SEYCHELLES NATIONAL HEALTH STRATEGIC PLAN 2016-2020

DRAFT OUTLINE

UPDATED 01 November 2016


Curieuse Island
Anse Lazio
Praslin Island
Grand 'Anse
Vallee de Mai National Park
La Felicite
Cousin Island
Silhoutte
Cousine Island
Marianne
La Digue
Beau Vallon Bay
Saint Anne
VICTORIA
Morne Seychellois National Park
Cerf Island
SEYCHELLES
Cascade
Mahe Island
Anse Royale
INDIAN OCEAN
Takamaka

SEYCHELLES HEALTH PERFORMANCE INDICATORS AND TARGETS

Domain area	Indicator	Baseline	Target (2020)
HEALTH IMPACT			
Health impact trends	1. Life expectancy at birth		
	2. Infant Mortality rate (per 1,000)		
	3. Under five mortality rate (per 1,000)		
	4. Maternal Mortality Ratio (per 100,000)		
	5. Neonatal Mortality Rate (per 1,000)		
	6. Total Fertility Rate		
	7. Adolescent fertility rate		
	8. AIDS-related mortality rate		
	9. Mortality between 30 and 70 years of age from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases		
	Mortality by key conditions of public health concern 1. Leptospirosis mortality 2. Mortality from road traffic injuries		
	Incidence of key conditions of public health concern, 1. Hepatitis C incidence, 2. HIV incidence, 3. Measles incidence rate, 4. Cancer incidence by type of cancer , 5. Sexually transmitted infections (STIs) incidence rate 6. Renal disease incidence 7. Self harm		
	Prevalence of key conditions of public health concern 1. HIV prevalence rate 2. Hepatitis C prevalence 3. Contraceptive prevalence rate		
Service responsiveness	4. Client satisfaction index		
HEALTH & RELATED SERVICES OUTCOME TARGETS			
Prevention and controlling communicable diseases	1 Immunization coverage rate by vaccine for each vaccine in the national schedule		
	2 Antenatal care coverage		
	3 Postpartum care coverage		
	4 Percentage of HIV positive pregnant women provided with ART to reduce the risk of mother to child transmission during pregnancy		
	5 Percentage of hepatitis C positive patients on treatment		
	6 Vector population- leptospirosis (to be defined – COMBI Plan)		
	7 Mosquito density – vector borne diseases		
	8 Percentage of patients with STIs on treatment (to be defined)		
Promoting and protecting health	**Environment** 1. Population using safely managed drinking-water services 2. Population using safely managed sanitation services		
	Nutrition 3. Incidence of low birth weight among new-borns 4. Anaemia prevalence in children 5. Anaemia prevalence in women of reproductive age 6. Percentage of under-fives with stunting 7. Exclusive breastfeeding for 6 months		
Preventing and controlling non communicable conditions	1. Total alcohol per capita age 15+ years) consumption		
	2. Tobacco use among persons aged 18+ years		
	3. Children aged under 5 years who are overweight		
	4. Overweight and obesity in adults & adolescents		
	5. Raised blood pressure among adults		
	6. Raised blood glucose/diabetes among adults		
	7. Insufficient physical activity		
	8. Illicit drug use (to be refined)		

Domain area	Indicator	Baseline	Target (2020)
	9. Coverage of services for severe mental health disorders (to be defined) and neuro-degenerative disorders (Alzheimer's, MS, Parkinson's, etc)		
	10. Screening for breast, cervical and colorectal cancer		
	Injuries **11.** Intimate partner violence prevalence		
	12. Incidence of injuries caused by RTAs		
Providing essential clinical and rehabilitative services	1. Abortion rate		
	2. Percentage of women of child bearing age using modern contraceptive methods ***vs*** couple years of protection		
	3. Proportion of population tested		
	4. People living with HIV who have been diagnosed		90%
	5. Antiretroviral therapy (ART) coverage		
	6. Percentage of persons on ART with undetectable viral load		
	7. Number of cases of Methycillin Resistant *Staphylococcus aureus* (MRSA) above epidemic threshold		**0**
	8. Clinical output indicator (to be defined)		
OUTPUT TARGETS			
Improving access	1. Outpatient visits per capita		
	2. Hospital bed occupancy rate		
	3. Average waiting time –specialist outpatient & community facility outpatient		
	4. Occupied bed nights		
Improving quality of care	1. Average length of stay		
	2. Perioperative mortality rate		
	3. Number of hospital acquired infections		
	4. Proportion of preventable maternal deaths		
	5. Proportion of preventable infant deaths		
	6. Proportion of inpatient deaths		
	7. Proportion of health facilities that are ready to provide services		
	8. Community health services quality (define quality index)		
THEMATIC AREA TARGETS			
Strengthening integrated health care	1. Availability of clinical pathways for the 10 most common conditions		
	2. Referrals		
	3. Availability of essential medicines and commodities (to be defined)		
Human resources for health	1. Health worker distribution		
	2. Output training institutions		
	3. Health worker density		
Sustainable financing for health	1. Total current expenditure on health (% of gross domestic product)		
	2. Current expenditure on health as percentage of general government expenditure		
	3. Out-of-pocket payment for health (% of current expenditure on health)		
	4. Externally sourced funding (% of current expenditure on health)		
	5. Total capital expenditure on health (% current + capital expenditure on health)		
Research and innovation	1. Percentage of health budget spent on research		
	2. Number of thematic areas with ongoing / new research		
	3. Number of best practices based on application of innovative technologies.		
Partnership, participation and coordination	1. Proportion of partnerships in conformity with the health sector coordination and partnership framework		
	2. Proportion of health coordinating bodies in conformity with the health sector coordination and partnership framework		
	3. Stakeholders regularly provide input to government and health provider organizations about priorities, services, and resources.		
Governance and leadership	1. **Regulatory**: Implementation of health sector legislation and regulations monitored annually		
	2. **Accountability**: annual Health of Our Nation review		
	3. **Efficiency**: sector efficiency (to be defined; methodology DEA- Data envelopment analysis)		
	4. **Stewardship:** Proportion of strategies with clearly defined multisectoral approaches		
Information	1. International Health Regulations (IHR) core capacity index		
	2. Percentage of facilities reporting complete, timely and accurate reports		
	3. Percentage of facilities reporting using electronic health records system		

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Definitions

Abortion: Termination of a pregnancy before it is viable as an independent life outside of the womb. This can occur spontaneously, or be induced by external actions. Current medical expertise can sustain a viable life outside the womb from 24 weeks of gestation. As medical expertise improves, this should reduce further.

Disease: Any condition that causes pain, dysfunction, distress, social problems, and / or death to the person afflicted, or similar problems for those in contact with the person. It may be caused by external factors, such as infectious diseases, or by internal dysfunctions, such as cancers. Diseases usually affect people not only physically, but also emotionally, as contracting and living with many diseases can alter one's perspective on life, and their personality.

Emergency: Any event / crisis that exceeds the community's ability to respond.

Emergency Health services: Health care services necessary to prevent and manage the damaging health effects from an emergency situation. It involves services across ALL aspects of health care services, and includes first aid treatment of ambulatory patients and those with minor injuries; public health information on emergency treatment, prevention, and control; and administrative support including maintenance of vital records and providing for a conduit of emergency health funds across Government.

Essential Health Services: The set of health promotion, disease prevention, curative and rehabilitative services and their interventions that are critical to addressing the health needs of the population in Seychelles. The purpose of the health system is to facilitate delivery of these services to the people that need them

Health: A state of complete physical, mental and social well-being and not merely the absence of *disease* or infirmity[i] . This is ensured through actions in health and related sectors through addressing all determinants of health

Health care professionals: The workforce that delivers the defined *Essential Health Services*. The workforce includes all those persons whose prime responsibility is the provision of health care services guided by a formal training received, irrespective of their organizational base (public, or non-public). The workforce is specific to the respective health services for which they have received training.

Health System: The mechanism to ensure access to quality health care services as demanded by the population, when and where they need them. This requires an appropriate mix of inputs that are available, functional and ready to provide services (health workforce, infrastructure and medicines/supplies), together with appropriate processes to assure efficient use of these inputs (systems for organization of service delivery, financing, governance, information and research).

Humanitarian actions: All actions to mitigate effects of an emergency. These include emergency health services.

Illness: A state of poor health. When conditions of health are not fulfilled, one can be considered to have an illness or be ill.

Incidence: The number of new cases of a variable of interest, in a defined period of time for a given population

Injury: Physical damage to a person

Medical Care Services: The management of disease, illness, injury, and other physical and mental impairments in humans. This involves diagnosis, treatment and rehabilitation of persons, following a disease, illness, injury or other impairment. As opposed to public health services focusing on population health, it is concerned with managing of individual health

Mortality: Susceptibility to death. While this is a natural event, avoidable mortality is not. The health sector seeks to prevent deaths due to avoidable events

Prevalence: The proportion of the population having a variable of interest – be it a disease, or risk factor

Public Health Services: The health care services concerned with the science and art of preventing disease, prolonging life and promoting health through the organized efforts and informed choices of society, organizations, public and private, communities and individuals" It is concerned with threats to the overall health of a community.

Referral: The process by which a tier of health services that has inadequate capacity to manage a given health condition or event, seeks the assistance of a higher level of health care delivery to guide, or take over its management. It ensures establishment of efficient health service delivery system linkages across *levels of care* that ensure continuity of care, for holistic management of health needs of the population.

Referral health services: The health care services whose function is specifically to manage, or facilitate the *referral* process. These services are defined, for different *levels of health care delivery*.

Routine Health Services: Health care services necessary to prevent and manage the damaging health effects from non-emergency situations. It involves services across ALL aspects of health care services.

Abbreviations

AIDS	Acquired Immune Deficiency syndrome
ALOS	Average length of stay
AMR	Adult Mortality Rate
ANC	Antenatal Care
ARV	Anti-Retroviral
AWP	Annual Work Plan
BMI	Body Mass Index
CPD	Continuous professional development
CSO	Civil Society Organization
CT	Computerized Tomography
DAC	Development Assistance Committee
DALYs	Disability Adjusted Life Years
DHS	Demographic and Health Survey
DNA	Deoxyribonucleic Acid
DQA	Data Quality Assessment
EMR	Electronic Medical Records
GPP	Good Prescribing Practices
HIC	High Income Country
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HMIS	Health Management and Information System
HOON	Health Of Our Nation
HRH	Human Resources for Health
HTC	HIV Testing and Counselling
HW	Health Workforce
ICT	Information Communication Technology
ICU	Intensive Care Unit
IDSR	Integrated Disease Surveillance and Response
IMR	Infant Mortality Rate
M/F	Male/Female
MCH	Maternal Child Health
MDG	Millennium Development Goal
MDR/TB	Multi Drug Resistant Tuberculosis
MMR	Maternal Mortality ratio
MOH	Ministry of Health
MRI	Magnetic Resonance Imaging
MTC	Medicines and Therapeutics Committee
MUAC	Mid Upper Arm Circumference
NCDs	Non Communicable Diseases
NGOs	Non-Governmental Organisation
NHA	National Health Accounts
NHP	National Heath Policy
NHSP	National Health Strategic Plan
NMR	Neonatal Mortality rate
OOP	Out of pocket
OPD	Out Patient Department
PITC	Provider Initiated Testing and Counselling
PLWHA	Person Living With HIV / AIDS
PMTCT	Prevention of Mother to Child Transmission
PPPH	Public Private Partnership for Health
RAC	Resource Allocation Criteria
SAMOA	SIDS Accelerated Modalities for Action
SARS	Severe acute respiratory syndrome
SDG	Sustainable Development Goal
SDS	Sustainable Development Strategy
SIDS	Small Islands Developing States
TB	Tuberculosis
THE	Total health expenditure
U5MR	Under 5 Mortality Rate
UN	United Nations
UNAIDS	The joint United Nations Programme on HIV/AIDS
UNFPA	United Nations Population Agency
WHA	World Health Assembly
WHO	World Health Organization
XDR/TB	Extreme Drug Resistant Tuberculosis

Foreword

[Overview of the relationship of this NHSP with the overall Government's development vision, and the national Health Policy. It also highlights how this NHSP will support their attainment. It is signed by the Minister for health]

Preface

[Overview of the global, regional and country health agenda, and how this NHSP is designed to respond to this. It also highlights the process involved, highlighting and acknowledging the multiple stakeholder involvement. It is signed by the Principal Secretary, MOH]

Executive Summary

[Two—page overview of this NHSP.]

CHAPTER 1: INTRODUCTION

1.1 Background to the NHSP

The creation of a new national health system at the end of the 1970s was inspired by the principles adopted at the birth of the Seychellois nation, and also by the Health for All movement, with its emphasis on primary health care. Government undertook responsibility to provide health services, financed exclusive from public funds, to all citizens. The first two decades was characterized by rapid expansion of community health centres, providing a comprehensive range of health services. At the same time, secondary care, based primarily at and around the Seychelles Hospital, developed at a steady pace.

While the principles underlying health development have remained valid, and indeed reinforced in the Constitution adopted at the birth of the Third Republic in 1993, the health landscape has evolved rapidly in the past two decades. Demands and expectations from an increasingly educated population; the changing pattern of diseases, many of which are related to the adoption of new life-styles; increasing sophistication in health technologies and the emergence of private health service providers have all contributed to this evolving landscape.

In response to these challenges, and the inevitable increase in demand for resources for health, the Ministry of Health has embarked on a process of modernization of the health system. Among other things, this process has clarified and strengthened the leadership role of the Ministry of Health, separate from the role of providing health care services and regulating such services. In line with its role, the Ministry led the nation-wide process of developing the National Health Policy, culminating in its adoption in June 2015. The Policy emphasizes the central place of health in human development, and seeks to mobilise resources and efforts from all sectors of society for the pursuit of the health of the nation. Clearly, at this stage of development, modest incremental changes are insufficient to address the health situation and needs, and investment in health must be focused, sustained and both quantitative and qualitative in nature.

1.2 Rationale for the NHSP

The National Health Strategic Plan naturally flows from the National Health Policy, and gives direction, sets milestones and proposes the appropriate goals to guide and optimize this investment in health. Health is fundamentally about human well-being, which is the product of biological, environmental, social and cultural factors that fashion our individuality, outlook and interaction with each other and with the environment. Thus, health is the concern of all. The NHSP is founded on an acknowledgement of all the many and varied forces that contribute to health or have the potential to influence health. It follows, therefore, that the pursuit of health should be a societal enterprise, and the NHSP is, in this spirit, an invitation to all sectors of society and all possible partners.

At its most fundamental, the response to such an invitation should be a greater awareness that health is a common concern and an understanding that all can and should contribute to the better health of

individuals, families, communities and ultimately the nation. At the level of the health system there needs to be an awareness of the varied determinants of health and the importance of all sectors, be they governmental, private, civil society, or households, to find common ground and engage in coordinated action to create the environment and build the partnerships for health. At the level of health services there is need to address the complex interactions between providers of health care services (public and private, formal and informal) and the users and beneficiaries of the services. Issues of access, utilisation, equity, effectiveness and efficiency have to be defined in terms relevant to the Seychelles context. The connection between health and other sectors of development is multidimensional and the NHSP recognizes that it is as important for health to consider its involvement in the priorities and strategies of other development partners as it is to invite others to engage in health.

1.3 Overview of the Sustainable Development Framework

The sustainable development approach takes a broad view of development, affirming that economic and social progress go hand in hand. Similarly, sustainability demands that human well-being be built on a model of development that values, protects and enhances the environment and leaves a legacy that will provide the means to ensure the well-being of future generations. It is particularly important for a small island community, with its vulnerabilities, limited resources and resilience, to adopt this broad view and to ensure that all development strategies are consistent with those perspectives.

It is evident that, while economic and social progress in recent decades have had a positive impact on human development, there have also been adverse effects from the adoption of less healthy lifestyles and the emergence risk factors for diseases. The challenge is to maximise the opportunities that arise from being part of a modern, globalised and technology-rich world and avoiding or mitigating the potentially negative influences. It is also important that all sectors are mobilised and engaged in the process of development, not only to optimise the use of resources, but also to ensure that the benefits of national development are distributed equitably.

1.4 Overview of the existing policy foundations

The pursuit of better health is an integral part of the development process and the NHSP takes account of policies and strategies in other sectors of development. Health strategies are therefore consistent with the sustainable development agenda as promoted in the various national initiatives. Furthermore, in line with the National Health Policy 2015 – 2030, this NHSP seeks to give health a more assertive and prominent role in informing and influencing national development. Ensuring a strong link between the different national strategies provides opportunities for synergy, avoiding duplication and adopting common or at least consistent targets and indicators of progress and achievement.

The Seychelles Sustainable Development Strategy 2012 – 2020 is a comprehensive and wide-ranging environment management plan to promote, coordinate and integrate sustainable development in the Seychelles economy. It focuses on enhanced inter-sectoral action and effectiveness and promoting wide participation. It notes the central position of health in social and human development, recognising the importance of healthy homes in addressing the risks of infectious diseases and the promotion of better

nutrition and physical activity in the prevention of non-communicable diseases. The NHSP draws from the Sustainable Development Strategy which has already identified many of the social determinants of health and laid the foundation for action for health in all sectors.

The Seychelles Strategic Plan 2015 – 2040 sets out the long term spatial planning framework for the country up to 2040. Taking into account population projections, it maps the main islands' potential for land use with emphasis on sustainable development and the promotion of communities. It provides a broad view of social development and takes into account economic activities and social needs, including housing, energy, water, education, health and community while also addressing issues of environment, biodiversity and climate change. The framework provides useful reference for situating health strategies within the context of developing resilient and healthy communities.

