



**World Health
Organization**

Mauritius

Biennial Report 2020/2021



**Strengthening Actions for better health
amid the COVID-19 pandemic**

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FOREWORD

World Health Organization Country Office (WCO) Mauritius has the pleasure to share its achievements towards a healthier and safer Mauritius for the 2020- 2021 biennium.

As for the rest of the world, this biennium in Mauritius was strongly marked by the Coronavirus (COVID-19) pandemic. WCO Mauritius has provided its relentless support to the Government of Mauritius as well as other actors of the response to protect the Mauritian population in these unprecedented times. WCO played a key role in the strengthening of the national response to better fight the pandemic. WHO has been an active contributor in the national high-level committee to prevent and control COVID-19.

Despite a strong focus on mitigating the impact of COVID-19 pandemic, WCO Mauritius offered its continued assistance to Mauritius towards its other health goals. The Republic of Mauritius has finalized and operationalized its National Health Sector Strategic Plan 2020-2024. This is a major milestone towards achieving Universal Health Coverage in the country. Several initiatives have also been pursued at national level to improve access to health financing and access to medicines and other health products as well as upgrade laboratory quality. Efforts to fight against noncommunicable diseases (NCDs), the leading cause of deaths in Mauritius, and associated risk factors have also been sustained.

These achievements would not have been possible without strong partnerships. My gratitude goes to the Government of Mauritius and particularly to our long-standing partner, the Ministry of Health and Wellness (MOHW) for prioritizing the



health of Mauritians. I would like to also express my appreciation to the wide array of partners including the United Nations (UN) Country Team, bilateral and multilateral agencies, donors, the private sector, research institutions and non-governmental organizations. We look forward to strengthening our collaboration for a healthier and safer Mauritius.

A handwritten signature in black ink, appearing to read 'Laurent Musango', written over a horizontal line.

Dr Laurent Musango
WHO Representative in Mauritius

ABBREVIATIONS AND ACRONYMS

AIDS	Acquired Immunodeficiency Syndrome
CDCU	Communicable Diseases Control Unit
COVID-19	Coronavirus Disease 2019
DHIS2	District Health Information Software Version 2
GDP	Gross Domestic Product
GFATM	Global Fund to Fight AIDS, Tuberculosis and Malaria
GPW-13	Thirteenth General Programme of Work
HIV	Human Immunodeficiency Virus
ICD	International Statistical Classification of Diseases and Related Health Problems
IHR	International Health Regulations
MOHW	Ministry of Health and Wellness
NCD	Noncommunicable disease
NHSSP	National Health Sector Strategic Plan
SDG	Sustainable Development Goal
SERP	Socio Economic Response Plan
SIDS	Small Island Developing States
UN	United Nations
WCO	World Health Organization Country Office
WHO	World Health Organization
WHO/AFRO	WHO Regional Office for Africa
WHO/HQ	WHO Headquarters

I. INTRODUCTION

I.1 Background

The WCO Mauritius has the mandate to support the Republic of Mauritius in achieving its health goals and this report aims to demonstrate the main achievements of WCO Mauritius in doing so for the 2020-2021 biennium.

WCO Mauritius' interventions are aligned with the WHO's Thirteenth General Programme of Work (GPW -13) 2019-2023 and aim to accelerate the attainment of the Sustainable Development Goals (SDGs) and reduce health inequality among all populations by 2023 via its triple billion targets. This report details the work of WHO at country level across the triple billion targets; (1) One billion more people are benefiting from universal health coverage; (2) One billion more people are better protected from health emergencies and (3) One billion more people are enjoying better health and well-being.

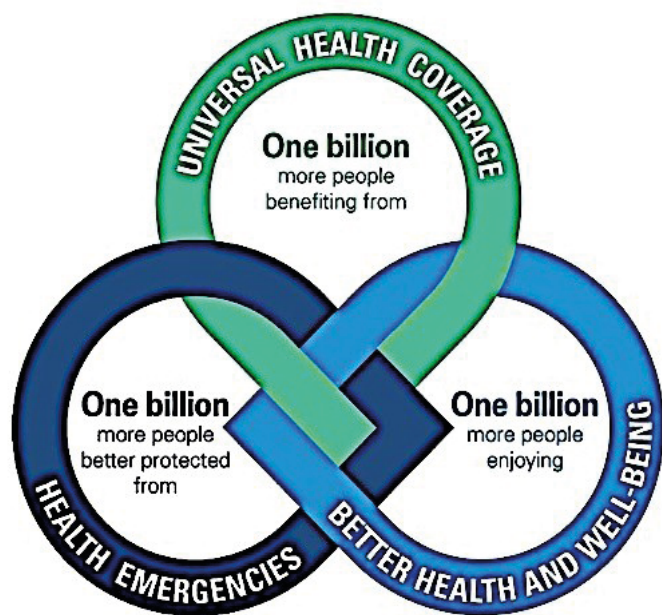


Figure 1 : Triple targets of the GPW-13

WCO Mauritius implemented the vision of WHO Region Office for Africa (WHO/AFRO) towards a more responsive and effective realization of the SDGs under the Africa Health Transformation Programme (2015-2020). The four focus areas of

the Transformation Agenda: pro-results values, smart technical focus, responsive strategic operations and effective communications and partnerships are also translated in this report.

I.2 Country context



Figure 2 : Mauritius location map

Located about 200 km east from the African continent; the Republic of Mauritius consists of the main island Mauritius and two other inhabited islands: Rodrigues and Agalega; making up a total population of 1,265,740 inhabitants¹. Mauritius is also densely populated with 640 inhabitants per km².² The country's demography is shifting towards an ageing population with a fertility rate of 1.4 births per woman and a life expectancy of 74.4 years. With 12% of the population aged 65 years and above, Mauritius has one of the highest proportions of elderly in sub-Saharan Africa¹. The infant mortality rate is 14.9 per 1,000 live births.¹

Over the decades, the Republic of Mauritius has shifted from an agriculture based low-income economy to a more diversified high-income economy based mainly on trade, manufacturing, tourism and financial services. In 2020, it had a gross enrolment ratio of 87.4%¹ for secondary education enrolment as a percentage

¹ <https://statsmauritius.govmu.org/Pages/Statistics/Tableau-de-Bord.aspx>

² https://statsmauritius.govmu.org/Pages/Statistics/By_Subject/Other/SB_Other.aspx

of the population aged 11 to 17 years and an unemployment rate of 9.2%³. The inflation rate stood at 2.5% and the Gross Domestic Product (GDP) in current prices was 10.92 billion US\$⁴.

The public expenditure on health represented 5.8% of its GDP⁵ and the public expenditure on health was 9.8% of the total public expenditure⁶ for the year 2018. Mauritius is a welfare state providing free access to public healthcare goods and services including advanced medical procedures such as surgery. In 2021, the public healthcare system consisted of 15 hospitals; 5 regional hospitals, 2 community hospitals and 7 specialized hospitals in otolaryngology, pneumology, ophthalmology, cardiology, psychiatry and oncology in Mauritius island and one hospital in Rodrigues island. About 158

primary healthcare centres were well distributed across the island providing a range of services including family planning and maternal and childcare, dental and Ayurvedic medicine services and there were 18 private clinics in 2020. Owing to the national response to COVID-19, six COVID-19 testing centres were built, during the 2020-2021 biennium; two of which were fully funded by WHO. In 2020, Mauritius and Rodrigues islands had a total bed capacity of 4720 and a healthcare workforce composing of 3450 medical practitioners and 4400 midwives and nurses. The main cause of death in Mauritius in 2020 remained cardiovascular problems (33%) followed by complications due to diabetes mellitus (21%), cancer (13%) and respiratory diseases (11%).⁶

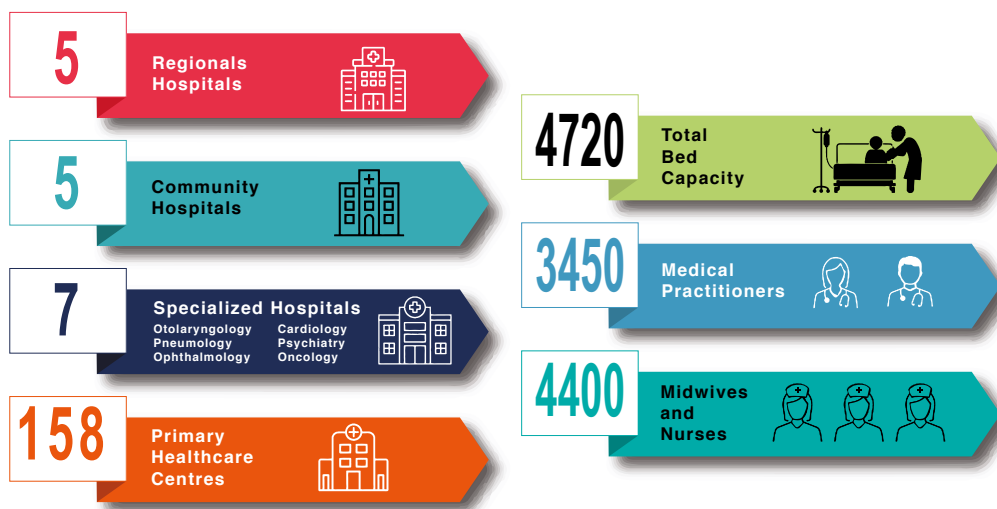


Figure 3 : Public Health System in Mauritius

³ <https://statsmauritius.govmu.org/Pages/Statistics/Tableau-de-Bord.aspx>

⁴ https://databank.worldbank.org/views/reports/reportwidget.aspx?Report_Name=CountryProfile&Id=b450fd57&tbar=y&dd=y&inf=n&zm=n&country=MUS

⁵ <https://data.worldbank.org/indicator/SH.XPD.CHEX.GD.ZS?locations=MU>

⁶ https://statsmauritius.govmu.org/Pages/Statistics/By_Subject/Other/SB_Other.aspx

2. FOSTERING STRATEGIC PARTNERSHIPS AND COLLABORATION

Strengthening partnerships with the actors of the national response to COVID-19

Since the detection of the novel coronavirus, WCO Mauritius has been working closely with the Communicable Diseases Control Unit (CDCU) of the MOHW and from 31 January 2020 onwards, it participated in the High-level committee on COVID-19 chaired by the Prime Minister. The committee composed of key ministers and high-level technicians from different areas of the national response including CDCU, health laboratory, tourism and international travel, trade and commerce, and law and order. WCO Mauritius became a key actor of the national response sharing technical advice and assistance and built very close partnerships with the actors beyond the health sector. Its strong involvement in the efforts to control the pandemic in Mauritius was lauded by the Mauritian Government.

Key involvement of the United Nations country team and Development Partner Group



Dr Hon K. Jagutpal, Minister of Health and Wellness (center); Dr L. Musango, WHO Representative (left) and high-level staff of MOHW and WCO Mauritius discussing national COVID-19 response

With the declaration of COVID-19 as a public health emergency of international concern, WCO Mauritius took the lead within the UN country team to elaborate a UN business contingency plan. To prepare for COVID-19, the UN Resident Coordinator for Mauritius and Seychelles gathered all UN agencies in both countries in February 2020. WCO Mauritius shared the latest information on the pandemic and responded to the concerns raised by the partners. In the same vein, WCO Mauritius briefed the Development

Partners Group consisting of diplomatic missions and bilateral and multilateral organizations on the global situation in February 2020 and March 2020 respectively.

As the COVID-19 pandemic reached Mauritius, WCO Mauritius played a pivotal role as an intermediate between the Government of Mauritius and the UN country team and the Development Partner Group; relaying information on needs and actions of the response. These exchanges fruitfully resulted in a rapid response from the various agencies. The United Nations Development Programme supported the construction of one of the COVID-19 testing centres and the development of the Laboratory Information Management System while the International Organization for Migration raised awareness about COVID-19 among migrant workers. Several other UN agencies provided financial funds, personal protective equipment, and other vital equipment.

The UN country team also developed a phased *Socio-Economic Respon Plan (SERP) to the COVID-19 crisis* to respond to the Government of Mauritius' call for support. The plan guided the UN country team's response during the outbreak, in the medium to long term as well as for the recovery from socio-economic impact (more details about WCO Mauritius' response can be found in section 6.2).



