◆ Ongoing operational research. | PHA | |

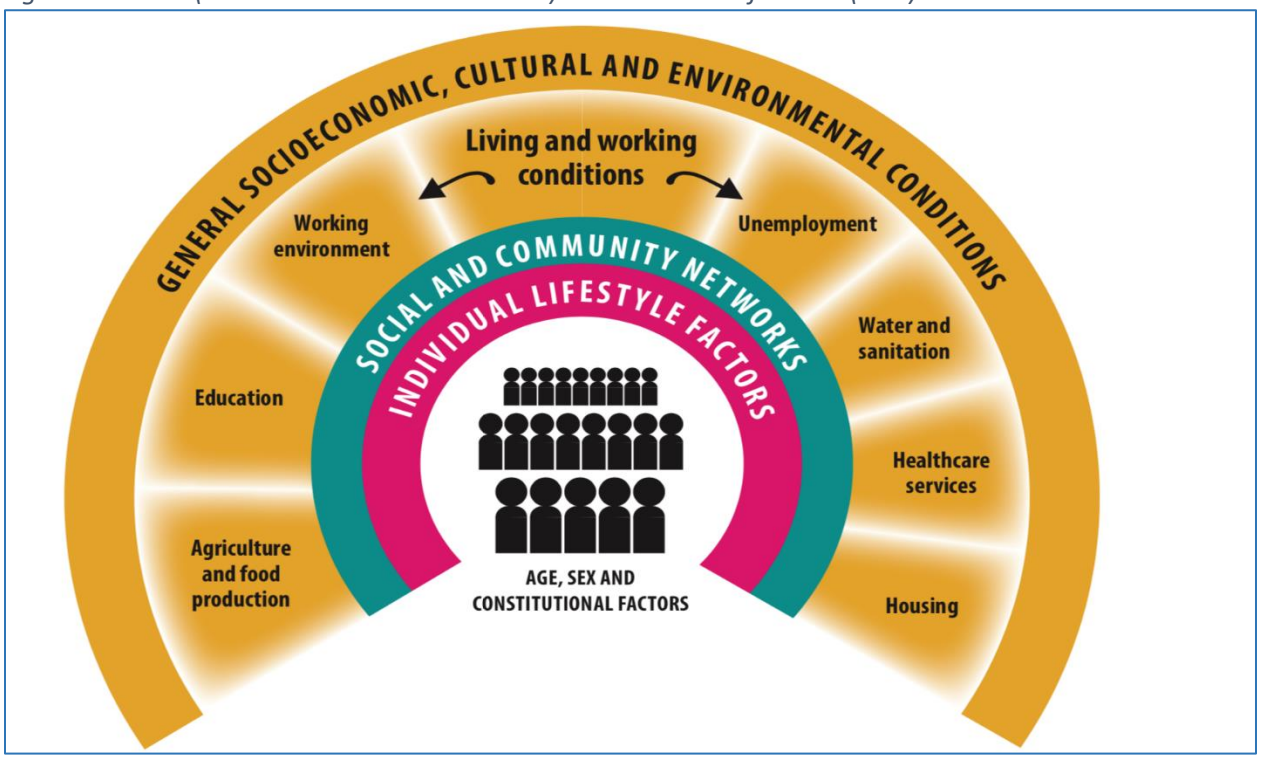
| | | | | |
|---|---|---|---|---|
| **3.4 Strengthen regulatory functions of the PHA** | Strengthen human resource capacity for regulatory functions. | All units adequately staffed. | PHA | |
| | Finalize regulations for registration of health and health-related facilities. | ◆ Regulations approved and implemented.<br>◆ New facilities registered under new regulations.<br>◆ Deadlines and guidelines for existing facilities to comply with new regulations. | PHA | |
| | Define roles, responsibilities, M&E requirements for regulatory services. | Roles, responsibility and M&E defined. | PHA | |
| **3.5 Improve Public health standards and legislative documents** | Revise and update existing and required public health laws/regulations. | ◆ Directory of outdated or substandard legal instruments developed.<br>◆ Legislative review calendar developed.<br>◆ New and revised legislative documents as per calendar. | PHA | MoH |
| | Develop SOPs guidance documents. | SOPs and guidance documents developed, disseminated and implemented. | PHA | |
| | Develop national standards to ground preventive public health. | National standards developed and endorsed. | PHA | |
| | Monitor adherence to standards and take corrective action where needed. | ◆ Standard monitoring tools developed.<br>◆ Ongoing monitoring.<br>◆ Annual compliance report published. | PHA | |
| **3.6 Develop and Strengthen public health programmes** | Strengthen programme management capacity. | ◆ Strong programme managers appointed<br>◆ Clear job description and TOR developed<br>◆ Formal coordination and communication mechanism in place to facilitate and encourage collaboration between programmes | PHA | |
| | Develop and revise relevant disease specific strategic plans and policies. | ◆ National Cancer Strategic Plan endorsed.<br>◆ Mental Health Policy finalised.<br>◆ Conduct mid-term review of NCD Strategy. | PHA | MoH |

# SD4 Promote Healthy Populations

The WHO defines health as “the state of complete physical, mental and social wellbeing, and not merely the absence of disease and infirmity”. The right to health is fundamental for every human being and enshrined in Article 29 in the constitution of Seychelles[51].

The conditions in which people are born, grow, live, work and age are known as the social determinants of health (SDHs) and include factors like socioeconomic stability, education, neighbourhood and physical environment, employment, and social support networks, as well as access to health care (Figure 18).

*Figure 18 Social (Environmental and Economic) Determinants of Health (SDH).*




*Source: Social Determinants of Health, based on Dahlgren and Whitehead (1991).*

These SDHs, in-turn, influence various risk factors and behaviours, which subsequently lead to ill health and disease Figure 19.

[51] *Constitution of the Republic of Seychelles, 1994.*

*Figure 19 Causal pathways linking poor SDHs with risk factors and later disease.*


Addressing social determinants of health is not only important for improving overall health, but also for reducing health disparities that are driven by social and economic disadvantages. Higher income and social status are usually linked to better health. The greater the gap between the rich and the poor in society, the greater the differences between their health[52]. In regards to education, low education levels are linked with poor health, more stress and lower self-confidence.

Additionally, the MPI report of 2019, published by the NBS, showed that factors such as large household/ overcrowding, substance abuse, unemployment, and low education level, strongly contributed to multidimensional poverty, thereby also impacting the health status of individuals.

A healthy, productive population forms the pillar of the country's sustained growth and prosperity. The health and wellbeing of the people of Seychelles continuously faces major threats. The double, and increasing, burden of infections (like HIV, Viral Hepatitis, and pneumonia), as well as chronic non-communicable diseases (like diabetes, hypertension, cancer, and cardiovascular disease), combined with social and mental health problems (like injection drug use, psychological disorders), are creating an unprecedented challenge to maintain and improve health, as well as to maintain sustainability of livelihoods and economic growth.

[52] *Marmot, Michael, and Ruth Bell. "Fair society, healthy lives." Public health 126 (2012): S4-S10.*

Harmful use of alcohol is one of the four modifiable and preventable risk factors for NCDs. Excessive alcohol consumption has been associated with negative social impacts such as interpersonal violence, unemployment, poor academic performance, and in addition, child and elderly neglect. These collective factors have devastating impact on individuals and their families further affecting overall health.

Strong political leadership is essential to address social determinants of health. Promoting healthier population requires improving the physical and mental health and wellbeing of the population. This can be extremely challenging as it requires intensive, coordinated long term efforts, across many government departments and sectors.

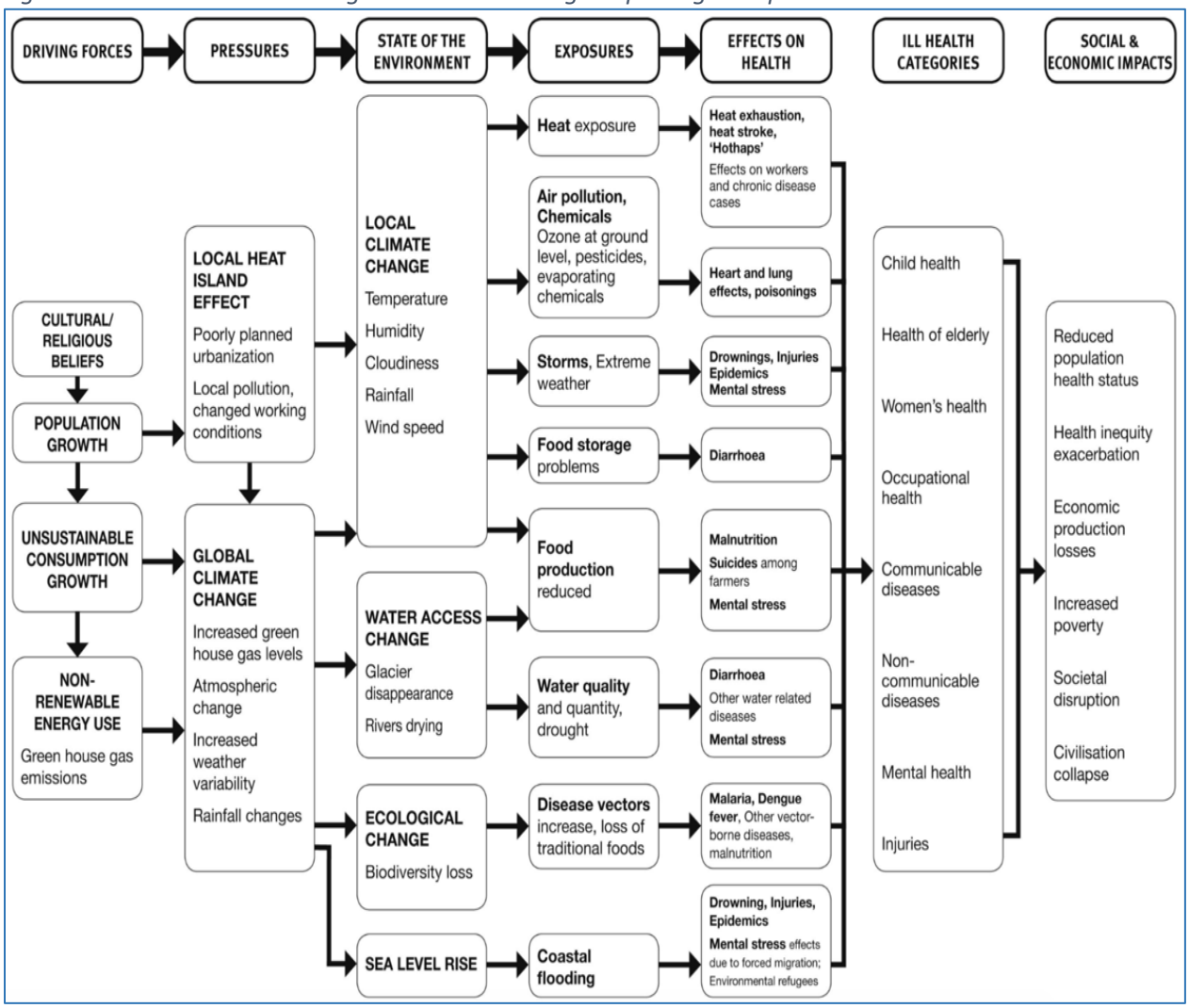
The HiAP is an approach that promotes collaboration between government sectors and non-government stakeholders to maximize the health benefits of government policies and reduce health inequalities, such as differences in life expectancy between different population groups. The approach also aims at minimizing any harmful consequences of public policies on determinants of health and health system. The Government of Seychelles has pledged to the HiAP approach in 2017 and committed to engage all sectors of the government and non-governmental organizations through leadership, partnership, and advocacy to achieve improved health outcomes.

Climate change is an insidious but very real threat to health and the wider society. Its impacts on health can be direct (through extreme weather events and related injuries and deaths), indirect (through changes to quality of air, water and nutrition) or through disruption of social and economic activity (which lead to adverse health outcomes). Figure 20 describes the mechanisms that drive climate change, and lead on to population exposures that result in ill health.

Evidence for the extreme health consequences of climate change are already evident – increased rates of cardiovascular disease, kidney disease, diabetes, malnutrition, etc. The poorest countries, countries in hotter climates, and coastal and small-island states will be impacted the hardest from these changes.

Even though Seychelles is only a minor contributor to climate change, we will bear the brunt of the consequences of climate change, emphasising the importance of elaborate and timely evidence-based mitigation and adaptation strategies, including in the health sector.

*Figure 20 Framework describing how climate change impacts global public health.*




*Source: Framework for climate change and global public health, Source: Tord Kjellstrom and Anthony J.McMicheal (2013).*

## SD4 Outstanding Issues

### *Health in All Policies Approach (HiAP)*

Although the HiAP approach was endorsed by the Cabinet of ministers (from previous administration) in 2017, not a lot has been done since. There is a strong need for the endorsement of the current administration and re-integration of the HiAP in all government sectors, private entities, and civil societies. MoH needs to build linkages with other government entities and ensure that there are health considerations in their policies and projects.

### *Communication strategy (for addressing risks to health)*

A coordinated advocacy and communication plan to guide the ongoing efforts at reaching out to communities and households is not yet in place. Communication strategies are needed to address behavioural, environmental, and metabolic risk factors.

### *Health Promotion*

Some of the NHSP 2016-2020 objectives and expected outcomes were not achieved, like behaviour change communication advocacy. There is also weak national coordination system for health promotion activities. Inadequate access to finance makes it difficult to plan impactful interventions.

### *Cancer and mental health*

Outstanding needs include the development and implementation of a National Cancer Control Plan, and finalisation and implementation of the National Mental Health Policy, with participation of other sectors, as well as the community.

### *Nutrition*

- Create a supportive environment for breastfeeding in workplaces, and fully implement code of marketing of breast-milk substitutes, to protect and promote breastfeeding.
- Develop and implement policies that protect children from the harmful effects of marketing of unhealthy products on media.
- Integrate regulatory reforms to improve food environments.
- Develop appropriate policies to facilitate introducing nutrition and environmental standards for public institutions.
- Build capacity of health and community workers as food system agents of change everywhere when developing and implementing solutions.
- Conduct operational research to assess barriers to behaviour change.
- Fully implement strategies outlined in the National NCD Strategy (2016-25).
- Enforce policies and regulations for quality of foods and drinks that are sold in commercial outlets.

- Finalize and implement school nutrition policy, policy for nitrites and trans-fatty acid.

### *Health in Educational settings*

- Build capacity of those working in School Health Programme.
- Child and Adolescent Health areas deficient in life-course approach to health promotion.
- Ensure health policies cover educational institutions at all levels (pre-primary, primary, secondary and post-secondary).
- Need for strict bans on fast-food outlets in proximity of schools, need to finalize and implement school health policy.