As an active member of the community of Small Islands Developing States and an advocate for sustainable development in the face of vulnerability posed by climate change, Seychelles has firmly endorsed the SIDS Accelerated Modalities of Action (SAMOA) Pathway adopted by the United Nations in 2014. The Pathway provides a common framework for sustainable, inclusive and equitable economic growth, while addressing the challenges posed by climate change and other environmental threats. It also addresses many issues of human development and its calls for action on health echo many other resolutions and declarations that Seychelles has also endorsed. These include World Health Assembly resolutions, the UN General Assembly Political Declaration on Non-Communicable Diseases, and the UNAIDS Getting to Zero declaration. The NHSP takes account of these commitments and targets, in particular with regards to NCDs and HIV/AIDS.

The Sustainable Development Goals and associated targets adopted by the UN Member States in October 2015 are well aligned with the development goals adopted by Seychelles and which feature in national and sectoral policies and strategies. Most of the SDGs are health-related or aligned with the health objectives identified in the National Health Policy. The NHSP will therefore adopt the SDGs as one of its key guides in charting the approaches to health development, and ensure that SDG process and the goals and targets are incorporated into the national agenda.

1.5 Development process and outline of the NHSP

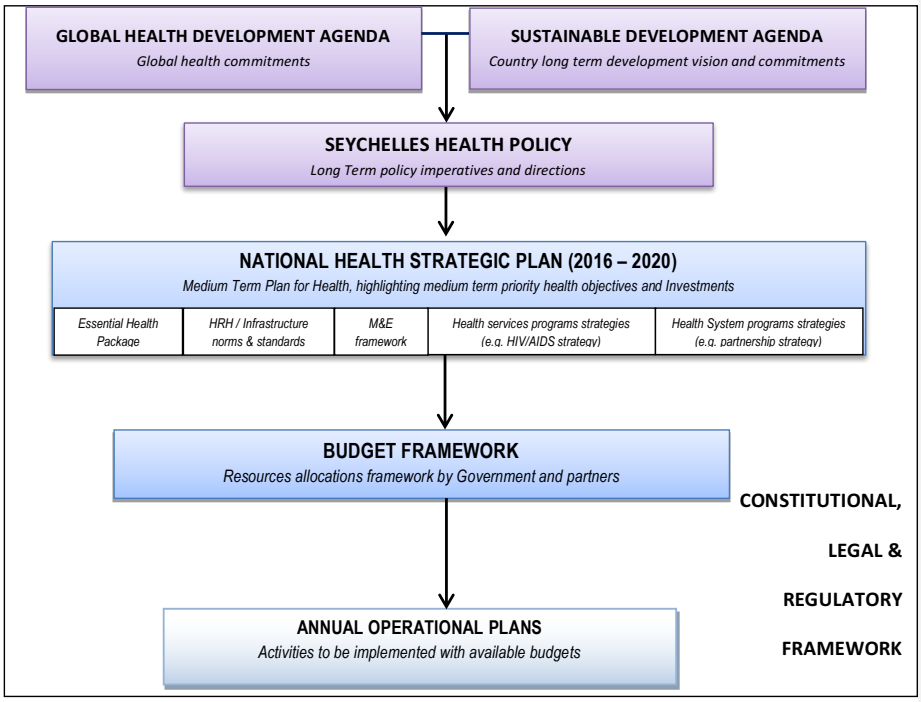
The NHSP is an integral part of the overall planning framework for health in Seychelles. It derives its focus and direction from the Seychelles Health Policy, which was in turn a derivative of the global health agenda, and the Seychelles Sustainable Development Strategy. The Report of the Health Task Force, adopted in 2013, identified many of the strategic areas and recommended actions that are now incorporated into the NHSP.

This NHSP will provide guidance to the respective strategic plans to be developed within the health sector, addressing different health programs or system development areas. They shall all be aligned to, and contribute towards attainment of this NHSP in the medium term.

This NHSP will also form the basis for guiding the health sector priorities in the budgeting process. The actions outlined here shall form the basis of the priorities to be financed in each budgeting cycle, with the

eventual funded priorities based on the state of funding. The resultant funded priorities shall be used to elaborate sector operational / activity plans to guide operations in health.

Figure 1: Planning framework for health



The development of the NHSP follows the similar process of wide consultation that was adopted for the development of the National Health Policy. This ensures that the strategies are founded on the realities of Seychelles, express the aspirations of all those concerned with health, and strengthen the coordination and partnerships necessary for its successful implementation and development. This success will also depend on the continuing open dialogue with partners and involvement of all stakeholders. Key among the stakeholders are the health professionals who need to be reminded and motivated to see the NHSP as relevant and empowering to their roles as clinicians, public health advocates and health activists. This sense of purpose and engagement must guide the development of action plans that will be the next step that the health services will actively embark upon immediately following the adoption of the NHSP.

It is also important to ensure that the NHSP is part of the ongoing modernization process led by the Ministry of Health and involving all the public and private health services. Other processes that are planned and ongoing must be aligned with the NHSP so that there is coherence, synergy and coordination.

These include the planned introduction of performance programme-based budgeting that will be implemented in 2017 and for which preparation will commence in 2016. It is necessary for the Ministry of Health to embrace the process and take ownership so that PPBB becomes another of its tools to ensure optimal use of resources devoted to health. Another important tool that needs to be similarly aligned with the NHSP and the ensuing plans of action is the National Health Accounts, so that the exercise becomes, as much as possible, prospective and timely. The development of the planned Health Information System must be part and parcel of the implementation of the NHSP so that it serves strategic as well as operational monitoring and evaluation requirements. Similarly, the service agreements and directives from the Ministry to the Health Care Agency and Public Health Authority must be in line with the NHSP.

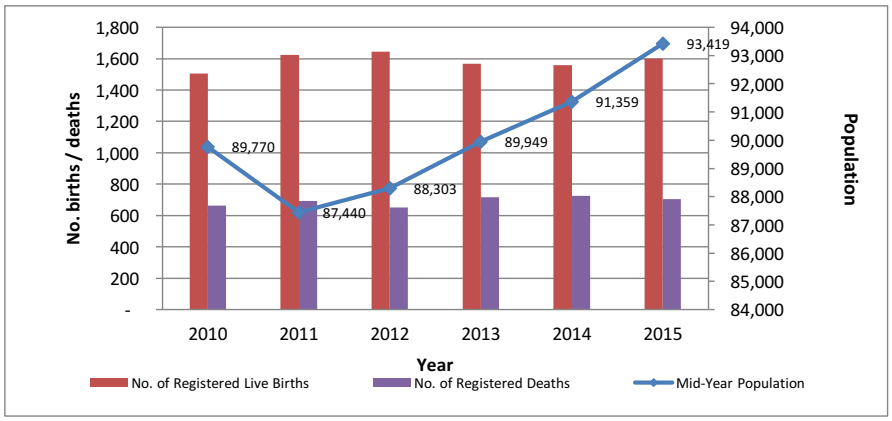
The following chapters of the NHSP outline the health challenges that Seychelles faces and provides the background and the context to the strategic agenda and priority themes and broad areas of focus. Implementing the Plan will require the allocation of resources and these are identified and estimated in the subsequent chapter. The framework to ensure the implantation and the monitoring and evaluation approaches are then detailed. It is intended that this NHSP become an active guide and tool for health development for all involved in the health sector. It is a framework and roadmap for giving effect to the principles and policies adopted in the National Health Policy and a foundation on which to build programmatic and action plans.

CHAPTER 2: HEALTH CHALLENGES AND CONTEXT

2.1 Demographics

In 2014, the Seychelles population was estimated at 91,400 people of which 46,100 were women and 45,300 were men (ratio M: F 0.98:1). The country has had an average of 1,579 live births and 690 deaths annually over the past 5 years.

Figure 2: Seychelles population trends, 2010 - 2015



Source: Epidemiology and Statistics Section - Public Health Authority - Ministry of Health

The bulk of the population is found within the age bracket of 15 to 44 years (decreasing from 40.2 to 38.3% in the last five years. However, the percentage of the population within the age bracket 45-64 years (increasing from 16.4 to 24.2% in the last five years) and the percentage aged over 65 years (increasing from 6.1 to 6.8% in the last five years) have been growing markedly, clearly indicating that there is a gradual shift of the population towards the older ages. This is likely to increase the demand for health services, especially those services associated with older ages.

2.2 The state of health in Seychelles: impact trends and distribution

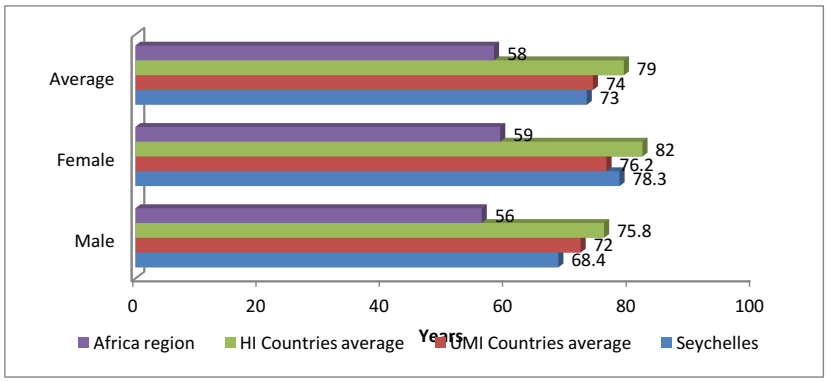
The ultimate aim of the health sector is to maximize health and well-being in the Country through directly providing required health services and advocating for the provision of services that promote health in other sectors. The state of health in the country is therefore a good way to monitor how well the country is achieving the goal of maximizing the level and distribution of health. Three key variables gauge the overall state of health:

1. The overall expectation of life of the population – how long people are able to live given the current political, economic, ecological, social and technological context. Lower life expectancies in specific population groups provide a guide as to where interventions need to be targeted
2. The incidence and prevalence of priority diseases and the levels of morbidity and mortality by condition – what it is that is making people ill and/or die. This allows better targeting of health interventions towards the actual causes of ill health and death, in the appropriate segments of the population
3. The responsiveness of available services to peoples legitimate needs – how well the available health and related services are aligned to the actual known / unknown health needs. This allows a better understanding of delivery mechanisms for health and related services to ensure the uptake and use of provided services is maximised.

2.2.1 Trends and distribution in the expectation of life

The National Bureau of Statistics puts the average life expectancy at birth consistently over 73 years for the past five years. In 2014, life expectancy at birth for women was 78.3 years and 68.4 years for men. This is higher than that for other African countries. It is however lower than that for upper middle income countries, for men and higher for women.

Figure 3: Seychelles life expectancy at birth, compared with peers



Source: National bureau of statistics (Seychelles), and World health statistics 2014 (peers)

The gap between the life expectancy of men and that of women has remained consistently wide for well over a decade, suggesting significant scope for improvement in life expectancy overall, and for men specifically.

The level of expectation of life is driven by the incidence, prevalence and mortality levels associated with different health conditions.

2.2.2 Trends and distribution of mortality

Mortality levels for specific age groups are rather low in Seychelles and has been fairly stagnant. Over the past 5 years, Seychelles had an average of 15 neonatal deaths, 27 perinatal deaths, 20 infant deaths, and 1 maternal death for just under 1600 live births. While the figures are low, they are more or less consistent across the years.

Table 1: Seychelles age-specific mortality trends, 2010 - 2015

Variable	Vital Statistics	2010	2011	2012	2013	2014	2015	Average 2010-2014
Numbers of events	Registered Infant Deaths (Deaths in population less than 1 year)	21	16	17	29	17	17	**20**
	Early Neonatal Deaths (Deaths in population less than 7 days old)	13	10	11	16	10	7	**12**
	Late Neonatal Deaths (Deaths in population 7 to 27 days old)	5	3	2	5	2	3	**3**
	Post Neonatal Deaths (Deaths 28 days to less than 1 year old)	3	3	4	9	5	7	**5**
	Neonatal Deaths (Deaths in population less than 28 days old)	18	13	13	21	12	10	**15**
	Stillbirths (babies born dead of gestational age 22 weeks and above)	9	18	15	20	14	14	**15**
	Perinatal Deaths (Early neonatal deaths and stillbirths)	22	28	26	36	24	21	**27**
	Registered Child Deaths	0	6	4	2	4	3	**3**
	Registered Maternal Deaths	2	0	0	1	0	3	**1**
Estimated Ratios and rates	Infant Mortality Rate (per 1,000 live births)	13.96	9.85	10.33	18.52	10.92	10.63	**12.72**
	Neonatal Mortality Rate (per 1,000 live births)	11.97	8.00	7.90	13.41	7.71	6.25	**9.80**
	Perinatal Mortality Rate (per 1,000 livebirths and Stillbirths)	14.54	17.04	15.66	22.70	15.28	13.01	**17.06**
	Under-five Mortality Rate (per 1000 population under five years)	2.81	3.27	3.11	2.97	2.79	2.65	**2.99**
	Under-five Mortality Ratio (per 1,000 livebirths)	13.96	13.54	12.77	19.80	13.49	12.50	**14.71**
	Maternal Mortality Ratio (per 100, 000 livebirths)							**37.99**

Source: Epidemiology and Statistics Section - Public Health Authority - Ministry of Health

Notes:

1. *A child in this table is defined as a member in the population who is 1 to 4 years old*
2. *All births and deaths in this table are from the registry of the Civil Status Office where the coverage is 100%*
3. *Maternal mortality events are too few and the population too small to derive a realistic annual MMR value. The 5-year estimate is more realistic*

2.2.3 Trends and distribution of mortality causes & disease burden

The top 30 contributors to morbidity and mortality (measured in disability adjusted life years) in Seychelles (2014), and the top 30 conditions whose burden has increased most are shown below

Table 2: Seychelles top 20 contributors to mortality and increase in DALYs (*Will be replaced with a table with figures from Mr Didon)*

	Cause of death or injury	Percent of total DALYs		Cause of death or injury	DALYs annual % change
1	Ischemic heart disease	8.40%		HIV/AIDS	10.33%
2	Cerebrovascular disease	6.24%		Kidney cancer	6.69%
3	Lower respiratory infections	5.90%		Larynx cancer	5.74%

	Cause of death or injury	Percent of total DALYs		Cause of death or injury	DALYs annual % change
4	Diabetes mellitus	4.08%		Other unintentional injuries	5.45%
5	Low back and neck pain	3.89%		Liver cancer	4.78%
6	Hypertensive heart disease	3.87%		Endocrine, metabolic, blood, & immune disorders	4.70%
7	Sense organ diseases	3.37%		Leukemia	4.56%
8	Chronic obstructive pulmonary disease	2.66%		Multiple sclerosis	4.45%
9	Depressive disorders	2.25%		Cirrhosis due to hepatitis C	4.13%
10	Road injuries	2.23%		Ovarian cancer	3.97%
11	Drowning	2.08%		Non-Hodgkin lymphoma	3.96%
12	Congenital anomalies	2.04%		Cirrhosis due to other causes	3.88%
13	Skin and subcutaneous diseases	1.96%		Prostate cancer	3.75%
14	Chronic kidney disease	1.85%		Pancreatic cancer	3.70%
15	Other cardiovascular & circulatory diseases	1.71%		Tetanus	3.53%
16	Migraine	1.63%		Diabetes mellitus	3.51%
17	Drug use disorders	1.55%		Paralytic ileus and intestinal obstruction	3.40%
18	Self-harm	1.47%		Atrial fibrillation and flutter	3.35%
19	Breast cancer	1.46%		Cirrhosis due to hepatitis B	3.16%
20	Interpersonal violence	1.44%		Breast cancer	3.05%
21	Tracheal, bronchus, and lung cancer	1.34%		Testicular cancer	3.03%
22	Prostate cancer	1.33%		Medication overuse headache	2.82%
23	Preterm birth complications	1.31%		Cirrhosis due to alcohol use	2.55%
24	Colon and rectum cancer	1.31%		Vascular intestinal disorders	2.19%
25	Alzheimer disease and other dementias	1.25%		Rheumatoid arthritis	2.12%

	Cause of death or injury	Percent of total DALYs		Cause of death or injury	DALYs annual % change
26	Paralytic ileus and intestinal obstruction	1.05%		Appendicitis	1.99%
27	Schizophrenia	0.97%		Gallbladder and biliary tract cancer	1.95%
28	Anxiety disorders	0.97%		Gout	1.92%
29	Cervical cancer	0.95%		Maternal deaths aggravated by HIV/AIDS	1.80%
30	Asthma	0.90%		Protein-energy malnutrition	1.80%

Source: 2014 World Health Statistics

Non-communicable conditions are the main causes of both morbidity and mortality. In 2014, a total of 725 deaths were reported. Diseases of the circulatory system contributed to 28% (202) of the total deaths. In that category, 58 deaths (29%) were due to hypertensive heart diseases followed by 46 deaths (23%) due to other heart diseases. Neoplasms contributed to 17% (125) of the total deaths, with 24 (19%) due to malignancy of colon/rectum and malignancy of prostate with 15 (12%) deaths. Diseases of the respiratory system were third with 104 (14%) of the total deaths, with 65 (62.5%) deaths due to pneumonia (inclusive of infant and child). (Source: Epidemiological Report 2014, MoH). These 2014 percentages are consistent with the trend for the past five years.