Dr L. Musango, WHO Representative presenting the latest information on COVID-19 during UN agencies meeting on 11 February 2020

Development of the Country Cooperation Strategy 2022-2025

In 2021, WCO Mauritius initiated the development of its Country Cooperation Strategy 2022-2025 to guide its technical cooperation with Mauritius and support extended in view of achieving the national health goals. WCO Mauritius Country Cooperation Strategy 2022-2025 is aligned with the GPW-13, the UN Strategic Partnership Framework 2019-2023 and the Mauritius' National Health Sector Strategic Plan 2020-2024 (NHSSP). The Country Cooperation Strategy 2022-2025 covered four strategic priorities, namely:

The CCS identifies four strategic priorities, namely :

1. Building resilient health systems to advance UHC
2. Strengthening emergency preparedness and response
3. Promoting health and healthy environments for all Mauritians through multisectoral engagement
4. Supporting use of data and innovation for integrated, people-centred care

Updating the President of the Republic of Mauritius about the COVID-19 response

Since the COVID-19 pandemic, the President of the Republic of Mauritius, His Excellency Prithvirajsing Roopun has met the WHO Representative three times during this 2020-2021 biennium. The main subject of discussion was the national response to COVID-19. WCO Mauritius' assistance in the areas of risk communication and community engagement, infection prevention and control, laboratory services, surveillance and logistics, vaccine deployment and continuity of health care during the outbreak were also discussed. The WHO Representative reiterated the commitment of WHO at the three levels of the Organization – the WHO Headquarters, the WHO Regional Office for Africa and the WHO local office to support Mauritius in protecting the health of the population, especially amid the COVID-19 pandemic.

WHO intervention at the 5th Nelson Mandela Memorial Lecture 2020

The WHO Representative was a key speaker at the 5th Nelson Mandela Memorial Lecture 2020 at the Mahatma Gandhi Institute in July 2020. The 50 in-person participants and some 650 on-line participants were imparted with key information about the situation on COVID-19 at the global, regional and local levels.



The President of the Republic of Mauritius, His Excellency Prithvirajsing Roopun (right) discussing the COVID-19 situation with Dr L. Musango, WHO Representative (left) at the State House in 2021

Consolidating partnership with local non-governmental organizations

VISA Mauritius

In its efforts to strengthen tobacco control in the country, WCO Mauritius collaborated with VISA, an NGO actively working in tobacco control, and the University of Mauritius on two research studies investigating the enforcement of tobacco related legislation regarding (1) smoking bans in nightclubs and (2) waterpipe smoking outlets and the illegal sale of non-conventional tobacco products. Findings confirmed clear breach of several tobacco control laws. The study reports will serve as powerful advocacy tools for stronger tobacco control legislations in Mauritius. The adoption of a more comprehensive tobacco control legislation and the development of a sustained tobacco control enforcement plan based on the provisions of the law were recommended. WCO Mauritius pursued further collaboration with VISA and the University of Mauritius for submission of four abstracts to the Center for Tobacco Control's Conference on Tobacco Control and Development in November 2021.

Alzheimer Association Mauritius

WCO Mauritius supported the efforts of Alzheimer Association Mauritius in finalizing the draft action plan on dementia and encouraging stakeholder consultations. WCO Mauritius advocated for the development of a national mental health strategic plan to promote a comprehensive approach to mental health, especially with the COVID-19 pandemic, in line with WHO Global Action Plan on Mental Health.

Association pour la Promotion de la Santé (APSA) Mauritius

WCO continued networking with the Association pour la Promotion de la Santé (APSA) Mauritius and other local NGOs in strengthening the national NCD prevention and control programme. Patients were counselled on nutrition and NCDs' risk factors, self-management of diabetes and foot care. Diabetes mellitus patients also benefitted from regular blood tests for a closer monitoring of their blood sugar level.

EDYCS Epilepsy Group

WCO Mauritius engaged in supporting EDYCS Epilepsy Group in its initiative of making epilepsy a health priority in the region of Africa during the multi-stakeholder advocacy training in October 2021. Key stakeholders built capacity in promoting epilepsy as a public health priority and effective leadership and governance. EDYCS Epilepsy Group contributed in the finalization of the Global Action Plan on Epilepsy and Related Neurological Disorders, and collaborated with the WCO to bridge the gaps in epilepsy knowledge, care and research.



Dr L. Musango; WHO Representative (right) supporting EDYCS Epilepsy Group during the multi-stakeholder advocacy training in October 2021

Strengthening collaboration with research institutions

WCO Mauritius partnered with the Mauritius Institute of Health to conduct a study on knowledge, perception, behavior and impact of COVID-19 in the island of Mauritius. This study was financed by the Mauritius Research and Innovation Council under the Fast-track innovative projects to counter the impacts of COVID-19 initiative and received the support of MOHW; the Ministry of Social Integration, Social Security and National Solidarity and the National Empowerment Foundation. The research findings helped in formulating the national response to COVID-19, especially regarding risk communication and community engagement interventions.

3. ACCELERATING PROGRESS TO ACHIEVE UNIVERSAL HEALTH COVERAGE

3.1 Reinforcing the health care system

Operationalizing of the National Health Sector Strategic Plan (NHSSP) 2020-2024

The operationalization of NHSSP was one of the main achievements of the 2020-2021 biennium⁷. With an estimated cost of US\$1.6 billion, the Government of Mauritius aims to achieve 20 priorities and 26 goals towards a healthier Mauritius. The NHSSP has been aligned with SDGs, Mauritius Vision 2030, Government Programme 2020-2024 “Towards an inclusive, high income and green Mauritius and forging ahead together”, WHO’s GPW-13 (2019-2023) as well as other global and regional agendas. NHSSP will guide and harmonize the work of the Government agencies with that of development partners, bilateral and multilateral agencies, civil society and private sector.

WCO Mauritius and MOHW initiated a comprehensive analysis of health systems via an inclusive and participatory methodology involving key health stakeholders (societal dialogues) to formulate the plan. WCO Mauritius encouraged setting up of several thematic working groups to ensure operational plans translate strategic priorities into actions. The paragraphs below present the different achievements in implementing the NHSSP. Following the launch of the NHSSP, a steering committee was set up to overview its implementation.



From left to right: Dr L. Musango, WHO Representative; Hon Pravin Jugnauth, Prime Minister of the Republic of Mauritius; HE Mrs. C. Umutoni, UN Resident Coordinator at the launch of the National Health Sector Strategic Plan 2020-2024

⁷ <https://www.afro.who.int/news/launching-mauritius-national-health-sector-strategic-plan-prime-minister>

National Laboratory Policy

WCO Mauritius worked with the country to develop the National Laboratory Policy. The policy was aligned with the National Health Sector Strategic Plan 2020-2024 and approved by Cabinet of Ministers in October 2020. It provides an overall framework and strategies for establishing, strengthening, and maintaining the National Health Laboratory system. The policy provides crucial guidelines for testing for the purpose of disease diagnosis, screening and prevention and monitoring of treatment and will be key to reinforce the ongoing surveillance of diseases of public health importance for a rapid response at local, regional and international levels and will also aim for international standards for laboratory quality. The policy comprises of 12 elements referring to legislation, management, infrastructure, procurement, information systems, research, financing and partnership.

Proposal for the construction of a National Health Laboratory Services Centre is reaffirmed, with actions under way. This new facility will host a Central Health Laboratory providing new services for immunology and genetic department, central laboratory warehouse, dedicated premises for clinical teaching and research activities and medical devices evaluation department. It will also include the Government Analyst Division to provide analytical chemistry, and other specialized courses.

Capacity building of laboratory professionals on Quality Management Systems

WCO Mauritius supported the capacity building of 32 laboratory professionals from Mauritius and Rodrigues in Laboratory Quality Management System to ensure successful implementation of the National Laboratory Policy. The two-phased training was facilitated by a pool of 3 WHO international experts. 29 laboratory professionals participated in the training of trainers and consequently delivered cascade training to some 400 laboratory health personnel across the Republic of Mauritius. This training in Laboratory Quality Management System has improved the country’s capacity in producing timely, efficient, and precise diagnosis, which is even more critical with the current COVID-19 pandemic.



Laboratory technicians posing for a group photo during the Laboratory Quality Management System training in 2021

Setting up of a Virtual Training Laboratory to ensure continuous capacity building of healthcare workers

WCO Mauritius provided the financial and technical support for the setting up of a Virtual Training Laboratory in the premises of MOHW. The virtual laboratory, equipped with 18 computers and conferencing equipment, can accommodate up to 30 trainees at a time. The COVID-19 pandemic has taught us new ways of working. With the travel and physical distancing restrictions imposed locally and worldwide to curb the spread of COVID-19; MOHW personnel were able to attend trainings, meetings and exchange programmes virtually. The Virtual training laboratory was launched in December 2020 with a five-day intensive NCDs Prevention and Control training for NCDs nurses.

Strengthening the health information management systems

WCO Mauritius contributed to the country's efforts to strengthen health information management system in Mauritius at a national level with the elaboration of an Operational Plan 2021-2022. This was part of the implementation of Strategic Goal 18 of the National Health Sector Strategic Plan 2020-2024: *Generate sound and reliable information at all levels of the health system in a holistic approach for better decision-making.* As a committee member, WCO worked

with MOHW departments, Mauritius Institute of Health, Mauritius Research Council, Medical Council, Statistics Mauritius and the University of Mauritius to review the legal framework and institutional mechanisms for strengthening of data collection and management. This will ensure timelier and better-quality data analysis and generation for improved health-related decision making.



NCDs nurses participating in the NCD training in December 2020 in the newly launched Virtual Training Laboratory

Standardizing the reporting of mortality and morbidity data

Around 15 data managers and clinicians from MOHW attended a three-day virtual regional training on morbidity and mortality coding in November 2020. WCO Mauritius facilitated the adoption and implementation of the WHO tools

for better reporting and standardization of mortality and morbidity data. Participants were introduced to new tools such as the 11th Revision of the International Statistical Classification of Diseases and Related Health Problems (ICD), international Medical certification of Cause of Death form and Verbal Autopsy Instrument.

This was followed by a virtual regional consultation on strategies and processes to institutionalize ICD-compliant Medical Certification of Causes of Death, community reporting of deaths, Verbal Autopsy, and rapid mortality surveillance in February 2021. The country's best practices were shared on cause of death reporting and the development of a practical national roadmap for implementation, and rollout of standard ICD-compliant death reporting, Medical Certification and Verbal Autopsy. Mauritius is committed to completely rollout these new tools in 2022 to improve and standardize the reporting of mortality and morbidity data to international standards. This will lead to quality and timely production of statistics which are vital for policy making and monitoring progress towards health goals.

Enhancing access to healthcare financing

Health financing systems is important in achieving universal health coverage worldwide and at the three dimensions of coverage: population coverage, service coverage and financial coverage. Mauritius is still facing challenges in achieving equity, quality and financial protection in health coverage and the SDG 3: *Ensure healthy lives and promote well-being for all at all ages*; at large.

Since the past years, the Mauritian government has invested more in health. However, Mauritians were still paying too much out of their own pockets, exposing them to financial risks related to ill health. NCDs prevention receives a meager share while NCDs burden (accounting for above 80% of mortality)⁸ could be addressed through adequate investment in prevention activities/interventions.

Institutionalization of National Health Accounts

Since 2014, WCO Mauritius has successfully supported Mauritius to produce the National Health Accounts biennially. In 2020, the National Health Accounts Report 2018 was finalized and institutionalized. The evidence generated from the report informed key policy decisions and influenced budget reallocation and financing decisions. For instance, funds were earmarked in the National Budget 2020-2021 for the construction of new primary healthcare facilities such as medi-clinics and community health centres based on the recommendations from the National Health Accounts Report 2018. Other examples are the doubling of taxes on sugar content and the provision for a zero-tax rate on the medical, hospital and dental services following the availability of evidence-based information generated in the National Health Accounts⁹

Capacity building of the National Health Accounts country team

Capacity building of the National Health Accounts country team was conducted with the support of WCO Mauritius as recommended in the 2018 report. A 7-day workshop was held in November 2020 with the participation of 20 staff from MOHW, Statistics Mauritius and the Rodrigues Commission for Social Security and Statistics Unit. The training focused on System of Health Accounts 2011, Health Accounts Production Tool and the Health Accounts Analysis Tool and data collection and estimation methods. With the recruitment of new staff and the retirement of previously trained staff, this training was key to sustain the country's capacity to produce National Health Accounts. The production of a new round of National Health Account using 2019's data started in 2021 and was expected to be finalized by the second half of 2022. Its recommendations will be translated into actions by policymakers.

⁸ https://www.who.int/nmh/countries/mus_en.pdf

⁹ <http://www.govmu.org/English/News/Pages/An-envelope-of-Rs-12-billion-earmarked-for-Health-sector.aspx>

Sustaining financial resources to accelerate progress towards universal health coverage

For the country to achieve the NHSSP's Strategic goal 23: *Make provision of financial resources on a sustainable basis to accelerate progress towards universal health coverage*, the logical step was to formulate an operational plan for 2020-2022. WCO Mauritius worked with MOHW to develop a National Health Financing Strategy by initiating an assessment of the healthcare financing mechanism using the Health Financing Progress Matrix. The situation in Mauritius was assessed against a set of benchmarks of good practices, articulated in terms of nineteen desirable attributes to identify the most important aspect of health financing to achieve universal health coverage. This is in line with the commitment of the WCO Mauritius to support Mauritius in strengthening its health financing systems.