## SD4 Priority Areas

1. Promote healthy living for different age groups.
2. Address key risk factors for health.
3. Revitalize the health in all policies approach.
4. Promote prevention and management of substance abuse and mental health.
5. Transform Health Promotion.
6. Promote/ advocate for Effective Public Health.

## SD4 General Objective

Support the creation of a conducive environment to:

- Support healthy living.
- Reduce and control risk factors for health.
- Promote safe and healthy neighbourhoods.
- Engage MDAs and other stakeholders to promote and improve health and wellbeing of people.

## SD4 Specific Objectives

*Table 14 SD4 Promote Healthy Populations: Specific Objectives*

| SD 4: Promote Healthy Populations | | | | |
|---|---|---|---|---|
| **Specific Objectives** | **Key Interventions** | **Milestones** | **Lead Entity** | **Contributing Entity** |
| **4.1 Promote healthy living for all age groups** | **Develop and implement new evidence-based approaches for promoting healthy living.** | | | |
| | Introduce monthly healthy living/ well-being clinic. | Healthy living/ well-being clinic introduced. | HCA | MoH<br>PHA |
| | Adopt a gradient approach across the life course to cater for the needs of different age groups and socioeconomic groups in the population. | Gradient approach adopted. | HCA | MoH<br>PHA |
| | Integrate healthy living approach in all health programmes<br>Develop healthy living approach for specific health program. | Healthy living approach developed. | HCA<br>PHA | |
| **4.2 Address risk factors for health** | **Address risk factors for NCDs and communicable diseases.** | | | |
| | Integrate WHO best- buys for NCDs into relevant health programmes. | WHO best buys for NCDs integrated | PHA | MoH |
| | Strengthen implementation of NCD strategy to address key risk factors. | Existing NCD strategy implemented | PHA<br>HCA | |
| | ◆ Develop and implement NCD campaign: 'Know your numbers'.<br>◆ Launch a 'know your status' campaign for addressing communicable diseases in the community. | NCD Campaign developed and implemented. | MoH<br>HCA<br>PHA | |
| | ◆ Declare obesity as a public health emergency and introduce population-based and multi-level approaches to gain participation from multiple actors.<br>◆ Develop national framework to prevent and manage obesity jointly with other MDAs. | ◆ Childhood obesity is declared as a public health emergency.<br>◆ Combating obesity mainstreamed across life course and disease-specific programmes.<br>◆ Multi-sector framework developed. | PHA<br>MoH<br>HCA | |
| | Develop and implement nutrition sensitive programmes and approaches and nutrition specific programmes to address the burdens of malnutrition. | Nutrition sensitive programmes and approaches and nutrition specific interventions developed and implemented | PHA | |
| | Promote physical activity in the population (clubs at school, workplaces, districts, etc.). | Physical activity clubs set up. | PHA<br>HCA | MoH |
| | Review and modernise sexual health education for youth, including education on avenues for accessing supports. | New toolkit for sexual health education. | PHA<br>HCA | |

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| | **Ensure strategic information is available for action.** | | | |
| | Set up the Nutrition Information System (NIS) to improve nutrition data system and monitoring. | NIS set up and functional. | HCA<br>PHA | MoH |
| | Conduct population survey to understand NCD risk factors. | ◆ Population survey on NCDs conducted (Seychelles Heart Study V, UPCCD).<br>◆ NCD survey findings used to revise/ strengthen programmes and interventions. | PHA | MoH |
| | Develop, support, and monitor the Global Nutrition Framework (GNF) for Seychelles. | Seychelles' GNF developed and implemented. | MoH | |
| | **Empower people to develop life skills to better manage their health.** | | | |
| | Teach practical life skills to enable people to better manage and take control of their health | Key life skills training conducted | MoH<br>PHA | |
| | Develop self-management tools for key chronic health conditions | Self-management tools developed and in-use. | MoH<br>PHA | |
| | Promote use of new technologies and devices to support healthy living, e.g. Fitbit, physical activity trackers; and empower them to use new devices to self-monitor existing chronic medical conditions and/or risk factors. | New devices to support healthy living promoted. | HCA<br>MoH | |
| **4.3 Revitalize the HiAP** | **Revive, implement, and monitor the HiAP.** | | | |
| | Introduce the HiAP to, and gain the endorsement of, new Cabinet of ministers and members of the NA | Endorsement of the HiAP by Cabinet and the National Assembly | MoH | |
| | Expand role of Health Impact Assessments | Expanded HIA tools and training developed and put in use. | PHA | MoH |
| | Monitor and report on HiAP | HiAP annual report developed and disseminated. | MoH | |
| | **Institutionalize the Health of Our Nation campaign (HOON)** | | | |
| | Revive and institutionalize HOON. | HOON institutionalized. | MoH | HCA; PHA<br>Other Sectors |
| **4.4 Promote good mental health and prevent and manage substance abuse disorders** | **Prevention of tobacco use, illicit drugs, and harmful use of alcohol.** | | | |
| | Promote supportive environment in the communities to prevent or reduce the use of illegal substances | Availability of family-based prevention programmes to address substance abuse. | MoH | PHA |
| | Promote use of harm reduction services | Utilization of harm reduction services increased | MoH | PHA |
| | ◆ Develop and implement new campaign to address alcohol abuse in the country.<br>◆ Develop campaigns to reduce tobacco use in the population. | Campaign developed and implemented. | MoH | PHA |
| | Develop policies and regulations to control the use of alcohol | ◆ Policies and regulations developed and implemented.<br>◆ Fully implement alcohol-control policy. | PHA<br>MoH | |

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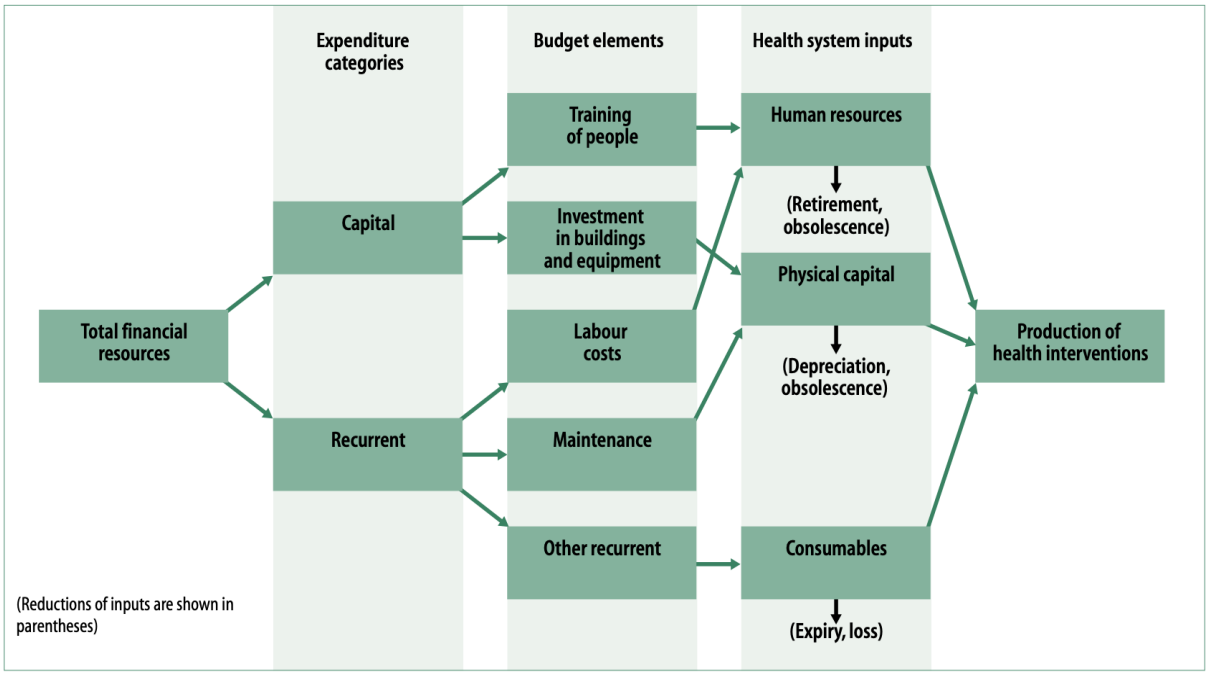
|---|---|---|---|---|
| | Improve access to, and awareness of, smoking cessation support services. | More individuals accessing the smoking-cessation programme. | PHA | |
| | **Address mental health issues in the community.** | | | |
| | Promote good mental health (e.g. Practical interventions on coping with stress, bereavement, etc.) for different age groups. | Activities to promote good mental health implemented. | PHA<br>HCA | |
| | Introduce social prescribing. | HCWs and clients sensitized on social prescribing; Social prescribing implemented. | HCA | |
| | Facilitate the development of support groups. | Support groups set up. | HCA | |
| **4.5 Transform Health Promotion** | **Bring health closer to people.** | | | |
| | Develop, disseminate, and implement new health promotion policy. | Health promotion policy developed and implemented. | MoH | PHA<br>HCA |
| | **Equip people to better take care of their health** | | | |
| | Develop and implement health literacy project | ◆ Increased health literacy in the population<br>◆ Health literacy project developed and implemented. | MoH | PHA<br>HCA |
| | ◆ Support community 'champions' to advocate for programmes promoting health.<br>◆ Provide capacity building for youths and adults to champion and promote health programmes. | Community 'champions' identified and supported | MoH | HCA<br>PHA<br>Other Sectors |
| | **Strengthen Health Promotion frameworks, resources and supports** | | | |
| | ◆ Develop a sector Health Promotion Committee<br>◆ Set up a health promotion committee to provide oversight and guidance on methods of dissemination of health promotion messages. | Health promotion committee set up and operational. | MoH | PHA<br>HCA |
| | ◆ Strengthen capacity to leverage on legal, fiscal and other policy interventions to transform health promotion.<br>◆ Implement relevant international treaties to support health promotive environment at domestic level. | Relevant fiscal, legal and partner-supports available and used. | MoH<br>PHA | |
| **4.6 Promote/ Advocate for Effective Public Health** | **Advocate for safe and peaceful neighbourhoods** | | | |
| | Promote safe food and water supply in the community | Safe food and water supply achieved and monitored. | PHA | MoH |
| | Promote safety at home, school, on the road, at work, leisure events etc. | Safe community concept promoted | | |
| | Establish collaboration with civil societies on health related matters. | Quarterly meetings with civil societies involved in health | MoH | |
| | Advocate for safe recreational areas in the community | Safe recreational areas available in the neighbourhoods | MoH | |

# SD5 Invest for Results

Investments for health looks at all critical inputs necessary to effectively deliver health care and public health. These include financing, human resources, health technologies and infrastructure. Investment in health is, therefore, an investment in the broader economy. “Investment for health and wellbeing is a driver and an enabler of sustainable development and vice versa, and it empowers people to achieve the highest attainable standard of health for all”[53].

Figure 21 shows the intricate relationships between these critical inputs for the production of health interventions. It is clear that it is extremely important to balance the mix of resources for maximum health benefits[54].

*Figure 21 Health Finance inputs and pathways to production of Health interventions*




The COVID-19 pandemic brought to light just how critical these inputs are to the daily operations of the health system. Resources were diverted into national COVID response very often at the expense of other services and functions.

[53] *Dyakova, Mariana, Hamelmann, Christoph, Bellis, Mark A., Besnier, Elodie, Grey, Charlotte N.B.et al. (2017) . Investment for health and well-being: a review of the social return on investment from public health policies to support implementing the Sustainable Development Goals by building on Health 2020. World Health Organization. Regional Office for Europe. https://apps.who.int/iris/handle/10665/326301*

[54] *The World Health Report 2000: health systems: improving performance.*

HCW absenteeism due to COVID-19 exposure, staff redeployment to new isolation and treatment facilities, and demands from the expanded COVID-19 testing and dedicated 'fever clinics' highlighted the importance of an adequate, trained and resilient workforce. Restrictions in international air travel, depreciation of the Seychelles rupee, and in-country lock-downs in source countries severely compromised the procurement of medicines and medical products.

The successful implementation of the health agenda 2022-2026 is dependent on actions to strengthen each health system building block, outlined next.

## Human Resources for Health

The COVID-19 pandemic has further highlighted the importance of sufficient numbers of adequately trained motivated HCWs, in dealing with existing and emerging health challenges. The national vision for health, expressed in the National Health Policy, can only be achieved with an adequate resilient workforce equipped with knowledge and skills to take on these challenges.

Effective human resources (HR) management strategies are crucial to achieving better outcomes in health[55]. Local HR Management capacity is rudimentary, focusing principally on administrative functions around 'hiring, paying and firing'. The Human Resources Division requires much capacity building to deliver on all core HR functions. Some key areas of deficiency are staff welfare and occupational health and safety. The sector has yet to define national HR norms and standards, affecting projection and planning and better deployment of available human resources. There is a lack of quality data to inform decision making and planning.

### *Outstanding issues in HRH*

#### Health Workforce Production

The Seychelles health system is heavily dependent on foreign health workers. Fifty-seven per cent of all health professionals are expatriates and 64% are trained abroad[56]. The health sector faces intense competition from other sectors in attracting the best minds, especially for the local training programmes. The NIHSS Access Programme, designed to help meet admission requirements, has contributed positively to increasing enrolment. More effort is required to engage secondary school students at an early stage to increase interest in careers in health and social fields. The health sector remains dependent on foreign training for key occupational cadres. There is a need to bring uniformity to training by selecting key institutions for the different cadres. Mechanisms for access to in-service training is also inadequately defined and communicated.

[55] *Kabene, S.M., Orchard, C., Howard, J.M. et al. The importance of human resources management in health care: a global context. Hum Resour Health 4, 20 (2006). https://doi.org/10.1186/1478-4491-4-20*
[56] *Health Workforce Situation in Seychelles: Insights from baseline National Health Workforce Accounts, MOH, 2021*

### Recruitment and Deployment

There is no clear policy on recruitment, especially for foreign HCW. Unnecessary bureaucracy delays the employment of identified personnel. Allocative inefficiencies are often reflected in highly trained staff with critical skills not working in the areas for which they have received training.

### Succession Planning

Key positions in the sector remain unfilled due to poor succession planning. Managers sometimes do not adequately recognize and nurture future leaders in health, affecting succession planning.

### Remuneration, Incentives and Rewards

Staff awareness on remuneration, appraisal and promotion policies and norms is low. Where Schemes of Service are available, these are not readily available and accessible to staff. Appraisal systems are not adequately tailored to actual work and do not sufficiently reflect performance. More continuous mechanisms for feedback on performance is lacking. Incentives are considered from a monetary perspective only.