In the domain of communicable conditions, HIV/AIDS, Hepatitis C, leptospirosis, sexually transmitted infections and vector-borne diseases, such as dengue, are the main concerns.

HIV

Since the first HIV case was diagnosed in Seychelles in 1987, a total of 667 (387M/280F) HIV cases representing 58% males and 42% females have been reported. In 2014, 441 (246M/195F) persons were living with HIV representing 56% males and 44% females. The main probable mode of transmission at diagnosis was heterosexual (57%) and intravenous drug use (31%) of the cases diagnosed in 2014.

The year 2014 has reported the highest number of new cases for HIV since 1987 with 91(55M/36F) cases, an increase of 94% compared to 2013, age ranging from 1 month old to 71 years old, both females. Out of the 441 (246M/195F) persons living with HIV, 64 (40M/24F) did not access the service for over six months representing 15% of loss to follow-up (LTFU). A total of 231 (125M/106F) cases was on Highly Active Antiretroviral Therapy (HAART) by the end of 2014 representing 52% of people living with HIV. 55(28M/27F) cases representing 19% of cases eligible for treatment as per WHO recommended guidelines defaulted treatment for more than three months in 2014. The age groups most affected were the 25 -29 and 30 -34 years old representing 33% of the HIV cases reported from 1987 to 2014. The 50 years old and above represented 15% of the total number of cases. Males were more affected than females for all age groups.

With the availability of treatment, improvement in management of HIV over the years, an increasing number of persons are aging with the disease, 23% of the cases living with HIV were aged 50 years and above by the end of 2014.

AIDS

Since the first AIDS case in 1993, a total of 283 (175M/108F) AIDS cases was reported by December 2014 of which 62% males and 38% females. There were 19(11M/8F) new AIDS cases reported in 2014, a reduction of 9% compared to 21 new cases in 2013, 14 were newly diagnosed HIV cases and 5 were known HIV cases who progressed to AIDS.

A total of 136 (82M/54F) AIDS related deaths has been reported since 1993 to 2014, 60% of deaths occurred in males and 40% in females.

The AIDS mortality from 1993 to 2000 has generally been on the increase, with the introduction of Highly Active Antiretroviral Therapy (HAART) in 2001, a sustained decline in the trend has been noted over the years with though an increase in mortality in 2014.

In 2002 there were 6 deaths (7%) out of 87 PLWHA, 5 deaths (3%) out of 175 PLWHA in 2006, 8 deaths (3%) out of 294 PLWHA in 2010 but an increase in AIDS mortality was noted in 2014 with 19 deaths (4%) out of 441 PLWHA. The year 2014 reported the highest number of AIDS related deaths since 1993, an increase of 137% compared to 8 cases in 2013 and age ranging from 16 to 66 years. Of the 19 death cases, 42% were newly diagnosed with HIV in 2014, 47% were those who have defaulted treatment and follow-□-up and 11% died of cancers.

Possible contributing factors towards the increase in AIDS mortality were loss to follow up and late presentation of cases. In 2014, 15% of PLWHA did not access the service for over six months, 19% of cases eligible for treatment defaulted treatment for more than three months and late presentation of cases. In 2014, 42% of AIDS related deaths were newly diagnosed HIV cases who were in late stage of AIDS.

A total of 108 HIV positive pregnancies have been reported from 1987 to 2014, 83(77%) have benefited from the PMTCT program since its introduction in 2001 from mono-therapy to tri-therapy today.

There were 10 new HIV positive pregnancies reported for the year 2014, an increase of 43% compared to 2013 (7), age ranging from 16 to 35 years old. Before the PMTCT era, 8 out of the 23 babies born from HIV positive mothers were infected with HIV representing a mother to child transmission of 35% compared to 3 out of the 80 babies since the introduction of PMTCT program representing a mother to child transmission of 4%. Only 4 of the 10 HIV positive pregnant mothers delivered in 2014.

By the end of 2014, there were 231(125M/106F) cases on Highly Active Antiretroviral Therapy (HAART), representing 52% of PLWHA. However, a number of treatment drop-outs are reported every year. By the end of 2014, a total of 55 (28M/27F) cases representing 19% of cases eligible for treatment as per WHO recommended guidelines defaulted treatment for more than three months.

In 2014, 64 (33M/31F) new HIV cases were initiated on Highly Active Antiretroviral Therapy (HAART), representing 52% males and 48% females respectively, an increase of 5% in new cases started on treatment compared to 2013. Of the 64 new cases initiated on HAART in 2014, 19% (12) defaulted treatment for more than three months during the course of the year.

The HIV incidence amongst the blood tested has remained constant at 5 per 1000 HIV tests for the year 2006 to 2008 but increased to 6 per 1000 HIV tests in 2009. From 2010 to 2012, there was a decreasing trend in the incidence but an increase in the incidence from 5 per 1000 HIV tests in 2013 to 9 per 1000 HIV tests was observed in 2014.

The number of tests conducted over the years has remained more or less constant. A total of 10,283 HIV tests were conducted in 2014, an increase of 8% compared to 2013. HIV tests were conducted in all VCT centers, Wards, Antenatal Clinics and the Blood Transfusion Center.

Hepatitis C

A total of 486 cases of Hepatitis C reported from 2002 to 2014, 399(82%) males and 87(18%) females. Out of the 486 cases, there were 56 (43M/13F) HIV and Hepatitis C co-infection and 18 (11M/7F) Hepatitis C related deaths.

For the year 2014, 93(78M/15F) new cases of Hepatitis C were detected representing a reduction of 4% in new reported cases compared to 2013, the youngest was a 15 year old and the eldest a 52 year old, both males. The age group most affected was the 20 to 34 years representing 76% of the total cases reported for 2014. There were 28 (24M/4F) new cases of HIV and Hepatitis C co-infection, 12(8M/4F) Hepatitis C related deaths and 4 Hepatitis C pregnancies reported. Of note 3 amongst the 12 Hepatitis C related deaths in 2014 were newly Hepatitis C diagnosed cases for the year.

No data is available for 2005 to 2007. There was a gradual increase in the incidence of Hepatitis C reported from 24 per 1000 tests in 2010 to 50 per 1000 tests in 2012 followed by a rapid decline to 26 per 1000 tests in 2013 and 23 per 1000 tests in 2014. Of the 486 cases reported to date, 483 (99%) cases were confirmed to be Intravenous Drug Users. An increase of 13% was also observed in the number of Hepatitis C tests conducted in 2014 compared to 2013.

Leptospirosis

A total of 672 suspected cases of leptospirosis were reported in 2014. Of these 50 (49M/1F) were confirmed. This represents an increase of 78% in confirmed cases compared to 2013 (28 cases). Out of the 50 confirmed cases, there were 11 deaths, representing a fatality of 22% for the year 2014 and an increase of 120% in the number of deaths confirmed to be from leptospirosis in 2014 compared to 5 such deaths in 2013. All fatal cases in 2014 were males, aged from 14 to 65 years old.

Tuberculosis

A cumulative of 591 confirmed tuberculosis cases have been reported from 1979 to 2014, 31 tuberculosis related deaths out of 591 cases since 1976 and 31 cases of HIV & TB Co–infection reported from 2000 to 2014. No data available for the previous years.

In 2014, there were 7 (5M/2F) newly confirmed tuberculosis cases reported, a reduction of 69% in new cases compared to 23 cases in 2013. Of note 14% of the new cases were expatriates. There was 1 case (male) of HIV & TB Co-Infection but no tuberculosis related deaths reported. No cases of MDR or XDR TB have been reported to date in Seychelles.

Sexually transmitted infections

A general increasing trend in the incidence of syphilis has been observed, from 60 per 10000 RPR/TPHA tests in 2010 to 91 per 10000 RPR/TPHA tests in 2013, representing an increase of 52%. In 2014 there was a reported incidence of 74 per 10000 tests, representing a reduction of 19% compared to 2013.

There has also been an increasing trend in the incidence of Gonorrhea over the years from 1 per 100 tests in 2006, 8 per 100 tests in 2008 to 22 per 100 tests in 2011 respectively. A significant decline in incidence was observed from 19 per 100 tests in 2013 to 10.29 per 100 tests in 2014, a reduction of 46% in 2014 compared to 2013.

A total of 1030 tests for Gonorrhea were conducted in 2014, a reduction of 3% compared to 2013, of which 106(84M/22F) were positive for gonorrhea representing a case detection rate of 10%. The youngest case was a 15-year old female and eldest a 57-year old male. The 15-24 years age group was more predominantly affected representing 46% of the total reported cases.

The number of suspected cases of Gonorrhea screened has gradually increased over the years from 680 tests in 2006, 896 tests in 2011 to 1030 tests in 2014 respectively.

A total of 4705 tests for Chlamydia Trachomatis were conducted from 2005 to 2014 with 762 positive cases reported representing a case detection of 16%. A fluctuating trend in the incidence over the years was observed from 9.76 per 100 tests in 2006, 14.65 per 100 tests in 2011, 27.21 per 100 tests in 2013 and 19.61 per 100 tests in 2014 respectively.

The year 2014 reported a reduction of 9% in the number of tests conducted and a reduction of 28% in positivity compared to 2013. The youngest was at 2 weeks old with ophthalmia neonatorum and eldest a 68 year old, both males. The age group most predominantly affected was the 20-29 years, representing 48% of the cases.

2.2.4 Trends and distribution of risk factors contributing to morbidity and mortality

The contribution of the major risk factors by cause of death contributing to ill health and death in Seychelles are as shown in the table below

Table 3: Contribution of different risk factors to different causes of death or injury

	Behavioral risks			Environmental/occupational risks			Metabolic risks	
	Cause of death or injury	*% total deaths*		*Cause of death or injury*	*% total deaths*		*Cause of death or injury*	*% total deaths*
1	Cardiovascular diseases	26.69%		Diarrhea, lower respiratory, and other common infectious diseases	0.56%		Cardiovascular diseases	32.74%
2	Neoplasms	6.51%		Cardiovascular diseases	0.55%		Diabetes, urogenital, blood, and endocrine diseases	4.79%

	Behavioral risks			Environmental/occupational risks			Metabolic risks	
	Cause of death or injury	*% total deaths*		*Cause of death or injury*	*% total deaths*		*Cause of death or injury*	*% total deaths*
3	Diarrhea, lower respiratory, and other common infectious diseases	2.01%		Neoplasms	0.44%		Neoplasms	1.22%
4	Diabetes, urogenital, blood, and endocrine diseases	1.69%		Chronic respiratory diseases	0.29%		Transport injuries	0.18%
5	Cirrhosis	1.55%		Unintentional injuries	0.11%		Unintentional injuries	0.14%
6	Chronic respiratory diseases	1.44%		Transport injuries	0.08%		HIV/AIDS and tuberculosis	0.09%
7	Mental and substance use disorders	0.77%		Diabetes, urogenital, blood, and endocrine diseases	0.01%		Self-harm and interpersonal violence	0.03%
8	Self-harm and interpersonal violence	0.56%						
9	Nutritional deficiencies	0.56%						
10	Transport injuries	0.46%						
11	Unintentional injuries	0.39%						
12	HIV/AIDS and tuberculosis	0.38%						
13	Digestive diseases	0.11%						
14	Neurological disorders	0.02%						
15	Other communicable, maternal, neonatal, and nutritional diseases	0.01%						
16	Maternal disorders	0.00%						
17	Forces of nature, war, and legal intervention	0.00%						
18	Musculoskeletal disorders	0.00%						
19	Neglected tropical diseases and malaria	0.00%						
20	Neonatal disorders	0.00%						
21	Other non-communicable diseases	0.00%						
		43.16%			2.03%			39.19%

Diabetes

The Seychelles Heart Study (published in 2014) has compared findings of the 2013 study with figures from the 1989 study for the prevalence of non-communicable diseases risk factors. It has reported that the prevalence of diabetes increased from 6.2% to 11.9% in men and from 6.2% to 10.8% in women between 1989 and 2013. The prevalence of impaired fasting blood glucose ("pre-diabetes") was 32% in men and 17.4% in women in 2013. The numbers of persons with diabetes and with pre-diabetes have increased markedly over time, consistent with the increasing prevalence of obesity. There are approximately 6000 persons with diabetes in the population aged 25-64. Around 40% of those persons have not yet been identified or treated.

Hypertension

On the other hand, the prevalence of Hypertension (blood pressure >140/90) did not increase between 1989 and 2013. However, the number of persons treated or untreated for Hypertension has increased markedly over time because of the increasing and aging population as outlined above. There were approximately 18'000 persons with Hypertension in 2013 within the age bracket of 25-64. The Seychelles Heart Study has found that the proportions of hypertensive individuals who are aware of having Hypertension (among all persons with Hypertension), of those who are treated for Hypertension (among those who are aware of having Hypertension) and of those who have blood pressure lowered to target values (among those patients treated for Hypertension) have markedly increased over time, consistent with marked improvement in health care for Hypertension over time. However, the proportion of hypertensive persons who have blood pressure adequately controlled is still low and there is a need to further strengthen health care to antihypertensive patients.

Overweight & obesity

Comparing 1989 to 2013, the prevalence of combined overweight (i.e. moderate excess of weight, BMI: 25-29 kg/m2) and obesity (marked excess of weight, BMI ≥30 kg/m2) has doubled in men (from 28% to 57%) and also has markedly increased in women (from 51% to 72%). The increasing and aging population between 1989 and 2013 and the increasing prevalence of overweight and obesity over time have resulted in largely increasing numbers of overweight and obese persons in the population. In 2013 there were 48'830 overweight or obese persons aged 25-64.

Smoking

The age-adjusted prevalence of smoking has decreased over time. The number of cigarettes smoked per day in male smokers has also decreased. These improvements are partly responsible for the significant decrease in the age-adjusted mortality rates of cardiovascular diseases and lung cancer between 1989 and 2013. The Seychelles Heart Study claims that decreasing prevalence of smoking in men might be due to the tobacco control program in Seychelles since the late 1980s. The study report asserts that continued awareness programs, fairly high tax on tobacco products (>65% of total cost of cigarette packet in 2014), and impact of comprehensive legislation on tobacco control in 2009 might all have contributed. In Seychelles, there is a total ban on smoking in enclosed public places and selected open public spaces. There is also a very effective total ban on tobacco advertising, promotion and sponsorship, etc. However, the total number of smokers in the population is still both high and increasing over time, which emphasizes the need to further strengthen tobacco control program as a main public health priority. The

prevalence of daily smokers is much higher in men than in women. The prevalence decreased markedly among men over time but tended to increase among women between 2004 and 2014. The prevalence of smoking was higher in all surveys among persons of lower vs. higher SES, particularly in men.

Alcohol abuse

The prevalence of heavy drinking (≥5 drinks per day on average), which was very high in men in 1989 and 1994, has decreased over time, but is still substantial in 2013 (nearly 11% of men in 2013). However, the prevalence of both moderate drinking (1-2 drinks per day) and marked drinking (3-5 drinks per day) has increased over time in both men and women.

2.3 The state of health services

Comment [DL1]: Ensure comprehensively captured all services provided-differentiating between services provided by public & private sectors and the burgeoning alternative/complementary health services – Dr Valentin

A wide range of health services is currently available to the population, covering the major conditions affecting health. These range from services that promote health and prevent communicable and non-communicable diseases to those providing clinical and rehabilitative care.

In promoting health, the sector has focused around various nationwide health campaigns. This has led to a direct mobilization of households and communities around ensuring they are practising healthy behaviours and taking appropriate health seeking actions. The approach is specifically aimed at stopping the rising incidence of HIV and Hepatitis C, together with building awareness and reversing the trend in risk factors for the major NCDs. The effort is carried out through a number of approaches:

- Advocacy with decision makers, such as the legislature, to put in place appropriate controls to limit exposure to major risk factors such as tobacco and alcohol
- Use of mass media, such as radio and television for sending our community-wide health messages
- Having specific accelerated advocacy events such as “road shows” to raise mass awareness about a specific health risk
- Putting in place community systems to identify most at risk persons to whom services can be targeted – such as actual/potential drug users, sex workers and others
- Door to door visits to households to share targeted health messages for different conditions

The health sector has also prioritised scaling up of services to address the rising burden of non-communicable conditions in the country. This is so both at community and health facility levels with the aim of early identification of the most at risk persons to allow corrective interventions to be put in place. Health facilities are encouraged to identify and screen the most at risk persons for major NCDs. The current services focus primarily on screening for diabetes, high blood pressure, and cholesterol.

The prevention of communicable diseases services are rather widespread across the country.

- HIV, STI and Hepatitis C prevention services are widely available through the HIV control program, and are targeted specifically at the both the general population and the *Most at Risk Populations* to prevent further surge of the disease in these groups. Services provided include PMTCT, PITC, ARV treatment
- The health sector provides immunization services aimed at preventing childhood illnesses – with a focus on preventing TB, pertussis, diphtheria, whooping cough, Hepatitis B, mumps, measles,

rubella, yellow fever and pneumonia in children. In addition, the sector is also providing HPV vaccination to school going children across the country
- Screening services for migrant workers to detect major communicable disease health risks...
- Mother and child health services are provided at pre-natal, maternity, post-natal and child health clinic levels with specific services, such as growth monitoring and developmental assessments, targeted at each service point.
- Tuberculosis prevention and treatment services are also available, provided through the health facilities
- Services to identify Neglected Tropical Diseases, specifically STHs, leptospirosis infections together with those for Methicillin Resistant *Staphylococcus aureus* are also available
- Oral health services are a major component of the care services available to the people.