Researching the money value of human life losses associated with COVID-19 in Mauritius

At the early start of the COVID-19 pandemic; Mauritius along with other 12 countries in the African region were identified as being at high risk due to high volume of international travel, high prevalence of NCDs and co-morbidities, high population density and significant share of population over 60 years. WCO Mauritius analyzed and estimated in 2020 the total discounted money value of human life losses associated with COVID-19 in the country. Results showed that the average discounted money value per human life loss associated with COVID-19 is 12-fold the per capita gross domestic product for Mauritius. The research also indicated that all measures implemented to prevent widespread community transmission of COVID-19 may have saved the country 837 human lives worth Int\$258,080,991. This brought evidence to support the call for increased investments to bridge the existing gaps for achieving universal health coverage by 2030. The research work was published in a peer reviewed journal.¹⁰

Supporting research for an evidence-based health financing decision-making

Mauritius participated in the second round of the Health Technology Assessment which evaluates

the clinical, social, economic, organizational, and ethical issues of a health intervention or technology. Action towards this exercise was initiated in 2015 by WHO/HQ, in close collaboration with MOHW. A global health benefits package survey was conducted in conjunction to the Health Technology Assessment 2020/2021 with the aim to understand the services that can be feasibly provided given a particular country or area's health systems characteristics and financial situation. In this 2020/2021 round, the linkages between health technology assessment processes and health benefit package design were also investigated. These surveys identified the gaps and provided critical evidence-based information to local authorities for a more informed policy decision-making around who gets which health intervention and at what cost, and priority-setting for allocating limited funds.

Improving access to essential medicines and health products

Access to safe, effective, quality and affordable medicines and health products is among the pre-requisites to universal health coverage. WCO Mauritius supported the country in taking important steps in this direction.

Improving legislation for better access to medical and healthcare products

Mauritius' main legislation regarding pharmaceutical products has been the Pharmacy act 1983 which has many shortcomings in the current landscape of the healthcare technologies such as health supplements, medical devices, ayurvedic products, cosmetics, veterinary products; to name a few. Updating the current legislation was imperative to regulate the manufacture, importation, distribution, sale, and possession of these health technologies to ensure their safety, effectiveness and quality. WCO Mauritius provided technical expertise to Mauritius to initiate the development of draft Medical and Healthcare product bill. A working committee was also constituted at the level of MOHW. This new legal framework will ensure a more conducive environment for health technologies regulation and promote the domestic pharmaceutical industry as well as accelerating introduction of medicines and health care products.

<https://www.frontiersin.org/articles/10.3389/fpubh.2020.604394/full>

Coordinating Small Island Developing States collective efforts to improve health

As recommended by the 7th Meeting of the Small Island Developing States (SIDS) health ministers; a SIDS Action Plan was elaborated to regroup the collective efforts of the five SIDS of the African region (Cabo Verde, Comoros, Mauritius, Sao Tome and Principe, and Seychelles) in the following six endeavors: (1) Strengthening collaboration within the SIDS network, (2) Pooled Procurement, (3) Universal Health Coverage and SDGs in the context of SIDS, (4) NCDs and Health promotion, (5) Climate change and emergency preparedness and, (6) Strategies to address vector borne-diseases. WCO Mauritius played a key role in ensuring implementation and monitoring of progress through quarterly reporting and identification of key challenges.

Improving access to quality medicines and health products among SIDS countries by the Pool Procurement Agreement

In September 2020, the health ministers of the five SIDS of the African region virtually signed the SIDS Pooled Procurement Agreement to address common challenges faced by SIDS in accessing medicines and other health products. A regional technical advisory committee and a regional procurement committee were established to facilitate the finalization of the list of products, specifications, and the harmonization of the technical and regulatory requirements to launch the procurement process. WCO Mauritius supported the two regional committees in coordinating the processes and in conducting a scoping mission in Mauritius.

Upgrading the capacities of the central medical store

WCO Mauritius facilitated the assessment of central medical store in Plaine Lauzun which was conducted during the scoping mission from WHO/AFRO in November 2020. This was done to improve the central medical store capacities of all the SIDS countries to a harmonized standard. The assessment identified the strengths and weaknesses of the facility and evidence-based actionable recommendations. WCO Mauritius

expressed its intention in offering its continued technical support to MOHW to further improvement of stock integrity, availability and management at the assessed facility for an efficient implementation of the SIDS pooled procurement programme.

Supporting the construction of a new Central Medical Store

Optimum and reliable medical storage capacities are essential components of pharmaceutical supply system for providing the correct environment for storage and distribution of stock. In June 2020, the Government of Mauritius announced the construction of a State of art Central Medical Store in the National Budget 2020-2021¹¹ and WCO Mauritius supported the specification development for this project.

Establishment of effective hemovigilance systems

Hemovigilance is a fundamental aspect of blood transfusion chain which enhances donor safety, improves patient safety outcomes and reduces product wastage through corrective and preventive actions. With the support of WCO Mauritius, a Mauritian delegation participated in a training conducted by WHO/AFRO in November 2021 to strengthen the capacity of African countries in developing effective hemovigilance systems throughout the blood transfusion chain. The Mauritian health professionals were trained in policy and technical guidance for the establishment of a hemovigilance system; methods to gather hemovigilance reports and the use of tools for reporting adverse events and reactions in blood donors and transfusion recipients. WCO Mauritius also assisted MOHW in identifying its strengths, weaknesses, available resources as well as practical steps to improve hemovigilance in Mauritius with short term, midterm and long-term strategic actions. This is a significant step to further ensure the safety of blood donation and transfusion and recognize and address emerging safety issues.

¹¹ <http://www.govmu.org/English/News/Pages/An-envelope-of-Rs-12-billion-earmarked-for-Health-sector.aspx>



Health Professionals participating in the three-day workshop on developing effective hemovigilance systems in November 2021

Improved antimicrobial resistance surveillance for global reporting

The overuse and misuse of antimicrobial drugs pose a threat to both human and animal health with the emergence and spread of antimicrobial resistance. To address this, WCO Mauritius has provided its ongoing support to MOHW in implementing the National Action Plan on Antimicrobial Resistance 2017-2021 in line with the Global Action Plan on Antimicrobial Resistance. WCO Mauritius provided the WHONet Software to MOHW and assisted in its operationalization; allowing Mauritius to strengthen its microbiological laboratory data surveillance and to contribute to the Global Antimicrobial Resistance Surveillance System.

In January 2020, the laboratory and surveillance staff were trained in the use of WHONET software including basic skills on data entry and data analysis. WCO Mauritius also supported the recruitment of a data assistant to complete entry of data collected at the Victoria Hospital and Jeetoo Hospital surveillance sites and report on the 2021 data. The data generated will inform national, regional and global decision-making, strategies, and advocacy on antimicrobial resistance.

3.2 Strengthening health systems to improve noncommunicable disease outcome

Ensuring a multi-sectoral approach to NCDs through the elaboration of a National Integrated Noncommunicable Diseases Action Plan and National Service Framework for NCDs

Mauritius has a strong National NCDs Prevention and Control Programme and several national action plans to address NCDs risk factors including the National Nutrition Action Plan, the National Tobacco Control Action Plan, the National Action Plan to Promote Physical Activity and the National Action Plan to Prevent the Abuse of Alcohol. However, for more coordinated and coherent actions and a multi-sectoral approach to NCDs; the country embarked on the elaboration of a National Integrated NCDs Action Plan and a National Service Framework for NCD since August 2019. A United-Kingdom-based international consultant worked with the local technical team under the coordination of the WCO Mauritius to conduct a baseline study and a multi-stakeholder survey. The essential data gathered helped in the formulation of the two documents. To address the lack of stakeholders' involvement in the process, a local consultant was recruited to support the international consultant in conducting consultations with different stakeholders. The consultation workshop held in December 2021 helped in gaining more insights from key stakeholders.



Laboratory and Surveillance staff and trainers participating in the two-day training on the use of WHONET software in January 2020

Prevention and control of NCDs

Training of nurses in the prevention and control of NCDs

Ongoing capacity building of nurses working in the prevention and control of NCD is one of the objectives set by WCO Mauritius and MOHW to address the rising NCD burden in the country. Some 110 NCDs nurses including 10 from Rodrigues were trained by 12 health professionals in 2021 for improved prevention, earlier detection and better control of NCDs. WCO Mauritius worked closely with MOHW to deliver the training including reviewing the training modules and logistic support.

Preventing diabetic foot amputations

One in five (20.5%) Mauritians aged 20-74 years suffer from type 2 diabetes¹² which can cause severe complications leading to lower limb amputation. In Mauritius, around 500 diabetes-related amputations are carried out annually, 85% of which were preventable. For nearly a decade, efforts have been concentrated in improving foot care with the opening of 8 diabetic foot care clinics across Mauritius and the capacity building of healthcare workers. WCO Mauritius mobilized necessary resources in 2020 and

2021 for procurement of leading-edge podiatry equipment to further improve the quality of services and reduce the risk of amputations. WHO is supporting MOHW in conducting an assessment of the foot care services across the island to address any weaknesses for improvement and further build capacity of the nurses in podiatry.

Supporting the National Cancer Control Programme

WHO, International Atomic Energy Agency and International Agency for Research on Cancer Integrated Mission of Programme for Action for Cancer Therapy Review jointly assessed the country's cancer control capacity and needs in 2018. As a follow-up, WCO Mauritius discussed the efforts and progress made as well as the challenges faced in the implementation of the national cancer control programme in a two-day meeting in October 2020. Early detection, diagnosis & treatment, palliative care and radiation safety were also discussed. Consequently, WCO Mauritius expressed its commitment in supporting MOHW to develop a costed action plan for cancer control and provided advice on the composition of the national cancer control steering committee.

¹² <https://health.govmu.org/Documents/Statistics/Documents/Mauritius%20NCD%20Survey%202015%20Report.pdf>



Representatives of key ministries, NGOs, and civil society participating in the consultation workshop for the development of the National Integrated NCDs Action Plan and National Service Framework for NCD

3.3 Strengthening health systems to better address communicable diseases

Fighting HIV/AIDS

Mauritius is committed to implement actions to contribute to WHO's goal to end the AIDS epidemic as a public threat by 2030 and WCO Mauritius engaged to help the country in achieving it.

Securing funding for the continuity of HIV programmes

Mauritius received its final Global Fund to Fight AIDS, Tuberculosis and Malaria (GFATM) with a sole principal recipient for the 2020-2022 funding cycle. With HIV epidemic in Mauritius showing trends of evolving from a concentrated to a generalized one, it became crucial to develop a transition plan which would help to achieve maximum impact and sustainability.

WCO supported the HIV Country Coordination Mechanism in developing the country proposal for the GFATM. This entailed working closely with HIV Country Coordination Mechanism members and the technical committee to identify and review all existing sources of strategic information relevant for the funding request development; advising on aligning with the country's national strategic plan for HIV/AIDS and the sustainability and transition workplan; facilitating the planning and implementation of

inclusive country dialogue processes; amongst other. The funding request of US\$ 2 265 213 was successfully approved to ensure the sustainability of Mauritius' effort in its fight against HIV/AIDS.

Formulation of the National HIV Testing Policy

In 2021, WCO Mauritius together with MOHW and the National AIDS Secretariat developed a national HIV testing policy to provide a national strategic direction regarding HIV testing services. This policy adhered to WHO recommended guidelines to ensure quality HIV testing service delivery, aligned with WHO 5Cs: Consent, Confidentiality, Counselling, Correct results and Connection which linkage to prevention, care and treatment services while addressing the previous gaps in the existing policies. Key technical assistance was provided by WCO Mauritius in the review of national and global policy guidelines, consultations with key stakeholders and consequently drafting of the national HIV testing policy. This key document includes important strategies for optimal delivery and increased uptake of HIV testing services.

Strengthening HIV response amid COVID-19 pandemic

Not only the COVID-19 pandemic threatened the gains in the progress against HIV during the second wave in Mauritius but it also impacted severely on other vulnerable populations such as people who required renal dialysis, the older population and individuals with co-morbidities.

Technical assistance was provided to MOHW, National AIDS (Acquired Immunodeficiency Syndrome) Secretariat and the HIV (Human Immunodeficiency Virus) Country Coordination Mechanism in securing funding from GFATM COVID-19 Response Mechanism. US\$590,251 was mobilized to reduce the inequities and fulfill the gaps in the social and health services provided to people living with HIV and other vulnerable populations. WHO also supported the HIV Country Coordination Mechanism in the development of a country proposal in the context of COVID-19. Funding request amounting to USD 645,690 was approved to support COVID-19 activities till December 2023.

3.4 Addressing population health needs across the life course

Promoting maternal, newborn and child health

WCO Mauritius supported Mauritius in its goal of reducing morbidity and mortality among children less than 5 years old to one digit in the next 5 years and reduce perinatal and maternal morbidity and mortality rate. These goals are also in line with SDGs Goal 3 - target 3.2: *By 2030, end preventable deaths of newborns and children under 5 years of age.*

Development of a National Roadmap Framework

WCO Mauritius was instrumental in the development of the National Roadmap Framework to Improve Maternal, Newborn and Child Health; especially by supporting participation of the scarce local experts working in the areas of gynecology, pediatric, demography and statistics in the technical working group. The framework contained strategies to address gaps and challenges identified during the situational analysis. Launched in February 2020, the framework marked a critical step in improving maternal, newborn and child health in Mauritius by addressing issues such as preconception care; coordination and continuity of care for pregnant women; data collection and analysis of maternity services; development of necessary tools and capacity to improve the health of maternal,

neonates and children; and the setting up of neonatal intensive care units in the five regional hospitals.

