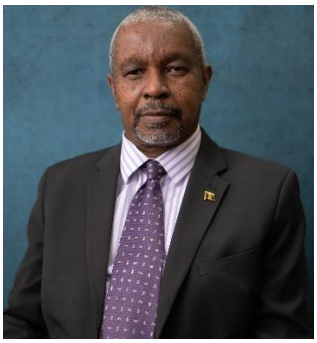
BARBADOS HEALTH REPORT 2022

MINISTRY OF HEALTH & WELLNESS PLANNING AND
RESEARCH UNIT

ACKNOWLEDGEMENTS

The Barbados Health Report 2022 has been compiled by the Planning and Research Unit, Ministry of Health and Wellness (MHW). We wish to acknowledge the considerable assistance from the many professionals who contributed to the completion of the report. These include Senior Medical Officers of Health; Chief and Deputy Chief Environmental Health Officers; the Senior Health Promotion Officer, the Director of the Barbados Drug Service (BDS); and the Executive Chairman and Management Team of the Queen Elizabeth Hospital (QEH). The Records Officers at the MHW, who collated morbidity and mortality statistics and prepared the tables and the Medical Records Clerks, who are the primary data collectors in the Polyclinics and the Psychiatric Hospital are also acknowledged. The assistance of the Geriatric Hospital, the District Hospitals, the National Nutrition Centre and the Albert Cecil Graham Development Centre was also invaluable. We sincerely wish to thank our many partners in the non-governmental organizations (NGOs) and private sectors for their support. Finally, thanks to all MHW staff for the technical advice that contributed to the successful completion of this report.



Dr. The Most Honourable, Kenneth George

Chief Medical Officer, Ministry of Health and Wellness

FOREWORD

It is my pleasure to present the **Barbados Health Report 2022** on behalf of the Ministry of Health and Wellness. This report provides a comprehensive overview of the nation's health landscape for the year 2022. It aims to offer valuable insights into the health status of Barbados, making this information accessible to healthcare professionals, governmental and non-governmental partners, allied health organizations, and the general public. Through this report, we hope to foster informed decision-making and strengthen collaboration within the health sector to improve the well-being of all Barbadians.

The Report reflects a multi-disciplinary approach to planning in health that seeks to engage all of our partners at every step of health care delivery. This Barbados Health Report is a signal of our commitment to a more dynamic method of engagement. Indicators for the Sustainable Development Goals (SDGs) and information on significant activities, initiatives, strategies, and projects undertaken during the reporting period are included. The information presents an analysis of data and highlights the achievements and challenges in the provision of health services.

In the context of the COVID-19 pandemic, the MHW remains committed to achieving Universal Health Coverage and achieving Sustainable Development Goal three 'Ensure healthy lives and

promote well-being for all ages. The Ministry is also committed to fulfilling its health steering role, particularly as it relates to the issue of immunization policies and the provision of appropriate and safe vaccines to the people of Barbados.

Coupled with efforts to manage the pandemic, the MHW continued to strengthen its response to the fight against Non-Communicable Diseases (NCDs). A new National Strategic Plan for NCDs 2020-2025 has been developed, and it is anticipated that this plan will serve as a guide for NCD policy and programmes over the next five years. This Strategic Plan calls on governmental agencies, civil society and the private sector to be the drivers of national prevention and control efforts for NCDs.

In conclusion, it is our hope that this report serves as a vital resource for understanding the health landscape of Barbados, providing key insights to guide policy development, programme implementation, and collaborative efforts across the healthcare sector. As we move forward, the Ministry of Health and Wellness remains committed to fostering a system that prioritizes wellness, resilience, and sustainable health outcomes. We encourage all stakeholders, healthcare professionals, partners, and the wider public to use the insights from this report to collaboratively advance a healthier and more vibrant Barbados.

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ACRONYMS AND ABBREVIATIONS

AA-HA	Adolescent Action for the Health of Adolescents
ACEP	Alternative Care of the Elderly Programme
ACGDC	The Albert Cecil Graham Development Centre
AED	Accident and Emergency Department
AIDS	Acquired Immune Deficiency Syndrome
ARB	Angiotensin II Receptor Blockers
ART	Antiretroviral Therapy
BCC	Barbados Community College
BDS	Barbados Drug Service
BDSPHL	Best-dos Santos Public Health Laboratory
BFPA	Barbados Family Planning Association
BIBA	Barbados International Business Association
BNR	Barbados National Registry
BWA	Barbados Water Authority
CARPA	Caribbean Public Health Agency
CD4	Cluster of Differentiation 4
CDC	Centers for Disease Control and Prevention
CNO	Community Nutrition Officer
CT	Chlamydia
CVD	Cardio Vascular Disease
DTHSSC	David Thompson Health & Social Services Centre
EMTCT	Elimination of the Mother-to-Child Transmission
ENT	Ear Nose and Throat
GDP	Gross Domestic Product
GH	Geriatric Hospital
GIS	Geographical Information System
H1N1	Influenza Swine Flu/ Hemagglutinin 1 Neuraminidase 1
HCTZ	hydrochlorothiazide
HIV	Human Immunodeficiency Virus
HRH	Human Resources for Health
IAEA	International Atomic Energy Agency
ICU	Intensive Care Unit
IMR	Infant Mortality Rate
LRU	Ladymeade Reference Unit
MAFS	Ministry of Agriculture and Food Security
MHW	Ministry of Health and Wellness
MMR1	Measles, Mumps, Rubella Vaccine
MSM	Men who have Sex with Men
NCD	Non-Communicable Diseases
NG	Gonorrhoea
NGO	Non-Governmental Organization
NNC	National Nutrition Centre
PAHO	Pan American Health Organization
PH	Psychiatric Hospital
PLHIV	Persons living with HIV
PMTCT	Prevention of Mother to Child Transmission
PPP	Private Participating Pharmacies
QEH	Queen Elizabeth Hospital
SPDH	St. Philip District Hospital
SSB	Sugar-Sweetened Beverages
STI	Sexually Transmitted Infection
TB	Tuberculosis
THE	Total Health Expenditure
TLC	Transplant Links Community
UHC	Universal Health Coverage
UN	United Nations
UNAIDS	United Nations Programme on HIV and AIDS
USAID	United States Agency for International Development
UWI	University of the West Indies
WHO	World Health Organization
WSPC	Winston Scott Polyclinic

INTRODUCTION

To achieve Universal Health Coverage (UHC) and guarantee universal access, health care must be accessible, affordable, comprehensive and of good quality. Barbados is a signatory to the World Health Organization's Sustainable Development Goal (SDG) to achieve UHC. Though facing challenges, the Ministry of Health and Wellness (MHW) is still committed to achieving SDG 3 to 'ensure healthy lives and promote well-being for all at all ages.

In addition, the MHW emphasised developing policies and programmes to promote wellness while ensuring the provision of quality health services to the people of Barbados. This was in conjunction with managing a global pandemic where additional resources had to be diverted to manage the crisis while ensuring that the wider healthcare system was still robust, efficient and effective.

Barbados is a signatory to various international laws, declarations, treaties, and covenants that uphold the health and rights of migrants, as outlined in the Pan American Health Organization's Health of Migrants Resolution (CE158.R16). In alignment with these commitments, medical services are provided free of charge at the point of delivery to both residents and non-nationals under specific conditions. These include genuine emergencies, antenatal care, immunization, conditions of public health significance, and treatment for STIs and HIV. Additionally, Barbados supports the Medical Aid Scheme, which ensures access to medical services not available locally. This demonstrates the nation's commitment to health equity and access for all.

Barbados has performed creditably as it relates to the comprehensiveness of health services, population coverage and accessibility. Healthcare is free at the point of delivery in Barbados and is funded through the consolidated fund. A model of publicly funded health care has been utilised as a strategy for developing this country's human capital and has resulted in indicators of well-being, which include an average life expectancy of 77 years at birth.

Additionally, there are plans to develop a new geriatric complex that will provide comprehensive healthcare services to older adults with a focus on wellness, community-based health services, rehabilitation, and care for clients whose medical conditions require hospitalisation. The hospital will be constructed in phases. The first phase will have accommodation for 300 beds.

The COVID-19 pandemic continued to evolve. During 2022, a number of measures aimed at reducing the negative impact of COVID-19 were relaxed as more people were vaccinated and transmissions generally were on the decline. The MHW also disbanded a number of COVID-19 monitoring units as the country returned to normalcy.

In conjunction with ongoing efforts to manage the pandemic, the MHW has made significant strides in addressing Non-Communicable Diseases (NCDs). A new **National Strategic Plan for NCDs 2020-2025** has been established, which is expected to guide policies and programmes aimed at combating NCDs over the next five years. This plan emphasizes the importance of collaboration among governmental agencies, civil society, and the private sector to drive national prevention and control initiatives. Additionally, a **National Cancer Control Plan (NCCP)** has been formulated, focusing on enhancing the health and well-being of all Barbadians through effective cancer prevention and control systems. These comprehensive strategies reflect the MHW's commitment to improving public health outcomes and reducing the burden of NCDs in Barbados. The MHW also continued the maintenance of its contractual arrangements with health partners, for the provision of specialist care services.

Additionally, the MHW in collaboration with the World Health Organization (WHO) and the Pan American Health Organisation (PAHO) held a stakeholder consultation on health financing. The main objective of the mission was to appraise the current organisation of the Barbados health system with a specific focus on health financing arrangements, challenges, and proposals for change. A report has been prepared and will be submitted to the MHW with recommendations. With respect to Human Resources for Health (HRH) the Ministry will continue to explore opportunities to collaborate with local, regional and international organizations, to support training and the provision of technical assistance where needed.

HEALTH IN THE CONTEXT OF DEVELOPMENT

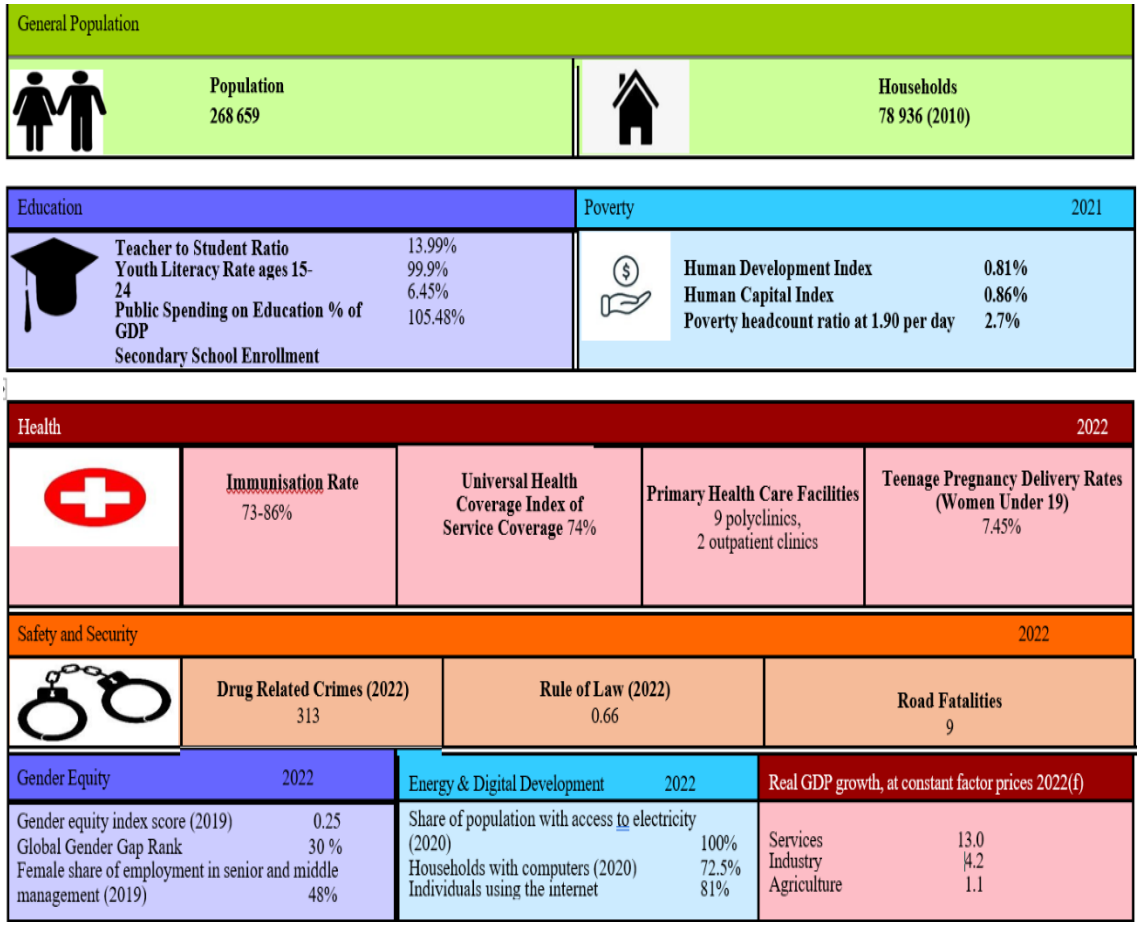
Social Determinants of Health

Barbados, as a signatory to the United Nations Sustainable Development Goals (SDGs), is committed to advancing key areas of development. The country's focus includes implementing fiscal policies aimed at ensuring access to quality healthcare, promoting greater equality, expanding social protection, and enhancing financial innovation, regulation, and inclusion. Additionally, Barbados prioritises climate-resilient, carbon-neutral strategies and supports marine-conscious public and private investments to drive sustainable growth.

In 2022, Barbados demonstrated considerable progress toward achieving the Sustainable Development Goals (SDGs). According to key assessments like the National SDG Mapping Report and the Rapid Integrated Assessment (RIA), the country met or is on track to meet 43 of the 95 SDG targets by 2030. Additionally, 52 targets showed fair progress but require accelerated efforts in some areas.

Barbados has aligned 92% of its national policies with the SDGs, including significant attention to gender and disability inclusion. Priority areas of progress include poverty reduction, good health and well-being, quality education, clean energy, and climate action. However, work continues as it relates to the reduction of inequalities (SDG 10) and ensuring no vulnerable groups are left behind. Barbados' performance on some selected indicators, such as education, poverty and gender equity are outlined in Table 1 below:

Table 1: Social Determinants of Health



Economic Determinants

Barbados, a high-income country with a service-based economy, relies heavily on tourism as its main economic driver. The country's real Gross Domestic Product (GDP) growth surged from 1.4% in 2021 to 13.8% in 2022, reflecting strong recovery following the pandemic. During the same period, inflation rose from 1.6% to 4.9%, indicating increased price pressures. Unemployment also improved significantly, dropping from 10.9% in 2021 to 7.2% in 2022. Additionally, nominal GDP expanded from 9,890.6 million BBD in 2021 to 11,681.3 million BBD

in 2022, while health expenditure saw a notable increase, rising from 9.4% to 11.0% of total government spending, highlighting an enhanced focus on healthcare.

Table 2: Selected Economic and Demographic Indicators, Barbados 2020-2021

Indicator	2021 (p)	2022 (e)
Real Growth (%)	1.4	13.8
Inflation (%)	1.6	4.9
Unemployment (%)	10.9	7.2
Life expectancy (years)	78	76
Expenditure on health (% of total)	9.4	11
Nominal GDP (Million BBD)	9,890.60	11,681.30
Per Capita GDP (BBD)	34,788	41,476

P-provisional; e-estimated

Demographics

In 2022, the total population in Barbados was estimated at approximately 268,659, as shown in Table 3. National population estimates for the years 2020 to 2022 have decreased by almost 2000. Table 3 below shows that females accounted for 51.7% of the total population in 2022 and males, for 48.3%. The population younger than 15 years old represented 19.72%.

In 2022, the birth rate was 8.0 which is down from the rate in 2020 of 8.8 per 1,000 and the crude death rate increased from 9.8 to 12.3 per 1,000. That same year, women of childbearing age (15–44 years old) represented 40.7% of the total female population, with an overall fertility rate of 1.0 children per woman, a reduction from 1.4 in 2020.

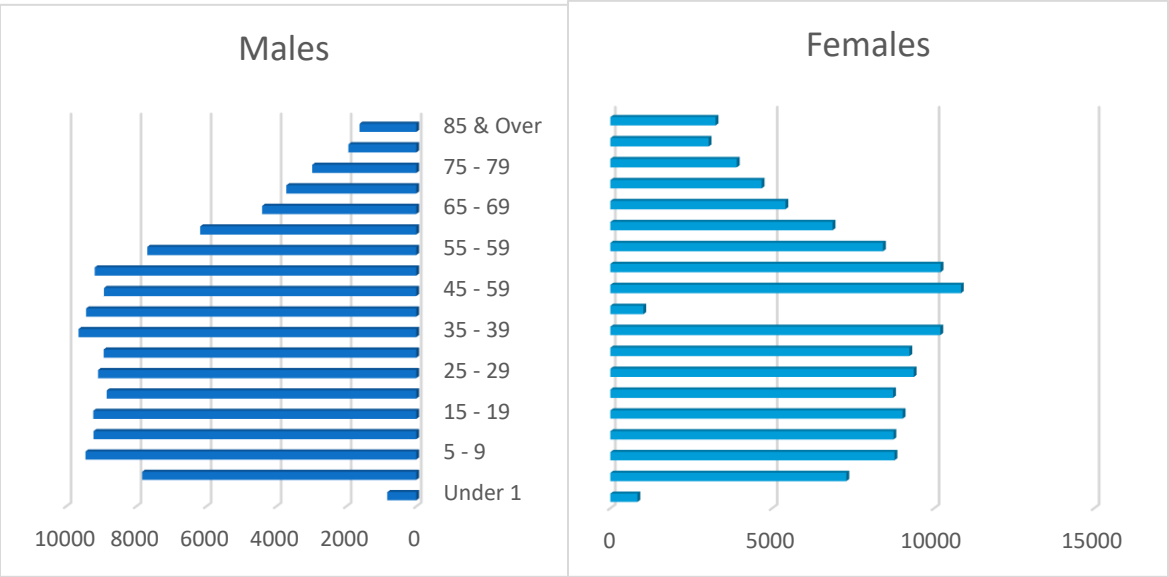
The natural increase rate identifies the rate at which a population is increasing or decreasing. In 2020, the natural increase was -258 per 1000 persons. However, in 2022, the natural increase rate was -1,163, signalling a concerning trend. This indicates that deaths are outpacing births, pointing to a declining population.