### Collection, Analysis and Use of HR Data

The sector does not systematically collect, analyse and use HR data to guide training, recruitment, deployment of staff. Available data is fragmented, mostly paper-based and inaccessible to decision makers. The National Health Workforce Accounts (NHWA) has been introduced to facilitate the standardization of a health workforce information system in order to improve data quality[57]. This reflects a step in the right direction for evidence-informed HRH planning, but more work is required towards institutionalisation of the process.

### Staff Wellbeing

HCWs are under considerable strain. The COVID pandemic has stretched resources thin. HCWs have been redeployed to areas in need, in some instances with little or no training and little consideration of effects on their mental health and wellbeing. HCWs feel unappreciated within their organisation and are often left alone to deal with occupational and personal crises. Burnout, although not systematically measured, is a reality. An unknown number of HCWs abuse drugs and alcohol. However, the subject remains taboo, and subsequently, help is not accessed.

## *Priority Areas in HRH*

1. Develop a national Human Resources Strategic Plan.
2. Empower professional councils to become more effective regulators.

[57] *Understanding National Health Workforce Accounts, WHO 2017*

3. Make careers in health more attractive.
4. Enable HR to deliver on all core HR Functions.
5. Provide support and guidance for career planning.
6. Care for the carers.
7. Improve HR data collection, analysis and use for decision making.

## Healthcare Financing

Health financing involves the mobilisation and equitable distribution of funds to meet the health needs of individuals and communities. This means ensuring that no one endures financial hardship as a result of accessing essential health care.

The government has always been and remains the principal investor in health. Total Government Health Expenditure was SCR 887 million in 2018, representing 11.2% of total government expenditure, below the 15% target countries committed to in the Abuja Declaration. Total Health Expenditure (THE) as a percentage of nominal GDP increased from 3.8% in 2014 to 5.6% in 20183. The major cost drivers are health care goods and services (54.5%) and compensation of employees (38.8%).

### *Outstanding issues in Health Financing*

#### Sustainability of the current financing model

Health expenditure is increasing and will continue to rise due to several factors, including the increasing incidence of NCDs, obesity, and the shift towards an ageing population. New technologies are expensive, and inflate costs especially when there is overutilization to satisfy rising client expectations.

The right to health enshrined in the Constitution obligates the state to provide for free primary health care in all its institutions. However, the current palette of services includes dental care, secondary and tertiary health care, which is not sustainable in the long run.

#### Spending is skewed towards curative care, especially specialised care

In 2018, 47.4% of CHE went towards curative care and 22% towards preventive care. Consecutive NHA reports have shown a small increase in expenditure on preventive care, from 17.7% in 2016 to 19.4% in 2017[58].

[58] *National Health Accounts (NHA), 2016-202017 Report*

### Challenges with PPBB

Performance-Based Budgeting (PPBB) refers to 'any budget that represents information on what agencies have done, or expect to do, with the money provided to them'[59]. In other words, PPBB is 'the systematic use of performance information to inform budget decisions, either as a direct input to budget allocation decisions or as contextual information to inform budget planning, and to instil greater transparency and accountability throughout the budget process, by providing information to legislators and the public on the purposes of spending and the results achieved'.

However, the introduction of PPBB has not brought expected improvements in results. Managers are not sufficiently engaged in the budgeting process. The abolition of cost centres with the introduction of the PPBB system has left health managers in the dark regarding available funds for the projects they are expected to implement efficiently.

### Lack of cost (-benefit) awareness

There is a lack of cost awareness among service providers and service users. The notion of free healthcare may nudge users to undervalue the cost of the care they receive. Greater cost awareness will help guide cost-conscious clinical and administrative decision making and ultimately improve cost-efficiency of health services.

### Weak revenue collection systems in the public health sector

Health being free at the point of use, the system is not traditionally geared towards revenue collection. There are no SOPs and guidelines to guide revenue collection from those not eligible for free services (expatriate workers, tourists) nor established mechanisms to minimize risk of diversion of funds and embezzlement. Some service areas are more vulnerable to corrupt practices than others.

There are not enough cashiers, especially at the Seychelles Hospital and outside regular working hours. Most facilities are not equipped for cash less transactions. There is no centralized billing system. Very often, HCWs do not know who is eligible for free services and who is not.

## *Priority Areas in Health Finance*

1. Make PPBB work for the sector.
2. Address inefficiencies in health care management and delivery.
3. Improve revenue collection.
4. Ensure sustainability of health care financing.
5. Increase spending on preventive and promotive care.

[59] *OECD Best Practices for Performance Budgeting, Public Governance Committee Working Party of Senior Budget Officials. November 23, 2018. Online at: https://one.oecd.org/document/GOV/PGC/SBO(2018)7/en/pdf*

## Health Infrastructure

A Masterplan for the development of Hospitals in Seychelles was developed. It is a comprehensive infrastructure plan for the Seychelles Hospital and its annexes and the three smaller hospitals at Anse Royale, Baie Ste. Anne and La Digue. The project did not include primary health care facilities and has not been implemented to date. Infrastructure development and maintenance is not well-coordinated and is not necessarily based on needs.

### *Outstanding issues in Infrastructure*

- Internal capacity to manage big projects is weak.
- The sector does not have an infrastructure maintenance plan.
- Some facilities are no longer fit for purpose.
- Need for additional Intensive Care beds.
- Need for purpose-build dedicated Isolation infrastructure.
- Facilities are not disabled-friendly.
- Fire, flooding, chemical, biological and radiological risks need to be addressed.

### *Priority Areas in Infrastructure*

1. Make PPBB work for the sector.
2. Address inefficiencies in health care management and delivery.
3. Improve revenue collection.
4. Ensure sustainability of health care financing.
5. Increase spending on preventive and promotive care.

## Health Technologies

Health technology is the application of organised knowledge and skills in the form of medicines, medical devices, vaccines, procedures, and systems developed to solve a health problem and improve quality of life (WHO).

### *Outstanding issues in Health Technologies*

- Lack of regulatory framework for health technologies
- Stock outs of medicines and commodities
- The sector does not have a list of essential technologies
- The Procurement Unit does not involve service providers in prioritisation exercises
- Service maintenance contracts are not always clear on roles, responsibilities and scope
- The digitalisation of stock management is not complete.

### *Priority Areas in Health Technologies*

1. Strengthen procurement and stock management capacity
2. Digitalise Stock management
3. Engage Service providers in procurement processes
4. Improve service maintenance contracts
5. Ensure donated equipment, medicines or supplies align with MOH standards and needs.

## Information Technology

Information Technology (IT) presents unprecedented opportunities for innovation in health care delivery. As these technologies become more accessible to broader sections of the population, the health sector needs to take advantage of these technologies to improve health outcomes.

Electronic Health (eHealth) is the delivery of health care using modern electronic information and communication technologies when health care providers and patients are not directly in contact, and their interaction is mediated by electronic means.

Mobile health (mHealth) is a subset of eHealth, defined as medical and public health practice supported by mobile devices, such as mobile phones, patient monitoring devices, personal digital assistants (PDAs), and other wireless devices (WHO).

### *Outstanding Issues in IT*

The sector has not capitalised on the wide availability of mobile phones (193,672 mobile phones and 89,896 mobile broadband subscribers in 2019[60]) to engage with service users. Different units have created WhatsApp groups for discussions and sharing of information; however, the sector has yet to exploit the full potential of these technologies. The MoH has introduced different telemedicine projects over the years, but none proved to be sustainable.

### *Priority Areas in IT*

1. Support for new health care delivery models – appointment systems, reminders, treatment adherence support, health education, health promotion, self-management supports.
2. Provide health professionals with point of care access to information – guidelines, standards, decision-making tools.
3. Facilitate data collection – routine reporting, surveys, monitoring.
4. Institutionalise eLearning and CPD.
5. Utilise Telemedicine to improve access to services, including in crises.

[60] *Seychelles in Figures, 2020 Edition, NBS, Seychelles*

## SD5 General Objectives

To ensure effective, efficient and sustainable investment in the building blocks of the health system.

### *Human Resources for Health*

The sector shall develop a national Human Resources for Health Strategy to guide the production, recruitment, deployment, retention and remuneration of health care workers. Emphasis will be on support for HCW throughout their career, from induction and mentorship programmes to staff welfare programmes. MoH will strengthen the capacity of the human resources unit to deliver on all HR functions.

### *Health Finance*

The sector will seek to improve efficiency in health care by raising cost awareness, conducting cost-benefit analyses of key services (including outsourced services), and redirecting funding to more cost-effective upstream interventions delivered through preventive and primary care.

The sector will also conduct a review of 'low-value care' – care that provides little or no benefit, may cause harm, or yields marginal benefits, at disproportionately high cost. MoH will explore alternative financing sources such as national insurance funds, social enterprising, accessing global, regional and bilateral supports, and public-private partnerships in evidence-based health service delivery to ensure health sustainability.

### *Infrastructure*

The health sector will elaborate a comprehensive infrastructure development and management plan to address resilience in the face of climate change, disability access to facilities, fire and other risks, and address the challenges of inadequate safe and secure storage for supplies. The plans will ensure that new buildings are more fit-for-purpose, and outdated facilities are gradually brought up to standard. The proposed centralisation of infrastructure development will benefit the health sector, which lacks the internal capacity to develop and follow through with major infrastructure projects.

### *Health Technologies*

The sector will develop an Essential List of Health Products, that similar to the Essential List of Medicines, aligned with the agreed package of care and services. Both the Essential List of Health Products and the Essential List of Medicines will serve as advocacy tools for resource mobilisation and prioritisation, ensuring that facilities have access to those medicines and commodities required for their scope of health care services. The tools will also guide donations, ensuring alignment with health system needs and standards. The sector will introduce mechanisms for the introduction of new health products and technologies and revise the procurement process to avoid stock-outs.

### *Information Technology*

As health care workers and the population become more technology proficient and technologies become more affordable, the sector will look for opportunities to introduce IT solutions across the spectrum of activities, including to:

- Promote e-learning: Online-learning platforms with the capacity to track CPD activities, push targeted content towards specific groups and upload local content will be developed.
- Provide remote consultations (telemedicine), which can significantly reduce the cost of providing many decentralised specialist services.
- Support new health service delivery models: Patients will receive reminders and prompts. They will be encouraged to monitor specific parameters at home and relay this information to their service providers, who will provide the appropriate response. These platforms can also be used for health promotion and health education.

## SD5 Specific Objectives

*Table 15 SD5 Invest for Results: Specific Objectives*

| SD 5: Invest for Results | | | | |
|---|---|---|---|---|
| **Specific Objectives** | **Key Interventions** | **Milestones** | **Lead Entity** | **Contributing Entity** |
| **5.1 Human Resources for Health** | **5.1.1 Make professional councils more relevant** | | | |
| | Revise regulatory frameworks to give Professional Councils the power and authority to deliver on all functions of a professional regulatory body. | Professional councils' legislation revised and harmonised. | Councils | MoH |
| | Develop partnerships with other Councils and Public Health Authority to allow sharing of resources and competencies. | MOUs signed and implemented. | Councils<br>PHA | MoH |
| | Make CPD mandatory for relicensing. | Clear CPD requirements in place and monitoring of CPD for different cadres. | Councils<br>HCA | MoH |
| | **5.1.2 Plan for the future HR needs** | | | |
| | Develop National Human Resources for Health Strategic Plan. | National Human Resources for Health Strategic Plan developed and implemented. | MoH | HCA |
| | **5.1.3 Make HR planning, administration and management fit-for-purpose** | | | |
| | Create an HR Structure that meets the needs of the sector. | Structure established, roles and responsibilities clearly defined | HCA | |
| | Increase HR expertise. | ◆ Trained and competent HR managers recruited for all HR functions<br>◆ In-service training plan for HR personnel developed and implemented | HCA | |
| | Develop policies and Standard operating procedures for key HR administration functions. | ◆ Policies and SOPS developed and implemented | HCA | |
| | Implement PMS Pillar of RBM. | ◆ Performance management system institutionalised | MoH<br>HCA<br>PHA | |
| | **5.1.4 Make Health careers attractive** | | | |
| | Develop a career promotion plan. | ◆ Promotion plan developed and implemented.<br>◆ Promotional material developed.<br>◆ Planned promotional activities carried out. | MoH<br>NIHSS | HCA<br>PHA |

| | | | | |
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| | Re-invent health clubs in schools. | ◆ Health clubs up and running in all secondary schools<br>◆ Health ambassadors identified in all secondary schools | MoH<br>MoEdu | HCA<br>PHA |
| | **5.1.5 Support and guide staff throughout their careers** | | | |
| | Make recruitment clear, transparent, expeditious and ethical | ◆ Recruitment policy developed and implemented<br>◆ Clear and transparent job descriptions available for all cadres and positions | MoH<br>HCA<br>PHA | |
| | Comprehensive Induction Package for all new recruits | ◆ Entity and unit specific induction programme developed and implemented<br>◆ All new recruits undergoing induction | MoH<br>HCA<br>PHA | |
| | Provide mentorship and supportive supervision. | ◆ Cadre specific mentorship programmes developed and implemented.<br>◆ Framework for supportive supervision of all cadres developed and implemented. | HCA<br>PHA | MoH |
| | Make career progression fair and transparent. | ◆ In-service training policy developed and implemented.<br>◆ Revised appraisal forms developed and implemented.<br>◆ Salary enhancement and promotion guidelines widely disseminated.<br>◆ All health professionals have a clear five-year professional progression plan. | MoH<br>HCA<br>PHA | |
| | Identify and develop future leaders | Succession plans for leadership positions developed and implemented. | MoH<br>HCA<br>PHA | |
| | Improve work ethics. | ◆ Employee handbook revised and widely disseminated.<br>◆ MoH Vision and Mission Statement visible displayed in all facilities.<br>◆ National ethics and professional standards developed. | MoH<br>HCA<br>PHA | |
| | **5.1.6 Care for the Carers** | | | |
| | Make health and safety a priority for HCWs | ◆ Role and responsibility of health and safety officer defined.<br>◆ Health and safety focal persons identified in all units.<br>◆ Tailored cadre and age-specific HCW screening programmes developed. | HCA<br>PHA | |
| | Address mental wellbeing | ◆ Support groups and programmes for at-risk HCWs established and running<br>◆ Structures for debriefing and counselling in place<br>◆ Introduce social prescribing for HCW (yoga, meditation, exercise, etc.) | MoH<br>HCA<br>PHA | |