Launching of the maternal child health handbook

Mauritius launched the maternal child health handbook in line with the National Roadmap Framework for Maternal and Child Health. The handbook is a comprehensive source of information on care during pregnancy and early childhood covering several topics including nutrition, breastfeeding and importance of rest for mothers. 12000 copies of the handbook would be distributed to mothers attending the antenatal clinics across the island. The maternal child health handbook aims at reducing morbidity and mortality among children under five years to one digit in the next 5 years and reducing perinatal and maternal morbidity and mortality rate. It allows for systematic recording of personal health data for the mother during pregnancy and for the child from birth up to the age of 5 years. It is a key tool for bridging the communication between the mother and the healthcare professionals and ensuring continuity of care beyond birth. WCO Mauritius participated in the launching of the material and appreciated the progress made in continuous improvement of the maternal and child health in the country.



From left to right: Dr Hon K. K. Jagutpal, Minister of Health and Wellness, Dr L. Musango, WHO Representative, Mrs Jhurry, Permanent Secretary and Dr M. Timol, Director General Health Services participating in the Launching of the maternal child health handbook in February 2021

4. PROTECTING PEOPLE FROM HEALTH EMERGENCIES

4.1 Improving preparedness for health emergencies

State Party Self-Assessment Annual Reporting

As required within the International Health Regulations (IHR) 2005, Mauritius participated in the State Party Self-Assessment Annual Reporting which allowed the country to monitor its progress towards improving its capacities for surveillance and response to any potential public health events of international concern. Using the self-assessment tool, Mauritius reported on the 24 indicators for the 13 International Health Regulations capacities needed to detect, assess, notify, report and respond to public health risk and acute events of domestic and international concern. For the year 2020, Mauritius had an overall score of 64% which is closer to the 65% average of capacities for all WHO regions; progressing from its 2018 score of 62% as shown in figure 4 below.

Assessing capacities and strengthening preparedness for COVID-19

The categorization of Mauritius among Priority 1 countries in the WHO/AFRO region prompted the mobilization of adequate resources across the three levels of the Organization to support the country's readiness efforts. WCO facilitated two missions deployed from WHO/AFRO.

An Emergency Needs Assessment of Mauritius' preparedness to COVID-19 was conducted during the first mission in early February 2020. The level of preparedness regarding infection prevention and control, case management and points of entry were assessed. With the collaboration of MOHW; a half day briefing was delivered by the mission to 26 key staff from MOHW, regional hospitals and the airport using WHO guidelines. The briefing covered key guidance regarding infection prevention and control, case management and points of entry.

The second mission comprising WHO/AFRO and Pasteur Institute of Madagascar experts carried out a joint comprehensive evaluation of influenza and COVID-19 surveillance and laboratory system in February 2020. It aimed at strengthening the surveillance for influenza-like illness and/or severe acute respiratory infection, as well as COVID-19 using WHO standards in the context of the Integrated Disease Surveillance and Response strategy for a timely and appropriate response to seasonal, zoonotic and pandemic influenza.

Several recommendations were made based on gaps identified during both missions. Consequently, MOHW initiated a series of actions including the finalization of the COVID-19 operational preparedness and response costed plan with WCO Mauritius' support. This led to reinforcing surveillance at points of entry, launching a nation-wide sensitization campaign on COVID-19 and the triage of symptomatic patients at the health facilities' entrances with the latest case definitions. Owing to this increased preparedness and surveillance, Mauritius was able to timely detect its first three cases of COVID-19 at a regional hospital on 18 March 2020.

Elaboration of the COVID-19 Operational Plan

Following the recommendations from the two WHO/AFRO missions to improve Mauritius' preparedness in face of COVID-19, WCO Mauritius provided instrumental support to MOHW for the development of its operational plan on COVID-19 in March 2020. The plan considered WHO's guidelines and Mauritius' country context, resources, existing structures and multisectoral coordination. It consisted of five strategic directions: (1) planning and coordination, (2) situation monitoring and assessment, (3) prevention and containment, (4) health service response, and (5) communications; and a collection of protocols to be used by all stakeholders to be involved in the response.



Figure 4 : IHR Score per capacity AFRO mauritius 2021 (Updated on 11.07.22)

4.2 Rapid detection and response to disease outbreak

Implementation of District Health Information Software Version 2 for a stronger health information system

The implementation of the District Health Information Software Version 2 (DHIS2) is an important component of strategic goal 18 of the National Health Sector Strategic Plan 2020-2024 to enhance health information systems. Technical expertise from WHO enabled the collection, analysis and reporting of aggregated data for Integrated Disease Surveillance Response, Expanded Programme of Immunization and HIV/AIDS, Hepatitis and Tuberculosis in the DHIS2. This is a fundamental achievement for real-time surveillance from the community level to the central level. The staff of the Expanded Programme of Immunization, CDCU staff and programme coordinators for HIV/AIDS, hepatitis, and tuberculosis, gained knowledge and skills for proper data collection, and as trainers, they will cascade this knowledge to their peers.

MOHW has gained the full capacity to operate the health information system for Integrated Disease Surveillance and Response and Expanded Programme of Immunization powered by DHIS2 and access to key information for evidence-based decision-making and global reporting. Assistance was also provided for the set-up of DHIS2 at the Government Information Service to allow for timely analysis and reporting of health data. MOHW staff was also capacitated on the use of embedded DHIS 2 for medical certification for the cause of death reporting using ICD-11.

COVID-19 National response

Mauritius registered the first three cases of COVID-19 on 18 March 2020 and controlled its first outbreak within 39 days with the implementation of stringent sanitary measures including a total lockdown and the closures of borders. As from 26 April 2020, the country only recorded some sporadic local cases of COVID-19 and imported cases detected during the 14-days quarantine.



Use of DHIS2 during the COVID-19 response

However, on 5 March 2021, the country recorded its second outbreak of COVID-19. Since then, the COVID-19 vaccination campaign launched in January 2021 was intensified. By the end of 2021, Mauritius had registered 68 310 confirmed cases of COVID-19 and 786 deaths: representing a prevalence rate of 5.4% and mortality rate of 0.06%. Mauritius achieved a high vaccination coverage with support of WHO.

As at 30 December 2021, the status was as follows:

Mauritius : 885,858 were fully vaccinated, inclusive of 34,915 of second dose of Pfizer students of 15 to 17 years (proportion). This represents a vaccination coverage of 72.5%. Another 185,798 received a Booster Covid-19 Dose.¹³

Rodrigues : 28,028 were fully vaccinated, representing 63.7% vaccination coverage. In addition 1,680 were inoculated with a Booster Covid-19 Dose.¹³

Pillar 1: Country-level coordination, planning, and monitoring

Supporting the High-level Committee as part of the national response to COVID-19

A high-level committee on COVID-19 chaired by the Prime Minister was instituted on 31 January 2020 to monitor both local and international epidemiological situations, rapidly share key information, and coordinate decision-making among the different ministries and institutions. WCO Mauritius was represented by the WHO Representative as a permanent member of this committee which is also composed of the

¹³ <https://covid19.who.int/region/afro/country/mu>

Minister of Health and Wellness; the Minister of Foreign Affairs, Regional Integration and International Trade; the Minister of Finance, Economic Planning, and Development; Minister of Tourism; the Secretary to Cabinet and Head of Civil Service as well as other key technicians. The WHO Representative shared the latest updates from WHO/HQ, key documents such as protocols, guidelines and provided vital advice as needed. The committee met on a daily basis since the first cases of COVID-19 in Mauritius and weekly during the absence of local cases which resulted in prompt decision-making, resource mobilization and implementation of the actions in response to COVID-19.

Activating and increasing internal capacities for a better response to COVID-19

The WCO incident management team was activated soon after the announcement of the first cases of COVID-19 and each staff was reminded of their roles and responsibility. The WCO Mauritius staff compiled key statistics and information on the national response with the help of MOHW to produce regular situational reports and more comprehensive reports were subsequently shared with WHO/AFRO. To further increase the response capacity of WCO Mauritius, a consultant was recruited as from March 2020 to provide direct support to MOHW during the first outbreak. The consultant elaborated protocols to guide the different aspects of the response, provided advice during key meetings, and supported the MOHW in several measures and tasks. Following the containment of the first

wave of COVID-19, several local and international consultants were recruited to support the country in the following axes: epidemiology, data management, infection prevention, and control, documenting the response, and logistics and supply chain management; amongst others. Virtual meetings were also organized to meet the requests of MOHW.

Implementing the United Nations' Socio-Economic Response Plan to COVID-19

To support Mauritius in its national response to COVID-19, the UN country team developed a Socio-Economic Response Plan to the COVID-19 crisis; aligned with the United Nations Strategic Partnership Framework 2019-2023; the Government of Mauritius Vision 2030 and the Capacity for Disaster Reduction Initiative's recommendations on health disasters. It consisted of three pillars (1) support to the Government of Mauritius to implement a public health response Vision 2030 to prevent, contain and treat COVID-19 cases through health system strengthening; (2) support the implementation of social protection initiatives for vulnerable groups and (3) support socio-economic Impact Assessment and Early Recovery Planning. WCO Mauritius implemented the activities under the Pillar 1 focusing on the public health response and was also part of the governance structure set-up to ensure the proper implementation of the plan. WCO Mauritius provided support in terms of supplies (US\$ 1, 824, 898) as shown in the figure 5 below and activities (US\$ 16, 067).

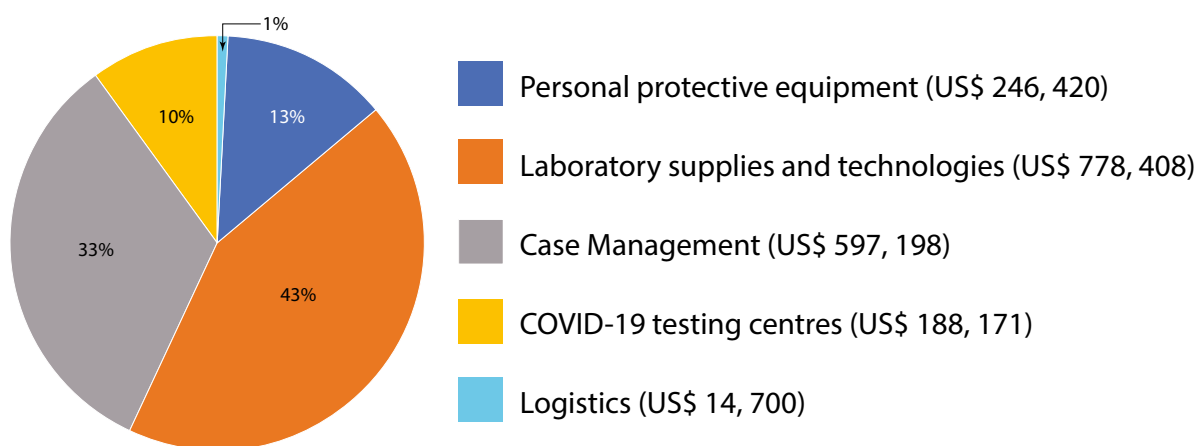


Figure 5 : WCO Mauritius' support for supplies in the COVID-19 response

Documenting the national response to COVID-19

In 2020, WCO Mauritius documented the national response to COVID-19 using the Intra Review Action format. Key response actions, best practices and response gaps from January 2020 to August 2020 and recommended actions for the response ahead were identified. 15 stakeholders across the nine strategic pillars were interviewed for this exercise. The recommended actions were later taken into consideration in the elaboration of the 'National Response and Contingency Plan in the eventuality of a resurgence of COVID-19 in Mauritius'. WCO Mauritius conducted a similar Intra Action Review covering the period of September 2020 to December 2020. 23 key actors of the response were consulted during this second round. In June 2021, a comparative analysis of the national response to wave 1 versus wave 2 was carried out following the second wave which started in March 2021. These documentations helped to institutionalize the best practices as well provided recommended actions to address the gaps in the national response to COVID-19. Owing to these documentations, WCO Mauritius published a commentary article titled 'Key success factors of Mauritius in the fight against COVID-19' in the British Medical Journal Global Health.¹⁴ WCO Mauritius is also contributing to the documentation of the national response to COVID-19 on WHO/AFRO's monitoring and evaluation online platform.

Pillar 2: Risk communication, community engagement and infodemic management

COVID-19 Public Awareness Campaign

WCO Mauritius and MOHW developed a comprehensive pack of sensitization materials to strengthen the national awareness campaign on COVID-19. 10 short, animated videos¹⁵, 600 000 pamphlets and 300 000 flyers were produced and disseminated to strengthen awareness on the proper wearing of face mask, maintaining physical distancing, vaccination, mental health and promoting greeting alternatives to handshake to avoid COVID-19 infection. The Awareness campaign titled 'The Whole Nation Together Against COVID' was launched by the Prime Minister of Mauritius, Hon. Pravin Kumar Jugnauth on 23 May 2021 in the presence of the United Nations Resident Coordinator; WHO Representative; Minister of Health and Wellness; Minister of Youth Empowerment, Sports and Recreation and other eminent personalities¹⁶. The campaign called for the solidarity of the whole population in fighting against COVID-19 by taking their own responsibilities in adhering to the sanitary protocols.