Table 3: Basic demographic information for 2020-2022

Indicator	2020p	2021p	2022p
Total estimated mid-year population [1]	271,021	270,594	268,659
Population under 1 year	2,355	2,208	1,667
1 – 4 years	14,581	14,653	15,122
5 – 14 years	36,510	36,347	36,192
15 – 19 years	18,415	18,333	18,255
20 – 44 years	94,318	93,895	93,495
45 – 64 years	69,793	69,480	69,185
65 years and over	35,049	34,890	34,742
Women 15 – 44 years	57,112	56,829	56,592
Live births	2,390	2,290	2,154
Births rate (per 1,000 population)	8.8	8.5	8.0
Total Fertility rate (women 15-44 yrs)	1.4	1.3	1.0
Deaths occurring during the year	2,648	3,149	3,317
Crude Death rate (per 1,000 population)	9.8	11.6	12.3
Stillbirths	17	14	14
Stillbirth rate (per 1,000 total births)	0.1	6.1	6.5
Natural increase	-258	-859	-1163
Natural increase rate (per 1,000 population)	-1.0	-3.2	-4.3
Infant deaths	24	25	39
Infant deaths rate (per 1,000 live births)	10.0	10.9	18.1
Perinatal deaths	28	25	32
Perinatal death rate (per 1,000 total births)	11.7	10.9	14.8
Neonatal deaths	18	16	29
Neonatal death rate (per 1,000 live births)	7.5	7	13.5
Deaths in children Under 5 years	26.0	28.0	41
Age Specific Mortality rate in children Under 5	1.5	1.6	2.4
Deaths in Children 1-4 years	2	3	2
Age Specific death rate in children 1-4 years (per	0.1	0.2	0.1
Number of Maternal deaths	2	3	3
Maternal death rate (per 1,000 live births)	0.8	1.3	1.4

Source: Barbados Statistical Service & Records Department Planning and Research Unit

Figure 1: Barbados population pyramid 2022



Source: Barbados Statistical Service

Table 4: Age and gender population distribution in 2022

5 Year	Sex					
Age-Group	Both Sexes		Males		Females	
All Ages	268,659	100%	129,808	100%	138,851	100%
Under 1	1,667	0.62%	830	0.64%	837	0.60%
1 - 4.	15,122	5.63%	7,829	6.03%	7,293	5.25%
5 - 9.	18,228	6.78%	9,449	7.28%	8,779	6.32%
10 - 14.	17,964	6.69%	9,217	7.10%	8,747	6.30%
15 - 19.	18,255	6.79%	9,224	7.11%	9,031	6.50%
20 - 24.	17,576	6.54%	8,842	6.81%	8,734	6.29%
25 - 29.	18,461	6.87%	9,088	7.00%	9,373	6.75%
30 - 34.	18,168	6.76%	8,929	6.88%	9,239	6.65%
35 - 39.	19,840	7.38%	9,645	7.43%	10,195	7.34%
40 - 44.	19,450	7.24%	9,430	7.26%	10,020	7.22%
45 - 49.	20,658	7.69%	9,819	7.56%	10,838	7.81%
50 - 54.	19,386	7.22%	9,184	7.07%	10,202	7.35%
55 - 59.	16,102	5.99%	7,681	5.92%	8,421	6.06%
60 - 64.	13,039	4.85%	6,173	4.76%	6,866	4.94%
65 - 69.	9,810	3.65%	4,402	3.39%	5,408	3.89%

70 - 74.	**8,388**	**3.12%**	**3,712**	**2.86%**	**4,676**	**3.37%**
75 - 79.	**6,700**	**2.49%**	**2,794**	**2.15%**	**3,907**	**2.81%**
80 - 84.	**4,975**	**1.85%**	**1,938**	**1.49%**	**3,037**	**2.19%**
85 & over	**4,869**	**1.81%**	**1,620**	**1.25%**	**3,249**	**2.34%**

Source: Barbados Statistical Service

HEALTH CONDITIONS AND TRENDS

1– 4 years

Infants and children 0 – 4 years represented 6.25% of the estimated total population in 2022, as shown in Table 4. In 2022, there were 41 deaths in children under 5 years an increase from 28 in 2021; there were 39 deaths in infants, a notable increase from 25 in 2021, as shown in Table 3. The estimated infant mortality rate was 18.1 per 1,000 live births, an increase from 10.9 in 2021. The corresponding age-specific death rate in children 1 – 4 years old was two deaths per 1,000 populations in 2022.

Government clinics routinely monitor children for growth and development. A baby's growth and development within the womb determines the health of future generations. The success of foetal life significantly impacts both the health of the newborn and adult health and disease risk. Therefore, good perinatal health is vital to individuals, society, and future generations.

Children 5 – 14 years

In 2022, the age group 5 – 14 years represented 13.47% of the total population as seen in Table 4. In 2022, there were sixteen deaths in this age group. At age 11 years, children are given a booster of diphtheria, tetanus, and polio vaccines as part of the entry requirement into secondary school. The MHW also provides the Human Papillomavirus (HPV) vaccine for children at age 11. The number of deliveries among women younger than 15 years decreased from 5 in 2021 to 1 in 2022 as seen in (Appendix II).

Adolescent Health 15 – 24 years

In 2020, persons aged 15 – 24 years represented 13.33% of the total population as seen in Table 4. There were 31 deaths in this age group in 2022, ischemic heart disease (1), accidents caused

by firearms discharge (7), accidental threats to breathing (2), pulmonary heart disease (2), diseases of the nervous system except meningitis (4), chronic lower respiratory disease (2), leukaemia (1), meningitis (1), remainder of diseases of the respiratory system (3), disease of the urinary system (1), events of undetermined intent (1) and remainder of all the diseases (3) as seen in (Appendix I). There were no deaths in this age group from HIV in 2022.

In 2022, teenage births accounted for 144 deliveries (7%) of all births, down from 203 (9%) in 2020 (Appendix II). The proportion of abortions among teenage women also declined, with 12.4% (40) of all abortions occurring in this group in 2020, dropping to 10.3% (21) in 2022. Additionally, deliveries to females aged 15–24 decreased from 784 in 2020 to 584 in 2022 (Appendix II). Terminations of pregnancy within this age group followed a similar trend, with 67 recorded in 2022 compared to 116 in 2020 (Appendix III).

Adults 25 – 64 years

In 2022, adults 25 – 64 years represented 54% of the total population as seen in Table 4. The total fertility ratio in 2022 was 1.0 children per woman 15 – 44 years old a decrease from 1.4 in 2020 as seen on Table 3. Data from the BFPA indicated that in 2022 there were 7,302 attendances at the institution. Medical services and Pap smears accounted for the other procedures as shown in (Appendix IV). In 2022, the family planning methods preferred by adults were short-acting reversible contraceptives, pills and injections and emergency contraceptives.

With the promotion of early registration for prenatal services, women were seen by the 12th week of gestation and regularly thereafter for monitoring maternal health and foetal growth, as well as to prevent medical complications for both mother and baby during pregnancy. There were three maternal deaths in 2022 as seen in Table 3.

In 2022, there were 137 deaths among 25 – 44-years. The leading causes of death in this group were diseases of the respiratory system (21), accidents caused by firearms discharge (15),

accidental threats to breathing (6), all other pulmonary heart disease (7) and events of undetermined intent (7) as seen in (Appendix I).

In the same year, there were 551 deaths among persons 45 – 64 years, and the leading causes were diseases of the respiratory system (57), diabetes mellitus (33), malignant neoplasm of colon (27), ischemic heart disease (31), pulmonary heart disease (36), cerebrovascular diseases (39) malignant neoplasm of breast (29), malignant neoplasm of digestive organs (22), hypertensive diseases (21), and remainder of all diseases (21) as seen in (Appendix I).

65 years older

In 2022, the persons 65 years and older represented 12.93% of the general population as seen in Table 4. In 2022, there were 2,544 deaths among persons 65 years and older, the leading causes were respiratory diseases (407), diabetes mellitus (233), cerebrovascular diseases (194), hypertensive disease (151), ischemic heart disease (144), pulmonary heart disease (140) and acute respiratory infection (139) as seen in (Appendix I).

The increasing incidence of NCDs in the general population calls for greater emphasis on promoting wellness and maintaining functionality in this vulnerable population group. For older persons to realise good health they need to maintain mobility and functionality; decrease risk factors for complications of existing medical conditions; maintain an active social life through recreational activities and continue to play an active role in the family and community.

Having access to comprehensive rehabilitation services is important, especially during and immediately after hospitalisation, to mitigate a disability. Comprehensive aftercare plans for the continuation of medical care in the community with adequate support in the home are also necessary.

ORGANISATION AND REGULATION OF THE HEALTH SYSTEM

Health System Organisation

The MHW is the major executing agency for the delivery of health care in the public sector. It is headed by a Minister whose authority is vested in the Health Services Act Cap 44 of the Laws of Barbados. The Minister has overall responsibility for formulating health policies; setting strategic directions, norms and standards; enforcing regulations, and providing leadership for the sector. Decision-making is centralized, and there are no local health authorities.

The Permanent Secretary is the administrative head of the Ministry, functioning as the Chief Executive and Accounting Officer, and is responsible for the proper functioning and fiscal oversight of all sections of the Ministry. The Chief Medical Officer (CMO) is responsible for all technical and professional functions of the health sector. In this regard, the CMO has statutory responsibilities which are wide-ranging and include oversight of the practice of health care professionals, as well as the standards of clinical practice throughout the sector.

The overarching objectives of the MHW are to promote health, provide comprehensive health care, regulate the provision of health services and ensure that environmental concerns are considered, in all aspects of national development. In addition to these objectives, the draft Barbados Strategic Plan for Health and the UN Sustainable Development Goals have provided strategic directions and guidance for the delivery of health services.

Composition of Health Care Services

The health services are organised into the following programme areas:

- Primary Health Care is delivered from the nine polyclinics and two outpatient clinics that are strategically located along the major road networks within each

catchment area. Based on the primary health care approach, the polyclinics provide a range of preventive and curative services, these include maternal and child health, immunisation, family planning, dental care, general practice (GP), nutrition counselling and environmental health.

- Acute, Secondary, Tertiary and Emergency Care are delivered at the Queen Elizabeth Hospital (QEH). Additionally, the Medical Aid Scheme facilitates access to services that are not available in the country, and this is facilitated by the QEH.
- Mental Health Care is delivered at the Psychiatric Hospital, the QEH and nine polyclinics provide community mental health services.
- Care for the Elderly is provided through the Geriatric Hospital (GH) and three District Hospitals that provide long-term in-patient care for the elderly. This care includes the Alternative Care of the Elderly Programme; a partnership arrangement between the MHW and private sector providers of long-term care for the elderly.
- Care for persons with disabilities is provided at the Albert Cecil Graham Development Centre and the Elayne Scantlebury Centre. These facilities offer assessments and rehabilitation services tailored to individuals with disabilities.
- Pharmaceutical Services are provided by the Barbados Drug Service (BDS), which is responsible for the annual production of the Barbados National Drug Formulary, and the procurement and distribution of the drugs listed in the formulary.
- Laboratory Services – provided by the Best Dos Santos Public Health Laboratory (BDSPHL), which officially opened in January 2018. The facility is an amalgamation of the Public Health Laboratory, the Leptospira Laboratory and the Ladymeade Reference Unit (LRU) Laboratory, with bio-safety level three capacity, improved lab safety and the capability for an enhanced range and quality of tests.

- Environmental Health Services – The Environmental Health Department's role is to reduce morbidity and mortality of diseases related to the environment. Environmental Health Services are delivered through the Environmental Sanitation Unit, the Animal Control Centre, the Vector Control Unit, and the Polyclinic Environmental Health Department.
- Health Promotion Unit – This programme promotes the adoption of a healthy lifestyle and wellness among the population. The Health Promotion Unit, therefore, functions in a supportive role in the various programmatic areas.

Regulatory Services

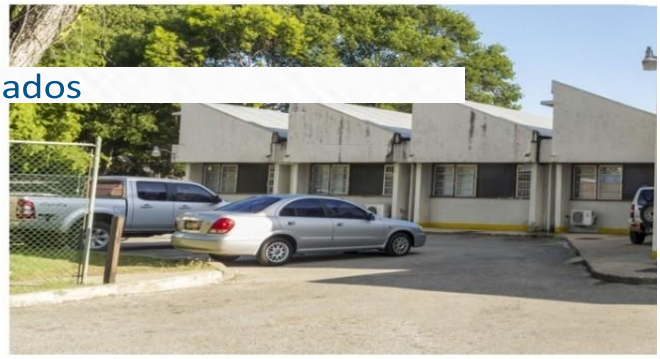
The MHW continued to perform the dual role of provider of health care services and regulator of the sector. The Medical Council, the Nursing Council, the Pharmacy Council, the Dental Council and the Paramedical Professional Council are each responsible for setting the standards for professional conduct and registration of physicians, dentists, nurses, pharmacists, and allied health professionals respectively.

During the period, the Drug inspectorate maintained the inspection and licensing programme for pharmacies (public and private) and drug manufacturing plants in keeping with the requirements of the Health Services Act. Similarly, the Environmental Health Officers maintained the inspection and licensing programme for hotels, restaurants, bakeries, supermarkets, funeral homes, and hairdressers, in keeping with the requirements set out in the respective regulations of the Health Services Act.

The Advisory and Inspection Committee comprising a Public Health Nurse, an Environmental Health Officer, a Nutrition Officer, and a Drug Inspector is responsible for the inspection, licensing and periodic monitoring of the operations of all nursing homes and senior citizens' homes. The Senior Laboratory Technologist similarly headed a team responsible for licensing and providing oversight of the activities of private and public medical laboratories.

The MHW remained focused on creating a transparent and accountable approach to health service delivery, improved health service performance, and enhanced system capacity within the current environment. The Ministry is also committed to improving access to services in line with the health reform agenda. Its draft Strategic Plan will serve to guide interventions in health over the next four years. The plan emphasises strategic themes such as governance, cost containment, sustainability, access to care and quality improvements in health.

Polyclinics across Barbados



HEALTH SECTOR EXPENDITURE AND FINANCING

An overview of budget allocations for various healthcare programme areas across three fiscal years 2020-2021, 2021-2022, and 2022-2023 (provisional) is presented in Table 5. Hospital Services consistently received the largest share of the budget, comprising approximately 57% in 2020-2021. However, this declined to approximately 48% by 2022-2023.

Table 5: MHW budgetary allocations for financial periods 2020 – 2023 Approved Estimates

Programme Area	2020-2021	%	2021-2022	%	2022-2023p	%
Direction & Policy Formulation Services	10,756,359	3%	20,322,271	4%	21,847,731	6%
Primary Health Care	52,579,268	15%	46,469,683	10%	54,743,173	16%
Hospital Services (QEH, Psychiatric Hospital)	203,276,736	57%	204,307,239	44%	164,276,268	48%
Care of the Disabled	2,447,684	1%	2,515,165	1%	3,432,650	1%
Pharmaceutical Programme (BDS)	20,196,359	6%	21,250,808	5%	24,210,852	7%
Care of the Elderly	30,754,951	9%	32,976,669	7%	38,787,414	11%
HIV/AIDS Prevention Control Project	5,128,055	1%	5,123,058	1%	5,917,519	2%
Environmental Health Services	3,118,962	1%	3,051,435	1%	3,794,963	1%
Covid -19 Prevention & Control	26,984,648	7%	123,169,167	27%	26,343,082	8%
Total	355,243,022		459,185,495		343,353,652	

A shift was evident in the allocation for the COVID-19 Prevention and Control Programme. In 2020-2021, 7% of the budget was allocated to this area, which moved to approximately 27% in 2021-2022, reflecting the urgent response required during the height of the pandemic. However, by 2022-2023 the budget for COVID-19 measures had decreased to just 8%, signalling the reduced need for emergency pandemic-related expenditure as the situation stabilised.

The allocation to Primary Health Care increased to 16% in 2022-2023 after a decline in 2021-2022. This increase reflected the renewed focus on primary healthcare services post-pandemic. Similarly, Care of the Elderly steadily received more funding, rising from 9% in 2020-2021 to 11% in 2022-2023. The budget for Environmental Health Services remained consistent in 2022-2023, at 1% of the budget.

Health Financing

In response to a request from the Government of Barbados, the Pan American Health Organization (PAHO) and the World Health Organization (WHO) convened a team of international experts to collaborate with key government officials on a comprehensive review of health financing options. The aim of this review was to explore and evaluate viable financing mechanisms to enhance the sustainability and efficiency of Barbados' health system. Key objectives of the international review included assessing current funding structures, identifying opportunities for improved allocation of resources, and providing strategic recommendations for long-term health sector financing.

To this end, a conference was held from the 14th - 18th of November 2022. The conference was attended by local, regional and international experts. Local representation included physicians from the Queen Elizabeth Hospital, insurance companies, pharmacists, academic professionals, private hospitals and colleagues from Central Government. The four-day conference produce fruitful discussion, and a report will be provided to the Minister of Health and Wellness in 2023 with recommendations.

HEALTH POLICIES AND PLANS

Non- Communicable Disease

The National Strategic Plan (NSP) for Non-Communicable Diseases (NCDs) outlines eight priority areas that will serve as the cornerstone for strategic planning over the next three years. These priorities encompass a comprehensive approach to addressing the growing burden of NCDs and improving public health outcomes.

Firstly, the plan emphasises the importance of reducing risk factors associated with NCDs. This involves strengthening measures such as tobacco control, promoting healthy nutrition, reducing alcohol misuse, and encouraging physical activity across various settings including communities, schools, and workplaces.

Secondly, the NSP highlights the need for enhanced treatment of NCDs at multiple levels. This includes empowering patients and caregivers, ensuring the utilization of clinical guidelines, and establishing adequate human resources to deliver quality healthcare services.

Childhood obesity prevention emerges as another critical priority, with a focus on educating children and guardians, collaborating with stakeholders such as teachers, and creating supportive environments, particularly within schools. This entails promoting physical activity and implementing measures to limit the availability and marketing of unhealthy products to children.

Furthermore, multi-sectoral coordination is deemed essential in addressing NCDs effectively. The plan underscores the importance of partnerships with sectors beyond health, such as agriculture, trade, and civil society, to advance NCD control efforts.

Resource mobilisation and allocation are also highlighted as crucial components of the NSP. Ensuring the availability of financial, technical, and other resources is vital, with a particular emphasis on including people living with NCDs in resource allocation decisions.

Additionally, effective health communication is deemed imperative to raise awareness of NCD risk factors, diseases, and preventive measures. The plan emphasises the need for widespread promotion of the NSP-NCD objectives to engage the public and stakeholders effectively.

Moreover, robust NCD surveillance and research efforts are emphasized to generate quality data for informed decision-making. This involves routine data collection, analysis, and periodic surveys using standard international tools.

Finally, management, monitoring, and evaluation are essential to guide the implementation and assessment of the NSP-NCDs. This includes oversight and assessment of activities and outcomes across relevant entities involved in NCD control efforts, ensuring accountability and efficacy.

In essence, the NSP-NCDs outlines a comprehensive framework to address the growing challenge of non-communicable diseases, emphasizing collaboration, prevention, treatment, and effective management strategies to improve public health outcomes and mitigate the burden of NCDs on society.

Barbados School Nutrition Policy

The Barbados School Nutrition Policy was approved by the Cabinet of Barbados in May, 2022. The policy seeks to address the growing epidemic of obese children and adolescents by "creating healthy school environments that enhance student learning and are conducive to the development of healthy lifelong eating and activity behaviours through a multi-sectoral and integrated approach." The National Nutrition Centre collaborated with the Ministry of Education Technological and Vocational Training (METVT) and other stakeholders thereafter, to plan the launch of the policy.

Health Information Systems

The Barbados Cabinet approved the Ministry of Innovation, Science, and Smart Technology (MIST) to collaborate with the Ministry of Health and Wellness in digitising its operations. This directive encompasses several key initiatives aimed at modernising the Ministry's processes:

- Firstly, the implementation of an Electronic Document Records Management System will streamline document handling and storage, enhancing the accessibility and organization of vital records.
- Secondly, the digitisation of public-facing areas will facilitate smoother interactions with the public, improving service delivery and responsiveness.
- Finally, digitisation efforts will extend to other areas within the Ministry to enhance overall efficiency. By embracing digital technologies, the Ministry of Health and Wellness aims to optimise its operations, improve service quality, and ultimately enhance public health outcomes. This collaborative effort underscores the government's commitment to leveraging innovation and technology for the benefit of citizens.

HUMAN RESOURCES AND HEALTH (HRH)

According to the World Health Organization (WHO), the health workforce will play a crucial role in achieving health and broader development goals in the coming decades. Effective human resource management in the health sector is vital for delivering quality healthcare.

In seeking solutions to workforce shortages, the MHW has recruited nurses from Ghana and Cuba. Efforts are also being directed toward the recruitment and training of additional Community Nutrition Officers and Dental Health Officers. Doctors are primarily trained at the University of the West Indies (UWI), while nurses and other healthcare professionals are trained at the Barbados Community College (BCC). All medical personnel must be registered with the Barbados Medical Council, which holds statutory responsibility for regulating medical

practitioners. Similarly, the Nursing Council of Barbados, Dental Council, Pharmacy Council, and Paramedical Professionals Council regulate their respective professions.