Clinical and rehabilitative services are provided through the existing health facilities –i.e. the central referral hospital, 3 cottage hospitals (1 rehabilitative hospital, 1 mental hospital, 1 youth health centre) and 17 decentralized district health centres located throughout the country. These are complemented by the non-public health facilities. The services available to the population cover the following:

- Outpatient care services, addressing all conditions people present with at all facilities
- Emergency and trauma care services, primarily at the peripheral health centres and the central referral hospital and complemented by an ambulance network
- Motherhood services,
- Laboratory / investigative services including radiology services provided in selected facilities
- Inpatient services including intensive and high dependency services
- Operative services for major and minor emergency and routine services
- Some specialized services, primarily provided at the central referral hospital
- Post/after care services, primarily rehabilitation services

2.4 The state of the health system

The health system provides the mechanism through which the above health services are delivered to the people. A good health system is designed around a tripartite set of goals, of improving access (physical, financial, and socio-cultural), quality of services, and community demand for care. Weaknesses in the system translate into poor availability and/or quality of the desired health services with resultant negative impacts on the health of the people. In Seychelles, the health system is based on seven interconnected domains, around which investments are made. These are reflected in the table below.

Table 4: Seychelles health system domains and intervention areas

HEALTH SYSTEM PURPOSE:

UNIVERSAL COVERAGE WITH ESSENTIAL HEALTH SERVICES, ARISING FROM IMPROVED ACCESS TO, QUALITY OF AND COMMUNITY DEMAND FOR REQUIRED HEALTH & RELATED INTERVENTIONS						
Integrated service delivery	*Promoting and protecting health*	*Human resources for health*	*Sustainable financing*	*Research and innovation*	*Partnership & coordination*	*Governance and leadership*
▪ Organization of health service delivery ▪ Health infrastructure ▪ Emergency p**reparedness**, **response** and recovery ▪ Health information management ▪ Health services quality of care ▪ Health Products and technologies	▪ Health awareness ▪ Health seeking behaviours	▪ Health workforce regulation and legislation ▪ Health workforce production ▪ Health workforce recruitment, deployment and remuneration ▪ Health workforce management and retention	▪ Resource adequacy ▪ Risk pooling and equitable financing ▪ Efficient and strategic purchasing of care	▪ Research generation ▪ Research dissemination ▪ Knowledge and innovation management	▪ Community participation & engagement ▪ Health stakeholder engagement and collaboration ▪ Public private partnerships strengthening	▪ Service delivery stewardship ▪ Legal and regulatory frameworks ▪ Technical & political accountability

The local health system is characterised as very good providing a high degree of physical access, absence of financial barriers and huge investments in infrastructure, technology and vaccines and medical products. Nevertheless challenges remain to address the key risk factors and the quality of patient-centred care.

Integrated service delivery: The government health system has focused on ensuring functionality of a three tier system, (based on one national referral hospital, three cottage hospitals and 17 decentralized district health centres at the primary and secondary levels together with non-public facilities distributed across the country) . A growing network of private health facilities including 15 private doctor's practice and 8 dentists, most of them providing general practice similar to what is offered at health centres and two providing minor surgeries.

Health services are readily accessible to all the population. Emergency health services are available through the network of community health centres, with good communication and emergency transfer to the national referral hospital. The recent modernization of the governance and responsibility framework with the reorganization of a principally policy-oriented Health Ministry and a principally services-oriented Health Care Agency is leading to efforts at improving quality of care, through standardization of management and further introduction of specialized services. Availability of drugs and supplies is well coordinated across the facilities, with few stock outs of essential supplies. Information systems exist in all health facilities across the country, to facilitate monitoring of events.

Comment [DL2]: Expand to include aspects of emergency preparedness, response & recovery

Promoting and protecting health: The health sector has put in place a network of activities targeting the individuals and households, to promote their health, and healthy behaviours. Advocacy events are taking place directly with at-risk households, in schools and using mass media to build awareness of health risks – particularly for NCDs. Current efforts are targeted at addressing risk factors relating to alcohol and drug use, tobacco use, unsafe sex and dietary risks. Public health issues, including environmental health and sanitation and food safety are addressed through a combination of public education and regulation backed by legal measures. Collaboration with other partners in vector control is well established and the concept of one health is guiding greater interaction with agencies involved in animal and plant health. Similarly, emergency preparedness and response requires coordinated planning and action by all sectors, and the health sector plays a key role in defining the agenda and ensuring active collaboration.

Human Resources for Health: The country health workforce is regulated through various health professional regulatory authorities, to ensure health services are delivered professionally and ethically. This professional and legal oversight is crucially important in the production, recruitment, deployment and management of HRH. Training is currently provided in country for nursing and paramedical staff, with that for medical staff done out of the country through scholarships. The public sector is the major employer of health workers, who are deployed to the network of facilities according to need

Sustainable financing: The health services are predominantly publicly financed through taxation. Currently the sector's involvement in the Government's budgeting process focusses on an activity budgeting process. This is shifting to a program based budgeting process where funds are to be provided for agreed program areas. Exercises to develop the National Health Accounts and costing of items of health interventions will facilitate this shift. Financial reporting and audit processes are effectively done, and the sector conducts expenditure reviews and health accounts to constantly monitor the use of finances. There are few user charges. Purchasing of services is input based, with financing done for inputs (health workforce, infrastructure, commodities) and required processes

Research and innovation: A dedicated research unit has been set up, to coordinate the research and knowledge management functions for health. Currently, there are at least two long-term research focuses (the Seychelles Child Development Study and the Seychelles Heart Study) being conducted in collaboration with international partners and coordinated through the Ministry of Health

Partnership & coordination: The Government is the primary source for health funds. However, the health sector has instituted a number of Public Private Partnerships, particularly in provision of specialized services. In addition, the Government has taken up the *health in all* approach to coordinating and managing health actions, implying the need for more intense engagement with health related sectors

Governance & leadership: The health sector stewardship is coordinated through the Ministry of Health, with a Public health Authority assuming the regulatory functions of public health and a Health Care Agency coordinating the provision of preventive, curative and rehabilitative health services. A National Health Policy is in place, together with various laws and regulations to guide operationalization of the health agenda.

2.5 Unfinished business and recommendations

There are still major issues which the health sector needs to address, as it works to promote, protect and restore the health of the people of Seychelles. While the expectation of life is higher than that in most African countries, it is still lower than that in high income countries, suggesting room for further improvements. This is especially so for males, whose life expectancy is up to 10 years lower than for females. There is also still excess overall mortality, particularly contributed to by non-communicable conditions. Many of the risk factors to health that are contributing to significant burden of morbidity and mortality are not being addressed effectively, such as child obesity, sub optimal breastfeeding (*what are the issues associated with sub-optimal breastfeeding in Seychelles? Why does it deserve a mention among risk factors contributing to significant burden of morbidity and mortality? It looks like it trumps substance abuse in importance!*), management of dietary risks and screening for metabolic risks.

While communicable conditions cause low mortality, they are associated with significant rises in mortality (such as due to HIV, Hepatitis C, Leptospirosis), and may cause epidemics which are devastating to the social and economic fabric of Seychelles. As such, the country needs to place significant control and elimination efforts in addressing both communicable and non-communicable conditions for the people in Seychelles to fully enjoy the health dividend they are entitled to.

Some critical health services that the people require are not available. The sector will need to tackle a number of systemic weaknesses that still prevail, that are leading to this situation. The unfinished business are detailed as part of outstanding issues for each domain in chapter 3.

The strategic agenda for this strategic plan will therefore aim to build on the progress the sector has made, while taking cognizance of and addressing the unfinished business in the different elements of the sector to move towards giving the people of Seychelles the health they deserve.

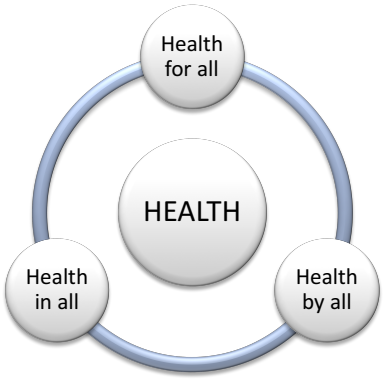
CHAPTER 3: THE NHSP STRATEGIC AGENDA

3.1 NHSP overarching focus

The National Health Policy defines the health sector vision as '**the attainment, by all people in Seychelles, of the highest level of physical, social, mental and spiritual health and living in harmony with nature'.**

In line with this vision, the health sector has defined its mission as "*to relentlessly promote, protect and restore health & quality of life and dignity of all people in Seychelles with the active participation of all stakeholders, though creation of an enabling environment for citizens to make informed decisions about their health*'. This mission is a direct reflection of the sector places in the right to health and the unyielding respect for human dignity. Article 29 of the Constitution of Seychelles declares the commitment of the State in health care provision and affirms the responsibility of the citizen therein. As such, the health sector mission is translated into the principles of *Health for all, by all and in all*.

Figure 4: Principles guiding National Health Development



- **Health for all:** The health sector places the well-being of the individual and the family at the centre of all efforts in the pursuit of social and economic development. Every person must have access to health care and the exclusion of anyone from the basic needs for a better health is unacceptable
- **Health by all:** The primary responsibility for health rests with each and every single individual and the individual's beliefs, attitudes and actions determine his or her health. The promotion of better health for the nation involves a shared commitment between the government and its national and international partners.

- **Health in all:** The determinants of health are found in all sectors, permeating the economic, social, cultural and physical environments of people. It highlights the important contribution of all development sectors in attaining health objectives, and conversely recognizes the role of health in all areas of development. All sectors and organizations whether governmental, non-governmental or private need to join together in optimizing efforts towards common health goals.

The health sector has defined key policy imperatives to facilitate attainment of its vision and mission. These are defined for:

- Strengthening integrated health care
- Promoting and protecting health
- Human resources for health
- Sustainable financing for health
- Research and innovation
- Partnership and participation

This NHSP is the first medium term plan of the NHP. The vision, mission, and objectives of the NHP are translated into a medium term goal, targets and priority interventions in this NHSP.

In line with the overall vision, this NHSP defines its goal as to **'to continue to promote, protect and restore the health and well-being of all people in Seychelles throughout the life-course**'

This goal recognizes the success Seychelles has made in attaining universal access to health, and places emphasis on directing efforts that will ensure sustained universal health coverage (UHC) and the attainment of **health and well-being throughout the life-course**'. These renewed efforts and focus are driven by a need to:

- Intensify health promotion and disease prevention at individual, family and community levels
- Introduce additional services critical to addressing the health needs of the population
- Scale up initiatives to improve quality of care received during accessing and using needed health promotion, disease preventive, curative and rehabilitative services
- Further address the barriers faced by individuals in accessing and using health services they need
- Create the environment required for adequate participation and involvement of individuals and communities in assuring their health
- Demonstrate accountability - technical and financial - in providing and ensuring utilization of health services in a manner that assures value for money

Together with the significant improvements in physical access to services the country has achieved, these contribute significantly towards achievement of the country's health vision.

3.2 NHSP health objectives and targets

The health status that Seychelles seeks to have, by 2020, shall be commensurate with the level of investment in health that it has made. The levels and distribution of health shall be informed by targets relating to the:

- increased expectation of life at birth
- reduced incidence, prevalence and mortality associated with priority non-communicable and communicable diseases
- increased level of satisfaction of the people and of health professionals with the existing health services and
- improved overall wellbeing of all people in Seychelles

This NHSP intends to directly tackle priority diseases, together with their risk factors, to bring down their associated burden and so contribute to the further reduction of morbidity and mortality in the country. As disease control targets, the NHSP will target to achieve:

- A 25% relative reduction in the overall mortality from cardiovascular diseases, cancer, diabetes and chronic respiratory diseases
- At least 10% relative reduction in the harmful use of alcohol and of illicit drugs
- A 10% relative reduction in prevalence of insufficient physical activity
- A 30% relative reduction in mean population intake of salt/sodium
- A 30% relative reduction in prevalence of current tobacco use in persons aged 15+ years
- A 25% relative reduction in the prevalence of raised blood pressure or contain the prevalence of raised blood pressure, according to national circumstances
- Halt the rise in diabetes and obesity
- At least 50% of eligible people receive drug therapy and counselling (including glycaemic control) to prevent heart attacks and strokes
- An 80% availability of the affordable basic technologies and essential medicines, including generics, required to treat major NCDs in both public and private facilities
- 90% of all people living with HIV will know their HIV status.
- 90% of all people diagnosed with HIV infection will receive sustained antiretroviral therapy
- 90% of all people receiving antiretroviral therapy will have viral suppression
- Elimination of diseases identified for elimination (poliomyelitis, measles etc)
- 50% reduction in incidence and mortality from communicable diseases as hepatitis C, leptospirosis and sexually transmitted infections
- 50% reduction in teenage pregnancies
- An infant-mortality rate of 10 per 1000 live-births
- 50% reduction in vector-borne diseases

- Zero vaccine preventable disease

3.3 NHSP health services priorities

In line with the NHSP's overall goal, the health sector will prioritize availability of quality essential services that will enable the NHSP to attain its overall health impact targets. These essential health services represent an integrated and comprehensive package of services and interventions that all service providers in Seychelles shall aim at offering during the NHSP period. They are the obligation of the health sector towards progressive realization of the right-to-health of people as outlined in the Constitution.

The sector service delivery focus is to consolidate the gains of ***Universal Health Coverage to achieve health and well-being throughout the life-course***. The sector will focus on:

i) Promoting health through the health in all approach
ii) Introducing services that do not exist, at the respective tiers of the health system that should provide them
iii) Improving access to these services for populations and
iv) Continuing to ensure no catastrophic health expenditures (for clients), associated with utilization of the interventions

Some of the essential services are shown below[1].

Table 3: Overview of the essential health services in Seychelles

Domain area	Program area	Essential health Services
Promoting health	Behavior change communication / advocacy	Control of alcohol abuse and abuse
		Advocacy for increased physical activity
		Elimination of harmful drug use
		Advocacy for healthy eating in childhood
		Advocacy for optimal breastfeeding
		Information and communication relating to dietary risks
		Elimination of domestic and sexual abuse
		Eradication of tobacco use
		Communication and advocacy for safe sex
	Environmental management	Maintaining a clean and safe environment
		Management of occupational risks
		Maintaining safe water supplies
		Vector control

[1]An essential package of care will be defined to elaborate further on how the sector will work towards assuring universal access to these essential services

Domain area	Program area	Essential health Services
	Determinants for health advocacy	Advocacy for safe housing as a means to health improvement
		Population management
		Food safety
		Road infrastructure and Transport
		Adequate education
		Appropriate nutrition and feeding habits
	Healthy living education	Education for reducing high body-mass index
		Education for reducing high fasting blood glucose
		Education for reducing for high systolic blood pressure
		Education for reducing for high total cholesterol
		Education for reducing for low bone mineral density
Preventing non communicable diseases	Screening for major non communicable conditions risk factors	Screening for high body-mass index
		Screening for high fasting blood glucose
		Screening for high systolic blood pressure
		Screening for high total cholesterol
		Screening for low bone mineral density
		Screening for Low glomerular filtration rate
	Screening for major conditions	Cancer screening
		Diabetes screening
		Screening for birth abnormalities
Preventing communicable diseases	Immunization	Vaccination against childhood illnesses
		Polio eradication
		HPV vaccination
	Screening for major communicable conditions	Screening for yellow fever
		Post natal screening for HPV
	HIV, STI and Hepatitis C prevention	Prevention of Mother to Child HIV Transmission
		Prevention strategies amongst MARPS
		HIV testing and counselling
	Mother and child health	School health
		Growth monitoring
		Antenatal care
Clinical and rehabilitative care	Outpatient care	General outpatient services – all conditions
		Specialized outpatient services – targeting top 30 causes of morbidity/mortality
		Referral services

Domain area	Program area	Essential health Services
	Emergency / Trauma care	Emergency unit services
		Trauma unit services
	Maternity care	Delivery services
		Post natal services
	Investigative services	Clinical laboratory
		Public health laboratory
		Radiology
	Inpatient care	Inpatient services
		High Dependency services
		Intensive care services
	Operative care	Outpatient surgery
		Cold case surgery
		Emergency surgery
	Specialized therapies	Radiotherapy
		Chemotherapy
		Interventional Radiology
		Haemodialysis
		Organ transplants (kidney, liver, bone marrow)
		Bypass surgeries
		Reconstructive surgery
		Assisted Reproduction (IVF)
	Post care	Palliative services
		Rehabilitation services
		Care of the deceased and bereaved

3.4 NHSP strategic investment priorities

Targeted sector outputs

The essential health services will only benefit the population if they are available when needed, are of an acceptable quality and the beneficiaries are aware of, and empowered to utilize them. As such, improvements in access, demand for services, and/or quality of care represent the expected implications of any investments in health, which when attained should provide the necessary outcomes the sector desires. Each of these elements of health outputs have desired attributes.