The Hon Prime Minister of the Republic of Mauritius chairing the High-level committee on COVID-19

¹⁴ <https://gh.bmj.com/content/bmjgh/6/3/e005372.full.pdf>

¹⁵ <https://www.facebook.com/WorldHealthOrganizationMauritius/videos>

¹⁶ https://besafemoris.mu/general_news/all-citizens-must-walk-hand-in-hand-in-unity-to-overcome-the-challenges-posed-covid-19-stresses-pm/



Dr Laurent Musango, WHO Representative (left) and the international consultants (right) paying a courtesy visit to Dr Hon. Kailash Jagutpal, Minister of Health and Wellness (middle)

Pillar 3: Surveillance, epidemiological investigation, contact tracing calibration and adjustment of public health and social measures

Strengthening surveillance, alert and response data collection and processing for COVID-19 and beyond

To harmonize and integrate the collection and processing of national data related to health security and emergencies with a focus on COVID-19, WCO Mauritius provided expert assistance to the High-level Committee on COVID-19. A Tracking and Rostering software in collaboration with the Ministry of Information Technology, Communication and Innovation was developed. Key actors at the data collection and management points were trained in the use of the software. Variables were reviewed and updated to optimally capture data regarding surveillance, alert and the response. In line with the requirement for International Health Regulations 2005; Mauritius has built its capacity in surveillance, alert and response COVID-19. This will be beneficial for timely detection and response to future health emergencies.



A peer youth leader participating in the "The Whole Nation against COVID-19 Awareness campaign

Pillar 4: Points of entry

Equipping staff at points of entry and in hospitality with clear guidelines

In 2021, WCO Mauritius collaborated with the Mauritius Promotion Tourism Authority to produce guidelines about precautionary

measures and procedures to be observed to prevent the spread of COVID-19. The guidelines targeted the staff at the airport, airline crew as well as hotel staff. Equipping these frontliners with concise directives was crucial for the reopening of borders; especially for the tourists entering the country.

Pillar 5: National laboratory system



Laboratory technologist ensuring quality testing at the Central Health Laboratory

Interlaboratory comparisons and assessments to ensure quality laboratory testing for Covid-19

In line with the “test, test and test” strategy to control the pandemic, WCO Mauritius initiated actions to ensure the efficiency and quality of the COVID-19 tests done in Mauritius for the rapid detection and isolation of people infected with COVID-19. WCO Mauritius assisted the Central Health Laboratory in conducting interlaboratory comparisons with the private laboratories: C-Lab, Airport Health Laboratory and NovaLAB. In line with the “test, test and test” strategy to control the pandemic, WCO Mauritius initiated actions to ensure the efficiency and quality of the COVID-19 tests done in Mauritius for the rapid detection and isolation of people infected with COVID-19. WCO Mauritius assisted the Central Health Laboratory in conducting interlaboratory comparisons with the private laboratories. Prior to this, a preliminary audit exercise of the three private laboratories was done by the Central Health Laboratory’s auditors

using the WHO Laboratory Assessment Tool. In this regard, WHO supported the participation of the National Central Laboratory and the three accredited private laboratories in a Proficiency Testing Programme for the detection of SARS-CoV-2 by PCR (Polymerase Chain Reaction). WHO technical expertise was instrumental in these steps toward improved COVID-19 testing.

Facilitating the sharing of SARS-CoV-2 samples for genetic sequencing

As the pandemic evolved, it was important for Mauritius to investigate the presence of any variants of concerns for a more adapted response. WCO Mauritius supported the Central Health Laboratory in sending 7 consignments of COVID-19 positive sample materials to *Institute Francis Crick* in London, *National Institute for Communicable Diseases* in South Africa and *Centre Hospitalier Universitaire* in Réunion Island for SARS-CoV-2 genetic sequencing. Results were shared with the Global Initiative on *Sharing Avian Influenza Data*, *Institute Francis Crick* in London, *National Institute for Communicable Diseases* in South Africa and *Kwazulu-Natal Research Innovation and Sequencing Platform* for publications. The country was thus able to contribute to global data on SARS-CoV-2 variants.

Strengthening in-country capacity for SARS-CoV-2 genomic sequencing

WHO/AFRO and WHO/HQ developed an interim guidance on SARS-CoV-2 variant surveillance detailing alert thresholds, sampling strategies, and reporting channels for detected variants. As part of this guidance, countries are recommended to sequence or ship at least 300 samples monthly to their assigned sequencing laboratories. In October 2021, WCO Mauritius supported a mission of WHO/AFRO experts to increase the capacity of Mauritius in genomic sequencing. A situation analysis of SARS-CoV-2 genomic surveillance capacities was carried out with a focus on the baseline of the SARS-CoV-2 variants situation, sample selection strategy, screening and sequencing capacities and data analysis and reporting. Consequently, an operational work plan detailing WHO’ support to genomic surveillance strengthening in

Mauritius was developed including key activities, budget and potential support from technical and financial partners. This led to a stronger genomic sequencing capacity and enabled Mauritius to track variants of SARS-CoV-2 for a better-informed response.

Pillar 6: Infection prevention and control

Setting up of COVID-19 testing centres for improved infection prevention and control

In response to the rapidly growing cases of COVID-19 during the 2020 first wave, a detached fever/flu clinic for COVID-19, referred to as COVID-19 testing centers was built in each of the five regional hospitals to prevent infection transmission in the health setting. WCO Mauritius liaised with WHO/AFRO and WHO/HQ to develop the design of the infrastructure which was based on WHO model of Severe Acute Respiratory Infections Treatment Centres. This was done in close collaboration with the Ministry of National Infrastructure and Community Development. A sixth COVID-19 testing centre was built at a community hospital in the west

of the island in December 2021, to further decentralize this service. WCO Mauritius funded the construction of two of the centers while the other centers were funded by the government, UNDP and the private sector. These structures allowed for improved infection prevention and control with a more effective triage of patients presenting flu symptoms and has allowed for the detection of most COVID-19 cases in Mauritius during the two COVID-19 waves.

Establishment of a National Infection Prevention and Control committee

WCO Mauritius played a key role in advocating for and supporting the establishment of a National Infection Prevention and Control Committee in 2021. The National Infection Prevention and Control Committee has brought a better structure and standardization of infection prevention and control at a national level. A national infection prevention and control focal point was also appointed to oversee the coordination of infection prevention and control activities.



WHO/AFRO experts in genomic sequencing and members of WCO Mauritius during a meeting with Dr Hon K. Jagutpal, Minister of Health and Wellness

Devising National Infection Prevention and Control guidelines

WCO Mauritius provided crucial technical guidance for the preparation of the national infection prevention and control guidelines. The new national guidelines ensured more effective and standardized implementation of infection prevention and control actions under the supervision of the National Infection Prevention and Control Committee.

Empowering healthcare workers in infection prevention and control and case management

During the first wave of COVID-19 in Mauritius, 36 healthcare workers were infected by COVID-19 within the hospital setting; representing 14.9% of local cases. To reduce the risk of nosocomial infections of COVID-19, WCO Mauritius and MOHW conducted a training of trainers on infection prevention and control and case management post COVID-19 in October 2020 and May 2021 in Mauritius and in December 2020 in Rodrigues. The Canada Fund for Local Initiatives and the European Collaboration for Healthcare Optimization project funded the capacity building programme. Health professionals virtually benefitted from the expertise from WHO/AFRO during the training which consisted of face-to-face sessions facilitated by local resource persons; hands on training on donning and doffing, hand hygiene and other relevant standards IPC measures. A training



A doctor examining a young patient at the COVID-19 testing center

manual describing preventive measures against COVID-19 as well as communicable diseases at large was developed for this purpose.

Following the training of trainers, WCO Mauritius supported cascade training in Mauritius and Rodrigues in collaboration with the Regional Infection Control and Prevention teams in Mauritius as well as in Rodrigues with collaboration of the Rodriguan Commission for Health. Some 350 healthcare workers were trained in infection control and prevention amid the second wave through cascade trainings. As of 3 June 2021, a considerable decrease in nosocomial infections of COVID-19 among healthcare workers was noted, representing 9.41% of local cases. By the end of 2021, around 2500 healthcare workers were trained in infection prevention.

Improving infection prevention and control within primary healthcare facilities



Dr. Deepchand, medical officer posted at the COVID-19 testing center in J.Nehru Hospital in Rose Belle

To further address the cases of nosocomial infections of COVID-19, WCO Mauritius and MOHW worked closely to improve infection prevention and control measures in the primary health care setting. Posters about 5 key moments of hand hygiene, handwashing and hand rub were distributed for display in all public healthcare facilities in Mauritius and Rodrigues. Some 25 schools located mainly in vulnerable areas in Mauritius and Rodrigues were provisioned with elbow-operated taps while 50 primary health care facilities were provided with triage stations in view of containing the spread of Covid-19.

Strengthening infection and prevention control during COVID-19 home care management

With the rising number of COVID-19 cases in Mauritius since the start of the second wave in March 2021, Mauritius changed its case management strategy from exclusively hospitalizing all persons with COVID-19 to home-based care for infected persons with no to mild symptoms. WCO Mauritius and MOHW devised the 'Infection Prevention and control guidelines during Home-based care decision for Health care workers working with confirmed COVID-19 patients' and the 'Infection Prevention and control guidelines during Home-based care, screening & isolation for patients with confirmed COVID-19'. These two documents provide vital information on preventing further COVID-19 infection during home care.

Monitoring the infection prevention and control practices in healthcare settings

In the middle of the second wave of COVID-19 in April 2021; WCO Mauritius and MOHW jointly carried out an Infection Prevention and Control Scorecard Assessment in all 5 regional hospitals, 3 Mediclinic, 2 area health centers and 1 community health center. 14 standards were assessed pertaining to the readiness, preparedness and response management of healthcare facility to reduce the risk of contamination of healthcare associated infections among healthcare staff, patients and visitors as recommended by WHO during any outbreak or health emergencies. This

exercise was repeated in October 2021 in all 5 regional hospitals, 1 Mediclinic, 2 community health centers and 4 specialized centers including the main treatment center for COVID-19 to monitor the improvement of infection prevention and control practices. The improvement in scores gave clear indications that efforts made to ameliorate infection prevention and control have been effective and indicated areas that needed to be reinforced. Recommendations were formulated following these assessments and shared with the key decision makers within the relevant departments, facilities and MOHW to guide remedial actions. The monitoring of infection prevention and control practices prevented nosocomial infections COVID-19.

Pillar 8: Operational support and logistics in the management of supply chains and the workforce

Projecting resources and surge capacities of services to increase preparedness

With the aim to better prepare countries in the African region for their response to COVID-19, WHO/AFRO projected the progress of the pandemic in the African countries in early 2020. WCO Mauritius shared relevant information about the local context to WHO/AFRO which used the WHO-OLS COVID-19 Essential Supplies Forecasting Tool and COVID-19 Simulation Model for the projection. The software enabled the projection of resources and surge capacities of services to increase preparedness. Mauritius



Health professionals from both Mauritius and Rodrigues islands attending the training on infection prevention and control and case management for COVID-19

was thereafter better prepared to plan the procurement of important commodities for its COVID-19 response such as personal protective equipment and laboratory reagents for testing.