Table 6: Human Resources for Health

CATEGORY	Number of Workers	Density per 10,000 population	Population per worker
Doctors	723	26.91	371.59
Registered Nurse	1126	41.91	238.60
Midwives	127	4.73	2,115.43
Registered Mental Nurse	150	5.58	1,791.06
Psychologists	45	1.67	5,970.20
Nursing Assistant	458	17.05	586.59
Nursing Auxiliaries	607	22.59	442.60
Occupational Therapist	20	0.74	13,432.95
Dental Technician	6	0.22	44,776.50
Dental Practitioner	83	3.09	3,236.86
Dental Hygienists	20	0.74	13,432.95
Diagnostic Radiographers	30	1.12	8,955.30
Dietitian	8	0.30	33,582.38
Nutritionist	6	0.22	44,776.50
Paramedics	24	0.89	11,194.13
Emergency Medical Technician	98	3.65	2,741.42
Medical laboratory Technologist	123	4.58	2,184.22
Environmental Health Assistant	63	2.34	4,264.43
Environmental Health Officer	63	2.34	4,264.43

Pharmacists	322	11.99	834.34
Physiotherapists	62	2.31	4,333.21
Optometrists	20	0.74	13,432.95

There were 26 doctors per 10,000 population (1 doctor per 372 people) and 42 registered nurses per 10,000 population (1 nurse for every 238 Barbadians) see Table 6. This results in an average of 1.6 nurses per doctor, meeting the WHO HRH Goal 4, which recommends a nurse-to-physician ratio of at least 1:1.

For the HRH Goal 1, WHO suggested that countries require a minimum of 25 professionals (doctors, nurses, and midwives) per 10,000 populations, and Barbados has exceeded that standard for the year 2022.

Laboratory Programme

There is a draft proposal to create an innovative ecosystem at the Best Dos Santos Public Health Laboratory, based on a co-creation approach through the integration of research and innovation processes in a real-life academia-industry partnership community. This will be undertaken in three phases as outlined below:

Phase 1: Capacity Building for COVID-19 and NCD Research Projects.
Phase 2: Establishment of Molecular Biology and Bioinformatics M.Sc.
Phase 3: Construction of Modular Units for the Barbados Living Laboratory.

The research arm will include areas such as genomics, Human Leukocyte Antigen (HLA), biotechnology, biochemistry, molecular diagnostics, environmental genomics and their application in medicine, agriculture and the environment.

The Laboratory will continue to develop and implement its AMR programme in collaboration with the Pan American Health Organization (PAHO) and the Republic of Argentina. Surveillance of respiratory illnesses (COVID-19, influenza) and arboviruses (dengue, Zika and chikungunya) will continue.

The Laboratory will also continue to collaborate with regional and international partners such as CARPHA, WHO/PAHO, and CDC/PEPFAR to provide laboratory services and serve as a Reference Laboratory in the Caribbean. Revenue will be generated from services such as analysis of HIV viral load, CD4, DNA PCR, HPV, CT/NG and HIV Drug Resistance, analysis for Legionella, analysis for Mycobacterium tuberculosis (TB); analysis of food products for microorganisms from private companies seeking compliance for export and Salmonella serotyping. Other potential sources of income include immunophenotyping for leukaemia and lymphoma and paternity testing.

Elderly Care Programme

The ultimate goal of the proposed reform process is to improve the quality of life of the elderly through improvement in their functional status, independence and reintegration into the community. This will necessitate a greater emphasis being placed on non-institutional care, appropriate long-term care beds, support systems in the community and the streamlining of existing services.

A new geriatric facility is to be built at Waterford St. Michael with recommended care provision to include assessments, acute admissions, rehabilitation, day and respite care and provision for private wards and assisted living. The provision of care is designed to support the needs of the country's geriatric system, engaging key stakeholders throughout the process.

Queen Elizabeth Hospital

The Queen Elizabeth Hospital is aiming to enhance efficiency by restructuring various departments. This includes refining operations within the Medical Services Directorate, optimising human resources functions, improving services at Harrison Point, and upgrading Information Technology systems. These changes are geared towards improving patient care, streamlining processes, and ensuring the hospital's ability to meet evolving healthcare needs effectively.

Medical Services Directorate

The restructuring of key departments to prioritise patient experience, without increasing costs, marks a significant milestone in enhancing healthcare quality. The establishment of the Quality and Patient Experience Department is pivotal in this endeavour, focusing on clinical risk management, occupational health and safety, and efficient help desk services. Moreover, the introduction of the QEH Listens app, developed in collaboration with MIST, facilitates patient feedback and engagement, ensuring their voices are heard.

Engagement Public Relations Specialists further amplify communication efforts through platforms like QEH TV and sponsored radio programmes, fostering transparency and proactive information sharing. Disclosure training for healthcare providers, supported by ICBL, enhances patient-physician communication, nurturing trust and understanding.

The implementation of a national cardiac care programme is a vital step towards comprehensive healthcare services. The acquisition of automated external defibrillators for Emergency Ambulance Services bolsters emergency response, potentially saving lives. Additional medical staff, including sessional anaesthesiologists, supports efficient operation, while the creation of a day cases unit and pre-op anaesthetic clinic optimizes patient care.

Innovative philanthropic efforts, like dedicating an operating theatre for private use in the Lion's Eye Care Centre, exemplify community collaboration. Meanwhile, enhancing engineering capabilities through the recruitment of a Project Engineer and biomedical technicians, along with increased repairs and inventory budget, ensures infrastructure reliability. The creation of a telemedicine suite modernizes healthcare delivery while relocating select clinics off-site optimizes space utilization.

Procuring tents and decking for outdoor waiting areas has served to enhance patient comfort and safety. Extended service hours for outpatient clinics accommodate diverse schedules, while initiatives like the safety warden programme and medication home delivery enhance overall care. Finally, onboarding temporary orderlies at the main entrance ensures seamless patient flow. The hospital has secured additional warehouse space, which has served to accommodate expanding inventory needs, ensuring smooth operations.

Human Resources Directorate

Engaging a sessional psychologist, initiating the QEH Health and Wellness Commission, and reallocating a physiotherapist mark proactive steps toward staff well-being. Negotiating revised terms with Trade Unions and assessing costs for expanding staff and amenities reflect strategic workforce planning.

Information Technology Department

The proposed Improvement Plan encompasses various facets of technological advancement. Initiatives include implementing a comprehensive technology strategy, prioritizing cybersecurity, and optimizing infrastructure and systems architecture. Recommendations from MIST assessments will guide enhancements, along with regular annual penetration/vulnerability testing. Focus on end-user training and internal capacity building ensures effective utilization of resources. Continuation of medical records digitization remains pivotal, alongside procurement

of new and replacement IT resources and smart technology such as laptops and tablets, ensuring seamless integration and efficiency in healthcare delivery.

COVERAGE AND PERFORMANCE OF HEATH SERVICES

Primary Care Services (polyclinics)

Immunisation

The MHW continued to offer immunisations against vaccine-preventable diseases to both children and adults in Barbados. No confirmed cases of measles, mumps, rubella, polio, tetanus or pertussis were recorded for 2022 as seen in Table 7.

Table 7: Vaccine Coverage 2022

Vaccines	% Coverage
Penta3	86
Polio3	86
MMR1	85
MMR2	73
HPV1	47
HPV2	13

Penta – diphtheria, tetanus, pertussis, hepatitis B, haemophilus influenza type B

MMR – measles, mumps, rubella

As shown in Table 7 vaccine coverage of primary vaccines in 2022 ranged between 73 to 86 per cent. Since the WHO declared COVID-19 a pandemic on March 11, 2020, various prevention and control measures, such as national lockdowns and the reconfiguration of health centres to address new health needs and implement necessary precautions, were introduced. These measures had a negative impact on essential primary care services. Despite efforts to maintain these services, including immunisations for children under 5, attendance at these clinics was affected, leading to a decline in vaccine coverage for primary vaccines.

Although some recovery occurred in 2022, vaccine coverage for primary vaccines remained below the 95% target. However, the downward trend observed in 2020 and 2021 has been reversed.

An improvement in coverage was also seen in the uptake of the first dose of the Human Papillomavirus (HPV) vaccine. The decline in coverage of the second dose of HPV reflects a change in guidance and a new policy approved on November 7, 2022, for a one-dose administration only being required for the 11+ cohort.

Measles

In 2022, coverage for MMR1 was 86% and MMR2 dropped to 73%. As seen in previous years, the second MMR dose never reached the required 95% coverage. At this age, children are away from home at pre-school and school and most mothers are back to work, making immunisation activities less convenient for parents than it was in the child's first year of life. This led to several children defaulting from this vaccine. Though some improvement was seen in 2022 in the coverages for MMR1 and MMR2 respectively, the ongoing challenges to routine immunisation programmes resulting from the effects and interventions of the COVID-19 Pandemic remain relevant.

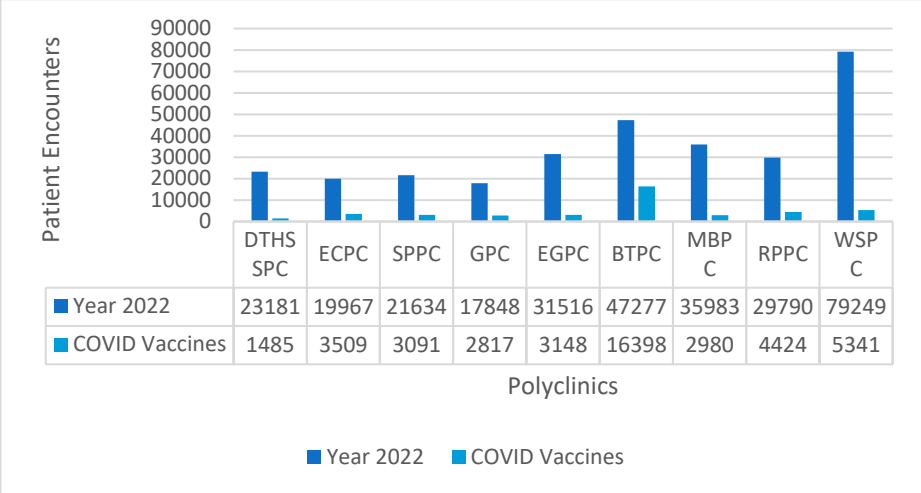
The Region of the Americas lost its Measles free certification in 2018 due to the circulation of measles in Venezuela. Barbados still holds its accreditation as a measles-free country and has ensured the sustainability of this certification by implementing interventions to:

1. Maintain high quality, elimination-standard surveillance and ensure timely and effective outbreak response measures to any measles or rubella virus importation.
2. Achieve high population immunisation coverage against measles and rubella (>95%) in all catchments.
3. Improve the quality of vaccination data collection and analysis.

Family Health

The public of Barbados may access family health services at nine polyclinics across the island and two out-patient clinics. The polyclinics saw a total of 306,445 encounters (visits) for the year 2022 as seen in Figure 2.

Figure 2: Patient encounters by the clinic



The polyclinics offered services inclusive of general practice, reproductive health, child health, wound care, women's health, podiatry, physiotherapy, dental health and nutrition counselling. The General Practice (GP) service catered to the clinical management of persons needing medical care. Services ranged from the management of persons with NCDs to the issuing of back-to-school certificates for children.

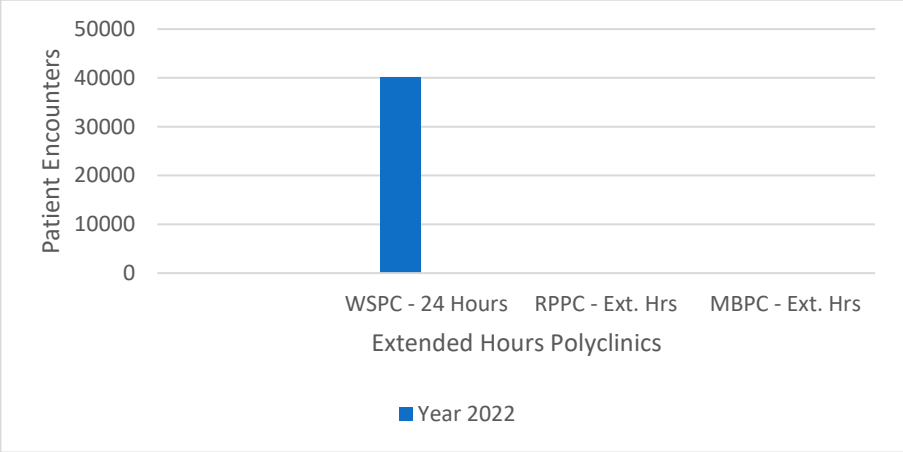
The COVID-19 Pandemic had a significant impact on the healthcare system. The Ministry of Health and Wellness through intersectoral collaboration made preparations to create sufficient capacity to accommodate a surge of cases associated with each variant which resulted in widespread deferment of scheduled appointments and non-urgent care (walk-ins). Patterns of healthcare-seeking behaviour have changed, with a reluctance to visit healthcare settings. In combination, the pandemic has noticeably affected the management of chronic non-

communicable diseases. The pandemic also prevented many speciality and auxiliary services, especially podiatric care and dental care. Customary outreach programmes and community home visits (wound care and clinical assessments) were also suspended.

However, during the period under review, all of the core services at all polyclinics have been restarted. Auxiliary clinics such as podiatry and nutrition and some specialty clinics such as dermatology and mental health have been restarted at all polyclinics. Additionally, the geriatric clinic was restarted at the Branford Taitt Polyclinic. The main service that continues to be affected is Dental Health.

Owing to the inability to manage both routine cases and suspected COVID-19 cases at the same time due to the limited staff complement after hours, Extended hours services at the Maurice Byer and Randal Phillips Polyclinics were suspended in 2020 and this continued in 2021 and 2022. This explains the lack of patient encounters for the extended hours services at the Maurice Byer and Randal Phillips Polyclinics in 2022 as shown in Figure 3. The Winston Scott Polyclinic (WSPC) 24-Hour Clinic however, continued to function and provided routine primary care, stabilisation of critically ill patients, NCD support, management of trauma cases, and the diagnosis and management of COVID-19 positive persons. The 24-Hour Clinic accounted for 51% (40,033) of the patient encounters at the WSPC.

Figure 3: Patient Encounters in Extended Hours



There were declines in a wide range of healthcare activities routinely offered by the polyclinics due to the impact of the COVID-19 pandemic, and with this, a significant decline in overall attendance. However, it has been noted during this early aspect of the recovery phase, that there has been a marked increase in attendances to Community Mental Health, Speech Therapy and Physiotherapy services. Many challenges pertaining to the current methods of delivery of health care services have been highlighted by the Pandemic; and the need for changes to allow for more diversity and resilience in service delivery. The implications of these changes and the indirect impact of COVID-19 will require intense efforts to improve service delivery and modification of health-seeking behaviours.

Oral Health

During 2022, five dental clinics within the polyclinic system were in operation, Edgar Cochrane, Frederick Miller, David Thompson Health and Social Services Complex, St. Philip and Winston Scott. The other four clinics remained closed due to staff shortages. Efforts are being made to increase the number of part-time and sessional dentists to manage the increased demand for dental services, while at the same time, seeking opportunities for training in dental therapy/hygiene, to replace retired officers.

After the relaxation of the COVID-19 restrictions, the number of patients treated at dental clinics increased in 2022 as compared to levels in 2021 as seen in Table 8 below. The increase was expected to continue but until the staff numbers increase, the demand will always be greater than the department's ability to cope. The schools' dental education programme has also been impacted due to a lack of staff. The four Auxiliary Dental Officers responsible for dental health education in schools are making dedicated efforts and, with additional support, have the potential to expand their reach and enhance their impact among the school-aged population.

Table 8: Comparison of Summaries of Dental Services in 2019, 2021 and 2022

	2019		2021		2022	
	Children	Adults	Children	Adults	Children	Adults
Age (Years)	4 – 18	>18	18-Apr	>18	18-Apr	>18
Attendance	9202	2828	665	273	3542	1906
Extractions	1076	2851	113	260	412	1992
Fillings	3463	-	389	-	2095	-
Prophylaxes	5665	-	467	-	1967	-
Root Canals	1	-	1	-	0	-

Nutrition Services

During the 2022 calendar year, the National Nutrition Centre (NNC) continued to provide nutrition services at the nine (9) polyclinics. Technical support was provided to the District Hospitals, School Meals Department, Ministry of Education, Technological and Vocational Training, Ministry of People Empowerment and Elder Affairs (MPEA), Barbados Prison Service and Government Industrial Schools. During this period, the Healthy Eating Guide for Barbados was launched.

Nutrition Counselling

Community Nutrition Officers delivered nutrition counselling services at their assigned polyclinics on a daily or weekly basis. In 2022, a total of 3,090 counselling sessions were provided, as detailed in Table 9.

Table 9: Report on Nutrition Counselling Services in 2022

Disease/Condition	FV		RV		Total
	M	F	M	F	M/F
DM	35	47	42	40	**164**
DM/HTN	34	55	41	81	**211**
DM/HTN/HCL	42	61	23	88	**214**
DM/Obese/Overweight (Owt.)	11	30	9	56	**106**
DM/HTN/Obese	22	59	26	91	**198**
DM/Obese/HCL	1	12	2	15	**30**
DM/HTN/Obese/HCL	16	79	15	114	**224**
DM/HCL	9	20	1	15	**45**
HTN	28	33	20	19	**100**
HTN/HCL	23	53	11	52	**139**
HTN/HCL/Obese	11	49	12	53	**125**
HTN/Obese/Owt.	7	37	11	47	**102**
HCL	13	46	5	28	**92**
HCL/Obese	1	13	11	17	**42**
Obese/Owt.	6	57	2	45	**110**
Other	190	297	123	424	**1034**
0 – 5 years Underweight	26	24	9	9	**68**
0 – 5 years Obese/Owt.	8	9	-	2	**19**
0 – 5 years Other	3	4	-	-	**7**
5 – 19 years Underweight	8	2	3	-	**13**
5 – 19 Obese/Owt.	10	15	6	5	**36**
5-19 Other	1	5	3	2	**11**
Total	**505**	**1007**	**375**	**1203**	**3090**

Key:

DM Diabetes Mellitus
HTN Hypertension
HCL Hypercholesterolemia
OWT Overweight

Nutrition Surveillance 0-5 Year Olds

The department remained committed to advancing the nutrition surveillance programme despite limited equipment and software. Community Health Aides actively supported maternal and child

health clinics, it is anticipated that with enhanced resources, the surveillance of the 0-5-year-old population can be facilitated.

Food Service Supervision and Technical Assistance

The Assistant Nutrition Officer continued to supervise the food service departments of the district hospitals and offer technical support to several establishments. In addition to the district hospitals, most of the technical support provided in this area was for the Government Industrial Schools and the Barbados Prison Service. Technical nutrition assistance was also provided to the School Meals Department, METVT, as well as the MPEA. Several nutrition professionals within the department contributed to this effort.

Nutrition Month

Nutrition month activities were undertaken successfully during the month of May, under the theme "Good Nutrition without Boundaries". A church service was held to mark the start of the month of activities, during which, the Healthy Eating Guide for Barbados, was officially launched. Several nutrition activities were undertaken during the month. One highlight was the National Council on Substance Abuse/National Nutrition Centre virtual public webinar, titled "Healthy Eating on A Budget".

Educational Initiatives

During the month of June, the department embarked upon a Worksite and Organization Wellness (WOW) initiative. Nutrition content was prepared and disseminated via the government's email platform "Email Administrator" in the form of educational flyers. Six (6) educational flyers were shared to the inboxes of government employees, during the following six (6) months. Another educational initiative for public service employees was facilitated in collaboration with the Learning and Development Directorate, offering two virtual nutrition webinars.

Care of the Disabled

Elayne Scantlebury Centre

The Elayne Scantlebury Centre continued to provide long-term residential care for twenty-four (24) residents. In 2022, one female client died, and one male patient diagnose as Autistic and underweight was admitted to the unit. The resident's ages range from forty to sixty-five years old. In addition to being mentally and physically challenged, the residents also have varying medical conditions such as Non- Communicable Diseases (hypertension, diabetes, and high cholesterol) along with various types of physical and medical illnesses.