Improving access to essential services

By improving access, the sector aims to ensure essential services are brought as close to the population as is feasible. The sector views access in three dimensions:

- **Physical access is defined as the** physical presence of the health services required for people to use them. Services need to be available, functional and people-centred (user-friendly). Failure in any of these impedes physical access. Unavailability of infrastructure, imbalances in geographical distribution of facilities across regions, non-functional inputs (equipment, etc.), or facilities not open at the right times, all work to limit physical access to services.
- **Financial access:** Most health services are provided free in Seychelles. The sector should continue to offer most health services free at the point of use at all levels of the health care system while at the same time introducing strong mechanisms to ensure efficiency and reduce abuse. Remaining financial barriers at the point of use, should be gradually removed.
- **Socio-cultural access:** Social, or cultural barriers, whether real or perceived, may act as other hindrances to accessing care. These barriers include issues like gender and age biases, beliefs and cultural practices. Human rights considerations in health are expected to reduce such biases, and so improve access to available services

Improving demand for services

For many services, demand exists naturally – particularly for medical services, where communities / individuals are aware of the challenge to their health and so seek services. However, for many services – particularly public health services for which benefits are spread over a large population, not only the person seeking care – the demand for services needs to be built actively. For example, individuals would not utilize screening services if adequate demand for them is not built – as they are not addressing his/her immediate health challenges.

The sector aims to improve demand for essential services through interventions which aim at:

- **Improving the awareness** of individuals, households and communities of the health problems they are facing and available services to solve these problems;
- **Improving health seeking behaviours**, so that individuals, households and communities undertake action to enhance and protect their wellbeing and make the best use of available health promotive, preventive and curative health services.

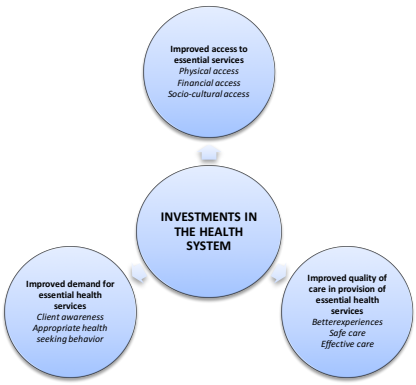
Improving quality of essential services

Quality is very important to ensure trust in and adequate utilisation of available services. This remains one of the challenges in Seychelles. As such, specific effort will be placed to address quality of care. The sector views improving quality of essential services in three dimensions:

- **Better client experience:** a focus on the clients' expectation of service quality to ensure that the services will be aligned to clients' valid expectation of good health care. The sector will focus on assuring 'soft inputs' are maximized, so as to improve client experiences when receiving care. Privacy during interventions, good staff attitudes, a clean facility, generally patient-centred care, go a long way towards improving the quality of care clients receive.
- **Assuring patient safety:** a focus on doing no harm / having no negative consequences to clients as a result of seeking care. Care-associated harm (nosocomial infections, injection abscesses, etc.) significantly reduce client confidence in care services, and so should be minimized.
- **Ensuring effectiveness of care:** the interventions / services provided need to be the most effective feasible, for the best possible client outcomes. An ineffective medicine or procedure affects the quality of care, and confidence the clients have in the services.

The health sector actions should lead to improvements in all these dimensions of outputs, for them to efficiently and effectively lead to the desired outcomes in health.

Figure 5: Outputs from the health system



3.4.1 Strengthened integrated health care

People-centred and integrated services are essential components of consolidating universal health coverage to improve health. Strategies to improve health care will entail adopting the basic principles of health in all policies and a life course approach and scaling up patient-centred care. The model of care will be reoriented and developed in ways that reflect the needs of the population. Communities will participate in deciding *what type* of services should be offered, *where* and *how* they should be provided, and *to whom* they should be provided. Individuals, carers and families/households will be empowered and engaged to make a positive impact on a range of outcomes including health literacy, patient experience, service utilization and cost, and health outcomes.

Integrated health care will look at six elements:

- ***Organization of health service delivery:*** How services are organized, packaged and coordinated at community, health facilities and national levels
- ***Health infrastructure:*** Planning/forecasting needs, procurement, distribution, ensuring functionality, supporting availability of physical infrastructure, equipment, transport and ICT in health facilities
- ***Emergency health services:*** *Systems for disease surveillance, disaster preparedness, alert and response capacities and systems for managing trauma and mass casualties- (this is placed under Health information management*
- ***Health information management:*** Systems for data generation, validation, analysis, dissemination and knowledge management for facility based routine HIS, community based vital statistics, health surveys and census data

- ***Health services quality of care:*** Clinical governance systems to assure positive client experiences, patient safety and ensuring effective care is provided
- ***Health Products and technologies:*** Regulation, planning/forecasting needs, procurement, distribution, ensuring rational use of medicines, medical products, technologies, supplies, and vaccines

Outstanding issues

- The absence of a defined comprehensive essential package of health care services results in an ad hoc mechanism of introducing and scaling up services. Definition of the essential package of services by tier of care, based on the interventions that people require to assure their level of health is a priority for the strategic plan period
- There are instances of uncoordinated infrastructure investments – with equipment / supplies brought that is either not what is required, or doesn't have the pre-requisite supportive human resources or other inputs for it to be appropriately utilized
- Absence of adequate high dependency and intensive care units, together with lack of human resources and infrastructure for some key specialized services justified by the burden of disease creates a mismatch between what is needed, and what is provided. Hence overseas treatment continues to represent a significant portion of the health expenditure.
- There are limited clinical governance mechanisms in place to give the level of quality of care that assures patient safety and responsiveness to needs
- Mechanisms for collecting and analysing health information are still primarily paper-based, there is a need to introduce to an electronic health information system as a matter of urgency.
- Capacity to assure quality of health products is limited, leaving a major gap in the capacity to provide quality drugs and supplies in the country.
- Emergency preparedness, response & recovery : Emergency preparedness, response and recovery has gained particular attention during the past decade with the creation of the Division for Disaster Management and the drafting of the Health Sector Emergency and Disaster plan. Resources need to be mobilized to implement the Health Sector Emergency and Disaster Plan Promoting and protecting health
- Interventions to address some of the major risk factors to morbidity and mortality are not yet scaled up nationally.
- A coordinated advocacy and communication plan is not yet in place, to guide the ongoing efforts at reaching out to communities and households
- Stewardship of health promotion

Objectives

The overall objective during the NHSP shall be to strengthen the integration of health services, ensuring clients receive quality services for the holistic well-being in line with their expectations.

Organization of services: The sector shall maintain the three tier approach – primary, secondary and tertiary care.

Primary care shall constitute the first and most important point of care for clients. Primary care shall consist of comprehensive community based services according to local needs.

Secondary care shall consist of all the follow-up services arising from primary care. These shall include all the inpatient services, institutional referral and follow up services.

Tertiary care shall consist of all the specialized services only available in referral hospitals. The services offered at each tier shall be defined in a comprehensive essential package of care by the health sector.

Health infrastructure: The investments in health infrastructure shall cover the physical infrastructure (buildings for provision of care for staff and areas to care for carers, grounds and environment management), equipment, transport and ICT needs of the sector, and will follow the need to deliver the defined package of essential services. Specific focus will be placed on the long term planning for infrastructure development, together with the more immediate capacities for procurement, distribution, ensuring functionality supporting availability of infrastructure.

Emergency health services: These shall look at establishing capacities for assuring continuity of care across the primary, secondary and tertiary tiers of the system. The sector will ensure that clients receive the highest possible level of services, irrespective of where they access care from. A four-pronged approach shall be used, covering physical movement of clients (through ambulance system), movement of specimen (through laboratory network), client parameters/data (e-health system based around call centres) and expertise movement (back referral) shall be employed to assure this. In addition, the referral facilities capacities to manage referred clients shall be improved, through improvements in emergency/trauma services, and high dependency and intensive care units. The threat of natural and man-made disasters is recognised, including the introduction of infections with the potential for rapid spread by vectors, weather-related incidents and industrial accidents. Greater efforts shall be directed towards preparedness, infrastructure development, emergency stocks as well as strengthening planning and coordination with other sectors. ***Disease surveillance, disaster preparedness and response in view of climate change not addressed.***

Health information management: This shall be improved with an aim of assuring availability of required information during the decision making processes. Specifically targeted shall be improving of the systems for data generation, validation, analysis, dissemination and knowledge management for facility based routine HIS, community based vital statistics, health surveys and census data. Improved capacities in the MOH and facilities in the use of Information Technology solutions in this shall be the focus.

Health services quality of care: This shall be addressed through establishment, implementation and close monitoring of comprehensive clinical governance systems in all facilities to improve the process of, and outputs from care provision. The overall aim shall be to assure positive client

experiences, patient safety and ensuring effective care is provided. Regular surveys of client experiences and expectations, specific patient safety strategies and programs, together with definition and monitoring adherence to standard management guidelines shall be emphasized. Digitization of the care process for clients shall be used to closely monitor quality of care being provided. Facilities shall have internal quality improvement teams to ensure the process is peer-driven, and will all undergo appropriate accreditation processes to ensure services they are providing are of an acceptable quality. International accreditation shall be sought.

Health products and technologies: The sector will ensure availability of appropriate regulation, procurement and distribution of health products, vaccines and technologies required for provision of the essential health services. Capacities for planning/forecasting of needs shall be improved, to ensure demand-driven products are available. Regulatory capacity shall be strengthened in the country, to ensure the quality of health products received by Seychellois is adequate. A system for monitoring rational use of medicines, medical products, technologies, supplies, and vaccines shall be instituted, to limit wastage and emergence of resistance.

Strategies and milestones

These are summarized in the table below

Table 4: Key strategies and milestones for strengthening integrated health care

Programs / service areas	Priority investments (Strategies)	Key milestones/ results
		Description
Organization of health services delivery	Re-define the organization and management of health services	Develop a National Health Act
		Rationalisation of health services planning, organization and management at all tiers of care in Seychelles (community based, hospital based, advanced care)
	Define and apply the essential health care package	Endorsed essential health care package, including definition of the free primary health care package
	Revitalise provision of essential health care services	Comprehensive community health services model defined
		Delivery of essential health package monitored at all levels
Health infrastructure	Improve capacity for infrastructure management	Develop and implement an infrastructure master plan
	Update existing infrastructure	Construction of new / existing facilities in line with standards is done
		Facilities modernized with up to date technology and equipment

		Annual assessments of infrastructure availability, functionality and readiness are done
	Maintain available infrastructure	Infrastructure maintenance and development plan is available
		Preventive maintenance in line with maintenance plan is being done in all facilities
		Real time infrastructure and equipment inventory is in place
Emergency health services	Improve capacity for referral coordination	Guidelines for referral are developed
		Clear orientations on continuum of care pathways
	Improve capacity for referral facilities to manage referred clients	Emergency units exist in all referral facilities
		High dependency units exist in all referral facilities
		Intensive care units exist in all referral facilities
Health information management	Improve capacity for health information management	Health records Act in place
		Records management guidelines and standards developed
	Roll out an IT based integrated Health Information System	IT based health information system in place in all facilities
	Analyse and disseminate vital statistics (birth, death, cause of death) information	Vital statistics information (birth, death and causes of death) comprehensively collected and analysed
	Strengthen integrated disease surveillance and response systems in line with IHR **(consistent as to where it should fit- see above)**	Surveillance and response system comprehensively covering all conditions of public health importance
		All border points having required capacities for disease surveillance
		Up to date emergency and disaster response plan in place
	Conduct health surveys as required	Comprehensive demographic and health survey
		Specific priority risk factor surveys conducted
		Priority disease prevalence / mortality surveys conducted
		Service Availability and Readiness Assessment done
Health services quality of care	Make services more responsive to clients	Mechanisms to allow community participation in health are in place
		Client feedback mechanism is in place for all

		essential health services
	Improve clinical management	Guidelines for provision of different essential health services available, including how to avoid missed opportunities (e.g. men's health, ANC services)
		System to monitor efficacy and effectiveness of existing health interventions in place
		Protocols and treatment guidelines defined and in use
		Institutionalized clinical governance structures and processes
	Assure patient safety in provision of essential health services	Risk management and Patient safety program in place
	Improve capacity for quality assurance	Quality improvement teams in place in all health facilities
		All facilities have undergone quality accreditation
	Apply IT solutions to improve patient management	IT system designed for integrated management of, and easy access to patient information at the point of care implemented in all facilities
Health products and technologies	Improve capacity for management of health products	Capacity of central medical stores strengthened
		Pharmaceutical laboratory is fully functional
		Essential Medicines List developed, in line with essential health services
		Updated regulation of health products
		Fully functional Seychelles food and drug authority
		Rational use of health products is monitored
	Introduce essential health products not currently provided	Demand driven needs assessment based on essential medicines list and essential health service package conducted
		New health products introduced in line with essential health services package
	Procure required health products and technologies	Required medicines and medical products procured and distributed
		Required medical supplies procured and distributed
		Required vaccines procured and distributed
		Required medical technologies procured and distributed

3.4.2 Promoting and protecting health

Scope

In order for efforts to promote and protect health to bear fruit, they need to focus on addressing the risks caused by the major causes of avoidable morbidity / mortality in Seychelles. As seen in the health challenges section, the major causes of morbidity/mortality are primarily non communicable conditions, though the risk of select communicable conditions still exists. The sector will need to ensure it is addressing, at the household level, all major risk factors (behavioural, environmental and metabolic) affecting the health of Seychellois if it to have the desired impact. These major risk factors are reflected in table 3.

Objectives

The overall objective during the NHSP shall be to ensure universal access of households and individuals to health promotion services addressing all the major risk factors to health in Seychelles. These risk factors are:

- *Behavioural risk factors:* Alcohol and drug use, Sub-optimal breastfeeding, Dietary risks, physical inactivity, Tobacco smoke, and Unsafe sex
- *Environmental risk factors:* Occupational risks
- *Metabolic risk factors:* High body-mass index, High fasting blood glucose, High systolic blood pressure, High total cholesterol, Low bone mineral density, and Low glomerular filtration rate

Outstanding issues

- Interventions to address some of the major risk factors to morbidity and mortality are not yet scaled up nationally. *Useful to mention the major risk factors that need to be addressed and some of the issues surrounding them*
- *Issues with environmental risk factors, food safety, sanitation, etc*
- A coordinated advocacy and communication plan is not yet in place, to guide the ongoing efforts at reaching out to communities and households

Strategies and milestones

These are summarized in the table below

Table 5: Key strategies and milestones for promoting and protecting health

Programs / service areas	Priority investments	Key milestones / results
		Description
Identifying and strengthening	Develop Communication	Communication strategies addressing behavioural risk factors (covering Alcohol and drug use, *Child undernutrition*, Sub-

Programs / service areas	Priority investments	Key milestones / results Description
household awareness of required healthy behaviour	strategy on managing risk factors to health	optimal breastfeeding, Dietary risks, physical inactivity, Sexual abuse and violence, Tobacco smoke, and Unsafe sex)
		Communication strategies addressing environmental risk factors (covering Occupational risks, and Unsafe water sanitation and hand washing)
		Communication strategies addressing metabolic risk factors (covering body-mass index, fasting blood glucose, systolic blood pressure, total cholesterol, bone mineral density, and glomerular filtration rate)
	Promote early detection through community based screening of priority diseases	Screening activities at workplaces, community based school health
		Functional community support groups on specific conditions
		NGO's participation in health activities strengthened
	Promote early detection of health risks targeting high risk groups	Screening procedures targeting population at higher risk (e.g. family history of breast cancer, diabetes, cholesterol) in place
		MARPs for HIV/AIDS identified, and specific targeted services provided to prevent transmission amongst them
	Scale up government's capacity to support risk factor management	NCD strategic plan
		Strategic plans targeting prevention and control of target infectious diseases (e.g. HIV/AIDS, leptospirosis, and other vector bourne diseases)
Appropriate health seeking behaviours	Develop Communication strategy on identifying and responding to causes of morbidity and mortality conditions	Communication strategies addressing priority communicable diseases e.g HIV, Leptospirosis, lower respiratory infections
		Communication strategies addressing priority non communicable diseases; e.g. IHD, CVD, etc
	Strengthen health services across the life course	Program and services targeting men
		Program and services targeting youth and adolescents
		Program and services targeting child health
		Program and services targeting healthy ageing
		Program and services targeting women's health

3.4.3 Human resources for Health

Scope

The human resources for health represent a critical input in the production of health. They relate to all the workforce that is engaged primarily in the production of health. Human Resources for Health look at all the investments needed to ensure this workforce is productive enough to generate the desired health outcomes. This covers the expectations relating to regulation, production, recruitment, deployment, remuneration, management and retention of the health workforce that are needed to ensure it is productive.

Outstanding issues

- Training and education of the HRH needs to be scaled up, guided by a training needs assessment to ensure it focuses on the competencies based on current and future needs. The health sector has to input into careers education in schools and promote careers in health in order to promote health studies and attract students to take up careers in the sector. The image of the NIHSS needs attention to ensure it attracts higher calibre students and in addition position itself to accommodate more mature students, out-of school youths and health care assistants who would wish to take up local training in health.
- Improving the quality of locally provided training and education in health merits attention in the coming period. A review of training programmes at the NIHSS should include an assessment of workplace student mentors and the introduction of clinical tutors which should be extended to private sector workplaces. There is a need to explore ways to mitigate the possible impact of having students with lower educational attainment on the quality of the health workforce. The capacity to deliver tertiary level courses locally should also be enhanced. This should be supported by a purpose-built, health training facility to improve delivery of present courses, offer higher level courses and meet the in-service training needs of the health sector.
- Human Resources for health needs based projection and planning is not practiced, leading to gaps in key skills needed to provide essential health services. It is felt that there is a shortage of health workers at all levels of the health system but an analysis by the World Bank in 2013 indicates that the "shortage" relates to a lack of particular skills sets or rearranging skills mixes at particular facilities to better respond to current health challenges.
- Increasing reliance on non-Seychellois doctors whilst alleviating shortage in the short term brings its own challenges especially in instances where these do not speak any of the national languages and where they do not find local working conditions and culture fitting their expectations. These may contribute to decreasing access to services for patients who cannot communicate with care givers and a waste of money if contracts have to be determined and professionals repatriated. Robust recruitment and staff appraisal processes should address these. Whilst an entirely Seychellois workforce is desirable, it may not be feasible. However, there is a need to define the levels of the health system where a predominantly Seychellois workforce is necessary, for example to deliver the community health care model.