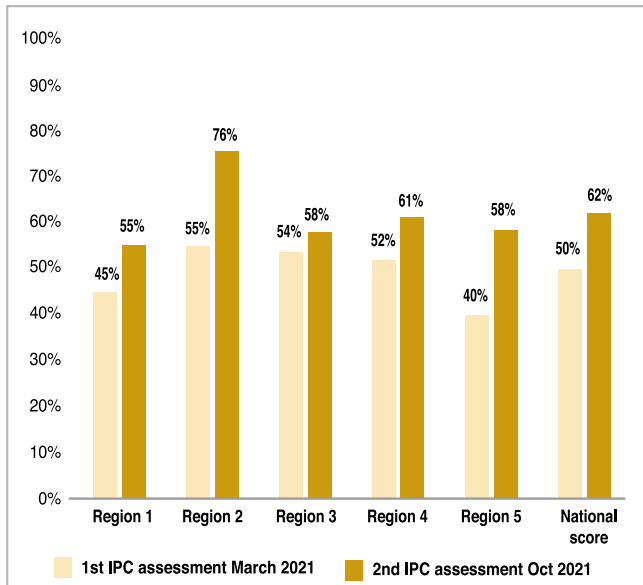


Figure 6 : Comparative results of the Infection Prevention and Control Scorecard Assessment for March 2021 and October 2021 across regions

Pillar 9: Maintaining essential health services and systems

Ensuring continuity of essential health services during the COVID-19 pandemic

To better understand the extent of disruptions to essential health services caused by the COVID-19 pandemic across countries, WHO/HQ initiated the *National pulse survey on continuity of essential health services during the COVID-19 pandemic*. WCO Mauritius coordinated data collection for both rounds of the survey in March-June 2020 and January-March 2021. The survey provided crucial information at global, regional

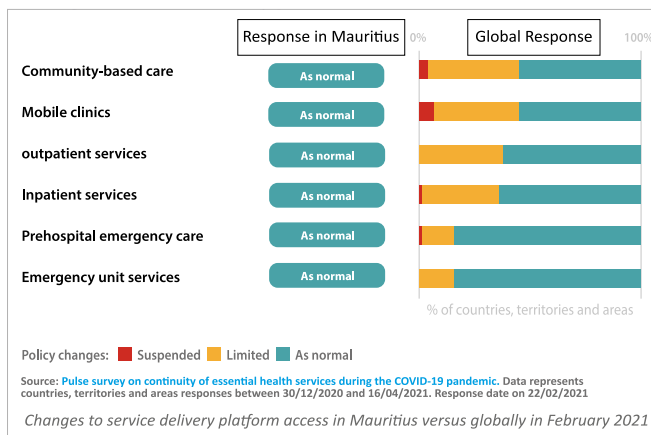


Figure 7 : Changes to service delivery platform access

and national level. Local health authorities were able to identify the challenges in service delivery and utilization and understand priority needs at different stages of the pandemic in Mauritius, and devise mitigating strategies.

A study was conducted by the WHO Regional Office for Africa to assess the impact of Covid-19 on older people in the African Region. The study included Mauritius as one of the six case studies. Core aspects covered were the level of support for healthy ageing at the country level, the impact of COVID-19 on older people, responses to COVID-19 supporting older persons (including coordination of response, response to primary and secondary contacts of COVID-19) and examples of good practice. Source : <https://apps.who.int/iris/handle/10665/351134>.

Pillar 10: Vaccines

Improving logistics and supply chain management for deployment of COVID-19 vaccines

In year 2 of the pandemic in Mauritius, WCO Mauritius and MOHW deployed the necessary efforts to improve logistics and supply chain management, especially regarding the vaccination programme. Several assessments were conducted including COVID-19 vaccination needs assessment, warehouse and cold room storage condition assessment, health products supply chain assessment, health products supply chain assessment and ultra-cold room equipment assessment. Gaps and needs identified led to a series of proposed actions and recommendations in the relevant areas. COVID-19 vaccines strategic deployment plan was proposed to MOHW and the High-level Committee on COVID-19. Standards operating procedures for passive cold chain were developed and regional hospitals' pharmacists and private clinic managers were trained accordingly. WCO Mauritius also procured 60 temperature data loggers to MOHW. Pillar 8 of the national country response were consequently strengthened by WHO technical assistance.



From left to right: HE Mr. Degert, Representative of the European Union; Dr L. Musango, WHO Representative; HE Mrs C. Umutoni, UN Resident Coordinator; Hon. A.Ganoo, Minister of Foreign Affairs, Regional Integration and International Trade; Dr Hon. K. Jagutpal; Minister of Health and Wellness on the arrival of the COVID-19 vaccines from COVAX Facility.

Informing the purchase of COVID-19 vaccines

Since September 2020, WCO Mauritius has provided guidance to MOHW and the Office of the Solicitor General in regard to the COVAX Facility Commitment Agreement and related terms and conditions to secure vaccine doses for the Mauritian population. WCO Mauritius also shared the WHO's Strategic Advisory Group of Experts on Immunization recommendations with the relevant stakeholders as well as other relevant information crucial for decision-making

regarding the choice of vaccines for Mauritius. Owing to this, Mauritius was able to secure COVID-19 vaccines via the COVAX facility and other sources.

Formulation of the National Covid-19 Deployment and Vaccination Plan

MOHW in collaboration with WCO Mauritius elaborated the National Deployment and Vaccination Plan in December 2020. WHO's guidelines on developing a national deployment and vaccination plan for COVID-19 vaccines directed this exercise. These guidelines were adapted to formulate a country specific plan that aims to (1) introduce and rollout the deployment of COVID-19 vaccines on a phased basis, (2) design strategies for the deployment, implementation and monitoring of the COVID-19 vaccine(s) in the Republic of Mauritius and (3) ensure that country strategies, activities planned and related financing are adequately aligned to the current National COVID-19 recovery.



Health professionals participating in the elaboration of the National COVID-19 Deployment and Vaccination Plan

Capacity building of healthcare workers for COVID-19 Vaccination

The next step after the validation of the National COVID-19 Deployment and Vaccination Plan was the building of capacity of healthcare workers for prompt implementation of the COVID-19 vaccination programme. 300 healthcare workers gained knowledge and skills for safe and efficient vaccine administration in early January 2021 over a five half day training facilitated by WCO Mauritius.



Nurses at the COVID-19 vaccination centre

4.3 Mitigating risks of disease outbreaks

Containing the MV Wakashio oil spill through timely emergency response

On 25 July 2020, MV Wakashio ship ran aground the coral reefs approximately 1.8 km off the South-East coast of Mauritius causing an oil spill as of 6 August 2020. The Government of Mauritius in collaboration with the local authorities worked collectively to contain about

1000 tons of oil spilled in the ocean. The local authorities, UN, international community, civil society organizations and local community volunteers worked collectively to help contain this crisis.



WCO Mauritius as part of the UN family supporting the oil spill clean up from the south-east shores in August 2020. The wrecked MV Wakashio.

Assessing the impact of the MV Wakashio oil spill on public health

WCO Mauritius as part of the UN country team responded to the Government's call for assistance. Together with WHO/AFRO, WCO Mauritius enlisted a team of public health international and national experts to carry out further impacts and risks assessments following the oil spill development on site. A team of experts were deployed to assess the direct and indirect impacts to the health of populations living in or in the vicinity of the affected areas considering changes in eco-systems might also affect their livelihood and well-being. Technical advice was provided to the Government of Mauritius, including recommendations on the public health actions to be taken in the short, medium and long term. The mission recommended the development of an Integrated Monitoring Strategy, formulation of new set of guidelines, upgrading the capacity of the National Environmental Laboratory and strengthening of the Poison Centre to include toxicological services in emergency situations. The team of experts also coordinated response among different stakeholders; developed training materials and provided training on exposure and risk assessment; advice and training on diagnosis and treatment.

Upscaling of health surveillance and screening in regions impacted by MV Wakashio oil spill

The emergency response team working in cleaning operations and inhabitants of impacted areas were identified as the most at risk populations to the public health impacts of the MV Wakashio oil spill in the medium and long term. The close or direct exposure to the oil could cause acute but generally reversible physiological effects such as eye and throat irritations, persistent respiratory symptoms and deviations in the hematological profile and liver functions. The loss of livelihoods due to the oil spill also threatened the mental health of the inhabitants. In this vein, WCO Mauritius provided essential diagnostic equipment, comprising one fibre optic video bronchoscope and four portable spirometers to the Jawaharlal Nehru Regional Hospital in Rose Belle which is the highest referral point of care for patients in the Southeast region of Mauritius and the L'Escalier Mediclinic. Laboratories annexed to National Central Health Laboratory were also equipped with two microscopes and accessories.



UN supporting the national response team in addressing the oil spilling issue

5. PROMOTING BETTER HEALTH AND WELL-BEING



Prize giving ceremony for the national info clip competition held in June 2020

5.1 Reducing noncommunicable diseases' risk factors

Tackling NCD risk factors in the context of COVID-19

In the advent of the COVID-19 pandemic in Mauritius, MOHW created a Facebook page Coronavirus Moris to officially share key information about COVID-19 and important information on how to maintain a healthy lifestyle during the sanitary curfews. Launched in March 2020, the page quickly gained high numbers of subscribers. Valuable information from WHO and MOHW were shared with 5 to 10 posts daily. Several videos addressing NCDs' risk factors such as tobacco, harmful use of alcohol, unhealthy diet and physical inactivity were disseminated by healthcare professionals. Animated videos were also posted to target different subgroups of the population to share messages on healthy diet, stress management and nutrition for NCDs patients and for the specific needs of children and adolescents during the sanitary curfew. Smokers were also encouraged to quit smoking and referred to the tobacco cessation services. The videos and publications were well received and very popular, generating thousands of likes and shares. Similar messages were also shared on radio and television during the sanitary curfew and beyond.

Sensitizing youth on the increased risk of mortality due to COVID-19 among smokers

In the context of the World No-Tobacco Day, young people were sensitized on the dangers of tobacco and encouraged to quit smoking via a national info clip competition. WCO Mauritius collaborated with Ministry of Youth Empowerment and Sports and VISA Mauritius NGO in this endeavor. The competition targeted two age categories: 14 and 22 years and 23 to 35 years and successfully garnered 46 participants from different regions of the country. The participants came up with innovative preventive messages to reduce the use of tobacco and nicotine among youth. Some 200 T-shirts with anti-tobacco messages were distributed during the prize-giving function with the support of WCO Mauritius.

Strengthening anti-tobacco knowledge among youth in Rodrigues

In December 2020, WCO Mauritius together with the Commission for Youth and Sports of Rodrigues island and the non-governmental organization VISA Mauritius organized a two-day training workshop to raise the awareness of the young people of Rodrigues about the harms of tobacco smoking. 50 young people received key information harmful effects of tobacco on health

and its devastating impact on the economy and environment as well as the tobacco industry interference and its marketing strategies to hook young people. This workshop promoted a participatory and practical approach which allowed participants to formulate powerful anti-tobacco short message service which they subsequently shared with their peers via their mobile phone.

Consolidating the tobacco legislative framework

WCO Mauritius and MOHW have been working closely in the elaboration of the new tobacco regulations. In the context of World No-Tobacco Day 2021, key stakeholders namely representatives from the different ministries, the University of Mauritius, the Mauritius Institute of Health and WCO Mauritius validated the new set of tobacco regulations including the plain packaging legislation. The stakeholders also discussed implementation issues and actions needed to increase compliance level. By promulgating these new tobacco regulations, Mauritius will become the first African country to be implementing tobacco plain packaging, an important milestone in tobacco control. Mauritius is also serving as best practices in the implementation of the pictorial health warnings on cigarette packages and plans to extend them to all tobacco products.



Inauguration of the tobacco cessation clinic at the Dr Yves Cantin Community Hospital in May 2021

Expanding the tobacco cessation services

On World No-Tobacco Day 2021, the 9th tobacco cessation clinic of the country was opened at the Dr Yves Cantin Community Hospital, in Black River district, further decentralizing the free tobacco cessation service at regional level. WCO Mauritius played a key role in the capacity building of the healthcare staff. The first tobacco cessation clinic was initially piloted in 2008 and gradually the cessation programme was extended to other health regions. Important progress have been achieved. To this date, the Republic has 8 cessation clinics in Mauritius and one in Rodrigues island offering free of charge both pharmacological and non-pharmacological therapies to people who want to quit tobacco smoking.



Dr Hon K. Jagutpal; Minister of Health and Wellness (center) and WHO Representative, Dr I. Musango at the opening of the Validation workshop in May 2021.

5.2 Addressing the determinants of health

Empowering school health clubs to promote 'better health and better future'

WCO Mauritius in collaboration with the Ministry of Education, Tertiary Education, Science and Technology and MOHW revamped the school health clubs in both public and private secondary schools in 2019. In 2020, a logo competition was launched at national level to encourage students' participating in designing their logo and a slogan for the school health club. WCO Mauritius provided technical inputs in finalizing the logo competition and evaluating the entries to select the winning school health club logo.

With the COVID-19 pandemic, the school health clubs became instrumental in raising awareness among youth about sanitary measures to be observed to avoid COVID-19. In November 2020, WCO Mauritius jointly with MOHW and Ministry of Education, Tertiary Education, Science and Technology conducted 11 sensitization workshops. 98 patrons and 157 students were capacitated in knowledge and skills on basic microbiology, COVID-19, infection prevention and control, standard precautions for hand hygiene and respiratory hygiene, physical distancing and wearing personal protection equipment. Participants received a newly developed module handbook for Infection Prevention and Control Practices to help them cascade the training to their peers. Other education materials such as flyers and posters were also distributed to encourage the adoption of sanitary precautions in educational settings.

Validation and implementation of the National Action Plan to Prevent Alcohol Abuse

MOHW devised the *National Action Plan to reduce the harmful use of alcohol 2020-2024*. The plan targets a relative reduction of at least 10% in the harmful use of alcohol within the national context by 2025, as per the Global NCDs Target: *Reducing Harmful Use of Alcohol (2016) article*. It is focused on three main axes: 1) mandating the use of taxation and fiscal policies to help

regulate demand for alcoholic beverages, 2) comprehensive, universally, and culturally acceptable restrictions or bans on alcohol advertising, and 3) restrictions on the availability of alcoholic beverages. The plan also foresees the standardization of treatment protocols on a national level by collecting, collating, and analyzing statistical data on alcohol-related health issues. WCO Mauritius is supporting the implementation of the national plan which is in line with the global strategies against alcohol abuse.