The residents experienced infections such as upper and lower respiratory tract infections, ear infections, viral conjunctivitis, skin infections (Dermatitis, Tinea Capis and Tinea Pedis, and ulcers such as Methicillin-Resistant Staphylococcus Aureus (MRSA). Twenty-four patients also tested positive for COVID-19 as seen in Table 8.

Tables 10 and 11 provide morbidity data for the patient population at the Elayne Scantlebury Centre.

Table 10: Diagnosis of patients

Diagnosis	2021	2022
Mental Sub-normality	17	17
Cerebral Palsy	02	02
Down Syndrome	02	02
Autism	01	01
Epilepsy	03	02

Table 11: Number of Patients with Medical illnesses and Non-communicable Diseases

	2021	2022
COVID-19	-	**24**
Diabetics	03	03
Hypertension	03	03
High Cholesterol	03	03
Ulcers	06	06
Self-mutilation	01	01
Dermatitis	03	03
Constipation	03	23
Tinea Pedis	09	03
Urinary Tract Infections	02	01
Ear, nose, throat and eyes infection	13	08
Behavioural Problems	05	04
Accidents	05	01
Referral to A&E	02	02

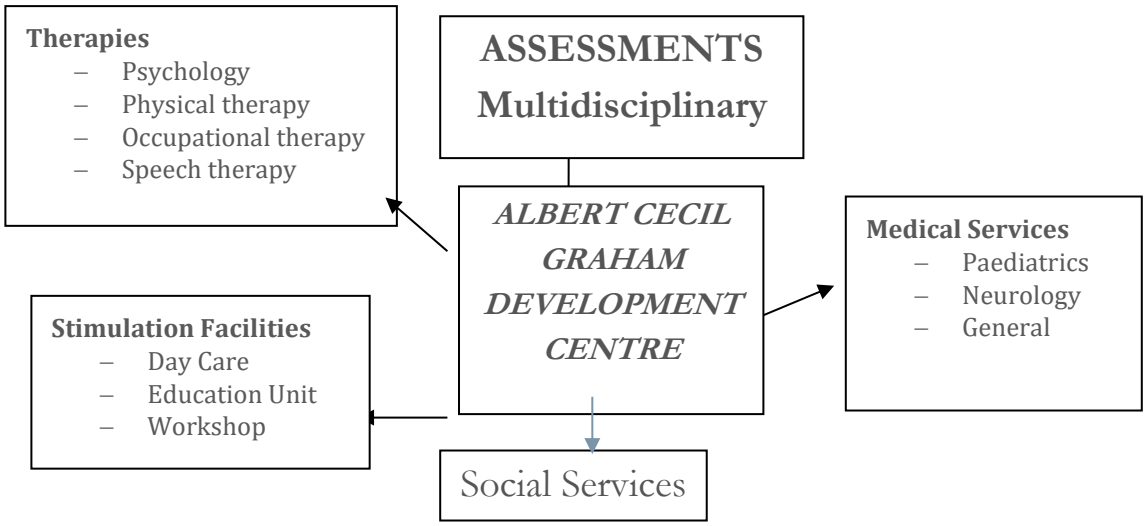
In 2021 and 2022, the Centre remained committed to providing care despite facing challenges. Expanding the unit would enhance its capacity to better serve individuals with intellectual disabilities in need of community care, helping to meet the growing needs of the Barbadian population. This expansion would also address the current limitations in bed space, ensuring more comprehensive support.

Albert Cecil Graham Development Centre

The Albert Cecil Graham Development Centre (ACGDC) caters to children and young adults with developmental disabilities. It offers a wide range of services, as seen in Figure 4 below. These services include physiotherapy, medical services, occupational therapy, speech therapy, psychological services, audiological services, hearing aids, ear molds, early stimulation and multisensory stimulation, daycare, special education, workshop training for persons sixteen years and over to prepare them for the world of work, social work and counselling services.

PROGRAMMES AND ACTIVITIES:

Figure 4: Range of Services provided by Albert Cecil Development Centre



There were 173 new persons seen by the Centre in 2022, an increase from 132 in 2021. Overall, there was a slight increase of persons registered at the Centre from 2022 over 2021 as seen in Table 12. A waiting list of four hundred and twelve (412) was recorded by the Speech Therapy Department. It should be noted that the therapist also sees clients at two polyclinics, in addition to the Queen Elizabeth and District Hospitals. Additionally, there is a need for a Rehabilitation Therapy Technician to support the Speech Therapist, which would help reduce the number of individuals on the waiting list.

Table 12: Patient Profile

STATISTICAL DATA	YEARS	
	2021	2022
Total No. of Persons seen for the first time	132	173
No. of Persons Medically Reviewed		1102
No. of No Shows		29
No. of Recorded Deaths		1
Overall No. of **PERSONS REGISTERED AT THE CENTRE** as of 31st December 2022	5899	6071

Table 13 provides a comparison of the percentage of patients referred and seen. Eighty-one per cent of the referrals for 2022 were seen as compared to 65% in 2021 and 77.8% in 2020. Also of note is the increase in referrals since 2020.

Table 13: Referrals to the Development Centre 2019-2022

Referrals	2019	2020	2021	2022
Total number referred	147	167	203	213
Total number seen	132	130	132	173
Percentage	90	77.8	65	81

The Physiotherapy department recorded the highest number of patients, with 1,136 individuals receiving care. This was followed by 619 patients in Speech Therapy, 301 Occupational Therapy, 180 Psychology, while Audiology saw the fewest, with 177 patients, as outlined in Table 14.

Table 14: Number of Patients Seen in the Individual Departments

Individual Departments	
Occupational Therapy	301
Audiology	177
Physiotherapy	1136
Psychology	180
Speech Therapy	619

Mental Health Services (Psychiatric Hospital)

The term mental illness is used to describe a range of health conditions which affect mood, thinking and behaviour, while a mental disorder describes a disturbance of the normal physical or mental health of the mind. In 2022, the most prevalent diagnosis recorded at the Psychiatric Hospital was Psychotic Disorders, including schizophrenia, schizoaffective, schizophreniform and delusional disorders.

Patient Population by Gender and Bed Capacity

The Hospital maintained a bed capacity of five hundred and forty beds (540). This was an increase from the 2021 bed total of 525 and was due in part to the amalgamation of patients from the Elayne Scantlebury Centre (ESC) under the Intellectual Disabilities Unit (IDU). Bed capacity is divided into Acute Care (74), Forensic Care (84), IDU (54), Rehab Internal (12), Children & Adolescent Mental Health (16) and Psycho-geriatric (300) beds. Of the total male and female bed occupancy, males continue to represent the highest in-patient population with 70% and females representing 30%.

In-patients by Age Group

The in-patient population by age group is presented in Table 15. The over 51 age ranges represented the highest total of in-patients with 63%, which was also reflected in the highest number of Psycho-geriatric beds. Most notable were the changes in the 66-80 age group which increased from 108 in 2021 to 136 in 2022 and the child & adolescent in-patients which decreased from 15 in 2021 to 7 in 2022.

Table 15**:** ***Age Range of Hospital In-patient Population 2022***

Age Range	Total*	% of the Total Patient-Population
6-18 years	**7**	**1%**
19-35 years	**69**	**14%**
36-50 years	**108**	**22%**
51-65 years	**157**	**31%**
66-80 years	**136**	**27%**
80+ years	**23**	**5%**

****N. B the age information of some patients was unavailable for inclusion***

Discharges and Deaths

Discharges: Total Discharges increased marginally from 889 in 2021 to 900 in 2022. The trend over the last 4 years, however, has shown steady decreases in discharges with 1,247 in 2018; 1,229 in 2019; 997 in 2020 and 889 in 2021. Voluntary Discharges continued to represent the greatest number of discharges with 63% of total discharges recorded in 2022.

Community Care Services

Community Mental Health Services (CMHS) were provided through the out-patients department at the Psychiatric Hospital and the out-patient clinics at the polyclinics across the island. There were eleven (11) community mental health clinics in total; nine (9) within the primary health care

polyclinics and the other two (2) at the Horse Hill Out-patient Clinic and St. Andrew Out-patient Clinic. It was noted that the operations of the clinics continued to be impacted by the COVID-19 pandemic however, over the course of the year, the relaxation of COVID-19 restrictions allowed for a return to some normalcy. The number of patients seeking help in clinics returned to pre-pandemic levels, and in some instances exceeded those numbers. Virtual appointments continued to be offered to new and existing clients, and patients from all catchment areas benefitted from this service.

Out-patients' Department: The demand for mental health services in 2022 exceeded previous years with 154 new visits; 12,937 total revisits and 13,093 total attendances as seen in Table 16. The number of patients who attended the clinic for the first time in 2022 was the highest recorded total over the past 4 years with 856 first-time visits. The average number of people attending clinic sessions also increased with 52 persons attending each session in 2022, when compared to the previous year, 34 in 2018; 36 in 2019; 39 in 2020 and 43 in 2021. This is a clear indication of the increased demand for services and the additional efforts being made by clients to continue their after-hospital care.

Home Visits: 64 new patients were added to the roster of total home visits in 2022, however, the number of home visits decreased between 2021 and 2022, as shown in Table 16.

Table 16: Out-patient Services 2018-2022

YEAR	2018	2019	2020	2021	2022
CLINICAL OUT-PATIENT SERVICES					
Total New Visits	141	102	71	127	154
Total Revisits	4391	8932	9788	11089	12937
Total Attendances	8611	9034	9959	11286	13093
Total Patients Making First Visits for the year	822	229	728	767	856
Total Sessions	250	254	255	263	254

Average Attendance per sessions	34	36	39	43	52
DISTRICT SERVICES	-				
Total New Clinic Visits	122	120	77	56	55
Total Revisits	9160	9695	8781	8484	8614
Total Attendances	9282	9815	8858	8540	8669
Total Patients Making First Visits for the year	730	889	712	624	648
Total sessions	695	812	751	708	738
Average Attendance per session	13	12	12	12	12
New Home Visits	N/A	N/A	106	59	64
Total Home visits	6534	7208	8503	7899	7354
Total Patients Visited		5584	6284	5930	6800
Total Patients Visited First Time for the year	530	583	545	597	532

District Clinic Services: Community Mental Health Services (CMHS) included those services provided at the polyclinic and through home visits to patients. Patient visits and attendances at the district level in 2022 saw increases over 2021 totals, with total revisits of 8,614; total attendances of 8,669; first visits of 648 and total sessions of 738. New clinic visits were 55 in 2022 compared to 56 in 2021 and average attendance per session was on par with the last few years, with 12 persons per session.

Patient visits per clinic are shown in Table 17 which shows a breakdown of total patient visits by gender and by catchment area. Total patient visits recorded for 2022 were 19,022, reflecting a marginal decrease of 1.56% compared to the 2021 total of 19,323. Females continued to represent the higher number of visits with 10,296 compared to 8,726 males during the review period, which is an indication that females were generally more consistent with their follow-up care than their male counterparts.

In both 2021 and 2022, the Randall Phillips Polyclinic recorded the highest number of patient visits, with 13.60% in 2021. In contrast, the St. Andrew Out-patient Clinic consistently reported the lowest, with 2.28% in 2021 and 2.75% in 2022. Similarly, the St. Joseph Out-patient Clinic accounted for 2.25% of visits in 2022, and the David Thompson Health and Social Services Complex recorded 5.05%. These figures highlight the continued trend of rural districts receiving fewer patient visits.

Table 17: District Community Mental Health Services 2022

SERVICES	2022								
	Follow-up		Mental Health		Home Visits		Total		Overall Totals
Polyclinics	M	F	M	F	M	F	M	F	
Branford Taitt	118	297	25	179	561	837	704	1313	**2017**
David Thompson	437	172	34	73	102	143	573	388	**961**
Edgar Cochrane	723	650	162	604	165	176	1050	1430	**2480**
Eunice Gibson	318	370	47	222	102	382	467	974	**1441**
Glebe	700	439	120	160	280	289	1100	888	**1988**
Maurice Byer	482	216	43	128	222	254	747	598	**1345**
St. Andrew	87	45	10	21	198	162	295	228	**523**
St. Joseph	137	49	27	18	126	71	290	138	**428**
Randal Phillips	813	619	127	281	315	652	1255	1552	**2807**
St. Phillip	481	407	125	273	204	446	810	1126	**1936**
Winston Scott	499	525	88	380	515	422	1102	1327	**2429**
St. JAMES*	N/A	N/A	N/A	N/A	333	334	N/A	N/A	**667**
TOTAL	**4795**	**3789**	**808**	**2339**	**3123**	**4168**	**8726**	**10296**	**19022**

The Community Mental Health Nurse (CMHN) for the St. James catchment conducts Home Visits only

Total Admissions

Total Admissions are represented by first admissions and readmissions through the Unit. For the reporting period, a total of 823 patients were admitted, of which 245 (29.77%) were females and 578 (70.23%) were males, including children. This represented an increase when compared to 2021, which recorded 778 total admissions. Of the total admissions, 73.63% represented involuntary admissions and 26.37% represented voluntary admissions. Emergency Orders were the highest admission type, representing 62.70% of total admissions. Males continued to outnumber female admissions over the 3-year period with males representing 61.75% in 2020; 61.27% in 2021 and 70.23% in 2022, of total admissions.

Crisis Intervention

The Unit remains committed to providing crisis intervention support and care, which is represented by the number of persons "Seen not Admitted", and the number of Triage Calls received during the period. The number of persons seen but not admitted was 1,309, of which 55% (720) were males and 45% (589) were females, inclusive of children. This represents a continued increase over the last 3 years which recorded totals of 585 in 2019; 769 in 2020; and 930 in 2021. Of the total patients seen but not admitted, 733 or 56% were re-visits and 576 or 44% were first visits to the Unit.

Triage Calls

The Psychiatric Hospital also assessed and triaged clients as appropriate. Telephone triage involves the conducting of a brief mental health assessment and screening, and a discussion with the client, relative or guardian regarding the best option and the most appropriate intervention. Appropriate follow-up may also be carried out by the CMHT based on the client's needs. This represents the number of people assessed via telephone during the reporting period.

The total number of telephone assessments conducted during 2022 was 801, of which 511 (63.60%) calls were received from male clients and 290 (36.20%) from female clients. The

majority of the calls received were classified as non-urgent at 70.29% (563) of the total, followed by urgent calls at 27.72% (222) and high-urgent calls at 2% (16).

Child and Adolescent Mental Health Clinic

During the period January to December 2022, 291 clients were seen at the CAMHC of which 157 (53.95%) were males and 134 (46.05%) were females. Clients seen were between the ages of 5 and 17 years old, with the 11-17 age group representing the higher number of clients with 193 or 66.32% of total persons seen, and the 5-10 age group representing 98 or 33.68%. When compared to the same period in 2021, the number of persons seen in 2022 decreased significantly by 56.04%. This further contributed to an increase in wait times from six weeks to two months, especially during the latter half of the year.

New clients to the CAMHC represented 41.58% of the total clients seen, of which 47 were between 5-10 years old and 74 were between 11-17 years old. New females were 60 and males were 61 in total. Total visits to the clinic were recorded as 392, of which males made up 57.91% and females 42.09% of total visits. This was expected as males represented the higher number of clients seen at the clinic.

Of the number of persons seen during the period, 4 admissions were made to the Thrive Family Centre: 3 males and 1 female. Discharge from the CAMHC totalled 50 clients comprising 31 males and 19 females. The majority of referrals to the CAMHC were received through the Assessment Unit, and the key diagnoses reported were ADHD (Attention Deficit Hyperactivity Disorder) and ADHD (Conduct), followed by MDD (Major Depressive Disorder). The parish of St. Michael continued to be the catchment with the most clients seen during the period.

Thrive Family Centre

In 2022, the Thrive Family Centre reported a total of 61 admissions, 62 discharges, 8 transfers in and out of the Unit, and 1 patient who went AWOL during the month of February. There were no deaths reported in 2022 as seen in Table 18. This is in comparison to 82 admissions, 77 discharges and 11 transfers, and 0 AWOL in 2021.

Table 18: Thrive Family Centre Statistical Report 2022

Month	Admissions	Discharges	Transfers	AWOL	Deaths
January	4	0	0	0	0
February	5	8	1	1	0
March	7	3	0	0	0
April	3	5	1	0	0
May	8	6	1	0	0
June	3	3	0	0	0
July	9	8	1	0	0
August	3	7	1	0	0
September	0	4	0	0	0
October	6	5	2	0	0
November	6	9	0	0	0
December	7	4	1	0	0
Totals	**61**	**62**	**8**	**1**	**0**

Non-Communicable Diseases

During the period under review, Barbados continued implementation of the regional and international goals for combatting NCDs. One in three Barbadian adults has at least one chronic disease, a statistic that was projected to be reached by 2025. For the year 2022, statistics indicated that NCDs accounted for the top five causes of death in Barbados. Respiratory system disease was the number one cause of death. This may be as a result of the effects of the COVID-19 pandemic. Diabetes mellitus is ranked at number 2 with cerebrovascular disease ranked at number 3 as seen in Table 19.

With the causes of NCDs being many and complex, it is clear that urgent actions taken need to be coordinated and strategic. The MHW continues to make progress in addressing the four common modifiable risk factors, namely: inadequate physical activity, poor nutrition, use of tobacco products, and the harmful use of alcohol.

Factors across all sectors of government and the wider society, including the built environment, economics, education, legislation, and marketing significantly influence the determinants of NCDs. As a result, the coordinated efforts must include representation from varying stakeholders.

Although there have been strategic commitments and progress during the past three years, there is still need for higher levels of individual responsibility as well as achieving policy action for the creation of a more supportive environment for the prevention and control of NCDs. The National NCD Commission and the National Task Force on Wellness have continued to provide guidance and support for the implementation of initiatives addressing NCDs.

Partnership continued to be an essential theme, with international agencies, health-related NGOs, allied Ministries and academia. The processes and outputs included the purchase of specialist services from the Heart and Stroke Foundation of Barbados and the Barbados Diabetes Foundation. The Barbados National Registry (BNR) for NCDs is an international best practice provided in partnership with the UWI. It facilitates data collection and analysis to support knowledge and decision making providing national statistics on the epidemic as well as information for decision making on NCDs care.

Barbados began planning with the World Health Organisation for the co-hosting of the Small Island Developing States NCD and Mental Health Meetings in 2023. Barbados was also chosen as one of 9 countries from the LAC region for the WHO Acceleration Plan to STOP Obesity.

In October 2022, PAHO supported a two-day workshop focused on strategies for reducing sugar and salt consumption. The first day focused on increasing awareness to stimulate stakeholders in identifying and proposing strategies to reduce salt and sugar consumption. Then, the information gathered on Day 1 was used to develop an implementation plan on Day 2. A proposal was submitted to establish a multisectoral committee to advance the initiatives from the workshop.

Table 19: Top leading causes of death

Rank	Cause	# of Deaths
1	Respiratory System Disease	493
2	Diabetes mellitus	269
3	Cerebrovascular disease	238
4	Pulmonary heart disease	186
5	Ischemic heart disease	178
6	Hypertensive diseases	176
7	Acute respiratory infection and pneumonia	150
8	Urinary System Disease	132
9	Prostate Cancer	130
10	Malignant Neoplasm of Colon and Rectosigmoid Junction	91

The Barbados National Registry publishes reports on Cancers and Cardiovascular Disease. The BNR 2022, Annual Cancer Report and the 2022, Annual Cardiovascular Disease Report were prepared by the Barbados National Registry. The BNR is a national surveillance system which is managed by the George Alleyne Chronic Disease Research Centre of the University of the West Indies on behalf of the Ministry of Health and Wellness.