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| | | ◆ Mechanism for identification and reporting of HCWs with alcohol and drug problems in place | | |
| | Equip HCW to provide peer support | Peer counsellors identified and trained | HCA<br>PHA | |
| | Explore non-monetary options for recognition of good work. | Awards and other non-monetary recognition programme in place. | MoH<br>HCA<br>PHA | |
| | **5.1.7 Use data to inform HR decision making** | | | |
| | Introduce Human Resources Information System. | Functional Human resource information system in place. | MoH | HCA<br>PHA<br>Councils |
| | Use evidence-based tools to guide data collection, management and analysis. | ◆ National Health Workforce Accounts (NHWA) institutionalised.<br>◆ Workload Indicators of Staffing Needs assessment conducted in health facilities. | MoH | HCA<br>PHA<br>Councils |
| | Make HR data available (develop information products). | ◆ Annual HRH performance report produced and disseminated.<br>◆ Cadre specific annual reports produced and disseminated.<br>◆ Annual NHWA reports produced and disseminated. | MoH | |
| | **5.1.8 All HCWS are proficient in at least one of the three national languages** | | | |
| | Establish a language proficiency framework for all HCWs | Language proficiency standards for recruitment and existing staff defined and implemented | MoH | HCA<br>PHA<br>Councils |
| **5.2 Health Financing** | **5.2.1 Ensure sustainable financing for health** | | | |
| | • Advocate for increased investment in health | ◆ Aim to have 15% of total government expenditure allocated to health.<br>◆ 6% of GDP allocated to health. | MoH<br>HCA<br>PHA | |
| | **5.2.2. Make health care spending more efficient** | | | |
| | Spend more on prevention and primary care | ◆ Expenditure for primary care and preventive services increased.<br>◆ Additional earmarked funding for improvement of PHC (1% GDP re-directed). | MoH<br>HCA | MFTIEP |

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| | **5.2.3 Make PPBB work for the health sector** | | | |
| | ◆ Align PPBB programmes with service delivery system.<br>◆ Review entity KPIs and align to core mandate and NHSP targets.<br>◆ (Re-)Introduce cost centres so managers are aware of their unit budgets *(pending discussion with MFTIEP).* | ◆ Revised/tailored PPBB programmes.<br>◆ KPIs aligned to entity mandate and NHSP targets.<br>◆ Internal cost centres introduced and implemented. | MoH<br>HCA<br>PHA | |
| | Improve capacity for budgeting and priority setting *(discuss with MFTIEP).* | ◆ Managers actively engaged in the budgeting process.<br>◆ All managers have received basic training in PPBB. | MoH | |
| | **5.2.4 Ensure efficient use of resources.** | | | |
| | Institutionalise costing of health services | ◆ Institutionalisation of costing of health services.<br>◆ Training of staff conducted.<br>◆ Baseline costing completed. | HCA<br>PHA | |
| | Raise cost-benefit awareness amongst stakeholders | ◆ Costing information available for all services.<br>◆ Managers/Unit heads are aware of their unit budget.<br>◆ Mechanisms to prevent and monitor pilfering and diversion of resources in place. | HCA<br>MoH | |
| | Ensure efficiency of outsourced services. | ◆ Guidelines for outsourcing services developed and implemented.<br>◆ Review and renegotiate outsourcing contracts.<br>◆ Monitoring mechanisms in place for all outsourced services. | HCA | |
| | Review and report on key expenditures (cost drivers e.g. spending on COVID-19 response, Overseas Rx, Haemodialysis, Cancer care …). | ◆ Key expenditures for review identified.<br>◆ Review and reporting cycle determined.<br>◆ Reports produced and disseminated. | PHA<br>HCA | |
| | Cost-benefit analysis done before the introduction of key new services. | Cost-benefit analysis conducted. | MoH<br>HCA | |
| | Implement interventions to reduce wastage. | Interventions to reduce wastage in health implemented. | HCA | |
| | Conduct a review of services to identify low-value care. | Review conducted and appropriate measures taken. | HCA | PHA<br>MoH |

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| | **5.2.5 Improve revenue collection** | | |
| | Determine who pays for what services. | ◆ Beneficiary Criteria for free services clearly defined<br>◆ Fees for services or service packages established and disseminated.<br>◆ Fees policy for specialised services for private patients reviewed. | HCA |
| | Make revenue collection easier | ◆ Cashless payment systems widely used in all facilities.<br>◆ Functioning revenue collection system, active 24x7, in place. | |
| | **5.2.6 Consider alternative financing mechanisms** | | |
| | Explore the potential for the introduction of social insurance schemes. | Analysis of potential and scope of social insurance schemes conducted Benefits pitfalls etc. | MoH |
| | Develop Public-Private Partnerships for investment in health *(discuss with MFTIEP).* | Policy on public-private partnerships developed and implemented. | MoH |
| | Explore revenue generation through collaboration with the private sector. | ◆ Framework for the provision of ambulatory care services to tourism establishments as a mechanism for revenue generation.<br>◆ Framework for the private health sector to access key MoH infrastructure and services at cost. | MoH |
| **5.3 Health Technologies** | **5.3.1 Create a legislative framework for the regulation of health technologies** | | |
| | Finalise Medical Products and Pharmacy Operations Bill. | Medical Products and Pharmacy Operations Bill enacted and implemented. | HCA<br>PHA |
| | **5.3.2 Revise and strengthen procurement and supply chain management** | | |
| | Strengthen management capacity of central stores. | ◆ All core management positions filled with trained staff. | HCA |
| | Move to complete digitalisation of store functions. | ◆ Electronic store management system in place and fully-functional.<br>◆ Store personnel trained and competent to operate within the digital environment. | HCA |
| | Promote rational use of health products | ◆ Guidelines for rationale use of health products<br>◆ Review use of disposable products (e.g. protective gowns, drapes, OT towels).<br>◆ Shelf life and expiry dates of products closely monitored. | HCA |

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| | Implement structural and governance processes to stop diversion and wastage | ◆ Effective measures in place to address diversion and wastage. | HCA | |
| | Develop and monitor key performance indicators for Central Store | ◆ Key performance indicators developed.<br>◆ Regular performance reports produced as per agreed reporting cycle. | HCA | |
| | **5.3.3 Ensure uninterrupted supply of essential health products at point-of-use** | | | |
| | Develop an essential list of health technologies commensurate with the health service package. | ◆ Essential list of health products developed and implemented.<br>◆ Facility specific health technology inventories developed. | HCA | |
| | Revise essential medicines list taking into account new evidence-based treatment guidelines for priority NCDs. | ◆ Essential Medicine List revised<br>◆ New Drugs for priority NCDs are readily available. | HCA | |
| | Introduce new health products. | New health products introduced in line with the approved care package and clinical guidelines/protocols. | HCA | |
| **5.4 Health Infrastructure** | **5.4.1 Build for purpose** | | | |
| | Develop infrastructure Masterplan based on actual and anticipated needs (to be discussed). | Infrastructure Masterplan developed. | HCA | Infrastructure Agency |
| | Develop and implement local accreditation standards for health infrastructure. | ◆ Accreditation standards developed and implemented.<br>◆ Accreditation cycle anchored in legislation. | PHA | |
| | **5.4.2 Make infrastructure resilient, safe and accessible for all** | | | |
| | Conduct inventory of infrastructure and create a facilities master-list. | Real-time inventory of infrastructure available. | HCA | |
| | Draw up an infrastructure and equipment maintenance plan. | ◆ Maintenance plan developed and implemented<br>◆ Preventive maintenance conducted in line with maintenance plan. | HCA | |
| | Assess infrastructure for fire, flooding, chemical, radiological and biological risks. | ◆ Fire risk assessment of all health facilities conducted.<br>◆ All facilities have a fire evacuation plan in place.<br>◆ Regular fire drills conducted.<br>◆ Facility specific risk assessment conducted. | HCA | |

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| | Ensure facilities are disabled friendly. | ◆ Establish minimum standards for disability access in health facilities.<br>◆ Wheelchair access available to all health facilities<br>◆ Facilitate access for visually impaired. | HCA | |
| | Address increased infrastructure needs for high-care and infectious-disease isolation. | ◆ ICU bed capacities expanded to meet demand.<br>◆ Dedicated purpose-built Isolation Unit ready. | HCA | |
| | Mainstream climate resilience in all infrastructure planning. | Potential effects of climate change considered in all new service and infrastructure planning. | HCA | |
| **5.5 Information Technology** | **5.5.1 Create supportive IT environment** | | | |
| | Ensure internet access. | ◆ All facilities have reliable around-the-clock internet access.<br>◆ Review content restrictions. | HCA<br>DICT | |
| | Invest in required hardware | ◆ Teleconferencing solutions available in health facilities.<br>◆ All facilities have access to tablets, laptops and desktop computers. | HCA<br>DICT | |
| | Create the appropriate regulatory framework | Appropriate legal and regulatory instruments developed and implemented | MoH | |
| | **5.5.2 Use IT to improve health care** | | | |
| | Support for new service delivery models | ◆ Systematic Appointment reminders generated.<br>◆ IT solutions to support treatment adherence in use.<br>◆ Service users receive targeted health education and health promotion. | HCA | |
| | Provide information and decision support to health professionals at the point of care | ◆ SOPs, guidelines, algorithms and other decision-making tools readily available. | HCA | |
| | Institutionalise telemedicine widely available | ◆ Telemedicine services defined.<br>◆ Teleconsultations offered per regular schedule. | HCA | |
| | Facilitate learning and continuous professional development | ◆ Regular virtual CPD sessions organised.<br>◆ Online CPD Platform introduced. | HCA<br>PHA | MoH |

# SD6 Improve Data for Impact

Reliable and timely health information is an essential foundation of public health action and health systems strengthening, both nationally and internationally[61]. The health sector needs real-time, reliable and actionable data. According to WHO, one of the key lessons from the COVID-19 pandemic is that countries need to invest in data and health information systems, as part of overall public health capacity[62]. An integrated and collaborative approach to information governance enables health organisations to effectively manage, maintain, and use data to improve health care quality and performance within and across organisational boundaries.

## SD6 Outstanding Issues

### *Health Data Governance*

Data governance is a set of principles and practices that ensures high quality throughout the complete lifecycle of data. In MoH, there are no formal standards and SOPs to guide data management along the life cycle to safeguard the quality and privacy of health data. The roles and responsibilities of the different data processing units are poorly defined, and there are no coordination mechanisms in place. Measuring health is complex, and health care data is complex. There is a need to have governance principles to maximise the value of health data and to improve outcomes.

Healthcare data governance is the discipline of managing data as a strategic asset. It paves the way for data to support organisational priorities through the orchestration of people, processes, and technology. Data governance helps organisational leaders improve clinical, operational, and financial outcomes by focusing on enhanced decision-making. Importantly, data governance is an ongoing, enterprise-wide, cross-functional effort to optimise data for the benefit of patients, staff, and the community.

### *Electronic Health Information System (eHIS)*

Data capture is primarily paper-based, using a variety of often duplicating reporting tools. Transitioning to an electronic health information system (eHIS) has been on MoH's agenda for over a decade. In 2020, work started to implement an eHIS system; however, this has stalled. There is an urgent need to complete the implementation and move from a paper-based system to an electronic one.

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[61] *World Health Organization. Framework and standards for country health information systems / Health Metrics Network, World Health Organization. – 2nd Ed.*

[62] *World Health Statistics 2020: monitoring health for the SDGs, sustainable development goals. Geneva: World Health Organization.*

### *Research*

The NHSP 2016-2020 objectives and expected outcomes were not achieved. The research unit in MoH remains very small; there is no policy to guide research and no specific budget allocated to research.

### *Data Use*

Despite the availably of data, data are not always used at the point of collection, and it is often difficult to understand how metrics are used to make decisions.

## SD6 Priority Areas

1. Build one integrated Health Information System (HIS) for MOH.
2. Implement eHIS.
3. Improve data governance.
4. Invest in health data.
5. Strengthen research capacity and use research to improve practice.
6. Enable data use.

## SD6 General Objectives

To build an integrated HIS, and strengthen efforts to collect, process, report and use health data. Increase the availability, quality, value and use of timely and accurate strategic health information for the following:

- Estimating disease burden
- Understanding health needs
- Allocating resources
- Developing and delivering services
- Improving patient care
- Identifying inequities
- Tracking progress towards national, regional and global commitments.

The health sector will also generate appropriate knowledge from research needed for evidence-based decision-making and improving practice.

## SD6 Specific Objectives

*Table 16 SD6 Improve Data for Impact: Specific Objectives*

| SD 6: Improve Data for Impact | | | | |
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| **Specific Objectives** | **Key Interventions Required** | **Milestones** | **Lead Entity** | **Contributing Entity** |
| **6.1 Set-up one integrated HIS**<br><br>*(Stop fragmentation of data collection, processing and use, and reduce reporting burden)* | Develop a shared vision and agenda for health data in line with organizational priorities and set up governance structure for an integrated HIS | One integrated HIS set up for MoH and functioning. | MoH<br>PHA | HCA |
| | Develop an integrated HIS strategic framework (Resources, indicators, data sources, data management, information products, and use)[63]. | HIS strategic framework developed. | MoH<br>PHA | HCA |
| | Implement one integrated HIS for MoH. | | MoH<br>PHA | HCA |
| **6.2 Improve Data Governance**<br><br>*(Principles, processes and practices to ensure quality management of data across the data journey)* | Develop a data governance framework (Define roles and responsibilities for data management throughout data life cycle). | Data governance framework developed. | MoH<br>PHA | HCA |
| | Develop standards and SOPs for managing data throughout its life cycle. | Standards and SOPs for data management developed, disseminated and training conducted. | MoH<br>PHA | HCA |
| | Set up a data governance committee to lead development of policy, standards and SOPs and oversee implementation. | Data governance committee set up and functioning. | MoH<br>PHA | HCA |
| | Develop and implement a data sharing policy. | Data sharing policy developed and disseminated. | MoH<br>PHA | HCA |
| **6.3 Invest in health data**<br><br>*(Ensure adequate HR, hard and soft ware)* | Ensure data processing units have the human resources necessary. | Statisticians recruited including a bio-statistician. | MoH<br>PHA<br>HCA | |
| | Build capacity of Statistics Unit and programme managers in data processing and analysis. | Staff trained in data analysis. | MoH<br>PHA<br>HCA | |
| | Ensure data collection and processing units have adequate hardware. | All units fully equipped. | MoH<br>PHA; HCA | |

[63] *WHO. Framework and standards for country health information systems/Health Metrics Network, World Health Organization. – 2nd Ed.*