Building capacity of health workers on child growth assessment to strengthen the National Nutrition Surveillance System

WCO Mauritius together with WHO/AFRO supported MOHW in improving the National Nutrition Surveillance System for children of zero to five year old. During a scoping mission in 2018, several gaps were identified including a scattered paper-based data collection tools which resulted in the inability to analyze and report key information on child growth. The existing surveillance system was redesigned with the expertise of a nutrition advisor from the WHO/AFRO. 40 health professional including nutritionists, public health nursing officers, nursing officers, chief and principal midwives and health care assistants from both Mauritius and Rodrigues were trained on child growth assessment and WHO Child Growth Standard in February 2020. As a result, the country is now equipped with a stronger system to produce reliable, timely, affordable and accessible data to monitor its progress towards the six the Global Nutrition Targets. Since Mauritius has a high rate of NCDs, this will also allow for a better tracking of overweight and obesity among children.



A participant of the child growth assessment training receiving her certificate from Dr L. Musango, WHO Representative in February 2020



The local technical committee members working remotely with the international expert to review and draft new food legislations in 2021.

Promoting food safety and security

In 2020, WCO Mauritius provided technical expertise to MOHW to review and update food legislations and harmonized both the Food Act 1998 and Food Regulations 1999 with the international food regulation standards. A new legal framework was also finalized for the setting up of the Mauritius Food Standards Authority, a commitment of the Government of Mauritius. A consultation workshop with important food regulatory key stakeholders was held in December 2021 to finalize the draft legislations.

Commemorating global health days

As in previous years, WCO Mauritius joined MOHW in commemorating global health days; making the most of these platforms to raise awareness about health and advocate for policy changes.



Sensitizing the population about healthy eating during World Heart Day in September 2021

Mauritius commemorated the World Heart Day. MOHW launched a series of activities in both September 2020 and 2021 to raise awareness about healthy habits such as daily consumption of fruits and vegetable, avoiding alcohol abuse and stop smoking and regular practice physical activity. WCO Mauritius sensitized the population on the need to address the modifiable risk factors and prevent heart diseases.

World Diabetes Day



Strengthening of the national NCD Screening Programme on the occasion of the World Diabetes Day 2020

WCO Mauritius advocated for more investment in ongoing capacity building of diabetic nurses during the commemoration of the World Diabetes Day under the theme “The Nurses and Diabetes” in 2020. Mauritius marked the World Diabetes Day 2021 at Mont Roches Social Welfare Centre in Beau Bassin with targeted screening to ensure early diagnosis and treatment to avoid health complications. WHO Representative raised awareness of the population on the complications due to uncontrolled diabetes.

World Mental Health Day



Dissemination of the mental health pamphlets on the World Mental Health Day 2021 commemoration

At the commemoration of the World Mental Health Day 2020, WCO Mauritius called for greater investment in mental health, especially with the aggravated risks of mental health problems caused by the COVID-19 pandemic. Activities were centered around the 'Move for Mental Health: Let's invest' theme.

For World Mental Health Day 2021, the focus was on "Mental Health in an Unequal World". WCO Mauritius advocated for the development of a national mental health strategy in line with the WHO's Comprehensive Mental Health Action Plan 2013-2030, recently endorsed by the World Health Assembly. WCO Mauritius and MOHW jointly produced and disseminated five pamphlets on depression, anxiety, schizophrenia, suicide prevention and bipolar disorder.

World Cancer Day



WHO Representative, Dr L. Musango addressing the audience during the World Cancer Day 2021

World Cancer Day 2021 was marked by the sensitization campaign "I am and I will". WCO Mauritius urged for accelerated efforts in cancer prevention, early screening and people-centered care with improved cancer services, improved cancer services, capacity building and strengthening of the systems.

World Breastfeeding Week 2021



Dr Hon. K. Jagutpal, Minister of Health and Wellness launching the activities to mark World Breastfeeding Week in August 2021

WCO Mauritius advocated for the setting up of a National Breastfeeding Promotion and Protection Committee as recommended in the National Framework to improve Maternal Newborn Child Health during the launching of activities to mark World Breastfeeding Week 2021 in Mauritius. The National awareness campaign aimed at raising awareness on the importance of breastfeeding for better health outcome.

6. AIMING FOR HIGHER PERFORMANCE

6.1 Staying connected

Using social media platforms for information sharing

WCO Mauritius adapted to the social media era and created its own Facebook page and Twitter account for effective sharing of information on key activities, publications including reports and communication materials such as videos, pamphlets and COVID-19 educational materials, among others.

Publishing regular press releases and e-newsletter

As for the previous years, WCO Mauritius has maintained its regular pace of publishing press releases on the WHO/AFRO website. For the period of the biennium, 27 articles and a [e-newsletter](#)¹⁷ were released to the internal and external stakeholders to share WHO contributions in promoting health and saving lives at country level.

Producing WCO Mauritius's Biennium Report 2018-2019

WCO Mauritius successfully disseminated its [Biennium Report 2018-2019](#)¹⁸ which highlighted the major achievements and contributions of WCO Mauritius for the period of 2018 to 2019. It was shared widely both in hard copies and electronically to all stakeholders and uploaded on the WHO/AFRO website.

Sharing key documents on the WHO African region's online library

WCO Mauritius has shared 29 key documents produced during the biennium 2020-2021 on the WHO African region's online library including 26 situational reports on COVID-19 pandemic in Mauritius and two reports documents the COVID-19 national response as well as the Mauritius Cervical Cancer Profile and the Mauritius Maternal and Child Health Handbook¹⁹. This is a key initiative in WCO Mauritius's effort to contribute to knowledge sharing within the global community.

Documenting Mauritius' best practices in health

In the scope of documenting and sharing Mauritius' health achievements, WCO Mauritius together with MOHW submitted 6 country case studies as follows: 1. Empowering Schools to Promote School Health Clubs and National Anti-Tobacco Mural Competition, 2. National assessment of health systems; 3. Societal Dialogue; 4. Influence Surveillance systems ; 5. Antimicrobial Resistance; and 6. A comprehensive response to Measles Outbreak (Case study 1) and the one showing the country's efforts in promoting a multi-sectoral approach to NCDs and best practices were published on the World Health Assembly Portal.

Sharing of best practices on foot care clinics

To commemorate World Diabetes Day 2020, the [best practices on footcare services](#)²⁰ in Mauritius were documented. A press release on the WHO/AFRO website captured the success of the expansion of footcare services across the country in curbing diabetes type 2 related amputations.

Capturing the achievement of Mauritius in containing the COVID-19 pandemic

The successful containment of the first wave of COVID-19 in 2020 was a best practice worth sharing. In 2020, WCO Mauritius collaborated with WHO/HQ and WHO/AFRO communication team to document the achievements of the country in containing the COVID-19 pandemic via written, video and photo stories. WCO Mauritius coordinated actions locally and liaised with MOHW to plan the photo and video shoots and coordinated work with the locally contracted video and photo agencies for review and finalization of the materials. The written story and the 3-minute video story were uploaded on the WHO/AFRO website²¹ and the WHO/HQ photo gallery to showcase Mauritius achievements. The video was also broadcasted on regional media.²²

¹⁷ <https://whomauritius-whoafroccmaster.newsweaver.com/1aive01kk5/vvgwkhhp44rid7eybuqay8?email=true&lang=en&a=66p=61010989&t=32326575>

¹⁸ <https://www.afro.who.int/publications/who-mauritius-biennial-report-2018-2019>

¹⁹ <https://www.afro.who.int/publications/mauritius-maternal-and-child-health-handbook>

²⁰ <https://www.afro.who.int/countries/mauritius/news/mauritian-clinics-help-cut-diabetic-foot-amputations>

²¹ <https://www.unmultimedia.org/tv/unifeed/asset/2554/2554561/>

²² <https://www.facebook.com/cgtnafrica/videos/777300013044572/?extid=ebNbs996fHhwtKpP>

6.2 Optimizing organizational and managerial performance

Participating in the Delivery for Impact Knowledge Hub project

Building country-level capacity to measure impact and collectively progress towards the Triple Billion Targets lies at the core of GPW-13. Mauritius was one out of the selected eight countries which pilot the Delivery for Impact Knowledge Hub. It is a logical learning portal for delivery training and interactive mentoring to build delivery capacity within WHO Country Offices and Member States. From October 2020 to April 2021, the Mauritian country team comprising of WCO technical staff, MOHW technical team, University of Mauritius, among others gained fundamental knowledge about clarifying strategic objectives, comprehensive action planning, rigorous problem solving and building team capacity to deliver. This is contributing to improving Mauritius' capacity to overcome delivery challenges and achieve success in meeting its health targets and goals.

Reviewing of WCO Mauritius' progress during staff retreat

In March 2020, the technical and administrative staff of WCO Mauritius reviewed the progress made in implementing the recommendations from the previous staff retreat report. This review was done over a two-day residential workshop. The findings of the WCO Mauritius Staff Satisfaction Survey and Partners Perception Survey were discussed and the staff members propose actions to improve the ratings. The retreat in 2021 provided an opportunity to track progress on the implementation of the recommendations as well as strengthening of team building and promoting a healthy workplace.

6.2.1 Programme Budget Performance Assessment

With a view to strengthening transparency and accountability for results across the Organization, the WHO Secretariat is implementing an innovative Output Scorecard, a new methodology for measuring the Secretariat's contributions to outcomes and impacts. The Output Scorecard assesses the organization's outputs within the frame of the General Programme of Work (GPW13). At the end of the Programme Budget 2020-2021 WCO Mauritius implemented scorecard methodology agreed with Member States in line with resolution WHA72.1 (2019) to measure performance with respect to technical outputs and leadership and enabling outputs.

Technical Outputs

The Technical Scorecard in Figure 8 shows how the WHO Secretariat performed under 2020-2021 biennium in Mauritius across the different dimensions, that is Leadership, Technical support, Gender, equity, human rights and disability, Value for money, and achieving Results in ways leading to impact (whenever data is available). The dimension score (shown as a line) is the aggregate score of the different attributes (shown as sticks).

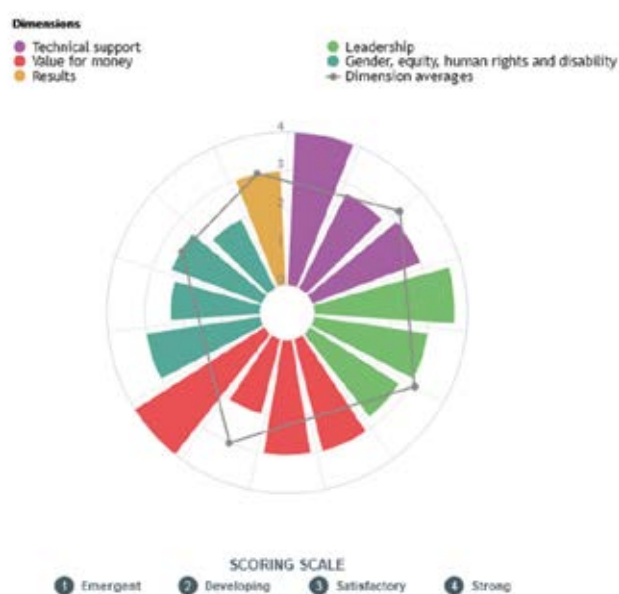


Figure 8 : Technical assessment across the six dimensions

Leadership and Enabling Outputs

The Enabling Scorecard in Figure 2 shows how the WHO Secretariat performed under 2020-2021 biennium in Mauritius across the different dimensions, that is accountability, strategy and leadership, value for money, Client service delivery, Gender, equity, human rights and disability, and achieving Results in ways leading to impact. The dimension score (shown as a line) is the aggregate score of the different attributes (shown as sticks).

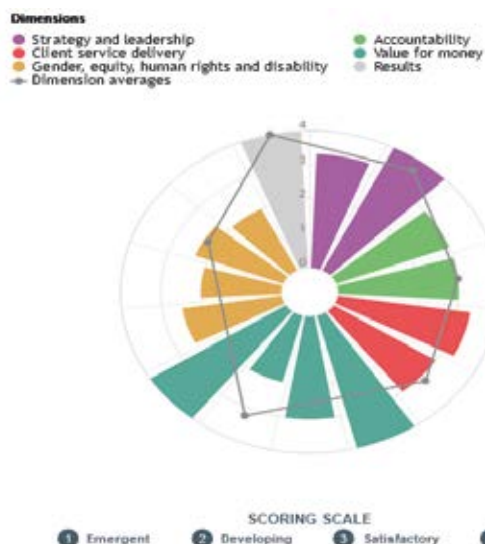


Figure 9 : Enabling assessment across the six dimensions

Budget utilization and performance for 2020-2021

For the biennium 2020-2021, the total budgetary allocation for WCO Mauritius had a planned budget of US\$5,918,689 and of which USD 4,851,578 (82%) were funded across all the five strategic objectives. USD 4,460,292 of funding available were fully utilized, representing 92% implementation rate (Figure 9). Expenditure by types across the strategic objectives are shown in Figure 10.