The 2022, Annual Cancer Report, contains national incidence data for the periods 2013 to 2018, cancer mortality data for the periods 2013 to 2021 and prostate and colorectal cancer staging for the period 2018. While there has been an increase in the number of cancer cases the age-

standardised incidence rate has remained stable for the period 2013 to 2018. The increasing number of cases, with stable age-standardised rates, suggests that the increase noted is likely due to Barbados' ageing population. Age-standardised incidence rate figures in 2018 were similar to 2013 (209.6 per 100,000 in 2018, versus 209.5 per 100,000 in 2013). Cancer distribution by gender revealed more cases in men than women. Age-standardised incidence in men (218.2 per 100,000) was higher than in women (205.1 per 100,000) in 2018. Prostate, breast, and colon cancer remained the leading cancers diagnosed, as well as the leading causes of cancer-related deaths from 2015-2018.

The 2022, Annual Cardiovascular Disease Report provides the national number of new cases-incidence, the number of deaths-mortality, and the length of time people survive after a heart attack or stroke-survival data for the year 2020. The report also includes morbidity associated with cardiovascular events and the proportion of cases that received management in accordance with international treatment guidelines. In 2020, the BNR registered 547 people with myocardial infarction (MI or heart attack), exactly matching the registrations for 2019. Age standardised incidence rates (ASIRs) in 2020 were 99.7 per 100,000 (95%UI 90.9 - 109.2 per 100,000) overall, with 77.3 per 100,000 (95% UI 67.4 - 88.7 per 100,000) in women and 124.2 per 100,000 (95% UI 109.7 - 140.4 per 100,000) in men. The data also showed increased cases in younger men when stratified by age and sex. In-hospital case fatality rates (CFR) remained stable as the average rate for the past five years was 22%. There were 700 stroke cases registered in 2020. There continued to be a rise in strokes in younger men, with the peak age for strokes in the 65 – 74 age range.

Effective resource mobilisation will play a vital role in addressing the burden of NCDs and supporting national financial sustainability. The levels of sin taxes locally are below what is recommended by WHO and academia. There is undoubtedly scope to increase these taxes and influence behaviour, particularly in vulnerable groups, while creating revenue, some of which can be directed to strategic health initiatives including education and supporting healthy choices.

In addition to the evidence of the impact of the 10% Sugar-Sweetened Beverages (SSB) tax, the evaluation committee reconvene to look at an additional 10% increase in SSB taxes.

Health Promotion

Health Promotion focuses on enabling individuals and communities to increase control over and improve their health. The strategies used include education and communication, engaging communities, creating supportive environments, and partnering with non-health sectors, to improve knowledge, skills, attitudes and behaviour.

As the Ministry of Health and Wellness remained vigilant and sought to maintain its COVID-19 response efforts in May 2022, the Health Promotion Unit (HPU) continued to work closely with the Barbados Government Information Service and other stakeholders to create and disseminate messages on the importance of protecting the elderly who were at increased risk for death and disease. The HPU also worked with private companies to promote the uptake of booster vaccines against COVID-19 through social media, traditional media and printed booklets.

The Unit collaborated with the US Centers for Disease Prevention and Control, to build partnerships with Key Influencers in society. The aim of this project was to share essential messages during the Crop-Over season, promoting corporate and social responsibility in preventing the spread of COVID-19.

A sensitisation and opinion-sharing session was held with key influencers to discuss concerns with respect to COVID-19 and related messaging. Following this meeting, a social media group was formed with key influencers in entertainment and the ‘We Ting’ campaign was launched with the slogan: “I protect you; you protect me, we protect we family”. Popular local artists and numerous others produced videos and jingles to share messages that connected with their target audiences to promote awareness of the threat of COVID-19, and to encourage personal responsibility.

During the calendar year 2022 to 2023, the Health Promotion Unit (HPU) continued to coordinate the activities under the Barbados Moves initiative in collaboration with the National Task Force on Wellness. One of the main Barbados Moves activities was the ***Moving for our Health*** event in celebration of World Health Day 2022. This free event, which was held in collaboration with the Barbados Defence Force (BDF) offered three hours of physical activity with popular instructors. The Ministry of Health and Wellness sponsored all of the participants to donate $5000.00 towards the BDF's charities (the Precious Touch Foundation and the minor survivors of deceased BDF soldiers). During that week, the HPU also launched the weekly Sneaker Friday initiative supported by the Minister responsible for NCDs allowing all Health staff to wear their sneakers every Friday to facilitate more movement in and around the workplace to help reduce their risk of Non-Communicable Diseases.

In November 2022, the National Task Force on Wellness Barbados launched the 'Barbados Get Up and Move' social media campaign. The campaign involved the production of twelve 30-second videos, each showing a different sport, game or activity which is done in Barbados (surfing, swimming, skateboarding, riding, walking, road tennis, paddleball, basketball, netball, dance, volleyball, paddle boarding) with the tag line: "Barbados Get Up and Move!" These videos were also shared on CBC television, and corresponding images were later placed on Adopt-a-km boards on beaches and highways across the island.

Caribbean Wellness Day was celebrated on September 10th, 2022, by PAHO and CARPHA Member states. The National Task Force on Wellness, supported by the Health Promotion Unit (HPU) hosted a free health Fair at the National Botanical Gardens, under the regional theme "Our Community, Our Health". The Ministry collaborated with corporate companies such as Sagicor General and Bryden Stokes, and civil society organisations such as the Heart and Stroke Foundation of Barbados and the Diabetes Association. The University of the West Indies and other Government Ministries also participated to promote health and wellness. Opportunities for health screening, physical activity, sampling of healthy recipes and health education were available to the public. The Health Fair also allowed organisations such as the Haynesville Youth

Group and the Cave Hill Dancers an opportunity to showcase their talent while individuals producing healthy alternative food items had an opportunity to share their samples.

In September 2022, the HPU once again worked with the Medical Officer of Health, Eunice Gibson Polyclinic and the Ministry of People Empowerment and Elder Affairs to facilitate a Chronic Disease Self-Management workshop under the Strengthening Human and Social Development Programme. The Unit assisted in coordinating the workshop held for unemployed persons of the lower socio-economic bracket. Approximately 200 (male and female) participants were involved in education sessions including nutrition and physical activity, stress management, communication with the health care provider, managing medication, and the importance of rest techniques.

#MedSafetyWeek is a social media campaign celebrated annually in the month of November. The HPU teams up annually with the Barbados Drug Service and Uppsala Monitoring Centre to facilitate a social media campaign on the Ministry's platforms promoting the theme and associated messages. In 2022, the focus was to encourage reporting of suspected adverse reactions to medicines and vaccines. The HPU worked with Uppsala Monitoring Centre to finalise the animated digital content and ran the campaign. The Unit also prepared and shared important public service announcements on behalf of the Barbados Drug Service throughout the year.

HIV and Other Sexually Transmitted Infections

HIV remains a public health concern in Barbados, with an estimated 1.0% of adults in Barbados living with this chronic disease at the end of 2022.[1] The epidemic started in 1984, and from the start, there was an immediate response by health authorities to prevent HIV transmission, identify new HIV/ AIDS cases and manage those who were ill due to HIV. Table 20 shows 4,648

[1] Source: UNAIDS Spectrum Country Estimates

HIV cases and 2,140 HIV deaths. The median age for HIV diagnosis in Barbados in 2021 is 33.5 years as seen in Table 21.

Table 20: Table: Cumulative number of HIV cases, AIDS cases, and deaths among HIV persons by sex, 1984 – 2022

Sex	**HIV Cases**		**AIDS Cases**		**HIV Deaths**	
Male	2,945	63.4%	1,900	66.8%	1,505	70.3%
Female	1,703	36.6%	943	33.2%	635	29.7%
Total	**4,648**		**2,843**[2]		**2,140**	

Table 21: HIV Cases by age group and sex, 2021

Age Group	**Male**	**Female**	**Total**	
			n	%
10 – 19	3	2	5	8.80%
20 – 29	11	6	17	29.80%
30 – 39	11	5	16	28.10%
40 – 49	7	5	12	21.10%
50 – 59	4	2	6	10.50%
60 – 69	0	0	0	0.00%
70+	1	0	1	1.80%
Total	37	20	57	100.00%

[2] CD4 testing was not performed in 2020 or 2021. The number of AIDS cases reflected in Table 1 is therefore likely to be less than the actual value. Additionally, 2022 data is preliminary data.

Median Age (years) at HIV diagnosis	33.5	33.5	33.5

Source: Surveillance Database 2022

Modes of HIV Transmission in Barbados

HIV transmission is almost exclusively sexual in Barbados. Blood donations and blood products are universally screened for HIV along with other blood-borne pathogens, and vertical transmission (from mother to child) remains at a rate that is less than 2%. There has never been a known case of HIV transmission through the sharing of needles among injecting drug users. The HIV prevalence among female sex workers is also believed to be higher than in the general population.

Combination HIV Prevention

The prevention programme aimed to reduce individuals' risk of transmission of HIV and STIs through education, distribution of condoms, provision of pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP) and testing for HIV and STIs. HIV testing is also a major aspect of the prevention programme, as it facilitates the entry of persons living with HIV (PLHIV) into all services provided by the HIV/STI programme. Priority populations who are at higher risk of HIV include men and men who have sex with men, sex workers and transgendered individuals.

PrEP has been offered at the Ladymeade Reference Unit and Equals Inc. since 2018 and 2019 respectively. In August 2022 the provision of this service was expanded to two (2) additional sites, namely the St Phillip Polyclinic and the Barbados Family Planning Association.

In 2022, seventeen (17) persons initiated PrEP while a total of seventy (70) persons received PrEP at least once. The majority of those on PrEP in 2022 were male (87%) as seen in Table 22.

Table 22: Number of persons receiving PrEP at least once in 2022 by sex

Age Group	Males	Females	Total	Number of people initiating PrEP in 2022
<15	0	0	0	0
15-19	0	0	0	0
20-24	9	1	10	0
25-49	45	8	53	15
50+	7	0	7	2
Total	61	9	70	17

Source: PrEP Database 2023

The UNAIDS 95-95-95 HIV targets

At the end of 2022, there were 1,867 persons retained in care at the Ladymeade Reference Unit. Of the persons retained in care, 1,440 were on ARVs resulting in an ARV coverage of 74.1% at the end of 2022.

At the end of 2022[3], the 95-95-95 clinical cascade reflected an attainment of 90.5% of PLHIV aware of their HIV status, 59.3% of those diagnosed with HIV receiving treatment and 86.7% of those on treatment with antiretroviral regimens, having their viral load fully suppressed.

STIs in Barbados

Sexually Transmitted Infections (STIs) present an important public health priority in Barbados, with a focus on promoting prevention and awareness, particularly among young people. The main STIs of interest, from the point of view of disease surveillance, are Chlamydia, Gonorrhoea and Syphilis (including congenital syphilis).

[3] 2022 treatment data is preliminary data

In 2021, the Best Dos Santos Public Health Laboratory (BDSPHL) performed Chlamydia trachomatis (CT) and Neisseria gonorrhoea (NG) testing on 1,152 urine samples. There were 21 positive NG cases resulting in a 1.8% positivity rate while the 131 positive cases for CT resulted in an 11.4% positivity rate.

By comparison in 2022, the BDSPHL performed CT and NG testing on 4,934 urine samples. The positivity rates (proportion of samples which tested positive) are similar to the prevalence figures previously determined. One hundred and ten (110) were positive for NG yielding a positivity rate of 2.2% while 587 were positive for CT yielding a positivity rate of 11.9%.

In 2021, the median age of NG cases was 23 years, with most cases occurring between the ages of 20 and 29 years (62%). This is similar to the median age of NG cases in 2022 which was also 23 years, with the majority of cases occurring between the ages of 15 and 34 years (80.9%).

The rates of CT were highest among the 20-24 age group in 2021(39.7%) and 2022 (41.9%) respectively. Similarly, the rates of NG were highest among the 20-24 age group in 2021 (42.9%) and 2022 (32.7%) respectively.

A greater proportion of females (62%; 63%) tested positive for NG in 2021 and 2022 compared with males (33%; 35%). Similarly, a greater proportion of females tested positive for CT in 2021 (79%; 74%) and 2022 compared with males (19%; 24%) as seen in Tables 23 and 24 below.

Table 23: Number of positives for NG test, 2021 and 2022

Age Group	Female		Male		Unknown		Total	
	2021	2022	2021	2022	2021	2022	2021	2022
15 - 19	2	18	0	7	0	0	2	25
20 - 24	3	24	6	12	0	0	9	36

25 - 29	3	11	1	6	0	0	4	17
30 - 34	3	6	0	5	0	0	3	11
35 - 39	1	4	0	2	0	0	1	6
40 - 44	0	1	0	0	0	0	0	1
45 - 49	0	1	0	0	0	0	0	1
50 - 54	0	1	0	0	0	0	0	1
55 - 59	0	0	0	1	0	0	0	1
60+	-	0		1		0		1
Unknown	1	3	0	4	1	3	2	10
Total	13	69	7	38	1	3	21	11
Median age of NG cases	28	22	22	23.5	.	.	23	22.5

Source: BDSPHL 2022

Table 24: Number of positives for CT test, 2021 and 2022

Age Group	**Female**		**Male**		**Unknown**		**Total**	
	2021	**2022**	**2021**	**2022**	**2021**	**2022**	**2021**	**2022**
10 - 14	-	4	-	0	-	0	-	4

15 – 19	17	84	4	15	0	2	21	101
20 – 24	44	192	8	53	0	1	52	246
25 – 29	25	76	7	28	0	1	32	105
30 – 34	10	35	1	11	0	0	11	46
35 – 39	4	18	2	12	0	0	6	30
40 – 44	2	9	1	4	0	0	3	13
45 – 49	0	8	1	2	0	0	1	10
50 – 54	0	1	1	2	0	0	1	3
55 - 59	-	0	-	1	-	0	-	1
60+	-	1	-	2	-	0	-	3
Unknown	2	9	0	8	2	8	4	25
Total	104	437	25	138	2	12	131	587
Median age of positive cases	23	22	25	24	.	19.5	23	24

Source: BDSPHL 2023

Barbados Drug Service (BDS)

The BDS is responsible for medication management as well as procurement. One of its roles is to ensure that the pharmaceuticals used on the island are safe, effective and well-managed.

Special Benefits Service (SBS)

In the 2022, 102 Private Participating Pharmacies provided services to the Barbados Drug Service Special Benefits Service. Seven hundred and forty-nine thousand, one hundred and sixty-three prescriptions (**749,163**) were dispensed by the Private Participating Pharmacies (PPPs) under the SBS programmed for a cost of $7,505,212.16 as seen in Table 25. This represented an average of 62,430 prescriptions for $625,434.25 monthly. In 2020-2021, 735 015 prescriptions were dispensed at a cost of $6, 772, 366.44.

Table 25: Total Volume and Cost of Prescriptions Dispensed in the Public and Private Sectors for the Years 2020-2021 & 2022

Year	Public Sector			Private Sector		
	Prescription (Rx)[a]	%	Expenditure ($)	Rx's		Expenditure ($)
2020-21	1,002,244	-16 %	8,651,716	660,473	-2.1%	5,995,892
2022	1,069,826	7%	15,345,638.30	749,163	13.4%	7,505,212

Public Sector Pharmacies

During the year January to December 2022, the BDS pharmacy service, comprising 14 pharmacies located in nine polyclinics, three out-patient clinics and two district hospitals, dispensed (992,192) prescriptions. The Pharmacy at the Psychiatric Hospital is not a BDS Pharmacy; however, its drug budget comes from the BDS drug allocations. The Psychiatric Hospital dispensed 77, 634 prescriptions for $1,973,504.50. The prescriptions dispensed through

the BDS pharmacies, and the Psychiatric Hospital pharmacies for the year 2022 were 1,069,826 prescriptions the price of these prescriptions dispensed was $15,191,287.70.

Statistical Data for the BDS Pharmacies and the Psychiatric Hospital

The statistics for the BDS operated pharmacies showed a mixture of increased and decreased prescription counts at the various pharmacies over the previous year 2021 as seen in Tables 26 and 27 and Figure 6. The decrease in prescription volume ranged from 0.5% at the Winston Scott polyclinic to a 12.8% decrease at the Maurice Byer polyclinic. On the other hand, the increased prescription volume ranged from 2.3% which occurred at the St. Philip Polyclinic to a 21.7% increase which occurred at the David Thompson Health and Social Services Complex. The Psychiatric Hospital Pharmacy had a 21.3% increase in prescription volume. The overall change in prescription volume over the previous year was positive, with an overall increase of 6.74%.

When the cost to prescription volume is compared for 2022, the Winston Scott Polyclinic Pharmacy had the highest volume of prescriptions and the second highest cost. The Psychiatric Hospital had the 9th highest volume of prescriptions and the highest cost per prescription volume. For the year 2020-21, the prescriptions cost for the Psychiatric Hospital was the highest cost for prescriptions while the prescription count was 9th overall concerning the volume of prescriptions. In light of the present COVID-19 situation and the anecdotal data showing that there is a possible link to increased mental health issues related to the COVID-19 pandemic, policymakers remain committed to making evidence-based policies that will address the issues related to mental health.

Table 26: Pharmacy codes

Code	Pharmacy Name	Code	Pharmacy Name
AND	St. Andrew Out-Patients Clinic	**RAP**	Randal Phillips Polyclinic
BLR	Branford Taitt Polyclinic	**SIX**	St. Philip Polyclinic
EDC	Edgar Cochrane Polyclinic	**SPH**	St. Philip District Hospital
GER	Geriatric Hospital	**SWS**	Winston Scott Polyclinic

GLE	Glebe Polyclinic	**THO**	St. Thomas Out-Patients Clinic
JON	David Thompson Health & Social Services Centre	**WAR**	Eunice Gibson Polyclinic
JOS	St. Joseph Out-Patients Clinic	**PSY**	Psychiatric Hospital
MBY	Maurice Byer Polyclinic		

The Table 27 below, compares prescription counts and expenditures across various pharmacies for 2022 and 2020-21. Overall, the total prescription volume increased from 1,002,244 to 1,069,826, with expenditures rising significantly from $8.65 million to $15.35 million. The Winston Scott Polyclinic (SWS) maintained a high prescription volume, processing 155,476 in 2022 with an expenditure of $1.79 million, slightly down from the previous period's count but with higher costs. Other notable trends include the Psychiatric Hospital (PSY) ranking lower in prescription volume but incurring the highest expenditure at $1.97 million in 2022. The Glebe and Branford Taitt pharmacies saw increased spending despite moderate prescription volume changes. Two facilities, St. Joseph Out-patient Clinic and the St. Andrew Out-patient Clinic reported activity in 2022, which contributed to the overall rise in expenditures.