- In addition, there has been task shifting at all levels of the health system without the requisite training and recognition. Traditionally, nurses have borne the brunt of this task shifting and some have been trained and operate up to Nurse practitioner level without the recognition. In some areas, nurses have exclusivity e.g. management of health centres; where clearly, other cadres can be considered. In addition, some services such as patient counselling, could be provided by other staff with sustained patient contact such as allied health professionals.
- Meanwhile, an area where polyvalence could be implemented quickly is in the operations of the ambulance service. Presently, an ambulance is manned by a driver a porter and a trained EMT and the call centre by telephone operators. This is an area that can be run entirely by well-trained EMTs with a driving license; two well-trained EMTs can man an ambulance and should be compensated for the driving and porter duties. EMTs should man the command centre on a rotation basis and would be able to undertake case assessment when clients call.
- A continuous effort is required to maintain and improve the quality of the health workforce. More aggressive careers promotion through appropriate campaigns may address local recruitment but a clear recruitment policy and a proactive recruitment process will improve both local and overseas recruitment. The government health sector must also give attention to strategies to retain qualified professional staff who leave to join the private sector or change careers because of better working conditions.
- Absence of need based HRH norms and standards leads to misalignment of recruitment and deployment with needs on the ground.
- Clear policies for expanding the productivity of the current workforce are missing, such as multiskilling, task shifting / task sharing, flexible working time, use of semi-skilled persons, and other innovative mechanisms to better align the workforce with needs. Emphasis has to be on having a predominantly polyvalent workforce in addition to staff specialisation in order to maximise the output of the present workforce. Whilst the policy of multiple specialisations has been discussed for doctors, the same has not been done for other health professionals. The potential for increased productivity could be enhanced with polyvalent allied health professionals at all levels e.g. physiotherapy and podiatry or training a diagnostic technician that can do both laboratory work and imaging. Such policies, when successfully implemented, have the potential to provide job enlargement to staff wishing to continue working as clinicians as opposed to taking up management roles, creates opportunities for increased remuneration for the concerned staff whilst increasing productivity of the health sector. It will also support the policy to rationalise health services and deliver more services in health centres. Concurrently, policies to maximise the use of local resources such as use of part-time staff, using private sector skills, having national locum service using Seychellois in the diaspora and extending employment of competent professional health workers beyond the official retirement age should be considered. Such policies should be carefully studied as the present emphasis on academic qualifications as opposed to competencies create rigidities in public service schemes of service, which makes appropriate remuneration of staff challenging.
- Mechanisms for retention and motivation of the health workforce are not yet fully explored. The workforce is relatively young with more than 80% health workers below the age of 50, and 62 percent below the age of 40. According to a World Bank study in 2013, between 20-26% of the workforce is thinking of either joining the private sector or moving to non-health employment motivated by

increased earnings. Mechanisms such as recognition mechanisms, clear career progression paths, welfare and wellness plans, positive staff performance assessments are tools that can be used to improve management of the workforce

- Absence of a national HRH workforce database makes planning more difficult.
- Capacity of the health professional councils is still weak, given the expected roles they should be carrying out. The councils are being run on a part-time basis by very dedicated professionals and consequently they are unable to undertake the full scope of their functions. A majority of the human resource development strategies in the health sector depends for their success on having strong professional councils. Planning training and education and continuous professional development (CPD) depends on the existence of an agreed competency framework for all health professions and a requirement for re-licensing, the latter is only required by the Seychelles Nurses and Midwives Council (SNMC).
- In addition, the emphasis on academic qualifications versus competencies for professionals in the public service is not favouring highly trained and very competent health professionals with professional qualifications. Except for the Seychelles Medical and Dental Council (SMDC), the other professional councils are not fully recognised as authorities for the professionals they regulate in the public service, their role being sometimes deferred to the Seychelles Qualifications Authority (SQA).

Objectives

The NHSP anticipates that the MOH will have institutional mechanisms in place to ensure that the health sector is staffed with adequate, highly-competent, motivated and equitably-distributed health workforce.

The priority focus relating to the different elements are now highlighted

Regulation of health workforce: The health sector will strengthen the health professionals' regulatory councils to ensure they deliver the full scope of their functions and enhance their capacity to regulate health professionals. This shall focus on better harmonization of councils to enhance sharing of resources, uniformity in dealing with cases, and developing generic and specific guidelines for regulatory processes, strengthening standards, developing scopes of practice at different levels of the professions and competency frameworks for the major health professions. The sector shall work towards mandating continuing professional development for re-licensing so as to ensure maintenance and enhancement of competencies and engage with local educational and administrative authorities to ensure recognition of additional competencies.

Health workforce production: A review of the training needs shall be carried out, to align the pre-service and in-service training and education with required competencies in response to national and global health agenda. Increase in the cadres being trained in country will be explored, focusing on those most cost effectively produced within Seychelles. In service training programmes particularly in relation to continuous professional development and continuous medical education of health professionals shall be developed and implemented and shall also address soft skills including customer service, professional communication (including language), first aid, and IT skills among others. Training needs relating to planning, management (financial, operations, HR, infrastructure) and leadership, governance and

monitoring shall also be reviewed and a capacity building program instituted for all mid-level managers in the health system. NIHSS shall introduce a Pre-Health foundation programme aimed at addressing the varied educational attainments of its student intakes.

The capacity of the NIHSS to deliver higher level courses shall be enhanced through upgrading of its infrastructure and professional staff, widening the pool of possible trainers from the service areas and establishing linkages with tertiary institutions locally and abroad. Capacity to provide in-service training for the health sector shall be increased whilst using the opportunities for generating additional resources by addressing the health training requirements of the private sector e.g. first aid, food hygiene, etc.

Recruitment & deployment: The sector shall put in place clear norms and standards for health workforce, to guide the recruitment and deployment process and attention given to non-Seychellois recruitment in order to ensure better fit to local conditions.

Remuneration: Staff schemes of service shall be reviewed to ensure the remuneration received by the health workforce is competitive. In addition, the sector with the support of the professional councils shall engage government administration to address the issue of remuneration based on competencies rather than only academic qualifications. Allowances shall be reviewed to ensure they are positively motivating the desired behaviours and compensate health workers for acquiring additional skills and taking on additional responsibilities. A policy to guide public health workforce working in the private sector and vice versa (including role of locum health workers) shall be developed to provide guidance on this inter-relationship.

Management and retention: Strategies shall focus on reducing attrition of staff. Non-monetary mechanisms for motivation shall be scaled up, including recognition awards, clear career progression plans. Multiskilling and task sharing mechanisms shall be put in place, to ensure workloads are appropriately shared amongst health workers in a given team. A policy to guide specialisation and development of polyvalent health professionals shall be developed. A national human resources information system capturing attributes of the health workforce in both public and non-public sectors shall be set up, to support the effective management. The health sector's capacity to determine its human resources needs shall be developed supported by a fully-fledged human resource information system (HRIS) as part of the health information system (HIS).

Strategies and milestones

These are summarized in the table below

Table 6: Key strategies and milestones for strengthening the health workforce *(to update following review by Merna)*

Programs / service areas	Priority investments	Key milestones / results
		Description
Health workforce regulation	Strengthen regulatory councils	Harmonized regulatory councils functioning, to ensure accreditation of training institutions, validation of competence, registration of professionals, expansion of

Programs / service areas	Priority investments	Key milestones / results
		Description
		scopes of practice, professional development, competence and standards for all cadres.
		Continuing professional development mandated for re-licensing
Health workforce production	Align pre-service training with needs	Pre-service training needs assessed
		Pre-service curriculum reviewed in line with training needs
		Cost effective new pre-service cadre trainings introduced
		NIHSS accredited as a Tertiary Education facility.
		Seychelles hospital accredited as a training hospital in support of education and training.
	Align in service training with needs	In service training needs mapped
		In service capacity building plan available
		Mid-level managers trained in planning, management (financial, operations, HR, infrastructure) and leadership, governance and monitoring
		Established modern training institution and in-service education unit. .
Health workforce recruitment and deployment	Rationalize health workforce recruitment and deployment	HRH norms and standards developed for each tier of care and cadre
		Reviewed schemes of service for all cadres
		New staff recruited and deployed according to norms and standards
		Comprehensive induction program for staff
Health workforce remuneration	Payment of existing health workers emoluments	Salaries of existing health workers are paid as scheduled
		Allowances of existing health workers are paid as scheduled
Health workforce management and retention	Reduction in attrition of health workers	Staff recognition awards in place for all tiers and cadres
		Guidance on multi skilling and task sharing in place
		Guidance on public health workers working in the non public sector, and vice versa
	Improve the capacity for management of the health workforce	Human Resources Information System functional with comprehensive information on cadres qualifications, skills, trainings and career progression plans
		Top level managers trained in strategic leadership in health
		Systems of accountability, monitoring and evaluation of human resources productivity in use.

3.4.4 Sustainable financing for health

Scope

Sustainable financing aims to ensure that the provision of the essential health services is financed in a manner that is efficient, equitable and sustainable. Seychelles is facing the challenge of continually increasing health expenditure, both in constant and in real terms. The projected increase in the burden of non-communicable diseases, together with an ageing population due to improving life expectancy will continue to place additional pressures on the health budgets each year.

Outstanding issues

- Efforts to define expenditure on health through the National Health Accounts have greatly improved in the recent years. Together with the exercise to determine the cost of each and every aspect of public health care provision, the NHA will provide the health sector with the tools to develop investment plans for health and facilitate the mobilisation, allocation and management of resources. However, all health leaders and professionals need to be informed of these exercises and their potential and motivated to be engaged actively
- Health managers need to develop a greater strategic outlook with regards to the sustainable development, including financing of health. Cost awareness, capacity for budgeting and priority setting, particularly amongst service managers, need to be strengthened and mechanisms put in place to permit timely reporting, analysis and utilisation of finance-related data and information. Managers also need to be encouraged to be proactive and empowered to take charge of their services, and adopt a clear vision of how the services will progress and develop.
- The sector lacks a clear resource mobilization strategy, aimed at raising the needed resources for provision of the essential services the people of Seychelles. The annual budgeting exercise is generally a passive process. A more forward-looking perspective should be adopted, with an investment planning approach, and better defined plans of action. Financial management and accounting skills are still weak within most service delivery programmes, with a poor link between their activities and financial reporting.
- Health care provided in the public health services and funded through taxation guarantees equitable access to all citizens. Health accounts for the largest proportion (close to 10%) of government's annual budget. Out of pocket spending accounts for less than 3% of overall national health expenditure. While assurance of access has ensured Universal Health Coverage and the attainment of good health status, it also contributes to increasing expectations and potential abuse and wastage. Efforts to educate the public needs to be strengthened.

- The current focus on tax-financed health services, while equitable, limits the sector's capacity to finance new interventions, especially as the budgeting exercise tends to give priority to maintaining current activities or only permits small marginal increases in service development. Alternative financing mechanisms need to be explored in consultation with other sectors and with the engagement of the population, especially where changes in policy might need to be considered. There is also greater scope for Public Private Partnership, in particular with infrastructure development and provision of clinical services where substantial investment need to be made.

Objectives

The health sector will aim to introduce innovative approaches towards assuring sustained investment, in order to strengthen the delivery of modern health care in an efficient and equitable manner. It will explore innovations in resource generation, engage health providers and the population in creating a culture of cost awareness and efficiency, and develop partnerships with the private and other sectors in the provision and purchasing of services.

Investment in health: Innovations shall be sought, with the support of other sectors and international organisation, to develop an investment outlook and plans for the development of the health sector. In addition, more comprehensive costing, budgeting, and financial management systems shall be employed to build the required evidence needed to facilitate resource mobilization and planning.

Efficiency in health: Concerted efforts at all levels will be directed to the creation of the culture and mechanisms to ensure greater cost awareness, maximise the use of resources, manage public expectations, and reduce wastage. Health professionals will be encouraged to ensure rational use of diagnostic services and prescribing, and their practices regularly monitored and audited. Users of the services will be provided with information on the cost of services, including shadow pricing and billing for their individual use of services.

Alternative financing: The health sector shall explore alternative financing approaches, in particular to support the development of new priority interventions. The potential for Public Private Partnership in infrastructure and key service areas will be investigated and applied in a coordinated and systematic manner.

Strategies and milestones

These are summarized in the table below

Table 7: Strategies and milestones for sustainable financing

Programs / service areas	Priority investments (Strategies)	Key milestones / results
Investment in health	Improve availability of costing information for health	Unit costing information for services / facilities
	Improve capacity for priority setting and budgeting amongst program managers	Investment plan for health which takes into consideration an appropriate balance between preventive and curative services
		Program based budgeting approach well institutionalised in the sector
		Appropriate engagement of health programs, and partners in the budgeting process
	Improve financial management capacity amongst health workers	Institutionalized National Health Accounts
		Capacity in management accounting amongst mid-level managers in health
		Resource mobilization framework, targeting private sector and development partners
Efficiency in health	Create the culture and mechanisms to ensure greater cost awareness and ensure rational use of services	Institutionalised monitoring and evaluation of efficiency at all levels of programmes and services, with regular analysis and reporting of outcomes versus inputs.
		Mechanism for cost consciousness amongst providers and users in place
Alternative financing for health	Explore potential for alternative approaches to financing health	Analysis of potential and scope for ring-fenced health financing, the role of personal insurance, out of pocket payments in the public and private sector, and the expansion of private health care
		Develop Public Private Partnerships in sharing the cost of infrastructure development and provision of clinical and public health services

3.4.5 Research and innovation

Scope

The sector aims to develop a culture of research and innovation, aimed at ensuring evidence based decision making is practiced in the health sector. It will coordinate the generation, analysis, dissemination of research in a manner that generates the required knowledge needed to inform decision making. The focus shall be on both biomedical, and systems research and work towards fostering a strong culture of evidence based decision making amongst health workers.

Outstanding issues

- The research unit capacity is still very limited, in relation to its tasks and terms of reference. There is no programme to develop research competencies of in-service health professionals and there are no incentives for health professionals to conduct applied research and to share information.
- There are no existing policies to drive research and translate findings into clinical and public health practice. A framework is required to integrate the research carried out in different disciplines and create a platform for dissemination of data/results.
- Whilst the government budget allocated for research remains low, significant resources in terms of staff time and grants are allocated to research but this is not tracked systematically.
- Despite a dearth of information for decision making by policy makers, there is no agreed mechanism to prioritize research based on national health needs and consequently, there is still no overall health research agenda which leads to a disconnect between the proposals for research and the information needs of the health sector.
- The country has not yet put in place pro-active mechanisms to attract researchers.
- There is no framework to evaluate innovations proposed for implementation in the health sector.

Objectives

The sector will work towards generating appropriate knowledge from research, which is needed for evidence – based decision making in the health sector. This shall focus on building the capacity for generation, analysis and use of research by decision makers in health

Research generation: The sector will focus on improving oversight of research, with a clear research agenda to guide research in Seychelles, resource mobilization to facilitate implementation of the research agenda and building capacity of health workers to conduct the research and of the MOH to supervise its conduct

Research analysis: The sector will focus on putting in place the required specialized capacities needed to analysis of research findings, both for indigenous research and systematic reviews of

research conducted in other countries to generate information needed to inform the decision making process

Knowledge management: The health sector will explore innovative approaches towards building linkages between research and decision making, to enable interaction between the two fields.