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| **6.4 Improve health information products**<br><br>*(Transforming data into information and evidence)* | Develop and disseminate regular information bulletins with data on vital statistics, disease surveillance, service utilization, programmes etc. | Regular information bulletins developed and disseminated (Statistics, Disease surveillance. | MoH<br>PHA<br>HCA | |
| | Develop and disseminate annual high-quality statistical report with priority analyses. | Annual Reports:<br>◆ Statistics report.<br>◆ Disease surveillance report.<br>◆ Cancer registry report.<br>◆ Programme report. | MoH<br>PHA<br>HCA | |
| | Develop dashboards and summary charts to convey health data and information. | Dashboards developed and maintained. | MoH<br>PHA<br>HCA | |
| **6.5 Improve quality of vital statistics**<br><br>*(Improve CRVS, ensure everyone is counted)* | Develop briefs for new Civil Status Bill. | Briefs developed. | MoH | PHA; HCA |
| | Conduct sensitization meetings with maternity staff. | Sensitization training conducted (Mahé, Praslin and La Digue). | MoH | PHA; HCA |
| | Conduct training to improve quality of cause of death reporting. | Complete training for planned cohort of doctors. | MoH | PHA; HCA |
| | Conduct training to improve analysis of cause of death data. | Staff trained. | MoH | PHA; HCA |
| | Monitor quality of cause of death reporting. | Monthly review of quality of cause of death conducted for Hospital and community. | HCA | MoH |
| **6.6 Strengthen research capacity** | Establish one research unit for the MoH to oversee and follow up on all research activities. | MoH Research Unit set up with clear mandate, HR and processes. | MoH<br>PHA | HCA |
| | Develop a policy to guide research in MoH | Policy developed | MoH<br>PHA | HCA |
| | Identify priority areas for research | Research agenda set | MoH<br>PHA<br>HCA | |
| | Develop research culture in MoH by engaging young professionals | Young professions engaged in research. | PHA<br>HCA | MoH |
| | Strengthen Ethics Committee | Ethics committee strengthened. | PHA | |
| | Develop mechanisms to translate research findings into practice improvement | Mechanisms developed. | MoH<br>PHA | HCA |
| | Assign budget line to research activities. | Research budget set annually. | MoH | |
| | Set up a research advisory committee. | Research advisory committee set up. | MoH | HCA; PHA; |
| | Dissemination of report on activities and findings of research. | Annual report on research. | PHA | |

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| **6.7 Enable data use in decision making**<br><br>*(Use data to create solutions)* | Seek global TA to develop an integrated data repository or portal with easy access | Integrated data repository set-up. | MoH<br>PHA | HCA |
| | Use data to produce high-quality policy briefs and summaries with findings identifying key action needed to improve health sector performance | Policy briefs and summaries developed and disseminated | MoH<br>PHA | |
| | Develop mechanisms to connect data production with its use. | Information products shared with data contributors. | MoH<br>PHA<br>HCA | |
| | Develop culture of evidence-based decision -making (policy, planning, budget, etc.). | Track use of data in key decisions in MoH. | MoH<br>PHA<br>HCA | |
| | Disseminate health data to community and non-health stakeholders. | ◆ Annual meeting with the community on key health data.<br>◆ Meeting with NGOs working in health to present relevant data. | MoH | PHA<br>HCA |
| **6.8 Implement eHIS** | Conduct User Acceptance Testing (UAT). | UAT conducted. | HCA | MoH<br>PHA |
| | Conduct HMIS end-user sensitisation and training. | Training conducted. Training report. | HCA | |
| | eHIS fully implemented and functional. | ◆ Go LIVE - Phase I - roll out of the Client Registration / Appointment module across all relevant units<br>◆ Go LIVE - Phase II - rolling out of the In-Patient Department, Laboratory , Radiology , Billing, Doctors Desk modules<br>◆ Go LIVE - Phase III - rolling out of the rest of the modules including Procurement/Store module, Biomedical module etc. | HCA | MoH<br>PHA |

Chapter 5

# Implementation Arrangements

# 5 Implementation Arrangements

The NHSP 2022-2026 is a comprehensive document outlining the health sector's overall direction for the next five years. It renews the long-term vision of the health sector development and re-affirms the Ministry's commitment to meeting its vision. The plan outlines the strategic framework for further strengthening operations in the entire health sector to address priorities and ensure consistent strategies across programmes.

The NHSP 2022-2026 has six interlinked strategic directions derived from a thorough assessment of the documented progress on the last strategic plan, of the country's current health status and broad technical input from various stakeholders. **SD2 Protecting and improving UHC**, **SD3 Addressing Health Security**, and **SD4 Promoting Healthy Populations** encompass all the sector plans to achieve in the next five years, while **SD5 Invest for Results** and **SD6 Data for Impact**, reflect the health system support to strengthen to help achieve these objectives. Successful implementation of this strategic plan will require strong leadership (**SD1 Good Governance and Leadership**), unity of purpose, ownership and accountability of sector and entity-specific goals and targets.

## 5.1 Roles and Responsibilities

Full implementation of all four pillars of the Results-Based Management Framework will positively impact the implementation, monitoring and evaluation of the NHSP 2022-2026, with a shift from traditional public-sector management to results-oriented management.

The Seychelles National Strategic Planning Policy[64] clearly defines the roles and responsibilities for the decision-making and different actors in implementing national strategic plans, summarised in Table 17.

[64] *The Seychelles National Strategic Planning Policy Final*

*Table 17 NHSP Roles and Responsibilities at senior levels of Government.*

| Position/Institution | Roles and Responsibilities |
|---|---|
| **The President** | Accountable for the establishment of national priorities and the overall performance of the government in achieving the national vision and the results set out in the National Development Strategy (NDS). |
| **The Vice-President** | Responsible for delivering the President's national strategic plan-related roles and responsibilities, including presiding over the cabinet of Ministers on national strategic plan (NSP) matters, during the absence of the President. Also accountable for achieving the results set out in the NSP instruments for the departments and agencies under his authority. |
| **The Cabinet of Ministers** | Accountable collectively for reviewing, approving and ensuring the alignment and synergy of national priorities and key NSP instruments, monitoring their implementation and determining when corrective actions are required. |
| **The Ministers** | Accountable individually for achieving the results set out in the NSP instruments for the MDAs under their respective authority. |
| **Minister for Finance** | Responsible for effective coordination of the NSP system across government and its integration with the other RBM pillars. |
| **Principal Secretaries, Heads of Departments and Agencies** | Accountable for ensuring that policies are implemented effectively, efficiently and transparently in their respective MDAs, working collaboratively with all institutions across their portfolio and ensuring that all staff under their authority contribute to the achievement of results set out in relevant NSP instruments. |

*Source: Seychelles National Strategic Planning Policy*

MoH recognises that while it has the responsibility of health care, the achievement of the broad health objectives of the NHSP 2022-2026 will only be possible in partnership with non-health governmental and non-governmental stakeholders. All sectors should recognise the vital role they play in achieving national health goals.

A clear outline of the roles and responsibilities of non-health actors in the implementation of the health sector agenda are given in Table 18.

*Table 18 Roles and Responsibilities of Non-Health Stakeholders.*

| Position/Institution | Roles and Responsibilities |
|---|---|
| **The National Assembly** | ◆ Hold the health sector to account for use of public funds.<br>◆ Scrutinize the assurances, promises and undertakings given by the Minister for Health on the floor of the Assembly.<br>◆ Support and promote the HiAP approach within the legislative branch of government. |
| **The Cabinet of Ministers** | ◆ Responsible for monitoring the contributions of the health sector to the attainment of national strategic goals.<br>◆ Advocate for the implementation of the HiAP approach towards public policies across sectors taking into account the health implications of decisions, seeking synergies, and avoiding harmful health impacts in order to improve population's health and health equity. |
| **The Office of the Attorney General** | ◆ Develop laws and regulations that supports the implementation of the NHP and the NHSP.<br>◆ Integrate and articulate health considerations into the law-making process to improve health outcomes. |
| **Ministry of Finance, Economic Planning and Trade** | Apart from their mandates stipulated under Acts and their respective portfolios, the MDAs should support the implementation of the HiAP to positively influence the social determinants of health and support the health sector to achieve its goals and objectives in line with national development strategy. |
| **Other MDAs** | Apart from their mandates stipulated under Acts and their respective portfolios, the MDAs should support the implementation of the HiAP to positively influence the social determinants of health and support the health sector to achieve its goals and objectives in line with national development strategy. |
| **Parastatal Organizations** | ◆ Provision of clean water and sanitation.<br>◆ Advocate and educate the public about adopting clean energy to enhance health outcomes. |
| **Business Sector** | Support through funding and participation in public-private partnerships |

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| **District Development Partners** | ◆ Responsible for supporting the national health agenda and ensuring that whenever appropriate, it is aligned with the global health agenda.<br>◆ Support community-based strategies to improve health outcomes in line with the NHP and NHSP. |
| **Households** | Seek adequate information and education, adopt health seeking behaviours and the appropriate and timely use of health services in order to maintain and improve health. |
| **Individuals** | Personal accountability means taking ownership over your actions and the outcomes of your actions. Individuals should take responsibility for their health to improve their personal health and wellbeing. |

The RBM framework prescribes the establishment of a portfolio RBM Committee to oversee coordination and harmonization across all portfolio MDAs. At the agency or department level, the internal RBM Committee, RBM Coordinator and focal point responsible for NSP will ensure that NSP coordination and alignment with other RBM pillars occur[65]. An NHSP Oversight Committee with a clear mandate and terms of reference will oversee the implementation of the health strategic plan.

MoH with its specific entities, and the private health sector, have the responsibility of implementing the key interventions of NHSP 2022-2026, achieving results, and for monitoring and reporting on performance (Table 19).

*Table 19 MoH and Entities' Roles and Responsibilities in implementation of NHSP 2022-2026.*

| MoH and its Entities | Roles and Responsibilities |
|---|---|
| **The Minister and the MoH Secretariat** | ◆ Support a results-driven work culture where accountability for results is continually strengthened and monitored.<br>◆ Lead and support change management processes to promote growth and minimize resistance for the successful implementation of the NHSP.<br>◆ Accountable for achieving the results set out in the NHSP.<br>◆ Accountable to Cabinet and the National Assembly for the happenings in the health sector.<br>◆ Set up a NHSP Oversight Committee to ensure successful implementation and attainment of strategic goals and objectives of the NHSP (Mandate and ToR). |

[65] *The Seychelles National Strategic Planning Policy Final*

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|---|---|
| | ◆ Establish a sector RBM Committee to be chaired by Principal Secretary to coordinate the NSP process within and across portfolio and ensure coherence with other RBM pillars.<br>◆ Appoint an RBM Coordinator who will also act as Secretary to the Sector RBM committee.<br>◆ Play its stewardship role towards the development of policies, laws and regulations to guide the health sector.<br>◆ Provide and conduct sector monitoring and reporting where necessary in line with the intended outcomes of the NHSP.<br>◆ Mobilise funds to ensure adequate financing of interventions in the NHSP.<br>◆ Institute and maintain linkages with all stakeholders involved in the health sector.<br>◆ Ensure and monitor equity in access to health care services<br>◆ Drive dialogues to keep health on the national agenda<br>◆ Support effective implementation of the HiAP through collaborative policy platforms with other MDAs<br>◆ Ensure entities develop 2-year costed operational plans to implement interventions set out in the NHSP<br>◆ Guide the non-state health actors so that they contribute and work positively towards the vision and goals of the NHSP.<br>◆ Collaborate with institutions that deliver institutional learning and training programmes, such as the Guy Morel Institute, to address capacity deficiency<br>◆ Implement special programmes. |
| **Public Health Authority** | ◆ Pursuant to the Public Health Authority Act, PHA will regulate, monitor and evaluate all health-related services and ensure that they adhere to good practices in the interest of the public.<br>◆ Implement SD3 interventions and all other interventions under the responsibility of PHA; and support the implementation of other relevant SDs.<br>◆ Develop and implement 2-year costed Operational Plan in line with interventions/objectives of strategic direction set out in the NHSP.<br>◆ Conduct sector monitoring in line with mandate of PHA.<br>◆ Promote and implement the HiAP; expanded HIAs.<br>◆ Report on entity performance on an annual basis. |
| **Health Care Agency** | ◆ Pursuant to the Health Care Agency Act, HCA will promote, protect and restore the health of the public by acting appropriately to prevent, treat and control illness and prevent disability and death resulting from illness or other causes. |

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| | ◆ Implement interventions under SD2 and all other relevant interventions under the HCA mandate.<br>◆ Develop and implement 2-year costed Operational Plan in line with interventions/objectives of strategic direction set out in the NHSP.<br>◆ Ensure that the prescribed requirements and standards for the provision and delivery of health care services are met.<br>◆ Ensure continuous development of staff to deliver on strategic directions set out in the NHSP and maintain high professional standards.<br>◆ Report on entity performance on an annual basis. |
| **National Institute for Health and Social Studies** | ◆ Develop and implement NIHSS Strategy.<br>◆ Contribute to health and social workforce production (in and pre- service) as per NHSP objectives and targets.<br>◆ Support development of NHWA.<br>◆ Develop annual performance report. |
| **Boards (NIHSS, PHA and HCA)** | ◆ The Board members should be well versed with, and guided by, the NHP (2015) and the NHSP (2022-2026).<br>◆ Ensure that entities have appropriate structures in place to support implementation of the NHSP.<br>◆ Manage entities to achieve goals and objectives set out in the NHSP.<br>◆ Monitor performance of entity. |
| **Division for the Prevention of Drug Abuse and Rehabilitation** | ◆ Develop and implement 2-year costed Operational Plan in line with interventions/objectives of strategic direction set out in the Drug Master Plan and NHSP.<br>◆ Report on performance on an annual basis. |
| **Professional Councils (SMDC, SNMC, HPC)** | ◆ Mobilise and engage health professionals.<br>◆ Set and monitor mandatory requirements for the continuing professional development of all registered practitioners.<br>◆ Set and maintain standards of training and practice for healthcare professionals, and discipline those who fall short of those standards.<br>◆ Should be well versed with the content of the NHP and NHSP.<br>◆ Set professional and ethical standards in line with principles and values of the NHP and NHSP. |

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| **Non-State Health Service Delivery Actors (Private sector, PNFPs, NGOs, TCMP)** | **NGOs** (e.g. ASFF, Soroptimist, Round Table, Lion's Club, Rotary Club)<br><br>◆ Support and advocate for the implementation of health programmes, through adequate funding and awareness, in line with the NHSP.<br>◆ Understand the strategic directions of MoH and advocate towards that vision.<br><br>**Private Health Sector**<br><br>◆ Provide health services to compliment services provided by government institutions and increase consumer options for health services.<br>◆ Contribute towards the achievement of health goals and objectives of NHSP.<br>◆ Should be guided by the NHP other health policies.<br>◆ Report notifiable diseases and other health statistics as required.<br>◆ Maintain high professional standards.<br><br>**Patient Support Associations** (e.g. Seychelles Patient Association, Cancer Concern, HASO, Pearl Autism, Diabetic Society)<br><br>◆ Advocate for the rights of patients and support implementation of health programmes in specific areas of concerns.<br>◆ Promote and advocate for the implementation of the HiAP approach.<br>◆ Understand and contribute positively towards the successful outcome of the NHSP. |

The NHSP assigns each broad strategic direction to a lead entity, primarily responsible for the targets under that pillar (Table 20). This, however, does not absolve the other entities of their collective responsibility for the objectives listed under each pillar. For ownership of specific objectives, kindly refer to section 4 Strategic Agenda for 2022-2026.