Table 27: Prescription Count & Expenditure for Pharmacies for 2022 and 2020-21

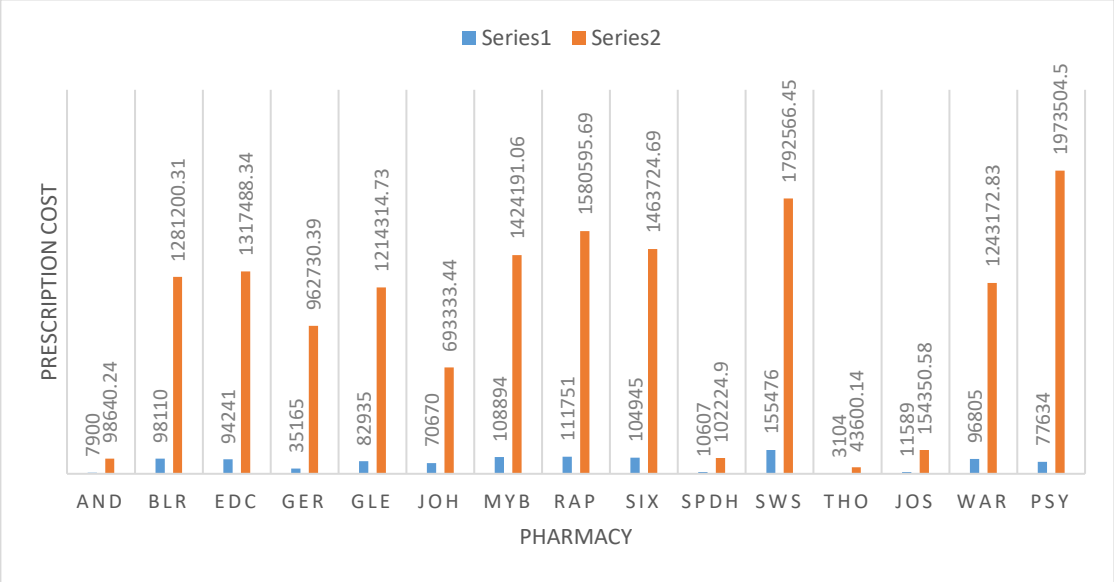
Pharmacy	2022		2020-21	
	RX COUNT	**EXPENDITURE ($)**	**RX COUNT**	**EXPENDITURE ($)**
SWS	155,476	1,792,566.45	156,340	1,093,133.44
RAP	111,751	1,580,595.69	116,091	1,000,818.38
MBY	108,894	1,424,191.06	124,942	955,538.99
BLR	98,110	1, 281,200.31	89,406	719,101.21
SIX	104,945	1,463,724.69	102,627	849824.38
GLE	82,935	1214314.73	75,908	648,166.31
WAR	96,805	1243172.83	97,475	714,486.61
EDC	94,241	1,317,488.34	86,432	773,903.77
JON	70,670	693,333.44	58,032	417,289.11

JOS	11,589	154,350.58	0	0
AND	7900	98,640.24	0	0
GER	35,165	962,730.39	30,395	224,413.78
THO*	3104	43,600.04	8,830	64,144.63
SPH	10,607	104,224.90	11,767	79,886.66
SUB-TOTAL	**992,192**	13,372,133.79	**958,245**	**7,540,707.27**
PSY	**77,634**	1,973,504.50	63,999	1,111,008.49
TOTAL	**1,069,826**	**15,345,638.30**	**1,002,244**	**8,651,715.76**

NB: *St. Thomas out-patient pharmacy closed at the end of May 2022 and St. Philip District Hospital pharmacies were closed from November 2022*

Figure 5 below illustrates the different clinics, and the corresponding dollar value of prescriptions dispensed.

Figure 5: Statistics on Prescription Count Vs cost



Series 1 = Prescription Count

Series 2 = Cost of prescriptions dispensed.

Pharmacovigilance

Pharmacovigilance involved the monitoring of adverse drug reactions. During the year 2022, the BDS received 90 reports compared to the 2020-21 year when one hundred and twenty-nine (129) reports were received. The reports are shown in Table 28.

Table 28: Pharmacovigilance Reports

Reporter	2022 Count	2020-2021
Physician	29	45
Pharmacist	17	37

Other/ professionals	5	29
Consumers/Non-health professionals	35	19
Unknown skill	4	

During the year, the major pharmacovigilance reports were for vaccines against COVID-19 infection, which accounted for 63% of the reports. The most reported effects were headache, rash, and arthralgia. This was followed by medicines against endocrine disorders, hypertension and asthma.

The department attended Regional Network meetings of focal points for pharmacovigilance every month. The meetings promote collaboration between countries of Latin America and the Caribbean with support from WHO, Health Canada and Uppsala.

The Drug Service was invited along with CARPHA and other English-speaking countries to develop a risk management plan for Paxlovid. Paxlovid is a combined oral medicine containing Nirmatrelvir and Ritonavir. It was indicated for COVID-19 in patients who do not require oxygen supplementation and are at an increased risk of severe COVID-19 infection. This invitation provided valuable training for staff.

Drug Inspectorate

The Drug Inspectorate Department provided the quality assurance linkages between the BDS, the Ministry of Health and Wellness and the public. The aim of the department is to function as a quality assurance check concerning psychoactive substances, narcotics and poisons. The drug inspectorate collaborated with the Customs department and the Barbados Postal Service to ensure that illegal drug imports were prevented from entering the market. The inspectorate oversees the

inspection of pharmacies for the Barbados Pharmacy Council to ensure that pharmacies are regulated and stay within the scope of the Pharmacy Act.

Additionally, the inspectorate collaborated with the Barbados National Standards Institute (BNSI), the Barbados Medical Cannabis Licensing Authority (BMCLA), the National Council of Substance Abuse (NCSA) and other bodies. The Drug Inspectorate Report for the year January to December 31, 2022, is seen in Table 29.

Table 29: Report of the Drug Inspectorate for the year January to December 31, 2022

Drug Inspectorate Report 2022	
Psychotropic Drug Import Authorizations:	89
Psychotropic Drug Export Authorizations:	147
Narcotic Import Authorizations:	76
Narcotic Export Authorizations:	94
Non-Schedule Import/Export Authorizations:	64
Personal Import Authorizations:	160
Pharmacy Premises Inspections:	109
Therapeutic licenses:	357
Certificates of Analysis:	39
Free Sale Certificates:	6

Inspections of Nursing Homes	4
Applications for Inclusions:	

Best-dos Santos Public Health Laboratory (BDSPHL)

The Laboratory serves as the island's main public health laboratory providing routine testing services to all polyclinics and some private clinics. Along with this, the laboratory offers reference laboratory services to private laboratories, as well as services for other regional laboratories, clinics and programmes. The Laboratory has four main Departments: the Serology Department, the Clinical Microbiology Department (including TB, Enterics and Parasitology), Molecular Diagnostics and Immunology Department and the Environmental Department (water, food and air testing).

The BDSPHL supported several programmes and departments in the MHW in disease prevention, monitoring and surveillance, such as the Maternal and Child Health Programme, the HIV/AIDS Programme, Global Salmonella Surveillance Programme and food safety and outbreak investigations. Support was also provided to the Ministry of Labour, Social Security and Third Sector, the Ministry of Environment and National Beautification (Environmental Protection Department) and the Ministry of Energy and Water Resources (Barbados Water Authority (BWA)).

During the period 2020-2021, the demand for some routine services decreased because of the COVID-19 pandemic. However, in 2022 as the demand for COVID-19 testing decreased, an increase was noted in some routine test requests and some testing programmes restarted. There was also an expansion of testing in the laboratory to enhance surveillance of antimicrobial resistance (AMR). Some service interruptions persisted in 2022 due to the inability to procure reagents, supplies and equipment malfunctions.

The laboratory processed in excess of 500,000 tests in 2022 (the Serology department processed 16,589 tests, the Microbiology department processed 131,331, the Molecular & Immunology departments processed 339,997 tests and the Environmental and Water department processed 14,683 tests). The BDSPHL has been the main COVID- 19 PCR testing laboratory during the COVID-19 pandemic with more than 300,000 tests conducted in 2022 as seen in Tables 30-33.

In 2022, the laboratory was responsible for screening all pregnant mothers who attended the Maternal and Child Health clinics. Testing included STIs (HIV, Venereal Disease Research Laboratory test (VDRL), Chlamydia and Gonorrhoea), and other screening tests such as streptococcus B screening. These conditions if present, could be transmitted to babies and cause complications during pregnancy.

Through the measurement of HbA1c, the laboratory continued its monitoring system for NCDs in collaboration with the polyclinics. Several monitoring tests were also performed for the National HIV/AIDS Treatment and Care Programme. Both of these programmes were negatively impacted during 2022 due to difficulties in the procurement of reagents for HbA1c, HIV viral load, and some molecular tests.

The laboratory continued to play a significant role in the testing of potable, marine, recreational and wastewater across the island to ensure the drinking and bathing waters are safe for residents and visitors. It also supports other sectors, including hotels with water testing for compliance. The laboratory has collaborations with several regional and international organizations including CARPHA, PAHO/WHO and the Centre for Disease Control (CDC). Overall, general laboratory services saw a downward trend in some areas from 2020-2022 due to the COVID-19 pandemic; however, the laboratory expects that routine service levels will return to some level of normalcy in 2023/2024.

Table 30: Number of tests performed in Serology Department

Serology Department	2019	2020	2021	2022
	Number of Tests	Number of tests	Number of tests	Number of tests
Chikungunya	227	594	365	0
Dengue Fever	768	1190	1100	310
Hanta Virus	507	513	134	44
HbA1c	6536	5303	4841	4954
Herpes Simplex Virus	1132	1097	620	342
IFA	232	171	0	0
Leptospirosis	247	362	251	192
Parvovirus B19	83	268	16	0
Rheumatoid Factor (RF)	160	82	75	88
Syphilis (RPR)	14007	11169	7216	10659
Zika	79	90	285	0
TOTAL	**23978**	**20839**	**14903**	**16589**

Table 31: Number of tests performed in Microbiology Department

Microbiology Department	2019	2020	2021	2022
	Number of Tests	Number of Tests	Number of tests	Number of tests
Swabs (Genitals, Wounds, Eyes, Ears, Nose, Throat)	96745	69783	87564	94752
Stools (Occult blood, Noro & Rotavirus, OCP, C. difficile, E.coli 0157, Staph. Aureus	11204	13165	12587	11620
Salmonella Serotyping	10800	8550	9785	6787
Shigella Serotyping	224	280	148	56
Campy Identification	1258	1369	555	1258
AMR Testing	3717	13608	5607	16191
Malaria	120	201	76	92
TB	358	454	302	494
Fungal Testing	56	120	90	81
TOTAL	**124402**	**107530**	**116624**	**131331**

Table 32: Number of tests performed in Molecular Diagnostics & Immunology Department

Molecular Diagnostics & Immunology Department	2019	2020	2021	2022
	Number of Tests	Number of Tests	Number of Tests	Number of Tests
CD4	1785	0	0	1860
Viral Load	2808	1695	2135	2028
DNA PCR	107	57	23	86
CT/NG	6550	5472	1239	4968
Human Papillomavirus	805	197	132	99
Drug Resistance	2	0	0	30
Dengue	229	672	764	224
Chikungunya	229	672	452	224
Zika	229	672	452	224
Cytomegalovirus	121	192	69	30
Epstein Barr Virus	120	200	49	5
Influenza Requested	327	236	8	568
Influenza Surveillance				16384
Herpes Simplex Virus	109	155	40	48
Adeno Virus	79	92	48	22
Monkey Pox				22
COVID 19	0	70996	407094	313175
Total	**13500**	**81308**	**412505**	**339997**

Table 33: Number of tests performed

Environmental Department	2019	2020	2021	2022
	Number of Test	Number of Test	Number of tests	Number of tests
Water Quality	15126	10220	9527	12959
Air Quality	540	664	632	664
Food Micro	657	1665	872	744
Legionella Test	565	677	277	316
Total	**16888**	**13226**	**11,308**	**14683**

Care of the Elderly

Long-term care is delivered through in-patient hospital services at the four district hospitals which are: St. Michael District (Geriatric) Hospital, St. Philip District Hospital (SPDH), St. Lucy District Hospital, and Gordon Cummins District Hospital. In addition, the St. Michael District Hospital provides a rehabilitation programme and daycare services.

The District Hospitals operated at full capacity with 512 beds. In 2022, there were 293 referrals for admission, as shown in Table 34. A total of 44 patients were transferred from the St. Michael, St. Philip, and St. Lucy District Hospitals to the Queen Elizabeth Hospital (QEH). Clients are typically transferred between District Hospitals or to the Alternative Care of the Elderly Programme (ACEP).

The ACEP was developed to meet the growing demand for institutionalised care. Through this model, the government continues to provide for the cost of caring for elderly persons who are transferred by the Ministry to private nursing homes. This programme has a capacity of approximately 135 beds with 26 out of a total of 56 private nursing homes participating.

The high number of clients with NCDs was a reflection of the prevalence of these diseases in the wider society. While 29% of clients were diabetics, as seen in Table 35, 34 % or 178 were hypertensive. This reinforced the need for greater focus to be placed on preventative services since the presence of NCDs in this population group results in complications that can be debilitating and harm their quality of life.

Table 34: Utilisation Data for District Hospitals by Facility

District Hospitals	St. Michael		St. Philip		St. Lucy		Gordon Cummins	Total
	M	F	M	F	M	F		
Number of beds	278		71	79	36	0	48	512
Number of admissions	135	89	12	19	22	0	0	277
In-patient service days	83,687		32,900		7,629	0	3,950	128,166
Percentage Occupancy	81.6%		63.9%		59%	0	65.8%	67.55% (Avg.)
Bed turnover rates	0.4		0.1		0.36	0	0	0.22 (Avg.)
Number of deaths	38	23	8	6	1	0	0	76
Number of transfers to QEH	15	13	9	4	3	0	0	44
Number of discharges	40	25	0	0	0	0	0	65
Number of referrals to AED	10	5	2	1	6	0	0	24
Number of persons under 65	7	14	5	17	3	0	2	48

Table 35: Health Conditions and Incidents in District Hospitals by Facility

District Hospitals	St. Michael		St. Philip		St. Lucy		Gordon Cummins		Total
	M	F	M	F	M	F	M	F	
No. diabetics	50	49	12	13	10	0		17	151
No. hypertensive	45	55	25	29	18	0		6	178
No. ulcers	21	23	12	9	1	0		2	68
No. falls	12	8	12	6	13	0		0	51
No. infections*	113	114	111	117	31	0	10	17	513

***** Multiple infections recorded in clients; **M** - Male; **F** - Female

Queen Elizabeth Hospital

The Queen Elizabeth Hospital (QEH) is the country's primary acute care medical facility (510-bed capacity) providing 94% of all hospital beds for citizens and residents of Barbados while also serving as a referral centre for Eastern Caribbean Island states. The QEH is also an accredited teaching hospital affiliated with the Faculty of Medical Sciences University of the West Indies, Cave Hill Campus, as well as nursing and allied health care programmes offered by the Barbados Community College and the Samuel Jackman Prescod Institute of Technology. During the reporting period, the hospital remained committed to delivering a wide range of clinical services, emphasizing compassionate, professional, and effective patient-centred care with minimal disruption. This effort was part of the institution's ongoing post-COVID service recovery and response to the pandemic's impact on tertiary healthcare delivery.

Inpatient Services

During the calendar year 2022, the leading in-patient services were Medicine, Obstetrics, Gynaecology, Surgery and Paediatrics. Cumulatively, patients admitted to the hospital under these services accounted for seventy-four per cent of total hospital admissions. The recorded average length of stay (including ICUs) was 7.8 days while the total number of admissions for the same period was 14,643. Comparatively, this represented a five per cent increase over total

admissions (13,931) recorded in 2021 while the average length of stay (including ICUs) remained stable at 7.8 day as seen in Table 36.

Table 36: Bed Utilisation Rates 2018 - 2022

YEAR	Admissions	Patient Days	Average Length of Stay (ALOS) days	Bed Occupancy Rate (%)
2018	18,091	124,975	6.7	**68.8**
2019	18,088	123,448	6.6	**70.5**
2020	15,771	117,747	7.4	**61.5**
2021	13,931	108,606	7.8	**52.9**
2022	**14,643**	**115,249**	**7.8**	**62.7**

Outpatient Services

The Out-patient Services Department continued its effort during this period to return to a state of normalcy and deliver services across all medical specialties as previously executed prior to the onset of the pandemic. Out-patient visits totalled 109,936 (old and new cases) and the leading out-patient services continued to be concentrated on Medicine, Obstetrics, Ophthalmology, Surgery, and Radiotherapy as seen in Table 37. Patient visits for this period showed an 11% increase over pre-pandemic data surpassing previously reported annual totals of approximately 98,000 (old and new cases). This was attributed to the phased return to on-site outpatient utilization previously reduced during the height of the pandemic across all specialties and clinics. Improving appointment scheduling, ensuring efficient delivery of clinics and improving the patient experience for attendees remains a critical objective for the department and QEH.

Table 37: Outpatient Services Utilisation 2020 – 2022

TOP 5 OUTPATIENT SERVICES	Number of Outpatient Visits		
	2020	2021	2022
OBSTETRICS	10,611	9,173	10,682
OPHTHALMOLOGY	13,877	9,972	19,825
MEDICINE	17.485	12,639	15,004
SURGERY	8,338	6,600	10,251
RADIOTHERAPY	8,125	7,750	8,555
TOTAL OUTPATIENT VISITS	84,877	72,419	109,936

Accident and Emergency Department

The Accident and Emergency Department (AED) recorded 26,330 patient visits for the year 2022, with 6,728 patients admitted, accounting for 50.4% of total hospital admissions. Patients accessing care for medical emergencies represented approximately 85% of total patient visits during this period, with approximately 15% seen for trauma-related emergencies (motor vehicular accidents, interpersonal violence, falls, etc.). Observation of patient visits to the AED during this period showed no significant changes in department utilization and patient acuity when compared with 26,110 (6,918 admitted) seen in 2021. The stabilisation of inpatient visits continued to demonstrate the impact of initiatives implemented to improve the delivery of emergency care; including ongoing public education on accessing care in the AED, the recommended use of the QEH Help Desk (rebranded Patient Advice & Liaison Service in August 2022) for general queries and public use of the 24-hour polyclinic service at the Winston Scott Polyclinic.

Radiotherapy

The Department of Radiotherapy housed in the Clara Brathwaite Center for Nuclear Medicine and Oncology at the QEH continued through its multidisciplinary team to provide radiotherapy, chemotherapy for solid tumours, nuclear medicine services, and palliative and terminal care for patients who require cancer management services. Radiotherapy services include both external beam radiotherapy as well as Brachytherapy as seen in Table 38. The tumours commonly seen and treated during the reporting period were breast, prostate, colon and rectal cancers. In addition, cervical and endometrial cancers, head and neck cancers as well haematological malignancies are referred for radiotherapy when needed. External Beam Radiotherapy is conducted in the Tele Cobalt Unit. Additionally, cancer management services for patients are completed in a state-of-the-art Treatment Planning Unit, interfaced with diagnostic CT images acquired at the Radiology and Medical Imaging Department. Immobilization devices are routinely used to achieve reproducibility and uniform homogeneity. Brachytherapy is currently offered in the treatment of gynaecological cancers including those of the cervix and endometrium. There is scope to develop this service to other areas such as breast and prostate. Nuclear Medicine services currently offer mainly therapy services such as Radioactive Iodine Therapy for well-differentiated thyroid cancers and hyperthyroidism. Nuclear scans will commence as soon as the hybrid Gamma Camera Unit is commissioned. Chemotherapy services are also available using commonly available drugs used in malignancies such as breast cancer, colon cancer, head and neck cancer and ovarian cancer. Ensuring that patients, family and or caregivers were actively engaged in their care and continually appraised of treatment options continues to be the hallmark of the vital service provided within this department.

Table 38: Radiotherapy Treatments - 2022

Treatment	Frequency
Patients Treated on Cobalt Unit	196
Treatment Sessions on Cobalt Unit	4108

Radiation fields treated on Cobalt Unit	10837
Patients treated on Deep X-ray Unit	12
Primary sites treated on Deep X-ray Unit	12
Treatment sessions on Deep X-ray Unit	97
Radiation fields treated on Deep X-ray Unit	102
Patients treated on Superficial X-ray Unit	7
Primary sites treated on Superficial X-ray Unit	7
Treatment sessions on Superficial X-ray Unit	45
Radiation fields treated on Superficial X-ray Unit	45
Brachytherapy Insertions	77
External Beam Treatment Planning Localization CTs	123
Brachytherapy treatment Planning Localization CTs	29

Patients seen at the AED were triaged and categorized as follows:

1. Patients with life-threatening conditions.
2. Patients with urgent, but not life-threatening conditions.
3. Patients with non-urgent medical conditions but require treatment at the hospital.
4. Patients with non-urgent conditions who can be seen elsewhere; and
5. Patients seen previously and have scheduled reviews

Table 39: Canadian Triage Acuity Scale 2021 - 2022

Category	Description	Details	2021	2022
1	Patients with life-threatening conditions	Patients requiring emergency intervention	1.6%	1.5%
2	Patients with urgent but not life-threatening conditions	Patients need urgent care and treatment; (often hospitalization, can become category 1 if not seen promptly)	7.4%	9.0%
3	Patients with non-urgent medical conditions but require treatment at the hospital	Require diagnostics/services not provided at other public facilities	64.9%	61.8%
4	Patients with not urgent conditions who	Not considered a high priority (therefore may have	21.4%	23.9%

	can be seen elsewhere	to wait for extended periods of service)		
5	Patients seen previously and have scheduled reviews	Not necessarily a high priority but require follow up	4.8%	3.8%

Infection Control

The Hospital Infection Prevention and Control Department (IPC) continued its mandate in 2022 to ensure hospital-wide adherence to infectious disease prevention and management. This was fundamental to the delivery of safe and quality clinical services to our patients. Moreover, reducing the risks and associated incidence of Healthcare Associated Infection (HAI) is critical to the safety of our patients, staff and visitors. IPC is also at the core of creating an environment that is conducive to patient hospitalization, recuperation and recovery, negating the need for extended lengths of stays and incurred costs to the QEH resulting from HAIs. The IPC department continued its training initiatives in various aspects of infection prevention and control procedures. Training included hand hygiene, disinfection procedures, and IPC sessions for student nurses and new hires entering the hospital environment.