Strategies and milestones

These are summarized in the table below

Table 8: Strategies and milestones for improving research and innovation

Programs / service areas	Priority investments	Key milestones / results
		Description
Health research and evidence generation	Establish Research Policies	Design guidelines/procedures for the use of resources, facilities, personnel, equipment and information
		Develop guidelines/procedures to translate findings into clinical and public health application/practice
	Strengthen mechanisms for monitoring the conduct of health research	Establish legal framework for research participant as well intellectual property protection, through strengthening of the ethics committee
		Establish health research advisory committee and scientific and regulatory review teams to ensure that standards of research practices are met
	Establish a health research unit	Design structure, framework and resources for integration of research as part of the health culture
	Identify priority research projects that will meet health needs	Analysis of disease burden, risk factors and mortality rate to dictate priority as well as resources and funding source
	Identify methods for financing of health research	Ensure at least 2% of National health budget is committed.
		Ensure at least 5% of external aid are dedicated to health research projects.
		Develop outside partnership with the goal of attracting innovative funding mechanisms
	Develop research culture in health care and strategies to develop partnership/collaboration	Training, visibility of projects and dissemination of results, data, reward/promotion systems.
Routine facility based HMIS	Develop and implement a system designed for integrated and easy access to patient information at the point of care	Implementation of database system for capturing and management of information. Set SOPs for consistency in data collection
	Ensure protection of patient confidentiality	Design and monitoring of system usage
	Ensure smooth functioning of information capture	Training of staff, and proper routine system check
	Develop and implement the health records act	Establish legal framework for implementation
		Set standards and guidelines for records management procedures
Community profile?? based vital statistics and services…. Need to rename this?????	Strengthen existing database	Establish a coding system for database, training of staff
	build new registries	Capture new information for analysis and assessment of service coverage
	Developing GIS	Integrate
	Implementation of standard treatment protocols?????	
	Revisit death certificate "cause of death"????	ICD10

Programs / service areas	Priority investments	Key milestones / results
		Description
Disease surveillance and response systems in line with IHRs	Strengthen existing surveillance and response system	Training of staff, recruitment of staff, provision of logistical support for surveillance management and control
	Implement internationally recognize structures and processes for surveillance and response	Training Funds?
	Non communicable disease surveillance programme?????	Increase health promotion, prevention strategies
	Developing a Portal Systems	
Demographic and health surveys / census	Identify new Key areas that need survey from emerging disease or current disease burden…..	2025 survey report? Budget/capacitiy building
	Strengthen programme progress review process	Analysis and action of findings
	Collaboration with other national bodies conducting surveys	

3.4.6 Partnership and coordination

Scope

The Ministry of health recognizes the need for collaboration with many actors, for the health goals to be achieved. While the MOH can directly provide public health services, it needs to steward the actions of other health related actors towards appropriate actions that will have health benefits. These actors include:

- Other Ministries coordinating actions that have an impact on health (determinants of health)
- The non-state providers of health services, such as the private sector and NGOs
- The international partners supporting provision of health services in Seychelles
- The public and their civil society organizations who are beneficiaries of the health services

Outstanding issues

Partnership for health is an essential component of national health development. Many partnership arrangements, formal and informal, have been developed over the past decades. However these are often fragmented, uncoordinated and not sufficiently aligned with health priorities and clearly defined standards. Moreover, little effort has been made to evaluate the processes and outcomes of partnerships, other than limited accounting of the monetary value of donations and sponsorships. In order to maximise the positive impact of partnerships, greater effort need to be made to define the parameters and criteria, actively market the opportunities, monitor, audit and evaluated partnerships.

The National Public Private Partnership Policy identifies the health sector as one key areas for partnership with the private sector. It should be noted that this practice has been ongoing for many years: the prime example being specialised treatment overseas. More recently, a number of non-clinical services, including laundry and catering, and more significantly, haemodialysis, have been outsourced to be operated by private bodies. There is sufficient experience with these operations to evaluate their strengths and weaknesses and ensure that the processes are consistent with the PPP policy. Central to PPP is the issue of benefit to the health of the nation, obtaining the best deal for Seychelles and ensuring that the capacity to develop and manage contracts, including a clear separation of purchaser and provider. In addition to reviewing current PPP and outsourcing projects, assessing their conformity with the policy and evaluating their benefits in terms of health outcomes/impact and value for money, there will also be a focus on identifying other areas of service that would potentially benefit from partnership agreements, while maintaining and strengthening those functions and activities that are essential to the best performance of the public sector. In order to strengthen efficiency and accountability, periodic audits will be mandatory.

Taking a broad view of partnership for health, there is potentially great scope for mobilising other sectors (public, private and civil society organisations) to engage with the public health services in health promotion, screening, treatment and rehabilitation. Arrangements can range from simply participating in a health activity to joint programmes (such as school health services operated by Health and Education) and formal MOUs and contracts (ASFF in reproductive health; Red Cross in blood donation). The mobilisation of individuals, families and communities has been the focus of the Health of Our Nation movement and its annual My Health, My Responsibility campaign. The adoption of the Seychelles Charter for Health will give added impetus and inspiration for the movement.

Partnership at an international level is well established through interaction with international organisations and through bilateral arrangements. Such partnerships, whether technical or in the form of financial and material support, have contributed significantly to the development of the health system. These will be pursued actively within the existing national policies, standards and priorities.

Objectives

The MOH will put in place an appropriate framework to coordinate the actions of all the partners in health in a manner that ensures they are contributing to the overall health goals of Seychelles.

Partnerships with other Ministries: The sector shall put in place mechanisms for engagement with other Ministries that are responsible for actions impacting on health of the population. These mechanisms shall ensure the interventions impacting on health are prioritized in these Ministries, which include those responsible for water and sanitation, housing, poverty reduction, and education

Partnerships with non-state providers: The sector will put in place appropriate regulatory and influencing strategies to guide the private sector investments in health towards those services outside of the essential package of services, apart from areas where there is poor access to public services. This includes private providers in, and out of Seychelles.

Partnerships with international partners: Appropriate tools and methods, based on development effectiveness principles shall be put in place in the country to ensure support is complementary to Government priorities, and not divisive.

Partnerships with the public and its civil society organizations: The sector will build appropriate communication mechanisms that allow the public participate in decisions regarding their health, and share health information that is of public importance

Strategies and milestones

These are summarized in the table below

Table 9: Strategies and milestones for partnership and coordination

Programme/Service Areas	Priority investments	Key milestones / results Description
Community participation and engagement	Develop innovative structures and processes to involve the community in the planning, implementation and evaluation of health programmes, services and projects at local and national levels	Mechanisms will be developed to involve community in the planning, implementation and evaluation of health programmes, services and projects at all levels.
		Mechanisms of reporting to the community on a regular basis and for receiving feedback from the community (every year) will be developed
		Surveys to determine the community's satisfaction at the degree of involve will be conducted every two years.
	Strengthen community leadership-capacity in priority health fields at local and national level	
	Reach out to the marginalized groups and integrate such groups into mainstream of health programmes, services and projects	
Mechanisms for sector stakeholder engagements	Develop a national framework for partnership and coordination in health	A national framework for partnership and coordination with a clear policy on donation will be developed within one year.
Optimize national regional and international collaboration for health	**Strengthen national structures and processes for health diplomacy and advocacy**	The international cooperation and the planning function of the health sector will be strengthen
	Position Seychelles as a leader in Health within SIDS and in the region	Play a more active role as Health Secretariat for the SIDS of WHO-AFRO
	Create structures and processes to achieve, measure and report on aid-effectiveness	
Strengthen Public-Private Partnerships to implement goals of the strategic plan.	Develop a national framework for partnership and coordination in health	A national framework for partnership and coordination with a clear policy on donation will be developed within one year.
	Build consensus on priority areas for public-private partnerships in health	

	Identify willing and able partners for public-private partnerships	
	Provide incentives for health-related and health promoting enterprises	
	Identify willing and able partners for public-private partnerships	

3.4.7 Governance and leadership

Scope

Health governance relates to the functioning of the institutions by which the authority of the state of Seychelles is exercised. These address issues relating to the MOH stewardship of the health agenda, the existing legal and regulatory frameworks guiding health, and sector accountability mechanisms – both technical and political.

Outstanding issues

- Planning and monitoring of health is still limited to the Ministry of Health and does not cover health holistically. Linkages are not systematic and consequently the effects of health actions in other sectors is therefore not incorporated into the monitoring of health actions.
- Following formalisation of the structure of the national public health service, delineating the roles of policy making, regulation and service provision, additional work is now required to establish how the different entities interact and to establish and implement a robust accountability framework between the Ministry of Health and its public bodies.
- The sector health planning policy development and monitoring capacity needs strenghthening. There are still no firm resources and focus for policy development in the Ministry of Health to guide policy development and planning and to monitor and evaluate policy implementation at the service level. There is no agreed policy development framework with clear procedures to ensure consistency and prevent production of varying levels of quality of plans/reports. In addition, some key sector priorities still do not have clear strategies to guide their implementation, such as NCDs.
- Some health laws are out of date, particularly those regulating health professionals. Some laws need to be repealed and others updated and appropriate regulations developed. In addition, there is a need to codify the design of the national public health service including some key systems such as the Primary Health Care Package, an accountability framework for health public bodies, complaints management and a health charter.
- Long term health development is not practiced, particularly for capital health expenditures facilities to guide investments being made. Despite heavy capital investment in health infrastructure, there is no master plan for health infrastructure development nationally. A master plan for Seychelles Hospital is being worked on but a more comprehensive plan looking at all infrastructure needs is required. Such a plan should look at the future needs for community health services and consequently the network of health centres in view of the health delivery model and aligned with the need for different types of community health facilities. It should contain a medical equipment plan with clear guideline for standardisation across all facilities. Presently, health infrastructure development is ad-hoc and guided by donors preferences when these are donated rather than based on local needs. An infrastructure master plan will guide the development of a comprehensive donation policy.

- The sector still lacks a robust framework to guide and measure performance – both for health programmes and health finances.
- Capacity of the sector to regulate all its arms is limited. This is particularly so for the private sector.
- The sector lacks a comprehensive accountability framework. At the national level, the mechanism to inform stakeholders on health policies, their implementation and eventual outcomes is weak. At the institutional level, parallel streams of bureaucrats and technocrats are involved in decision making leading to confused accountability. At the individual level, there are no effective mechanisms to hold people to account for their (in) actions.
- Transparency and flow of communications related to health matters is not adequate, with frequent misconceptions existing in the public about the state of health. There is need for clear communication of health issues, including financing or service information to the public.
- Leadership and management capacity is an issue at all levels of the health system exacerbated by an absence of clearly defined competencies, roles and responsibilities of managers, an inadequate performance management system, absence of any needs assessment on the issues facing health managers and no comprehensive plan to develop the leadership and management capacity of health managers. Very little attention has been paid to improving the management support systems and there are frequent communication breakdown between support staff and professional health workers, inadequate staffing in the critical support systems and unnecessary bureaucratic procedures.

The strategic agenda for this strategic plan will therefore aim to build on the progress the sector has made, while taking cognizance of and addressing the unfinished business in the different elements of the sector to move towards giving the people of Seychelles the health they deserve.

Objectives

The health sector will ensure there is appropriate governance and leadership of the health sector in Seychelles, to ensure efficient and effective implementation of the health agenda. This it will ensure through having functional systems of stewardship, regulation and accountability in health.

Stewardship systems: The health sector shall ensure the MOH has the required capacity to manage the health agenda in Seychelles. The health sector shall put in place mechanisms to allow the Ministry of Health to interact with its public bodies and shall establish and implement a robust accountability framework between the ministry and its entities. The structure shall also clarify and strengthen linkages between the health sector and other sectors delivering health services.

It shall strengthen the policy development, monitoring and evaluation capacity of the Ministry of Health so that it can play its stewardship role. It shall focus on operationalising its structure, and ensuring appropriate management skills and capacities exist amongst all managers, putting in place required planning tools and procedures.

Public-private partnership (PPP): the health sector shall review the national public private partnership framework in order to reflect the specificities and define a framework for partnership in the health sector.

This will focus on identifying areas and scope for collaboration and defining criteria and rules for engaging non-health actors. Existing mechanisms such as MOUs guiding partnerships with other public sector organisations, NGOs and international bodies shall be strengthened in order to ensure that clear terms exist to facilitate monitoring and evaluation of these partnerships. The health sector shall evaluate the effects of and address the issue of private practice for public employees and private practitioners using public facilities to deliver care to their private patients.

In order to implement government's policy to outsource more core health services including laboratory and diagnostic services, the capacity to manage and oversee PPPs in the health sector shall be developed. Attention shall be given to developing contracting and contract management skills. Periodic reviews and audits shall be instituted for all outsourced non-core and core health services. Particular attention shall be on reviewing the overseas treatment policy with a view to rationalise the use of overseas treatment providers. This will focus on improving contract management and exploring mechanisms for cost containment such as having agreed, defined health packages, capitation and working closer with overseas institutions to harmonise and improve continuity of care. Concurrently, the health sector shall explore ways to increase local capacity to provide specialist health services in order to reduce the number of patients being sent for treatment overseas. Mechanisms could include enlarging the visiting consultant's programme; twinning with other government and private hospitals abroad and increasing use of telemedicine.

Regulatory systems: The health sector shall review and ensure a comprehensive legal and regulatory framework exists to guide the implementation of the health agenda by all actors in Seychelles. It shall codify the design of the national public health service including some key systems such as the Primary Health Care Package, an accountability framework for health public bodies, the complaints management system and a health charter. Laws regulating health professionals shall be updated.

Accountability systems: The health sector shall put in place appropriate mechanisms to ensure it is accountable to its partners. These include performance monitoring and reporting systems, corruption prevention mechanisms, efficiency monitoring of implementation of health services amongst others.

Strategies and milestones

These are defined in the table below.

Table 10: Strategies and milestones for sector governance

Programs / service areas	Priority investments	Key milestones / results
		Description
Organization and management of health services	Rationalise the package of health services being offered in health centres	Detail the criteria for categorising health centres, and identify services to be offered in each type of health and the resource requirements for operationalization
	Develop health leadership and management capacity	Establish a clear health management cadre, identifying authority delegated at each level and the competencies required
		Conduct a capacity assessment of all health managers and develop a capacity development plan for the sector
	Institutionalise clinical governance structures	Formalise and legislate board committees in national health institutions

Programs / service areas	Priority investments	Key milestones / results
		Description
Sector legal and regulatory framework	Develop capacity for implementation and enforcement of laws and regulations	Set up and staff appropriate structures for health regulation and enforcement • Creation of additional posts in the Regulatory Unit in the Public Health Authority • Set up the Health Professional Practice Board • Ensure the functioning of the Pharmacy Regulatory Unit
	Review and update laws and regulations governing the	Update health professions act
	Improve regulation of private health sector practices	Develop clear regime for regulating health practices
		Clear mechanism and framework for exchange and sharing of information between public and private health sectors
Services, and service delivery standards	Establish national acceptable standards of care	Define and detail the Primary Health Care Package
	Develop a policy on private practice for health workers & private practitioners using public facilities	Study the impact of dual practice on public health services
	Promote health facility accreditation both local and international	Implement a programme to accredit healthcare institutions
	Improve the role and effectiveness of professional councils	Design a capacity development plan for the councils focusing on structural changes and skills development
		Establish clear continuous professional development criteria for professional license renewal and recertification
		Institute framework and procedures for "fitness to practice" and "return to work"
	Information on allocation of resources and & quality & costs of health services	
	Increase use of programme outcome evidence, patient satisfaction survey and other health related information to improve services	Mechanisms to measure client satisfaction
	Improve efficiency of health services	Develop efficiency indicators
Sector planning, and performance monitoring framework	Develop framework of indicators for health sector performance monitoring	Draft national health indicator framework
	Formalise the client feedback process	Complaint Management Process for health institutions
		Annual patient feedback surveys
	Institutionalise use of service level agreements between government and all its public bodies and private providers	Service level agreements between MOH and its public bodies HCA, PHA, NIHSS, NAC
		Ensure existence and annual reviews of contracts with private health care providers both local and overseas
Accountability	Create an enabling environment to improve accountability	Develop a performance management framework for health institutions with appropriate benchmarks identified, service standards, and standard Protocols for common conditions
		Consolidate the Health of Our Nation process • Annual Health of our Nation reports • Formalise the HOON structure

Programs / service areas	Priority investments	Key milestones / results
		Description
		Develop protocols to distinguish bureaucratic from technocratic decision processes
Government stewardship and effectiveness	Develop policy and planning capacity	Create additional posts in Policy Development Unit
		Conduct training needs assessment and prepare training plan
	Develop policies and strategies in priority sector and technical areas	Develop the following policies and strategies (as identified in the other areas) • NCD Strategy • Private Practice Policy
	Establish spatial requirements for the long term development of the health services	Develop a master plan for health infrastructure development
	Establish structures for regular engagement of actors in the health industry	Bi-annual National Health Forum -High level intersectoral meeting of all actors in health
		Quarterly forum for senior executives in the government health sector

CHAPTER 4: RESOURCE REQUIREMENTS

Resource requirements

Content *Macro costing of the NHSP investments to determine the resource implications for these. Information is based on costing of the interventions defined in the preceding chapter. For practical purposes, an ingredient costing approach may be proposed (based on estimating unit costs and quantities needed for each intervention, guided by present/past practice)*

Length *3 pages*

Rationale and assumptions used in the costing

Costing assumption	Implications of assumption

Resource requirements by investment domain

Investment domain	Resource requirements					
	2016	2017	2018	2019	2020	TOTAL
Strengthening integrated health care						
Promoting and protecting health						
Human resources for health						
Sustainable financing for health						

Investment domain	Resource requirements					
	2016	2017	2018	2019	2020	TOTAL
Research and innovation						
Partnership and participation						
Governance and leadership						
TOTAL						

Available financing (not able to provide info in the format required for this)

Content *Mapping of the secured, and probable resources available to finance the NHSP. Information is derived from known and current financing trends*

Length *2 pages*

Available financing by investment domain for different sources

Investment domain	Source	Total available financing					
		2016	2017	2018	2019	2020	TOTAL
Strengthening integrated health care	Government						
	Other (specify)						
	Other (specify)						
Promoting and protecting health	Government						
	Other (specify)						

Investment domain	Source	Total available financing					
		2016	2017	2018	2019	2020	TOTAL
	Other (specify)						
Human resources for health	Government						
	Other (specify)						
	Other (specify)						
Sustainable financing for health	Government						
	Other (specify)						
	Other (specify)						
Research and innovation	Government						
	Other (specify)						
	Other (specify)						
Partnership and participation	Government						
	Other (specify)						
	Other (specify)						
Governance and leadership	Government						
	Other (specify)						
	Other (specify)						
UNCLASSIFIED	Government						
	Other (specify)						
	Other (specify)						
TOTAL	Government						
	Other (specify)						
	Other (specify)						

Financing gap analysis and resource mobilization strategy

Content *Mapping of NHSP financing gaps, and resource mobilization priorities*

Length *4 pages*

Forecast based on available budget data and donor funds. Will not be able to present by investment domain.