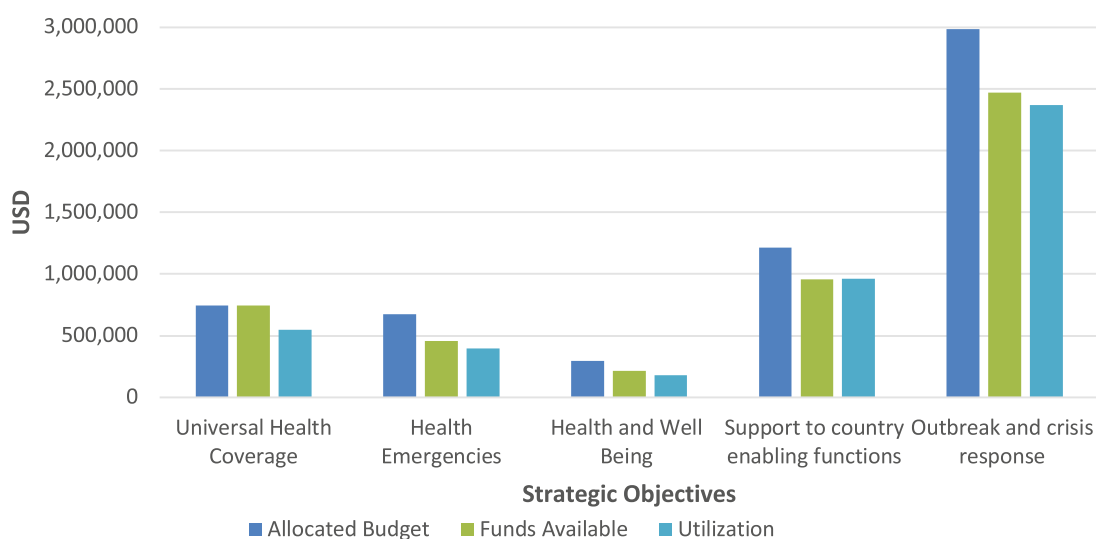


Figure 10 : Budget utilization across the strategic objectives

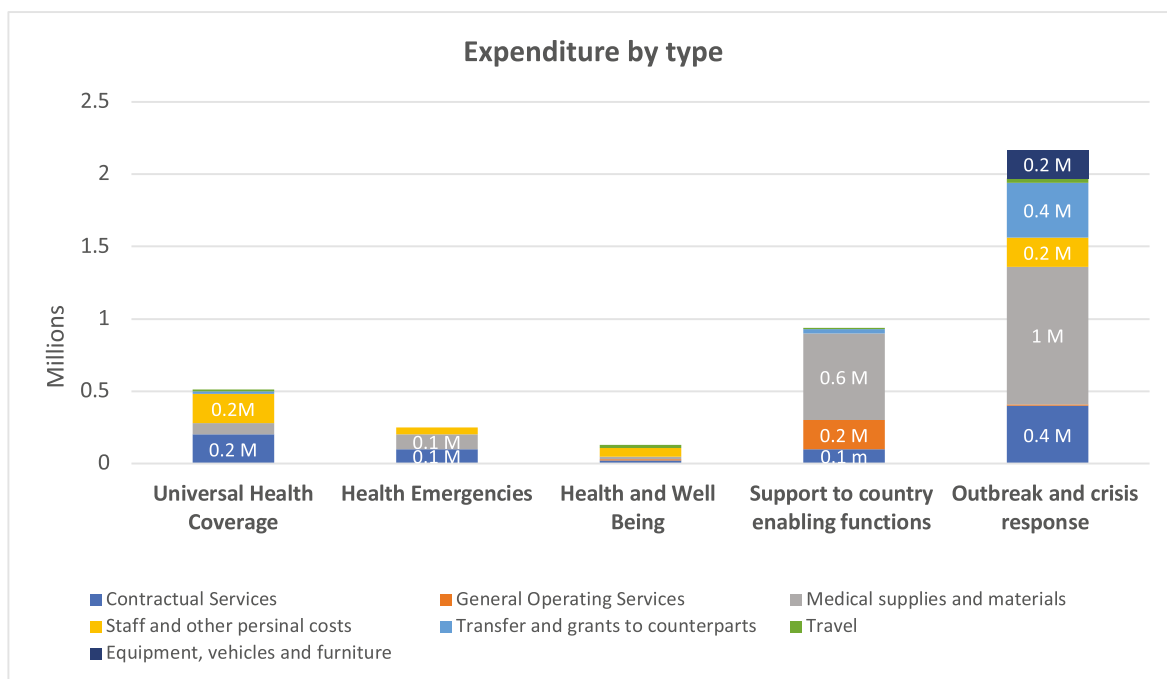


Figure 11 : Expenditure by across the strategic objectives

7. LIST OF PUBLICATIONS BY WCO MAURITIUS

1. **Key success factors of Mauritius in the fight against COVID-19.** Laurent Musango, Lovena Veerappa-Mangroo, Zoubeyr Joomaye, Adarshini Ghurbhurrin, Vinoda Vythelingam and Elisabeth Paul. *BMJ Global Health* 2021; 6:e005372. Doi:10.1136/bmjgh-2021-005371
2. **Monetary value of disability-adjusted life years lost from all causes in Mauritius in 2019.** Laurent Musango, Ajoy Nundoochan, Philippe Van Wilder and Joses Muthuri Kirigia. *The F1000Research* 2021
3. **The Discounted Money Value of Human Life Losses Associated with COVID-19 in Mauritius.** Laurent Musango, Ajoy Nundoochan and Joses Muthuri Kirigia. *Front. Public Health*, 10 November 2020 | <https://doi.org/10.3389/fpub.2020.604394>
4. **Assessing health systems challenges and opportunities for better noncommunicable disease outcomes: the case of Mauritius.** Laurent Musango, Maryam Timol, Premduth Burhoo, Faisal Shaikh, Philippe Donnen and Joses Muthuri Kirigia. *BMC Health Services Research* 2020.
5. **Blood Safety Status in WHO African Region Countries: lessons learnt from Mauritius.** André Loua, Janaki Sonoo, Laurent Musango, Jean-Baptiste Nkiema, and Thomas Lapnet-Moustapha. *Journal of Blood Transfusion*, Volume 2017, article ID 1970479, 8 pages
6. **Compliance by night clubs with the smoking bans in Mauritius: A follow-up study.** Deowan Mohee, Laurent Musango, Vinoda Vythelingam and Marie Chan Sun. 2021
7. **A study on the availability of waterpipe and electronic cigarettes in Mauritius.** Deowan Mohee, Laurent Musango, Vinoda Vythelingam and Marie Chan Sun. 2021
8. **Best Practices and Experience of Mauritius Preparedness and Response to COVID-19 Pandemic.** August 2020, WHO Country Office Mauritius
9. **COVID-19 Intra-Action Review.** Ministry of Health and Wellness and WHO Country Office, Mauritius. December 2020
10. **Comparative analysis of public health measures implemented related to COVID-19 across the first wave (2020) and the second wave (2021).** June 2021
11. **Improving public hospital efficiency and fiscal space implications: the case of Mauritius.** Ajoy Nundoochan. *Int J Equity Health* 19, 152 (2020).
12. **Improving equity in the distribution and financing of health services in Mauritius, a small island state with deeply rooted welfare state standards.** Ajoy Nundoochan. *BMJ Global Health* 2021

Abstracts accepted by the African Health Economics and Policy Association at its 5th conference in 2019

1. **Assessing the weakness of an existing disease programme should be a good way for strengthening the health systems toward universal health coverage: case of Mauritius.** Laurent Musango, Premduth Burhoo, Faisal Shaikh and Maryam Timol
2. **Revitalizing primary health care to achieve universal health coverage in Mauritius.** Laurent Musango, Premduth Burhoo, Faisal Shaikh and Maryam Timol
3. **Setting up an adequate information solution to strengthen primary health care in Mauritius.** Laurent Musango, Premduth Burhoo, Faisal Shaikh and Maryam Timol
4. **Population empowerment is one of the strategies for strengthening primary health care in Mauritius.** Laurent Musango, Premduth Burhoo, Faisal Shaikh and Maryam Timol
5. **Co-existence of high out-of-pocket payments for health and free health care in public health facilities a paradox for consolidating primary health care in Mauritius.** Ajoy Nundoochan, Laurent Musango and Yusuf Thorabally
6. **A systematic review: interventions for improving the retention of physicians working in rural areas to strengthen Primary Health Care.** Atsushi Samura. Laurent Musango and Faisal Shaikh
7. **Revitalization of the collaboration between the Ministry of Health and Quality of Life and non-government organizations to strengthen primary health care for better outcomes in Mauritius.** Atsushi Samura. Laurent Musango and Faisal Shaikh

Abstracts accepted by the First Africa Conference on Tobacco Control and Development in 2021.

1. **Novel tobacco products: A cause for local concern amid the emerging global concern.** M. Chan Sun, D. Mohee, V. Vythelingam and L. Musango
2. **High exposure to tobacco smoke in night clubs despite smoke-free law.** V. Vythelingam, D. Mohee, M. Chan Sun, L. Musango, P. Appavoo
3. **Waterpipe smoking: a potential threat for the African continent?** M.Chan Sun, V. Vythelingam, L. Musango and D. Mohee
4. **Need for a complete ban on waterpipe smoking facilities and products.** P. Appavoo, D. Mohee , V. Vythelingam, L. Musango and M. Chan Sun



8. WAY FORWARD

During this 2020-2021 biennium, WCO Mauritius made considerable progress in its mission to support the Republic of Mauritius in attaining its health goals despite the prevailing COVID-19 pandemic. Nourishing strategic partnerships and collaborations were more than ever an important pillar in moving forward towards the country's and regional Transformational Agenda's targets as well as the global Triple Billion targets. WCO Mauritius has fostered its co-operation with MOHW by providing important technical expertise and assistance.

The launching of the Health Sector Strategic Plan 2020-2024 has brought an important strategic vision and guidelines for the country to meet its health targets and WCO Mauritius is committed to support MOHW to implement and operationalize this strategic plan. Important assistance will be provided for sustainable health financing with the development of a National Health Financing Strategy and the production of the new round of National Health Accounts. Enhancing access to safe and quality medicines and medical products will also be a priority with the development of the Medical and Healthcare products bill and the implementation of the SIDS Pooled Procurement Agreement. WCO Mauritius will assist MOHW in creating solid and efficient health information systems with the implementation of its operational plan 2020-2022. Support for the upgrading of laboratory services will also be ongoing, particularly in line with the implementation of National Laboratory Policy.

WCO Mauritius' ceaseless efforts to address NCDs in Mauritius will be maintained with a focus on the validation of the National Integrated NCDs Action Plan and the NCDs National Service Framework which aimed at better coordinated actions to effectively reduce NCDs. WCO Mauritius will continue to provide its technical expertise towards the implementation of the National Cancer Control Programme for improved cancer prevention, early screening, and people-centered care. WCO will continue advocating for the development of a national mental health strategy. The priority remains reducing the high prevalence of NCDs'

risk factors namely unhealthy eating, physical inactivity, tobacco smoking and alcohol abuse. Support will be geared towards implementation of the new tobacco regulations including plain packaging law and the implementation of the national action plan to prevent alcohol abuse and national sports and physical activity policy. WHO will continuously be working with the health and education sectors to promote better health for a better future through the School Health Clubs project. Improving determinants of health in terms of food safety and food security remains on the agenda with the implementation of new food laws including the Mauritius Food Standards Authority legislative framework.

WCO Mauritius will continue to support the country in re-strategizing and sustaining its HIV/AIDS programmes to end AIDS as a public threat by 2030. WCO Mauritius also remains committed to the implementation of the National Action Plan on Antimicrobial Resistance to mitigate the emergence and spread of drug-resistant pathogens. Further efforts will be invested in equipping Mauritius with more efficient disease surveillance systems and implementing an effective national hemovigilance system. Amid the COVID-19 pandemic, WCO Mauritius will continue to bolster the High-level committee on COVID-19 and other stakeholders in the national response for a safer Mauritius.

Producing evidence-based research to better inform health decisions, strategies and policy making will remain high on the WCO Mauritius agenda. It will stay connected to its various audiences via an online presence by sharing its press releases, newsletters, reports and other key documents. Striving for optimum organizational and managerial performance as well as sustaining and actively creating partnerships will remain at the core of WCO Mauritius' work.

Above all, the new Country Cooperation Strategy will be aligned with the GPW-13, UN Strategic Partnership Framework 2019-2023 and Mauritius' Health Sector Strategic Plan 2020-2024 and will pave the way for more significant contributions to a healthier and safer Mauritius.

World Health Organization Country Office, Mauritius

6th Floor - Anglo Mauritius House, Intendance Street, Port Louis, Mauritius

230) 210 7300/7400/1899, 212 7300/7600 Fax: (230) 210 6474

afwcomuremit@who.int

<http://www.who.int>

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