IPC surveillance (passive and active) amongst our healthcare and support staff for accidental exposure to blood-borne pathogens recorded a total of forty-seven incidents during this review period. Eighty-three per cent of staff exposures were attributed to Accidental Needle Stick Injuries (39), eleven per cent to Accidental Blood and/or Body Fluids exposure and six per cent related to Accidental Injury sustained from handling a medical instrument as seen in Table 43. No adverse outcomes were reported amongst staff members in these reported incidents.

Table 40: IPC Surveillance Accidental Exposure to Blood-Borne Pathogens - 2022

Accidental Needle Stick Injuries	
Employee Category	No. of Incidents
Physician	6
Registered Nurse	10
Housekeeper	2
Medical Student	12
Community Healthcare Worker	3
Laboratory Technician	1
Student Nurse	2
Nursing Assistant	2
Orderly	1
Accidental Blood and/or Body Fluid Exposure	
Medical Student	2
Nursing Assistant	2
Registered Nurse	1
Accidental Injury from a medical instrument	
Medical Student	2
Physician	1

Healthcare-Associated Infection surveillance is a major function for IPC team members at the QEH. Monitoring and evaluating quality and patient safety indicators across the hospital presents the opportunity for HAI risk identification and implementation of risk reduction procedures. This facilitated the prompt recognition of patients with transmissible infections, early indicators of potential HAI outbreaks and corrective actions required. The QEH reported a relatively low incidence of hospital-associated infections in this period as seen in Table 40.

Table 41: Incidence of Hospital Associated Infections - 2022

Healthcare-Associated Infections	**No, of cases**	**Incidence rate** *(per 1000 patient day)*
Methicillin-resistant *Staphylococcus aureus (MRSA)*	326	25.73
Healthcare Associated MRSA Bacteraemia	21	1.65
Carbapenemase-Producing Enterobacteriaceae	42	3.31
Central Line-Associated Bloodstream Infection	11	0.86
Catheter-associated Urinary Tract Infection *(Medical Intensive Care Unit)*	5	0.39
Catheter-associated Urinary Tract Infection	10	0.78

(Surgical Intensive Care Unit)		
Blood Stream Infection *(Medical Intensive Care Unit)*	10	0.78
Blood Stream Infection *(Surgical Intensive Care Unit)*	14	1.1
Clostridium Difficile Infection	5	0.39

Accreditation

Preparatory work for the formal assessment scheduled for June 2023 with the healthcare accreditation body Accreditation Canada continued during this review period. The QEH completed a virtually conducted simulated accreditation survey with Accreditation Canada representatives in November 2022. Feedback provided from this exercise will continue to inform the QEH's state of readiness as the institution continues its hospital-wide preparation to achieve the realization of this important goal.

Reduction in Surgery Backlog

During the period under review, a targeted approach was taken to reduce the backlog in surgical procedures. In the case of Orthopaedics, after a protracted period of no activity, a pilot programme for hip replacement was successfully completed in December and it is expected that hip and knee replacement surgeries will continue in 2023. With respect to Ophthalmology, a 6-month project to address the backlog in cataract procedures was also completed in December with 90% of the backlog being cleared. A proposal for addressing the long wait time for non-urgent Paediatric cases was also conceptualized for execution in 2023.

Transitional Community Care Programme

The Transitional Community Care Programme (TCCP) formerly called the Community Outreach Programme was launched on October 14, 2020, by the Minister of Health and Wellness to engage persons in the community who have high-risk NCD profiles and are dependent on QEH outpatient services namely, Cardiovascular and Diabetes clinics. The programme has made significant progress and is fully interfacing with clients in the community. These higher risk profile clients have a significant burden on healthcare services and enhancing their care is of paramount importance.

September 2022 saw the refocusing of attention to the referral process and the programme's structure. The programme successfully expanded its reach across the hospital to encompass multiple specialty areas with the assistance of the Bed Management Unit and the Discharge Planning Committee. This allowed QEH to realize the goal of coordinating care from the time of admission to hospital discharge by reviewing referrals for possible admission to the programme and taking appropriate action.

Patient Relations

The QEH Patient Relations Department was officially inaugurated in August 2022. The department is dedicated to ensuring that patients and their families have a good experience while in the hospital's care. The department also provides assistance to all hospital clients in navigating the hospital system and its services. Through the work of three sub-departments, namely Patient Relations Representatives (PRRs), Patient Advice & Liaison Service and Receptionists, the department acts as a liaison between the patients and the hospital pre-emptively providing valuable information while also receiving and acting upon queries, and complaints, comments and compliments. The PRRs have a physical presence in the Accident & Emergency Department (AED), as well as seven high-traffic wards, while the Receptionists are present at Main Entrance and Private Entrance. The Patient Advice & Liaison Service is a telephone service for all in and

out-patients. The department focuses on the overall patient experience and aims to be the hub for patient information at the hospital.

SURVEILLANCE OF NEW & EMERGING COMMUNICABLE DISEASES

New and Emerging Communicable Diseases

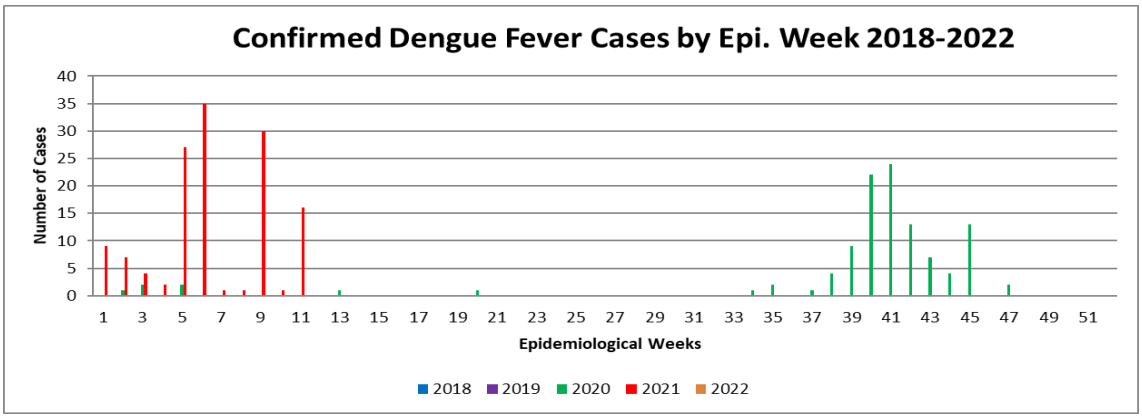
Arboviral Diseases

In the region of the Americas, increases in mosquito-borne diseases were observed with peaks in reports of Dengue fever, Chikungunya, and Zika virus disease in Epi-week 18 (early May). In Barbados, continued surveillance for the resurgent Zika virus revealed no reported cases since the last confirmed cases in 2017.

Specific guidelines developed and updated for testing and careful monitoring of the health of pregnant women, children born to mothers with Zika, and children with anomalies continued to be used. The MHW will continue to monitor for Zika virus disease locally and internationally.

Dengue Fever is endemic to Barbados, with sporadic cases expected throughout the year. The last major outbreak occurred in 2016. After two years without confirmed cases, an outbreak emerged in October 2020 and extended into early 2021. By the end of 2020, 109 cases were confirmed, including two deaths, along with 1,227 suspected or probable cases. In 2021, 448 cases were suspected, with 133 confirmed. However, 2022 saw 335 suspected cases, but none were confirmed, as shown in Figure 6.

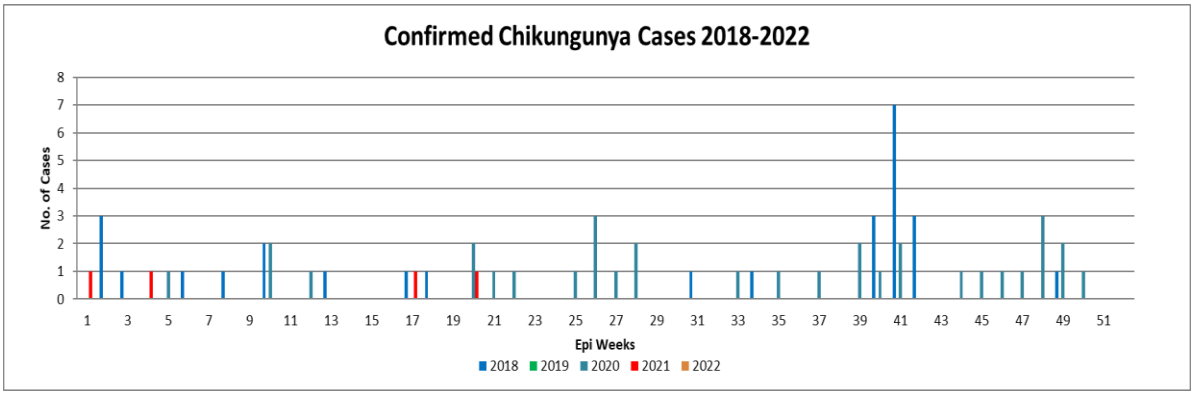
Figure 6: Confirmed dengue cases 2018-2022



Source: Surveillance Unit, Ministry of Health and Wellness, 2023

Chikungunya virus disease was introduced to Barbados in 2014. Since then, there have been sporadic cases recorded as shown in Figure 7 below. In 2021, there were 4 confirmed and 4 suspected cases. In 2022, there were no confirmed cases despite the testing of 167 suspected cases.

Figure 7: Confirmed Chikungunya Cases 2018-2022

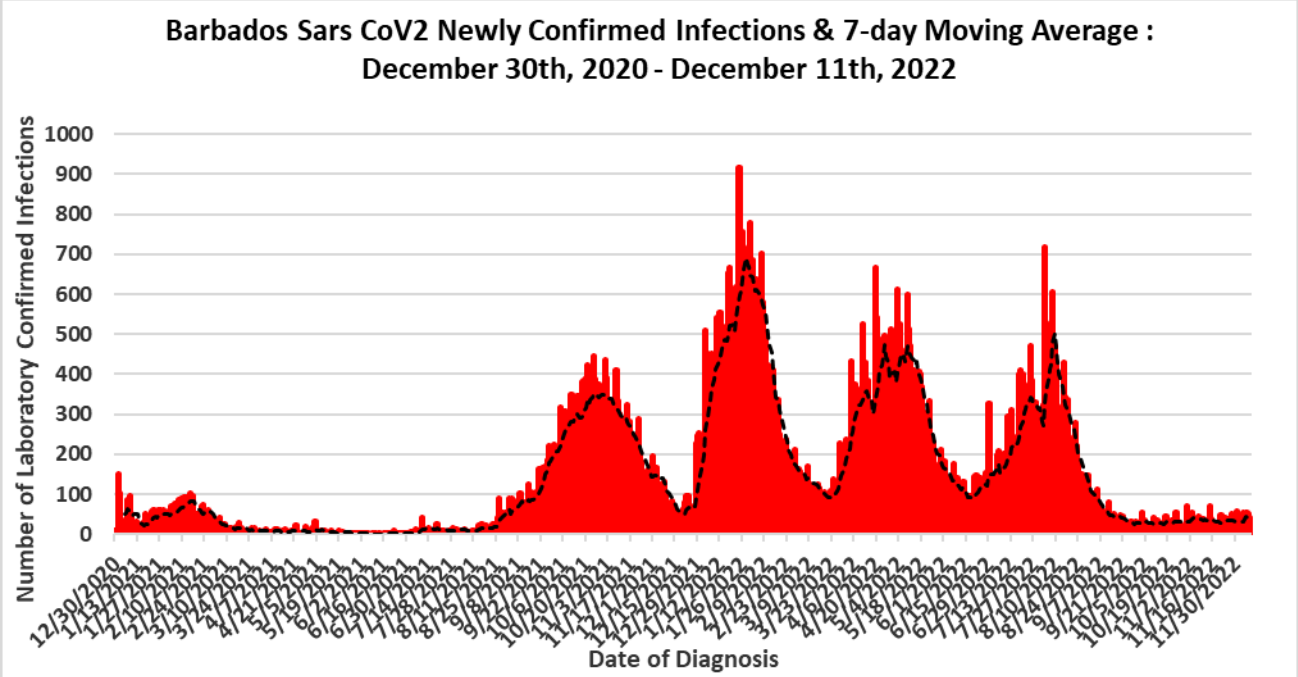


Source: Surveillance Unit, Ministry of Health and Wellness, 2023

Respiratory Diseases

In March 2020, the first two cases of COVID-19 were diagnosed in Barbados and weekly numbers showed a first peak four weeks later with 23 cases. Since then and up to December 2022, five distinct waves of infection were experienced in-country, as seen below in Figure 8, likely fuelled by changes in the circulating variants of the COVID-19 virus. Up to December 11th, 2022, 104,510 cases had been diagnosed and there had been 568 deaths giving a crude case fatality ratio of 0.54%. Older age was a significant risk factor for serious illness and death from COVID-19. Deaths occurred predominantly among persons 70yrs or older with multiple co-morbidities especially those with Hypertension, Diabetes or Previous stroke.

Figure 8: Epidemic Curve of confirmed daily COVID-19 cases by diagnosis date, December 30th, 2020- December 10th, 2022



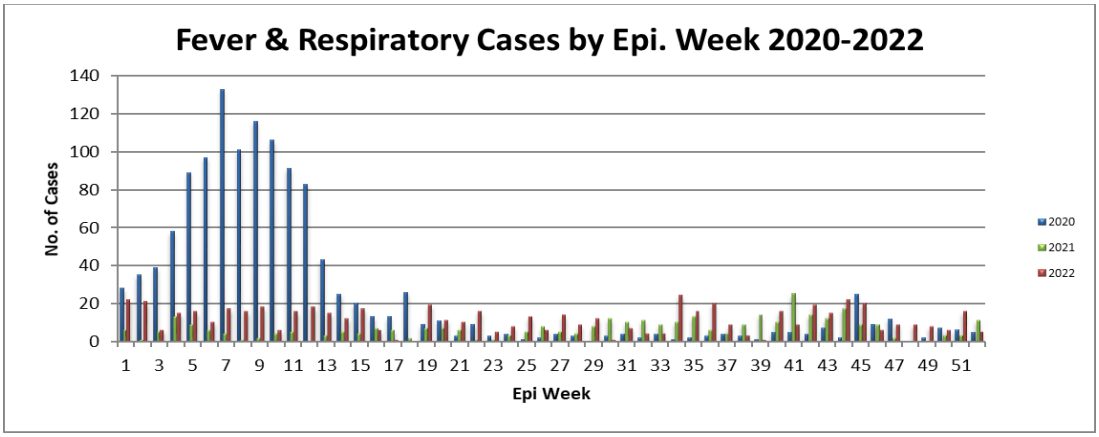
Source: Surveillance Unit, Ministry of Health and Wellness, 2023

Syndromic surveillance also continued for respiratory disease. Levels of respiratory infection continued to remain low from June 2020 through to 2022, as seen in Figure 9, most likely attributable to the infection prevention measures instituted for COVID-19.

Influenza was the second most commonly detected respiratory virus in 2022, identified through a dual assay used on most samples to test for both COVID-19 and Influenza, with a few cases of co-infection recorded. From 1,031 samples, 256 were noted to be Influenza A of which one was subtyped AH1N1 and 11 were subtyped AH3N2.

Three cases of Tuberculosis (TB) were confirmed by laboratory testing in 2020 and 2021, compared to two confirmed cases in 2022. All of these cases had an infection in the lungs only, were domiciled in Barbados, and none were drug-resistant.

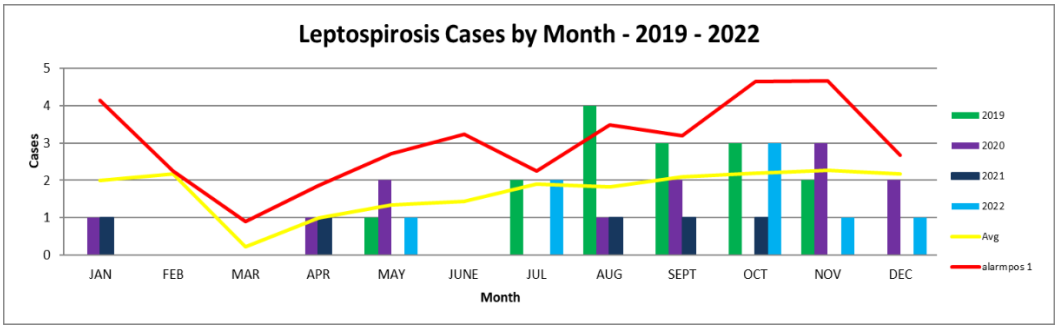
Figure 9: Fever and Respiratory Cases 2020-2022



Source: Surveillance Unit, Ministry of Health and Wellness, 2023

Leptospirosis is a vector-borne disease of rodents, which most often occurs in the rainy seasons and may present as a fever with jaundice. There were 15 cases with 1 death in 2019 and 12 cases without any deaths in 2020. Five cases were recorded in 2021 and 8 in 2022 as seen in Figure 10. Public education was focused on helping persons to discourage rodent proliferation by decreasing breeding sites and food sources as well as reducing exposure to rodent droppings by using appropriate personal protective equipment while gardening or cleaning animal houses.

Figure 10: Leptospirosis cases 2019-2022

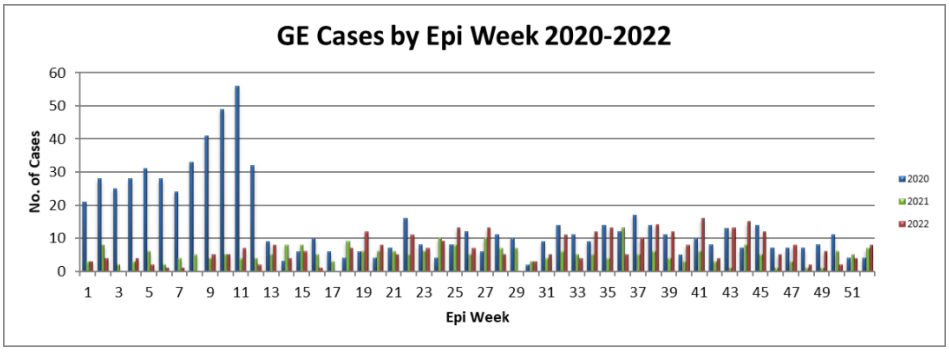


Source: Surveillance Unit, Ministry of Health and Wellness, 2023

Gastrointestinal Illnesses

Vomiting and diarrhoea usually occurs throughout the year and are associated with bacterial or viral agents. Gastroenteritis outbreaks, in Barbados, tend to be viral and may be related to contamination of foodstuffs. Salmonella or Campylobacter were the main bacterial organisms identified. Viruses causing gastroenteritis were infrequently identified and were mostly rotavirus or norovirus. For example, in 2022 1 rotavirus sample was identified whereas in 2020 and 2021, zero cases of rotavirus and norovirus were diagnosed for the entire year. In 2019 five cases of rotavirus and six cases of norovirus were diagnosed. After an early spike in cases up to Mid-March 2020, Epi-week 12, co-incident with the spike in respiratory disease, gastroenteritis cases remained low for the rest of 2020 and through to the end of 2022 as seen in Figure 11.