*Table 20 Lead Responsibility for Implementation of Strategic Directions of NHSP 2022-2026.*

| Strategic Direction | Lead Entity(-ies) |
|---|---|
| SD1 Strengthen leadership, governance and administration | MoH |
| SD2 Protect and improve UHC | HCA |
| SD3 Address health security | PHA |
| SD4 Promote healthy populations | MoH |
| SD5 Invest for results | MoH/HCA |
| SD6 Improve data for impact | All Entities |

## 5.2 Implementation Risks and Assumptions

Successful implementation of the NHSP is anchored on the assumption that the necessary inputs and conditions will be available, however, several risks can have a negative impact on the achievement of defined goals.

### Assumptions

- Strong leadership and governance.
  - Accountability at all levels.
  - Ownership of the goals and targets by all entities and health workers.
  - Strong coordination mechanisms within and across entities.
  - Oversight and steward role of MoH strengthened.
  - Concrete actions to work more upstream (increased resources for prevention and innovation).
  - Leaders monitor performance and take remedial actions when and where needed.
  - RBM functions fully implemented at sector and entity level.
- Institutional capacity available.
- Health in all policy becomes a reality with sectors mainstreaming health in their policies and strategic plans.
- Strong community engagement with population invested in being an active partner protecting health.

### Risk and Mitigation strategies

The current NHSP has been developed during a pandemic; the direct health impact of the COVID-19 pandemic and the economic difficulties resulting from the pandemic pose several known and some unforeseen risks for successful implementation of the NHSP 2022-2026. Identifying factors that may negatively impact the achievement of health sector goals is a crucial element of the NHSP. Understand these risks will permit steps to be taken to reduce their impact. Close monitoring will enable initiation of timely corrective measures.

MoH has identified the following risks to the successful implementation of the NHSP:

#### *COVID 19 Pandemic*

The development of COVID-19 vaccines and roll-out of vaccination on a global scale was expected to bring the COVID-19 situation under control. However, waning immunity from COVID-19 vaccines, vaccine inequalities, vaccine scepticism and the emergence of new variants have raised concerns about the future trajectory of the pandemic. A protracted health emergency will put pressure on the health system and divert resources from other priority areas outlined in this strategic plan. Maintaining the

current parallel governance structure for COVID-19 is not sustainable as it diverts the focus of senior management from other core health system functions.

### *Leadership and Governance*

The current organisational structure with fragmentation, unclear lines of accountability and lack of formal coordination will negatively affect outcomes.

### *Human Resources for Health*

HCWs have been under considerable pressure due to staff redeployment, absenteeism due to isolation or quarantine and leave restrictions since the beginning of the pandemic. This is likely to continue during a protracted epidemic resulting in burnout and other mental and physical health consequences, impacting the COVID-19 response and other priority areas.

### *Health financing*

The health budget is unlikely to increase substantially in the next few years. Shifting the focus from curative-centric to prevention will necessarily take funds away from curative care. Additionally, the unpredictable nature of the COVID pandemic may divert additional funds away from interventions proposed in this strategic plan.

### *Health technologies*

Despite promising signs of recovery, the Seychelles economy remains fragile and vulnerable to external shocks, including the effects of a protracted COVID-19 epidemic. This will have repercussions on the procurement of medicines and other health technologies.

### *Continuity of Essential Care*

Cessation or downscaling low value interventions and services and catering for identified unmet needs may threaten continuity of care.  Diversion of resources and focus towards the COVID-19 will compromise other areas of care and potentially erode health gains, e.g. decrease in life expectancy, worsening of health status. Furthermore, the impact of COVID-19 on society, including social determinants of health, cannot be ignored.

### *MoH organisational architecture*

The situational analysis has clearly outlined certain deficiencies of the current health organisational structure - fragmentation, inadequate coordination and effective communication, within and across entities. Therefore, it is imperative that MoH revisits the organisational structure and implement measures, including changing mind-sets to address the identified deficiencies.

### *Budget allocation for health not commensurate with health needs*

While there are signs of economic recovery, the economy remains fragile and vulnerable, especially in the uncertain COVID situation. With funding diverted to the pandemic response, adequate funding for continuity of care may be at risk.

### *Prioritising curative over preventive care*

Health expenditure is heavily skewed towards curative care. Demands for new technologies and very costly specialised care services continue to increase, often fuelled by media hype and to garner political support. Investment in preventive care has sustained returns and delivers substantial health benefits.

### *Full implementation of the eHIS*

The eHIS is a long-awaited investment in the health system. Partial implementation with a persisting parallel paper-based information system will increase workload on staff, hamper efforts to streamline data management processes, and significantly reduce the expected benefits of the eHIS (collaborative care, cost savings, availability of real-time data).

Some of the anticipated risks and mitigation strategies are outlined in Table 21.

*Table 21 Anticipated Risks and proposed Mitigation Strategies*

| Risk | Overview | Mitigation Strategies |
|---|---|---|
| **COVID-19 becomes a protracted public health emergency** | ◆ MoH leadership continues with emergency governance structure.<br>◆ MoH leadership shifts focus away from NCDs and old challenges/gaps to COVID-19 response.<br>◆ All building blocks of HS negatively affected.<br>◆ Redeployment of human resources with continuity of essential services compromised.<br>◆ YLL due to COVID-19 lead to decrease in life expectancy.<br>◆ Poor health outcomes for non –COVID-19 conditions (Increased morbidity and mortality). | ◆ Decrease transmission of COVID-19.<br>◆ Increase vaccination coverage.<br>◆ Improve COVID-19 case management.<br>◆ Define package of essential services and metrics.<br>◆ Develop plan for continuation of services in case of emergencies.<br>◆ Designate a lead person to implement, monitor and report on continuation of essential services in emergencies. |
| **MoH organizational architecture remains unchanged** | ◆ Current MoH architecture is maintained with continued fragmentation and lack of coordination leading to poor results. | ◆ Revise organizational structure to ensure fitness for purpose.<br>◆ Define, implement and monitor coordination within and between entities. |
| **Poor buy-in** | Leaders and Health workers to do work together to enact change. | Engage and involve health care workers in problem solving and decision-making. |
| **Budget allocation for health not commensurate with health needs** | ◆ Significant fraction of budget already spent on COVID-19 services can lead to a decrease in health funding for core health system operations and new initiatives.<br>◆ Rapid forecast of 5 yr. prevalence of key risk factors indicate increased health needs. | ◆ Advocate for increased spending on health, as it is an asset and foundation of development.<br>◆ Ensure efficient use of resources in health.<br>◆ Mobilize funds for health from partners. |

| | | |
|---|---|---|
| **Spending on prevention not increased** | Majority of spending on curative, and specialist treatment. | Advocate for discrete budget lines for prevention interventions. |
| **eHIS not fully implemented** | ◆ Reliable, real-time data not available for decisions-making.<br>◆ Continued difficulty to provide seamless care. | HCA to develop work plan and monitor implementation and full use of eHIS. |
| **Lack of Commitment for HiAP** | ◆ Increase in risks factors for health (harmful use of alcohol, drug abuse, tobacco use, lack of exercise, poor diet, increasing unemployment and poverty, reduced social supports, etc.).<br>◆ Poor treatment outcomes. | ◆ Implement and monitor HiAP across all sectors.<br>◆ Monitor equity in all programmes.<br>◆ Ensure that metrics capture those 'left behind' and develop targeted strategies. |
| **Lack of capacity** | ◆ Lack of capacity in specialised clinical and non-clinical posts required to implement objectives of the NHSP. | ◆ Create posts for necessary specialised fields.<br>◆ Recruit key expertise needed for successful implementation of NHSP (e.g. epidemiologist, human resource expert, supply chain expert, etc.) |

Chapter 6

# Monitoring and Evaluation

# 6 Monitoring and Evaluation

## 6.1 Monitoring Achievement of Goals and Targets

The government is pursuing the 2013 Results-Based Management (RBM) strategy as the organizing principle behind public sector reform. RBM comprises four pillars: Strategic Planning (SP); Program Performance Based Budgeting (PPBB); Performance Management System (PMS); and Performance Monitoring and Evaluation (PM&E).

PM&E has the following benefits:

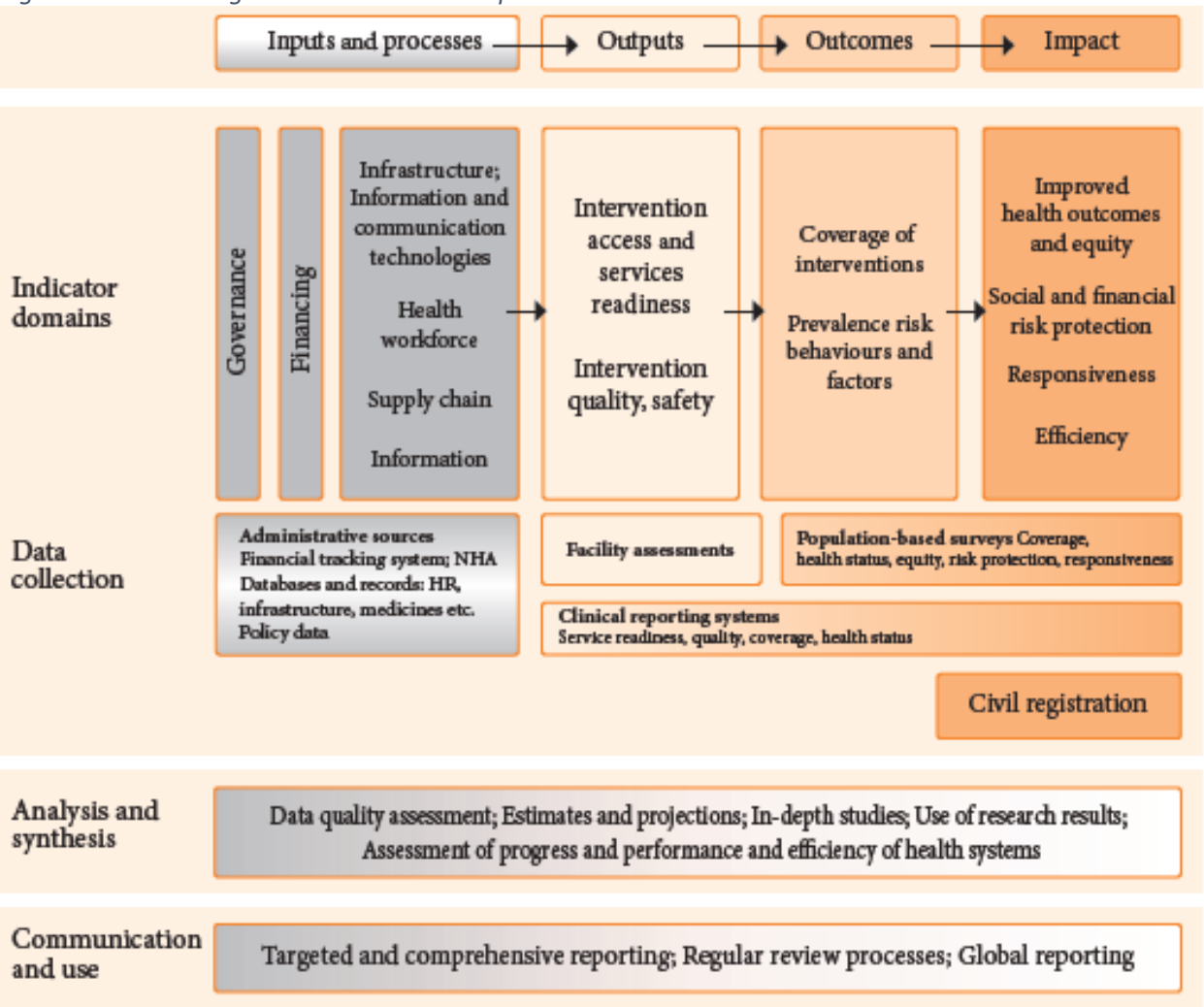
- It increases public sector efficiency, thus creating greater fiscal savings through greater value for money, such as reduced human and financial resources and quicker delivery of programs and projects; including faster project completion;
- It enhances public sector effectiveness, including the use of innovative ways and alternative ways of service-delivery, structures, tools and processes, thus enhancing both access to and the quality of service-delivery contributing to greater equity;
- It strengthens transparency, thus making information more accessible and making government more open; and
- It strengthens accountability, thus ensuring that government delivers on its mandate to implement service-delivery as planned, by the responsible staff, within the existing budget and timeframes.

The MoH and its entities have the task of monitoring the implementation of sector strategic plans, policies, programmes. There are no formal PM&E Units within the health sector, however, MoH reports on progress towards achievement of core health indicators annually through the annual sector performance report. In the next five years, it is hoped that MoH will develop and implement an M&E framework, and that formal PM&E units will be set up, with support of other relevant ministries, with the responsibility of advancing RBM.

Among very important milestones for this NHSP is the establishment of strong sector health information system, data governance and the full implementation and use of eHIS. The implementation of eHIS, combined with the support of the Department of Economic Planning, will enable the health sector to successfully fulfil its PM&E obligations.

A conceptual framework for monitoring and evaluation is depicted in Figure 22. A set of core indicators to monitor progress along the results chain has been developed for this NHSP and in summarised in section 6.5 Indicators.

*Figure 22 Monitoring and Evaluation Conceptual Framework*




*Source: World Health Organization. Monitoring the building blocks of health systems: a handbook of indicators and their measurement strategies. Geneva; WHO, 2010.*

## 6.2 Data Needs

The sector requires the joint action of public and private facilities to produce quality, timely data for evidenced –based decision-making. For M&E, core data is needed for the following:

- To understand the social determinants of health.
- To monitor health status:
  - Vital statistics.
  - Disease surveillance and response.
  - Disease and mortality trends.
- To monitor the six building blocks of the health system
- PM&E - to monitor progress towards implementation of national commitments:
  - NDS.