Financing gap by investment domain (table exclude)

Forecast based on available budget data and donor funds. Will not be able to present by investment domain.

Investment domain	Resource gap					
	2015/16	2016/17	2017/18	2018/19	2019/20	TOTAL
Strengthening integrated health care						
Promoting and protecting health						
Human resources for health						
Sustainable financing for health						
Research and innovation						
Partnership and participation						
Governance and leadership						
TOTAL						

Resource mobilization strategies (Narrative versus table)

Strategic area	Key interventions
Mobilize new domestic resources	

Mobilize new external resources

Secure available resources

Improve efficiency in use of existing resources (allocative and technical efficiency)

Explore public / private partnership arrangements

CHAPTER 5: IMPLEMENTATION FRAMEWORK

Roles and responsibilities

The NHSP 2016-2020 is a comprehensive, overarching plan which implements the modernisation agenda for the health sector following Cabinet's approval of the comprehensive set of recommendations in the Health Task Force Report in 2013. Although organised into themes, the NHSP needs to be seen as a coherent plan for the sector, whose successful implementation will depend on effective collaboration and interventions of key stakeholders.

It is recognised that the capacity of the Ministry of Health to lead and oversee the NHSP 2016-2020 implementation, and of its public bodies to implement programmes detailed in the plan, needs to be further developed.

Nationally, there are a number of initiatives being undertaken which will impact on the mechanisms for implementing, monitoring and evaluating the NHSP 2016-2020. Key among this is the introduction of the results based management framework in the public service and in particular the implementation of Performance Programme based budgeting, PPBB.

The implementation arrangements are envisaged in three broad areas: Short term inception actions to establish the strategic plan implementation process, longer term arrangements to plan, implement, monitor and evaluate the strategic plan and an assessment of the main risks and assumptions that may influence success.

In the short term, a "NHSP process management team" will draw up a timeline of key actions, and by whom and when and publish widely. Cabinet approval will be sought for the main actions such as establishing the (a) NHSP process management team, (b) national multi-stakeholder health council and (c) coordinating structure for the government health sector. It is important to agree on a set of immediate and visible gains along with public confidence actions and the creation of a sense of ownership and participation among health professionals e.g. the Health of Our Nation campaign under the theme "My Health, My Responsibility", the Seychelles Charter for Health, legislative measures, etc. During this inception stage, it is imperative that the capacity of the Ministry of Health to oversee implementation of the NHSP is addressed. The possibility of having temporary positions in the interim that formal structures are established and key posts created has to be considered. Clear management processes that facilitate accountability and managing for results have to be instituted.

In the long term, a national, multi-stakeholder health forum, at national as well as local levels, has to be established and formalised that will form an important part of stakeholder engagement and developing and maintaining linkages with key constituencies. Performance agreements should be instituted in addition to annual strategic reviews, which must include internal and external stakeholders. This is to allow the health policy makers and stakeholders to review progress and modify strategic objectives and actions as necessary.

Roles and responsibilities of sector constituents

Sector	Roles and responsibilities in NHSP
Cabinet of Ministers	Monitor the contribution of the health sector to the attainment of national strategic goals
Parliament	Hold the health sector to account for use of public funds
Ministry of Health	Responsible for overseeing the national health sector to ensure the evolution and orderly development of the sector including: • Oversight of the NHSP ensuring successful implementation and attainment of strategic goals • Account to Cabinet and the National Assembly for the happenings in the health sector • Mobilising funds to ensure adequate financing of the programmes in the NHSP • Instituting and maintaining linkages with all stakeholders involved in the health sector • Developing policies, laws and regulations to guide development of the health sector
Public Health Authority	Ensure proper regulation of health services and health premises
Health Care Agency	Develop and deliver health services in line with the National Health Policy and NHSP
National AIDS Council	Coordinate national initiatives for the prevention of HIV and AIDS
Other Government institutions (specify)	**Ministry responsible for Finance & Trade**; secure funding to ensure adequate financing of health programmes and auditing to ensure delivery of value for money services
	Department of Public Administration: Ensure parity in public service remuneration and controls the size of the public service; it is the high level regulatory authority for human resources management in the public service;
	Attorney General's Office: develop laws and regulations that support the implementation of the National Health Policy
	Ministry responsible for education: responsible for the delivery primary and secondary education and regulate training and education institutions
	Ministry responsible for Employment and Human Resources Development & Agency for Human Resources Development: regulates employment, labour and occupational health and safety issues; identify national human resource development needs and the resources to meet those needs;
	Ministry responsible for Environment, Energy and Climate Change/Department of Risk and Disaster Management: ensure that human and other activities has a minimal impact on the physical environment;
	Department responsible for Transport/Land Transport Agency: ensure road safety and security;
	Ministry responsible for Community Development, Social Services and Sports/National Sports Council: responsible for coordinating the delivery of government services in the district and for the implementation of sports and leisure activities
	Ministry responsible for Land Use and Housing/Planning Authority: responsible for spatial planning, adequate housing and the creation of sustainable communities
Professional Councils and Association	Mobilise and engage health professionals
Parastatal organisations	**Public Utilities Corporation**: Provision of clean water and sanitation
Districts	
Development partners	Responsible for supporting the national health agenda and ensuring that wherever appropriate, it is aligned to the global health agenda
Non state service delivery actors (private sector, PNFP's, NGOs, TCMP)	**NGOs: ASFF, Soroptimist, Round Table, Lion's Club, Rotary Club**: Support implementation of health programmes through funding
	Private health sector: provide health services to complement services provided by government institutions and increase consumer options for services
	Business sector: support through direct funding and through participation in public private partnerships
	Patient support associations, e.g. Seychelles Patients Association, Cancer Concern, HASO, Pearl Autism, Diabetic Society: advocate for the rights of patients and support implementation of programmes in specific areas
Households	seek adequate information and education, adopt health seeking behaviour and the appropriate and timely use of health services in order to maintain and improve their health

Implementation risks and their mitigation

The main areas of anticipated risk include:

1. Separation of MOH and Management of Health services

The past history makes this a likely risk factor. The inception period should allow for careful analysis and separation of roles between the Ministry of Health and its public bodies especially the Health Care Agency (HCA) and clarifying the extent and limits of authority that will be delegated to the HCA's management and the implications of this for the health system as a whole. Of concern is the absence presently of an accountability framework to ensure that the public bodies' actions are in line with government policy and the NHSP.

2. Financial decentralization and capacity building

The concerns here are similar to that at (1) above. In addition, any financial responsibility should be accompanied by systematic capacity building and support, as well as good monitoring of its implementation to quickly mitigate or correct errors as soon as they occur.

3. External influences- Ministry of Finance, Department of Public Administration, private operators, others

The MOH and its public bodies are part of the Civil Service and therefore subject to the laws that govern public service institutions. A systematic review is needed of what autonomy of the public bodies will mean on their status as a public service institution and what constraints, if any, this may bring to effective management of these organisations. Strategies shall need to be developed to address overcoming any administrative bottlenecks while finding the best way of managing efficiently whilst remaining accountable.

4. Resource availability and strategic plan investments

The health sector already has problems of budget allocations that do not meet the demand. However institutionalizing the strategic plan shall require additional resource investments at least in the short term. It will be important to prioritize such needs particularly those needed to sustain change and build morale. Also key will be transparency as to what resources will be available for such investments.

5. Strategic outlook and sustained implementation

Sustained implementation may also falter when unplanned initiatives replace or displace strategic projects. While the door should remain open to new possibilities for support and innovation, the strategic outlook is essential for the maintenance of priority investments in order to ensure the optimal utilisation of resources and deliver the expected outcomes.

Risk	Probability of risk occurring (Low / Medium / high)	Impact of risk (Low / medium / high(	Risk Mitigation strategies
Separation of policy development role from the policy implementation roles	High	high	careful delineation of roles clarifying the extent and limits of authority that will be delegated to the Public bodies
			Reporting framework & active communication and coordination
			Accountability framework; service agreements
Financial decentralization and capacity building	High	medium	Clear procedures & adherence to procedures
			Regular monitoring & audits
			Clear identification of inputs & expected outputs & outcomes and regular reporting on progress
External guidance influences - Public Service Administration; Ministry of Finance, and others	high	medium	Good knowledge of public sector rules and regulations
			Clear, detailed plans for all functions
Resource availability and implementation process investments	Medium	medium	Define clear priorities in terms of outcomes that can be derived from resources; more strategic planning in the allocation of resources
			Reduce wastage, improve efficiency
			Justify additional funding for key priorities identified in the strategic plan
Maintaining the strategic outlook and adherence to the plan	High	medium	Ensure detailed plans are communicated to all partners with clear definitions of priorities
			Clear donation policy
			Robust framework for PPP

Assumptions for successful implementation of the NHSP

The following is assumed for successful implementation of the NHSP:

1. ***Strong government commitment and leadership***: There must be recognition that successful implementation of the NHSP requires a national effort, driven by supportive leadership at the highest level. The linkages with stakeholders and other sectors must translate in actions that impact significantly on the citizens' health. It is assumed that there will be strong government commitment to having health in all policies and strong leadership to ensure effective, decentralised planning and implementation and coherent, synchronised, coordinated and sustained actions by all parties.
2. **Strong accountability and transparency and sustained financial support:** there must be a clear accountability framework and all senior executives in the health sector must account for their contribution in implementing the NHSP.
3. ***Institutional capacity:*** Proper staffing levels and good capacity of the Ministry of Health will be important for the sector to realize its goals. The assumption is that the Ministry will get additional staff with the requisite skills to assume its oversight role. In addition, it is assumed that the current crop of managers in the public bodies will be committed to implementing the NHSP and take responsibility for the expected results.
4. ***Client expectations management***: Politicians and other policy makers will create the space for the health sector to implement some key actions and do not use clients' complaints made at the highest levels to demotivate staff and managers. The assumption is that people at the highest level would understand that lasting solutions take some time to implement.
5. ***Buy*-in, commitment of health professionals**: All health professionals should feel that implementation of the NHSP is in their interest.
6. ***Adherence to Timeline of key actions, and its monitoring***: The lack of implementation and deviation from previous plans, policy changes, and organizational structures has been a consistent source of cynicism. Deviations from the timeline and deferral of key actions may quickly demotivate staff and reduce commitment.
7. ***Internal (politics) influences, motivation, professions and regulatory bodies***: The usual organizational and inter-professions competitiveness as well as a sense of "winners" and "losers" can quickly derail actions. It is assumed that there will be wide consultation, clear communication and involvement in decision making of all those to be involved in implementing the NHSP.

CHAPTER 6: MONITORING AND EVALUATION

Data architecture

Description of the process of data management.

Define mechanisms for collection of data from each source:

- HMIS – health centres, hospital, private health sector, non-health sector
- Surveillance: part of HMIS for notifiable conditions, growth monitoring
- Vital statistics: births & deaths from HMIS
- Research
- Surveys:

How will this be stored, verified and mechanisms for its analysis

Data and statistics

Description of data to be used to monitor the NHSP:

Health impact data, health and related service outcome data, output targets, data to monitor targets set under the different themes

Core indicators and targets over the five year period.

Domain area	Indicator	Data source	Reporting frequency	Baseline value	Mid term value	End term value
HEALTH IMPACT						
Health impact trends	▪ Life expectancy at birth					
	▪ Infant Mortality rate (per 1,000)					
	▪ Under five mortality rate (per 1,000)					
	▪ Maternal Mortality Ratio (per 100,000)					
	▪ Neonatal Mortality Rate (per 1,000)					
	▪ Total Fertility Rate					
	▪ Adolescent fertility rate					
	▪ AIDS-related mortality rate					
	▪ Mortality between 30 and 70 years of age from cardiovascular diseases, cancer, diabetes or chronic respiratory diseases					
	Mortality by key conditions of public health concern ▪ Leptospirosis mortality ▪ Mortality from road traffic injuries					
	Incidence of key conditions of public health concern, ▪ Hepatitis C incidence, ▪ HIV incidence, ▪ Measles incidence rate, ▪ Cancer incidence by type of cancer , ▪ Sexually transmitted infections (STIs) incidence rate ▪ Renal disease incidence ▪ Self harm					
	Prevalence of key conditions of public health concern ▪ HIV prevalence rate ▪ Hepatitis C prevalence ▪ Contraceptive prevalence rate					
Service responsiveness	▪ Client satisfaction index					
HEALTH & RELATED SERVICES OUTCOME TARGETS						
Prevention and controlling communicable diseases	▪ Immunization coverage rate by vaccine for each vaccine in the national schedule					
	▪ Antenatal care coverage					
	▪ Postpartum care coverage					
	▪ Percentage of HIV positive pregnant women provided with ART to reduce the risk of mother to child transmission during pregnancy					
	▪ Percentage of hepatitis C positive patients on treatment					
	▪ Vector population- leptospirosis (to be defined – COMBI Plan)					
	▪ Mosquito density – vector borne diseases					
	▪ Percentage of patients with STIs on treatment (to be defined)					
Promoting and protecting health	▪ Environment ▪ Population using safely managed drinking-water services ▪ Population using safely managed sanitation services					
	▪ Nutrition ▪ Incidence of low birth weight among new-borns ▪ Anaemia prevalence in children ▪ Anaemia prevalence in women of reproductive age ▪ Percentage of under-fives with stunting ▪ Exclusive breastfeeding for 6 months					
Preventing and controlling non communicable conditions	▪ Total alcohol per capita age 15+ years) consumption					
	▪ Tobacco use among persons aged 18+ years					
	▪ Children aged under 5 years who are overweight					
	▪ Overweight and obesity in adults & adolescents					
	▪ Raised blood pressure among adults					
	▪ Raised blood glucose/diabetes among adults					
	▪ Insufficient physical activity					

Domain area	Indicator	Data source	Reporting frequency	Baseline value	Mid term value	End term value
	▪ Illicit drug use (to be refined)					
	▪ Coverage of services for severe mental health disorders (to be defined) and neuro-degenerative disorders (Alzheimer's, MS, Parkinson's, etc)					
	▪ Screening for breast, cervical and colorectal cancer					
	Injuries ▪ Intimate partner violence prevalence					
	▪ Incidence of injuries caused by RTAs					
Providing essential clinical and rehabilitative services	▪ Abortion rate					
	▪ Percentage of women of child bearing age using modern contraceptive methods vs couple years of protection					
	▪ Proportion of population tested					
	▪ People living with HIV who have been diagnosed		90%			
	▪ Antiretroviral therapy (ART) coverage					
	▪ Percentage of persons on ART with undetectable viral load					
	▪ Number of cases of Methycillin Resistant Staphylococcus aureus (MRSA) above epidemic threshold		**0**			
	▪ Clinical output indicator (to be defined)					
OUTPUT TARGETS						
Improving access	▪ Outpatient visits per capita					
	▪ Hospital bed occupancy rate					
	▪ Average waiting time –specialist outpatient & community facility outpatient					
	▪ Occupied bed nights					
Improving quality of care	▪ Average length of stay					
	▪ Perioperative mortality rate					
	▪ Number of hospital acquired infections					
	▪ Proportion of preventable maternal deaths					
	▪ Proportion of preventable infant deaths					
	▪ Proportion of inpatient deaths					
	▪ Proportion of health facilities that are ready to provide services					
	▪ Community health services quality (define quality index)					
THEMATIC AREA TARGETS						
Strengthening integrated health care	▪ Availability of clinical pathways for the 10 most common conditions					
	▪ Referrals					
	▪ Availability of essential medicines and commodities (to be defined)					
Human resources for health	▪ Health worker distribution					
	▪ Output training institutions					
	▪ Health worker density					
Sustainable financing for health	▪ Total current expenditure on health (% of gross domestic product)					
	▪ Current expenditure on health as percentage of general government expenditure					
	▪ Out-of-pocket payment for health (% of current expenditure on health)					
	▪ Externally sourced funding (% of current expenditure on health)					
	▪ Total capital expenditure on health (% current + capital expenditure on health)					
Research and innovation	▪ Percentage of health budget spent on research					
	▪ Number of thematic areas with ongoing / new research					
	▪ Number of best practices based on application of innovative technologies.					
Partnership, participation and coordination	▪ Proportion of partnerships in conformity with the health sector coordination and partnership framework					
	▪ Proportion of health coordinating bodies in conformity with the health sector coordination and partnership framework					

Domain area	Indicator	Data source	Reporting frequency	Baseline value	Mid term value	End term value
	▪ Stakeholders regularly provide input to government and health provider organizations about priorities, services, and resources.					
Governance and leadership	▪ **Regulatory**: Implementation of health sector legislation and regulations monitored annually					
	▪ **Accountability**: annual Health of Our Nation review					
	▪ **Efficiency**: sector efficiency (to be defined; methodology DEA-Data envelopment analysis)					
	▪ **Stewardship:** Proportion of strategies with clearly defined multisectoral approaches					
Information	▪ International Health Regulations (IHR) core capacity index					
	▪ Percentage of facilities reporting complete, timely and accurate reports					
	▪ Percentage of facilities reporting using electronic health records system					

Monitoring and review

Content *Description of the regular, monthly, quarterly, annual, mid-term and end term processes to review progress towards attainment of the NHSP targets. For each, the type of targets to be reviewed are defined, together with the process of the review*

Length *1 page*

CHAPTER 7: CONCLUSION

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