    - PPBB key performance indicators.
    - NHSP goals and targets.
- Disease –specific goals and targets.
- To report on global commitments (e.g. SDGs).
- For accountability and transparency.

## 6.3 Data Sources

The MoH uses a number of data sources to inform decision-making and report on local and global commitments (Table 22).

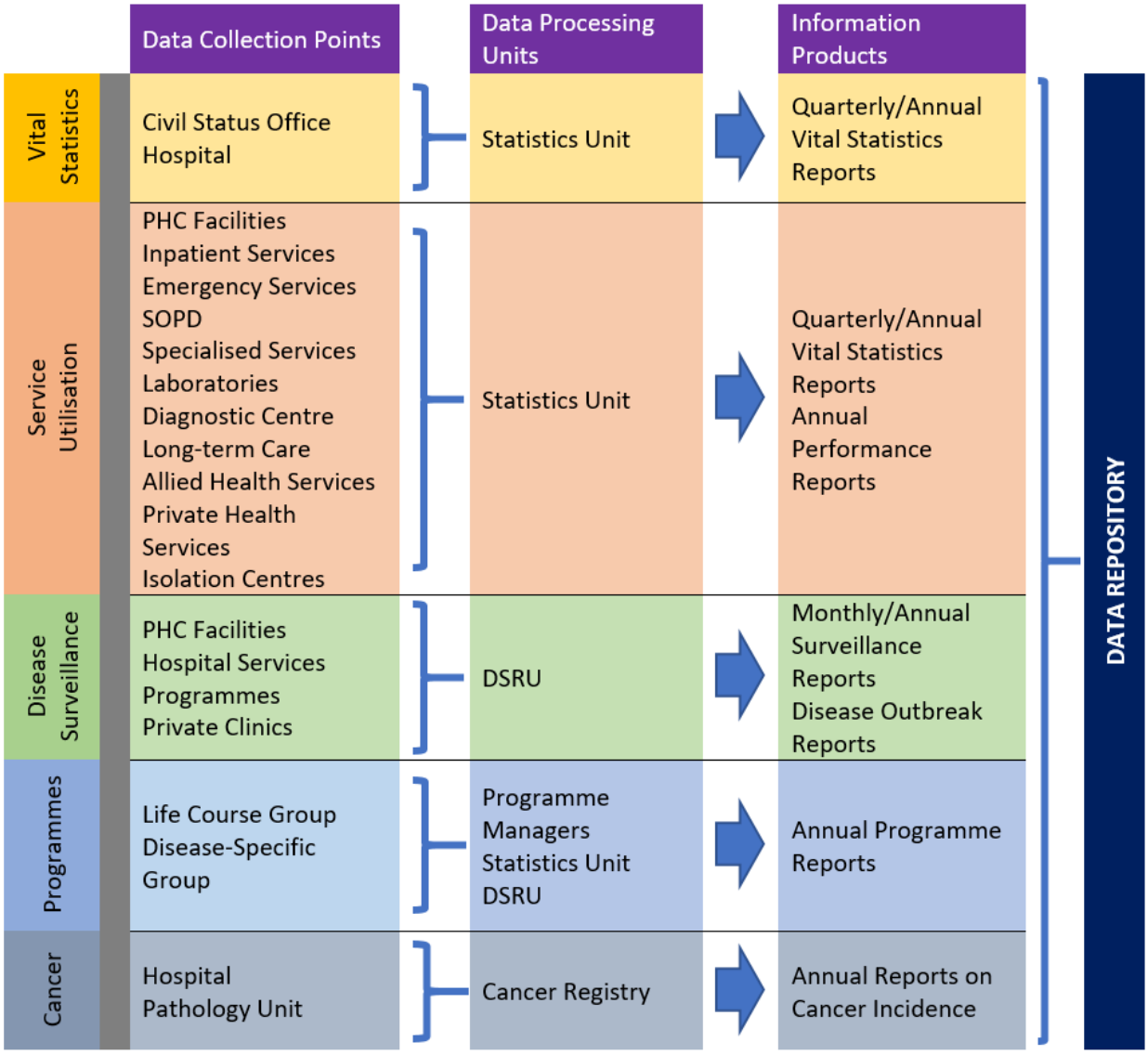
*Table 22 Data Sources*

| Data Source | Data type |
|---|---|
| **National Bureau of Statistics** | ◆ Population census<br>◆ Population bulletins<br>◆ Household Budget Surveys |
| **Civil Status Office** | Vital Statistics |
| **Health Facilities/services (Public/Private)** | ◆ Service availability<br>◆ Service utilization<br>◆ Disease notification |
| **Programmes** | Service coverage |
| **Individual user records** | Data on diseases and risk factors |
| **Population surveys; User experience/satisfaction etc.** | Prevalence of disease, risk factors, service utilization/equity gaps |
| **NHA, NHFWA** | Data on resources (health financing and human (resources). |

## 6.4 Data Architecture

All health facilities and services collect data, which is shared with a select number people. Data capture is still largely paper-based, but this will change after the implementation of eHIS. Three data processing units exist, housed in different entities, and have the responsibility of processing the data and developing information products (Figure 23 Data Architecture).

*Figure 23 Data Architecture*



## 6.5 Indicators

A series of indicators and targets have been developed to monitor performance of the health sector in implementing the NHSP 2022-2026 over the next five years. These are outlined in following tables.

- Table 23 Indicator Matrix: Inputs.
- Table 24 Indicator Matrix: Outputs.
- Table 25 Indicator Matrix: Service Coverage.
- Table 26 Indicator Matrix: Health Risk Factors
- Table 27 Indicator Matrix: Health Status
- Table 28 Indicator Matrix: Health Security

The majority of indicators are standard, global health indicators, which are comparable over years and across countries. Quality of care indicators will be developed within the quality-of-care framework. The NHSP indicators have been matched to relevant Strategic directive(s) and SDGs.

*Table 23 Indicator Matrix: Inputs*

| Health System Inputs | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SDG** | **SD** | **NHSP Indicator** | **Baseline value (2020)** | **End term (2026)** | **Data Source** | **Reporting Frequency** | **Responsible Entity** |
| **Health Financing** | | | | | | | |
| | SD1/5 | Total Health Expenditure (estimated by NHA) (SCR/USD) | 1,225,843 (2018) | | NHA | Biennial | MoH<br>HCA<br>PHA |
| | SD1/5 | Total Government Health expenditure as % of nominal GDP | 4.0% (2018) | >6% | | | |
| | SD1/5 | Total Govt Allocation to Health as % of Total Govt Budget Allocation | 11.75% (2022) | >15% | | | |
| | SD1/5 | Total health spending per capita (SCR/USD) | 911 USD (2018) | >1,000 USD | | | |
| | SD1/5 | Externally sourced funding (% of current health expenditure) | 2% | >3% | | | |
| | SD1/5 | OOP payment for health (% of current health expenditure) | 23.1% (2018) | <20% | | | |
| **Health Workforce** | | | | | | | |
| 3.c.1 | SD5 | Health worker density | | | NHWA | Biennial | MoH<br>HCA<br>PHA |
| | SD5 | Practising doctors per 10,000 pop. | 26 | | | | |
| | SD5 | Practising nurses per 10,000 pop. | 66 | | | | |
| | SD5 | Practising dentists per 10,000 pop. | 4.27 | | | | |
| | SD5 | Practising physiotherapists per 10,000 pop. | 1.74 | | | | |
| | SD5 | Practising surgeons per 10,000 pop. | 3.1 | | | | |
| | SD5 | Training Output (NIHSS, other, by cadre) | 71 (2017-19 Average) | | NIHSS Annual Reports | Annual | NIHSS |
| | SD5 | Measuring CPD/CME by cadre | N/A | CME Criteria | Councils | Annual | MoH |
| **Health Information Governance** | | | | | | | |
| | SD6 | Number of facilities using eHIS | 0 | All | DICT | Annual | HCA |
| | SD5 | Registration in PHC facilities by district | 0 | >60% | DICT | Annual | HCA |
| **Health Infrastructure** | | | | | | | |
| | SD5 | Updated master facility list – private and public. | Partial | All Facilities | HCA | Annual | HCA |
| | SD5 | Hospital bed density (acute beds[66]).<br>◆ Increase ICU beds; establish Isolation Unit. | 352 | Maintain;<br>Incl. 12 ICU | HCA | Annual | HCA |
| **Commodities** | | | | | | | |
| | SD5 | Number of medicine stock outs (central store) | Frequent | None | Pharmacy | Annual | HCA |

[66] *Acute beds for public health sector only.*

*Table 24 Indicator Matrix: Outputs*

| Health System Outputs | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SDG** | **SD** | **NHSP Indicator** | **Baseline Value (2020)** | **End-Term Value (2026)** | **Data Source** | **Reporting Frequency** | **Responsible Entity** |
| **Doctor Consultation** | | | | | | | |
| | SD2 | PHC | 262,430 | | Statistics Unit, MoH | Annual | HCA |
| | SD2 | Emergency | 41,456 | | Statistics Unit, MoH | Annual | HCA |
| | SD2 | SOPD | 35,601 | | Statistics Unit, MoH | Annual | HCA |
| **Prescription Filled** | | | | | | | |
| | SD2 | PHC (including inner islands) | 331,854 | | Statistics Unit, MoH | Annual | HCA |
| | SD2 | Seychelles Hospital (wards) | 57,249 | | Statistics Unit, MoH | Annual | HCA |
| | SD2 | SOPD | 36,105 | | Statistics Unit, MoH | Annual | HCA |
| **Specialised Services** | | | | | | | |
| | SD2 | Oncology Unit | 5545 (consultations);<br>158 (new patients started chemotherapy) | | Statistics Unit, MoH | Annual | HCA |
| | SD2 | Haemodialysis | 193 (patients); 25,332 (sessions) | | Statistics Unit, MoH | Annual | HCA |
| | SD2 | Overseas Treatment | 160 (patients); 162 (cases)[67] | | Statistics Unit, MoH | Annual | HCA |
| **Inpatients Services** | | | | | | | |
| | SD2 | Hospital Admissions (government-owned hospitals) | 10,613 (Note: 9749 acute care wards on Mahé & 864 admissions to other wards) | | Statistics Unit, MoH | Annual | HCA |
| | SD2 | Bed Occupancy (by ward) | Male medical (90%)<br>Female medical (54%)<br>Male surgical (57%)<br>Female surgical (53%)<br>Logan La Digue (11%)<br>Hospice (94%)<br>North East Point (84%)<br>ICU (85%)<br>Paediatric (47%)<br>NICU (35%)<br>Maternity (69%)<br>Psychiatric (89%)<br>BSA Praslin (25%) | | Statistics Unit, MoH | Annual | HCA |
| | SD2 | Operating Theatre (surgeries) | 4484 | | Statistics Unit, MoH | Annual | HCA |
| **Diagnostic Unit** | | | | | | | |
| | SD2 | X-Ray | 27,434 | | Statistics Unit, MoH | Annual | HCA |
| | SD2 | CT Scan | 8066 | | Statistics Unit, MoH | Annual | HCA |
| | SD2 | MRI | 1354 | | Statistics Unit, MoH | Annual | HCA |
| | SD2 | Ultrasound exams | 10,574 | | Statistics Unit, MoH | Annual | HCA |

[67] *Note that two patients went twice*

| | | | | | | |
|---|---|---|---|---|---|---|
| | SD2 | Mammography | 773 | Statistics Unit, MoH | Annual | HCA |
| **Clinical Lab** | | | | | | |
| | SD2 | Tests done by unit | 677,873 | Statistics Unit, MoH | Annual | HCA |
| **Allied Health Services** | | | | | | |
| | SD2 | Physiotherapy (attendance) | 49,388 | Statistics Unit, MoH | Annual | HCA |
| | SD2 | Occupational therapy (attendance) | 7437 | Statistics Unit, MoH | Annual | HCA |
| | SD2 | Audiology (attendance) | 1112 | Statistics Unit, MoH | Annual | HCA |
| | SD2 | Speech therapy (attendance) | 951 | Statistics Unit, MoH | Annual | HCA |
| **Oral Health Services** | | | | | | |
| | SD2 | Consultations dental therapists | | Statistics Unit, MoH | Annual | HCA |
| | SD2 | Consultations dentists | | Statistics Unit, MoH | Annual | HCA |

*Table 25 Indicator Matrix: Service Coverage*

| **Health Services Coverage** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SDG** | **SD** | **NHSP Indicator** | **Baseline value (2020)** | **End term (2026)** | **Data Source** | **Reporting Frequency** | **Responsible Entity** |
| **RMNCH** | | | | | | | |
| 3.7.1 | SD2 | Demand for family planning satisfied with modern methods | 47%* | >60% | World Health Statistics Report | Annual | HCA |
| | SD2 | Antenatal care coverage | 99% | >99% | Programme | Annual | HCA |
| 3.1.2 | SD2 | Births attended by skilled health personnel | 99% | >99% | Programme | Annual | HCA |
| | SD2 | Postpartum care coverage – home | | >99% | Programme | Annual | HCA |
| | SD2 | Postnatal care coverage – clinic | <70% | >99% | Programme | Annual | HCA |
| **Immunization** | | | | | | | |
| 3.b.1 | SD2 | Immunization coverage | | | Programme | Annual | HCA |
| | | ◆ DPT Dose 3 | 97% | >95% | | | |
| | | ◆ Penta-/Hexa-valent Vaccine Dose 3 | 96.9% | >95% | | | |
| | | ◆ HPV girls (and boys, if schedule revised) | 99% (2019) | >95% | | | |
| | | ◆ COVID-19 % fully vaccinated (2 doses) | Adults >80%; Adolescents 60% (2021) | Adults >80%; Adolescents >80% | PHEOC | Annual | HCA |
| **HIV, Viral hepatitis , Tuberculosis** | | | | | | | |
| | SD4 | People living with HIV who know their status | No baseline | 90% | NAC | Annual | PHA |
| | SD2/4 | Prevention of mother-to-child transmission | 11% | <2% MTCT | CDCU | Annual | PHA |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | SD2 | % Mother-baby pairs who receive full PMTCT interventions | 89% | 100% | CDCU | Annual | PHA |
| | SD2 | Antiretroviral therapy (ART) coverage | 82% | >90% | CDCU | Annual | PHA |
| | SD2 | HIV viral load suppression | No data 2019/2020 | >90% | CDCU | Annual | PHA |
| | SD2 | % Of treatment eligible HCV patients who received DAAs | No Data | >75% | CDCU | Annual | PHA |
| | SD2 | % Of patients on DAAs with SVR 12 | No Data | >90% | CDCU | Annual | PHA |
| | SD2 | % Of TB patients tested for HIV | 100% | 100% | CDCU | Annual | PHA |
| | SD2 | TB treatment coverage | 100% | 100% | CDCU | Annual | PHA |
| | SD2 | TB Treatment success coverage | 100% | >90% | CDCU | Annual | PHA |
| **Screening and preventive care for cancer[68]** | | | | | | | |
| | SD2 | Cervical Cancer screening (Pap smear) | 6096 | >20,143 | Programme | Annual | HCA |
| | SD2 | Mammography screening for Breast Cancer | 773 | >2,500 | Programme | Annual | HCA |
| | SD2 | Colonoscopy screening for bowel cancer | 511 | >1,000 | Programme | Annual | HCA |
| **Mental health** | | | | | | | |
| 3.8 | SD2 | Coverage of services for severe mental health disorders (bipolar affective disorder, moderate-to-severe depression & psychosis). | No baseline | >90% | Psychiatric Unit | Annual | HCA |
| **Substance abuse[69]** | | | | | | | |
| 3.5.1 | SD2 | Number of people accessing services for alcohol dependence | 124 | 500 | DSAPTR | Annual | MOH |
| | SD2 | Treatment coverage for drug dependence | 424 | 1080 | DSAPTR | Annual | MOH |
| | SD4 | Number of syringes distributed | 37,516 | | DSAPTR/CDCU | Annual | PHA/MOH/NAC |
| | SD2 | Total number of active clients on Methadone | 1884 | 2100 | DSAPTR | Annual | MOH |
| | SD2 | Number on Low threshold Programme | 3005 | | DSAPTR | Annual | MOH |
| | SD2 | Number on High Threshold Programme | 134 | 300 | DSAPTR | Annual | MOH |
| | SD2 | Aftercare and Psycho-social supports | 937 | 100% | DSAPTR | Annual | MOH |
| | SD2 | No. of communities covered by Community-based programme | No baseline | All districts | DSAPTR | Annual | MOH |
| | SD2 | Prevention and Education for substance use (interventions) | 79 | 100 | DSAPTR | Annual | MOH |
| | SD2 | Number of People engaged in outreach services | 5400 | | DSAPTR | Annual | MOH |
| **UHC Index** | | | | | | | |
| 3.8.1 | SD2 | UHC index | 71 | >80 | Statistics Unit | Annual | MoH |

[68] *Indicators may be revised based on final version of Cancer Strategy.*

[69] *Choice of indicators may be subject to revision based on updated DSAPTR operational plans.*

*Table 26 Indicator Matrix: Health Risk Factors*

| Health Risk Factors | | | | | | | |
|---|---|---|---|---|---|---|---|
| **SDG** | **SD** | **NHSP Indicator** | **Baseline value (2020)** | **End term value (2026)** | **Data Source** | **Frequency of Reporting** | **Responsible Entity** |
| **Nutrition** | | | | | | | |
| | SD4 | Exclusive breastfeeding rate 0-6 months | 20.90% | ≥50% | Nutrition Unit | Annual | HCA |
| | SD3/4 | Prevalence of obesity among school children (9-17 years) | ≥50% | 28.60% | UPCCD | Annual | PHA |
| 2.2.1 | SD3/4 | Children under 5 years who are stunted | 7.60% | 3.04% | Nutrition Unit | Annual | PHA |
| 2.2.2 | SD3/4 | Children under 5 years who are wasted | 4.30% | 4.30% | Nutrition Unit | Annual | PHA |
| 2.2.2 | SD3/4 | Children aged under 5 years who are overweight | 8.80% | 8.80% | Nutrition Unit | Annual | PHA |
| | SD3/4 | Anaemia prevalence in women of reproductive age | no data | | Reproductive/ Maternal Health Program | | PHA |
| | SD3/4 | Anaemia Prevalence in children | no data | | Nutrition Unit | | PHA |
| **Infections** | | | | | | | |
| | SD3/4 | Prevention of HIV in key populations | | | AIDS program | | PHA |
| | SD3/4 | MSM reporting condom use | 14.9% | | DSAPTR | Survey | PHA |
| | SD3/4 | PWIDs reporting using clean needles | 58.20% | | DSAPTR | Survey | PHA |
| | SD3/4 | FSW reporting condom use | 24.10% | | DSAPTR | | PHA |
| **Environmental risk factors** | | | | | | | |
| 6.1.1 | SD3 | Population using safely managed drinking-water services | 96% (2019) | | PHA | Annual | PHA |
| 6.2.1 | SD3 | Population using safely managed sanitation services | 99.38% (2019) | | PHA | Annual | PHA |
| 7.1.2 | SD3 | Population with primary reliance on clean fuels and technologies | | | | | PHA |
| 11.6.2 | SD3 | Air pollution level | | | | | PHA |
| **Public Health risks** | | | | | | | |
| | SD3 | Fraction of food-related services monitored (farms, abattoirs, kitchens, etc.) | No data | | PHA | | PHA |
| | SD3 | Sales of tobacco | 6032 | | Seychelles in Figures 2020 | | PHA |
| | SD3 | Sales of alcohol | 52 million | | Seychelles in Figures 2020 | | PHA |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **NCDs** | | | | | | | |
| | SD3/4 | Proportion of overweight and obesity in school-age children and adolescents 9–18 years (9-17 years) | 28.6% | Zero increase | UPCCD | Annual | PHA |
| 3.5.2 | SD3/4 | Total alcohol per capita (age 15+ years) consumption (11-17 Years) | 48% | 10% relative reduction | UPCCD | Survey 5 years | PHA |
| 3.a.1 | SD3/4 | Age-standardized prevalence of current tobacco use among persons aged 15+ years (11-17 years) | 15% | 30% relative reduction | UPCCD | Survey 5 years | PHA |
| | SD3/4 | Age-standardized prevalence of raised blood pressure among persons aged 18+ years (25-64 years) | 29.5% | 5.90% | UPCCD | Survey 10 years | PHA |
| | SD3/4 | Age-standardized prevalence of overweight and obesity in persons aged 18+ years (25-64 years) | 64.5% | Zero increase | UPCCD | Survey 10 years | PHA |
| **Injuries** | | | | | | | |
| 5.2.1 | SD4 | Intimate partner violence prevalence | 113 | | Social Affairs | Annual | Social Affairs |
| 16.2.3 | SD4 | Sexual violence against children | 168 | | Social Affairs | Annual | Social Affairs |
| 8.8.1 | SD3 | Frequency rates of occupational injuries | | | Employment & Occupational Health | Annual | PHA |

*Table 27 Indicator Matrix: Health Status*

| **Health Status** | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **SDG** | **SD** | **NHSP Indicator** | **2019** | **Baseline value (2020)** | **End term value (2026)** | **Data Source** | **Reporting frequency** | **Responsible Entity** |
| **Mortality by age and sex** | | | | | | | | |
| | **SD4** | Life expectancy at birth (yrs) | | | | | | HCA |
| | **SD4** | - Men | 69.7 | 72.7 | 74 | Statistics Unit | Annual | |
| | **SD4** | - Women | 78.4 | 82 | 83 | Statistics Unit | Annual | |
| | **SD4** | - Both sexes | 73.9 | 77.3 | 79 | Statistics Unit | Annual | |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | **SD2/4** | HALE (yrs) | M: 62.2 F: 69.5 | M: 62.2 F: 69.5 | M: ? F: ? | World Health Statistics Report | Annual | HCA |
| | **SD2/4** | Adolescent mortality rate (per 1000 adolescent population) | 0.98 | 0.96 | <0.5 | Statistics Unit | Annual | HCA |
| | **SD2/4** | Mortality rate in males aged 15 - 60 (per 100 men in age group) | 5.5 | 5.2 | <4.0 | Statistics Unit | Annual | HCA |
| | **SD2/4** | Infant Mortality rate (per 1,000 live births ) | 16.8 | 11.6 | 10 or less | Statistics Unit | Annual | HCA |
| **3.2.1** | **SD2/4** | Under-five mortality rate (per 1,000 live births) | 17.4 | 14.2 | 12 or less | Statistics Unit | Annual | HCA |
| **3.2.2** | **SD2/4** | Neonatal Mortality Rate (per 1,000) | 8.7 | 9 | <5 | Statistics Unit | Annual | HCA |
| | **SD2/4** | Stillbirth rate ( per 1000 total births) | 5.0 | 5.1 | <5 | Statistics Unit | Annual | HCA |
| **Mortality by cause** | | | | | | | | |
| **3.1.1** | **SD2** | Maternal mortality ratio ( per 100, 000 live births) | 62.3 | 64.4 | <50 | Statistics Unit | Annual | HCA |
| | **SD2** | AIDS-related mortality rate (per 100,000 population) | 16.4 | 10 | <5 | CDCU | Annual | HCA |
| **3.4.1** | **SD3/4** | Premature NCD Mortality *(Probability off dying from any of cardiovascular diseases, cancer, diabetes or chronic respiratory diseases between age 30 and exact age 70 [%])* | 21.2 | 21.2 | Reduce by 25% of baseline | World Health Statistics Report | Annual | HCA |
| | **SD2** | Pulmonary embolism related mortality rate ( per 100, 000 population) | 139 | 145 | | Statistics Unit | Annual | HCA |
| **3.6.1** | **SD3** | Mortality rate due to road traffic accident (per 100,000 population) | 11.3 | 11.2 | <10 | Statistics Unit | Annual | HCA |
| **3.4.2** | **SD4** | Suicide rate (per 100,000 population) | 6.1 | 6.1 | <5 | Statistics Unit | Annual | HCA |
| **16.1.1** | **SD4** | Mortality due to homicide (per 100,000 population) | 2 | 1 | No Target | Statistics Unit | Annual | HCA |
| | **SD3** | Mortality from unintentional poisoning | 0 | 0 | 0 | Statistics Unit | Annual | HCA |
| | **SD2/3** | Pneumonia related Mortality ( per 100, 000 population) | 158 | 132 | <130 | Statistics Unit | Annual | HCA |
| | **SD2/3** | Covid-19 related deaths (per 100 000 population ) | 0 | 0 | < | Statistics Unit/PHEOC | Annual | HCA |
| | **SD2/3** | Covid-19 case fatality rate (%) | 0 | 0 | <1% | PHEOC | Annual | HCA |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| **Fertility** | | | | | | | | |
| | **SD4** | Total Fertility Rate | 2.3 | 2.3 | Below 3 | NBS | Annual | HCA |
| **3.7.2** | **SD4** | Adolescent birth rate ( per 1000 females aged 15-19) | 69 | 60 | <30 | Statistics Unit | Annual | HCA |
| | **SD4** | Number of live births in girls aged <15 | 9 | 4 | Zero | Statistics Unit | Annual | HCA |
| **Morbidity** | | | | | | | | |
| | **SD2** | New cases of vaccine preventable diseases | | | Zero cases | DSRU/Programme | Annual | HCA |
| | **SD2/4** | ASR of cancers in males (all sites) (per 100,000 persons at risk) | 274 | 255 | | Cancer registry; end-term targets to be based on Cancer Control Plan | Annual | HCA |
| | **SD2/4** | ASR of cancers in females (all sites) (per 100, 000 persons at risk) | 302 | 207 | | Cancer registry | Annual | HCA |

*Table 28 Indicator Matrix: Health Security*

| **Health Security** | | | | | | | |
|---|---|---|---|---|---|---|---|
| **IHR/ SDG** | **SD** | **NHSP Indicator** | **Baseline value (2020)** | **End term value (2026)** | **Data Source** | **Frequency of Reporting** | **Responsible Entity** |
| | SD3 | **Emergency Prepare (IHR Capacities)** | | | | | |
| C1 | SD3 | Legislation and financing | | | | | PHA |
| C2 | SD3 | IHR coordination and national IHR focal-point functions | | | | | PHA |
| C3 | SD3 | Zoonotic events and the human–animal interface | | | | | PHA |
| C4 | SD3 | Food safety | | | | | PHA |
| C5 | SD3 | Public Health Laboratory | | | | | PHA |
| C6 | SD3 | Surveillance and Response | | | | | PHA |
| C7 | SD3 | Human resources for Emergency Preparedness | | | | | PHA |
| C8 | SD3 | National health emergency framework | | | | | PHA |
| C9 | SD3 | Health service provision | | | | | PHA/HCA |
| C10 | SD3 | Risk communication | | | | | PHA/MOH |
| C11 | SD3 | Points of entry | | | | | PHA |
| C12 | SD3 | Chemical events | | | | | PHA |
| C13 | SD3 | Radiation emergencies | | | | | PHA |
| | SD3 | **Emergency Prevent (Routine and Emergency Vaccination Coverage)** | | | | | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | SD3 | Routine & campaign vaccination for epidemic- and pandemic-prone diseases (Yellow Fever, Meningitis, Measles, Polio, etc.) | | | | | HCA/PHA |
| | SD3 | COVID-19 Vaccination | 0% | >80% per protocol | EPI Programme | Annual | HCA |
| | SD3 | **Detect and Respond** | | | | | |
| | SD3 | Timeliness of detection and response | | | | | PHA |
| | | $T_0$ – Time to Detect | | | | | PHA |
| | | $T_1$ – Time to Notify | | | | | PHA |
| | | $T_3$ – Time to Respond | | | | | PHA |
| | **SD3** | **New cases of IHR Notifiable diseases and other Notifiable Diseases** | | | | | |
| | SD3 | Leptospirosis | N/A | | DSRU | Annual | PHA |
| | SD3 | Dengue | N/A | | DSRU | Annual | PHA |
| | **SD3** | COVID-19 Cases | 0.8 cases/day | < 20 / day | PHA/DSRU | Month | PHA |
| **3.3.1** | **SD3/4** | HIV incidence (newly detected cases) | 84 | < 50 | NAC | Annual | PHA |
| | **SD3/4** | HCV incidence (newly detected cases) | 91 | < 1/2 | CDCU | Annual | PHA |
| **3.3.4** | **SD3/4** | HBV incidence (per 100,000 population ) | 34 | | CDCU | Annual | PHA |
| | **SD3/4** | STI incidence | 425 | | CDCU | Annual | PHA |
| **3.3.2** | **SD3** | TB incidence rate (per 100,000 population) | 9 | 5 or < | CDCU | Annual | PHA |

# List of Annexes



Embedded PDF of annexes:

NHSP 2022-2026 Annexes.pdf

**The National Health Strategic Plan 2022-2026**

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