Figure 11: Gastroenteritis cases 2020-2022



Source: Surveillance Unit, Ministry of Health and Wellness, 2023

In a broader developmental context, the MHW has key roles to fulfil in ensuring the sustained development of Barbados' tourism industry. It continued to support the thrust of the regional CARPHA Tourism and Health project and encourage local hotels to report the numbers of clients displaying syndromes representing gastrointestinal and respiratory illness.

Fortunately, with the new integrated public health lab, the MHW had increased capacity for testing. The competition for testing modalities and tardy notification of illness by practitioners continues to be a challenge to monitor sickness and disease.

The MHW continued to invest in robust infection prevention control at the QEH, Psychiatric Hospital and all other institutions. It also continued to roll out aspects of the 2017-2022 Anti-Microbial Plan to support these initiatives.

ENVIRONMENTAL HEALTH

Food Safety

The MHW food safety goal is to ensure that only wholesome food reaches the population, thereby reducing the burden of food-borne illnesses. Food safety refers to the handling, storing and preparation of food in a manner that prevents foodborne illness. Food Safety breaches can result in major public health events and as such, the MHW as the competent authority and enforcement agency for food safety has the greatest synergies of competencies, qualified staff and skill sets to respond to human health issues that may arise from food safety breaches in Barbados.

The Environmental Health Department's comprehensive food safety programme included the inspection and monitoring of food service establishments in accordance with the Health Services Act 1969. In addition, the application of the principles of good manufacturing practices, Hazard Analysis Critical Control Point (HACCP) practices, and an appropriate level of food safety training for food service managers and food service employees are also required. The training

was conducted in Food Hygiene at various food establishments as well as within the Ministry of Health Training Unit. One hundred and seventy-five (175) persons were trained in food safety in 2022.

The Department continued the inspection, licensing and monitoring of food services and other business establishments under the Health Services Act 1969. Food service establishments are inspected and monitored to ensure that food served to the general public is wholesome and fit for human consumption. During the year 2022, the Environmental Health Department continued to ensure that wholesome foods were served during the Crop-Over season through education and their physical presence at locations. Food businesses and food products were inspected throughout the year to ensure that food fit for human consumption reached consumers.

The Department continued to face challenges to inspect and monitor businesses due to an approximately 35 % reduction of staff due to attrition and retirement. In an effort to ensure good practices are maintained, the department engages in teamwork to provide coverage in all areas.

The Environmental Health Department continued to collaborate with the Ministry of Agriculture and Food Security regarding the implementation of a modernised nationally and internationally recognized Agricultural, Health and Food Safety Control (AHFC) system.

Vector Control

The control and prevention of arbovirus diseases such as Dengue fever, Zika and Chikungunya continued with the adaptation of an Integrated Mosquito Vector Management Programme. There were decreased inspections of premises, and increased community outreach and education. Emphasis was placed on source reduction by removing containers that had the potential to breed mosquitoes, fogging to destroy adult mosquitoes and the use of alternative compounds for the treatment of larvae. The programme continues to involve other government agencies, the private sector, civil society and communities to effectively manage the environment to break the transmission of Dengue fever, chikungunya and the Zika viruses. The ovitrap programme

continued to provide monitoring at the points of entry to detect the presence of the *Aedes aegypti* mosquito and other species. An ovitrap is a tool used to measure the circulation of Aedes mosquito in relation to time and location. In addition, fish were provided from the Graeme Hall Fish Rearing Facility as a biological control measure. These activities were to aid in the planning of programmes to reduce the mosquito house index to less than five per cent during the wet season.

The Vector Control Unit had a structured inspection and rodent-baiting plan at all government buildings, healthcare institutions, schools, and farms as well as at the sea and airport. During the period under review, the Ministry intensified rodent baiting activities targeting specifically Bridgetown and its environs, and recreational areas across the island. Acute and anticoagulant bait were used to reduce the rodent population.

The Ministry of Health and Wellness continued a distribution service for rodenticide from the Vector Control Unit and the Environmental Health offices in the polyclinics. Table 42 shows the quantities distributed annually to the public on request.

Table 42: Distribution of Rodenticide

Quantity	2021	2022
No. of 100g packages	18,700	25,060

An insectary-in-a-box was funded by the United States Agency for International Development (USAID) as part of the Zika Airs Project (ZAP) and was officially opened on July 24, 2019, and is situated in the Graeme Hall Swamp area. The Insectary's main functions were to facilitate insecticide resistance testing and mosquito species identification.

The Vector Control Unit used the Geographical Information System (GIS) in its mosquito and rodent control programmes. GIS is used to map the locations of mosquito-borne diseases, mosquito larvae breeding, ovitraps, wetlands and rodent bait stations. The data gathered was used to determine areas for fogging and monitoring mosquito population density.

Climate Change and Health

The Climate Change and Health programme of the MHW aimed to develop appropriate adaptation and build a climate-resilient health care system. It also aimed to include climate change adaption strategies into the routine work of the Environmental Health Department (EHD) to minimize the impacts of vector, water and airborne diseases risks associated with climate phenomena. The SMART Hospitals standard for health care facilities developed through the Pan American Health Organization, represents one of the green resilient targets Barbados' health systems are aiming to achieve.

Among the steps to be fulfilled to implement the actions required for this initiative, technical staff must be trained in the application of the SMART hospital's toolkit. The comprehensive assessment is intended to identify vulnerabilities within healthcare facilities and operations, which can be compromised by the impacts of severe weather events or climate variability. The development of climate and disaster resilience in healthcare facilities is a critical component of the development of the Ministry's Health National Adaptation Plans (HNAP). The HNAP was intended to be an important chapter in an overall National Adaptation Plan (NAP) for Barbados, which seeks to compile all critical services and sectors' plans for climate change.

In July 2022, PAHO commenced the execution of a wider vulnerability assessment of Barbados' potential health impacts caused by climate phenomena. The assessment included health care facilities and a wide range of areas including water quality and availability, air quality, sanitation, insect vectors and anti-microbial resistant threats. The climate change health impacts associated with these, and other parameters need to be identified for appropriate plans to be developed and implemented.

The Ministry maintained a presence on a number of committees namely the South Coast Sewage Project Cabinet Sub-committee; Graeme Hall Swamp Technical Advisory Committee; and the Inter-Ministerial Technical Working Group on Rainwater Harvesting. These are important platforms which keep climate change and health issues on the national agenda and assist with maintaining partnerships in the interest of public health benefits. In addition to these committees, the Ministry was represented on the Barbados Water Authority Board of Directors as a sitting Director and is the sitting Chair for the interregional Climate and Health Advisory Group (CHAG) coordinated under the PAHO's EU/CARIFORUM Climate Change and Health Project. These responsibilities maintain the Ministry's climate change and health programme presence at national, regional and international levels in the interest of building capacity towards climate resilience.

Additionally, the programme was successful in completing the development of guidelines for the safe storage of rainwater and is presently in the process of adopting international guidelines for the safe reuse of wastewater into the existing legislative instruments of the Ministry. In terms of the current technical capacity of the MHW, the following strategies are considered implementable in the short-term providing resources are available:

1. The development of an Early Warning and Communication System for water quality.
2. Development of an effective water quality surveillance system and wastewater reuse licensing and monitoring programme.
3. The enhancement of the Environmental Health Department to integrate climate change adaptation and resilience-building into its work plans and strategic objectives.
4. The continuation of mosquito species monitoring in the Graeme Hall swamp and the development of policies and programmes to promote the ecological protection of the site in compliance with the Ramsar agreement signed in 2006.

International Health Regulations

Under the International Health Regulations (IHR 2005), Member States are requested to maintain public health measures and response capacity at designated airports, ports and ground crossings. This protects the health of travellers and the population, keeps ports, airports and ground crossings running, and ensures ships, aircraft and ground transportation are in sanitary condition so that no unnecessary health-based restrictions are placed on international traffic and trade. Today's high traffic at airports, ports and ground crossings can play a key role in the international spread of diseases through persons, conveyances and goods.

The Government of Barbados followed the advice of the World Health Organisation and facilitated ships' movements, including docking, crew changes, ship inspection and issuance of ship sanitation certificates during the COVID-19 pandemic. Information regarding the suspension of port services and other measures introduced in response to COVID-19 was quickly and effectively communicated to international shipping and all relevant stakeholders.

The MHW continued to strengthen the Port Health programme to ensure that Barbados complied with the International Health Regulations, 2005, to protect the local population and visitors from diseases or health risks associated with travel and trade. Infection Prevention and Control Training was conducted for all stakeholders at the ports of entry.

The International Atomic Energy Agency (IAEA) sponsored some capacity-building workshops in radiation and atomic energy at the local, regional and international levels. The MHW continued to work on a national programme with the IAEA.

Water Quality

Potable water is monitored to identify and manage waterborne disease hazards and risks to protect the public's health. Water is sampled for testing for chlorine residual and the presence of pathogenic bacteria. The WHO guideline for drinking water indicates that the main

parameters, pseudomonas, total coliform, enterococci and faecal coliform must all be detectable at <1 mg/l for the sample to be deemed satisfactory or potable. A residual concentration of free chlorine greater than or equal to 0.5 mg/litre is adequate.

The MHW conducted water sampling weekly throughout the island. Despite the challenges associated with the COVID-19 pandemic, the Best Dos Santos Public Health Laboratory reported that the EHD was able to facilitate 2,210 water quality tests in 2020, 1,554 for 2021 and 1,339 in 2022.

The Global Assessment and Analysis of Sanitation and Drinking Water (GLAAS) Survey for Barbados was completed by a consultant engaged by PAHO in May 2022. The GLASS Survey gathers information on the delivery of drinking-water supply and sanitation services as well as the status of hand hygiene activities.

Waste Management

Illegal dumping of waste was a significant challenge with an increase in unlawful dumping sites being identified or in some instances the creation of temporary locations, due to the non-collection of refuse within a specified time. This issue impacted communities with an increase in rodent and mosquito infestation.

The MHW continued its collaboration with the Ministry of Agriculture and Food Security and other stakeholders to regulate the coconut vending sector. The disposal of coconut shells continued to be problematic although the tipping fee charged for waste disposal was discontinued. The MHW continued to facilitate training sessions on best practices in handling coconuts as a food product, as well as the procedure for disposing of the coconut shells for coconut vendors.

The Environmental Sanitation Unit provided units for 67 households to prevent the possibility of indiscriminate disposal of human waste.

Port Health Services

Environmental Health Officers stationed at the points of entry continued to inspect foods imported into Barbados. Foods which were fit for human consumption were released, while foods which were unfit for human consumption were destroyed as seen in Table 43.

Table 43: Quantity of Imported Food Inspected and Condemned at Points of Entry

Food Inspected	2021	2022
Wholesome Food Released (Kg)	**121,919,909**	**135,228,533**
Food Condemned (kg)	**218,606**	**156,423**
Total Food Imported Inspected (kg)	**122,138,515**	**135,384,956**

Boarding of Vessels and Disease Surveillance

The boarding and clearance of vessels arriving at the points of entry continue to be a significant aspect of the Port Health Service regarding disease surveillance. There was a decrease in all types of vessels arriving in Barbados with the exception of Cargo vessels due to the COVID-19 pandemic. Six hundred and seventy-six (676) cargo vessels arrived in 2020 in comparison to 716 in 2021 and 711 in 2022. Table 44 provides information on the number of vessels that were granted free pratique for the years 2021 and 2022.

Table 44: Type of Vessels granted Free Pratique 2021-2022

	2021	2022
Cruise Vessels	147	472
Cargo	716	322
Oil & Gas Tankers	134	162
Yachts (Bridgetown)	187	329
Yachts (Port St. Charles)	3	57
Inter-Island Vessels		242
Totals	**1187**	**1584**

Ship Sanitation Inspection

The Ship Sanitation Control/Exemption Certificate inspection programme continued with the inspection of vessels requiring certification. This programme audits conditions on board ships in relation to food safety, medical facilities, integrated pest management and hospitality services to ensure compliance with international standards. Table 45 below summarises the activities of this inspection programme.

Table 45: Ship Sanitation Inspections

Table … SHIP SANITATION INSPECTION						
YEAR	Cargo	Cruise Vessels	Yacht	Oil & Gas Tankers	Other Vessels	Total No. Vessels
2021	20	13	2	3	6	44
2022	16	14	-	9	10	49

PUBLIC/ PRIVATE PARTNERSHIPS: A NEW FORM OF HEALTH COOPERATION

DONATIONS

Clara-Lionel Foundation Donations

A donation of Solar Refrigeration Units was made to the Ministry of Health and Wellness by the Clara-Lionel Foundation. These Units are on island and are awaiting installation. There are 30 Units in total and 20 are for the polyclinics and 1 for the LRU.

HEALTH AND INTERNATIONAL CO-OPERATION

PAHO donated vaccine cold chain supplies and equipment valued at USD $155,961.22 to Barbados, including water packs, syringes, and safety boxes. Funds were also utilised from USAID, Canada and WHO.

Technical Assistance

During the period January- December 2022, the MHW continued to collaborate with PAHO to address the health needs of the population and to manage the challenges facing the health sector. Areas of collaboration during the period under review included:

Strengthening COVID-19 Vaccine Roll-out for achieving a minimum of 70% Coverage

After the introduction of the COVID-19 vaccines in February 2021, at the end of March 2022 approximately 51% of the eligible Barbadian population had completed a primary series. In order to reach the target population of the most vulnerable and the overall target of 70% of the total population, it was agreed that additional support was required.

The intervention was guided by the Framework of the UN Interagency Initiative on the "Promotion of the COVID-19 vaccine uptake and addressing Vaccine Hesitancy in Barbados and the Eastern Caribbean." Particularly contributing to Pillars: IV and V:

- Strengthening COVID-19 vaccine roll-out; and
- Vaccine Motivation.

The main activities conducted included:

- Technical assistance to support the coordination of the roll- out of the COVID-19 vaccine delivery.
- Scale up use of digital technologies by updating the current platform to include the booster, third doses and/or other doses, and child vaccination.
- Community outreach activities enhanced to support the regular immunisation programme in the context of the pandemic by identifying and closing gaps.
- Refresher training sessions conducted for Health Care Workers.
- Assessment of the cold chain capacity, management and recommendations on vaccine distribution.
- Developed capacities and supported the implementation of information systems and digital platforms to monitor vaccine safety, including the acquisition of IT equipment.

Human Resources for Health

Recruitment

The Ministry sought to expand COVID-19 testing capacity at the Best Dos Santos Public Health Laboratory. To this end, PAHO provided funding to support the extension of contracts for two laboratory technologists and the recruitment of two additional technologists.

Training

The Ministry in an effort to strengthen its Disaster Management Programme conducted training in Mass Casualty Management. The objective of this training was to build MCM capacity among responding agencies in Barbados, thus enabling safe, timely and effective rescue operations. An effective response to Mass Casualty Incidents (MCI) requires a well-managed and coordinated response from multiple agencies. In light of this fact, the training was extended to persons and organisations with responsibilities for emergency management whether at the planning, policy, or operational level.

The Ministry conducted training in Basic Life Support (BLS) and Instructor training. The objective of the programme was to train health professionals in the principles of BLS, and to equip persons to become BLS Certified Instructors. It is envisioned that the certified instructors will be responsible for training and retraining of the remaining members of staff.

Information Systems for Health (IS4H) Maturity Assessment

The MHW in collaboration with the Pan American Health Organization and the Inter-American Development Bank, conducted an Information Systems for Health Maturity Assessment.

Information Systems for Health (IS4H) is a mechanism for managing interoperable systems with open data that comes from different sources and that is ethically used through effective Information and Communications Technology (ICT) tools, to generate strategic information for the benefit of public health. This enables better decision and policymaking mechanisms through health-related information systems that ensure universal, free, and timely access to data and strategic information using the most cost-effective ICT tools.

As part of the country-led process to strengthen the National Information Systems for Health (IS4H), the PAHO/WHO Office for Barbados and the Eastern Caribbean and the Inter-American Development Bank provided support to assess the national health information systems, relative eGovernment initiatives and data management processes.

The maturity assessment was conducted to identify organizational capacity related to governance, data management, digital transformation, innovation, and knowledge management. The IS4H assessment in its totality focused on key components of the national information system for health and eGovernment initiatives, including governance, strategies and plans, legislation and policy, financial sustainability, human resources, telehealth, data management and quality processes, data analysis capabilities, business and clinical workflow and processes, project and change management, and information technology platforms and infrastructure. It is anticipated that the recommendations from the assessment will be used to strengthen the Health Information System.

Mental Health Reform

The World Health Organization's Comprehensive Mental Health Action Plan 2013-2030 calls on Member States to ensure the provision of mental health and psychosocial support services in emergency and disaster situations. It also encourages intersectoral initiatives for the promotion of mental health and the prevention of mental disorders, with a focus on the life course, and addressing the stigma and discrimination faced by people with mental health conditions, among other measures.

In keeping with this direction, the MHW requested technical assistance from PAHO/WHO to review its current mental health programme. A situation analysis of Barbados' mental health programme was conducted. It is essentially an information-gathering process that is necessary to understand the burden, services, and care delivery along with the nature and extent of systems that are in place. It establishes a clear, detailed, and realistic picture of the opportunities, resources, challenges, and barriers regarding mental health, health system delivery network, and community resources. The results of the situation analysis were utilised in the development of a roadmap aimed at strengthening the mental health programme.

APPENDIX I

Table 46: Barbados Mortality Data 2022

Code	Gender	<1y	1-4y	5-14y	15-24y	25-44y	45-64y	65y+	TOTAL
0.00	*Symptoms, signs and ill-defined conditions*								
	Male	2	0	1	0	3	14	17	37
	Female	1	0	0	0	0	5	13	19
Total (0.00)		**3**	**0**	**1**	**0**	**3**	**19**	**30**	**56**
1.01	*intestinal Infectious diseases*								
	Male	0	0	0	0	0	1	4	5
	Female	0	0	0	0	0	0	3	3
		0	**0**	**0**	**0**	**0**	**1**	**7**	**8**
1.03	*Certain vector-borne diseases and rabies*								
	Male	0	0	1	0	1	0	0	2
	Female	0	0	0	0	1	0	0	1
		0	**0**	**1**	**0**	**2**	**0**	**0**	**3**
1.04	*Certain diseases preventable by immunization*								
	Male	0	0	0	0	0	0	0	0
	Female	0	0	0	0	0	1	0	1
Total (1.04)		**0**	**0**	**0**	**0**	**0**	**1**	**0**	**1**
1.05	*Meningitis*								
	Male	**1**	**0**	**0**	**1**	**0**	**0**	**2**	4
	Female	1	0	0	0	0	0	0	1
		2	**0**	**0**	**1**	**0**	**0**	**2**	**5**
1.06	*Septicemia, except neonatal*								
	Male	0	0	0	0	0	3	4	7
	Female	0	0	0	0	0	0	0	0
Total (1.06)		**0**	**0**	**0**	**0**	**0**	**3**	**4**	**7**
1.07	*HIV disease (AIDS)*								
	Male	0	0	0	0	0	3	1	4
	Female	0	0	0	0	0	1	2	3
Total (1.07)		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
1.08	*Acute respiratory infection*								
	Male	0	1	0	0	1	3	72	77
	Female	0	0	0	0	1	5	67	73
Total (1.08)		**0**	**1**	**0**	**0**	**2**	**8**	**139**	**150**

1.09	*Other infectious and parasitic diseases*								
	Male	0	0	0	0	1	4	7	12
	Female	0	0	0	0	0	1	7	8
Total (1.09)		**0**	**0**	**0**	**0**	**1**	**5**	**14**	**20**
2.01	*Malignant neoplasm of stomach*								
	Male	0	0	0	0	0	5	8	13
	Female	0	0	0	0	0	1	5	6
Total (2.01)		**0**	**0**	**0**	**0**	**0**	**6**	**13**	**19**
2.02	*Malignant neoplasm of colon and rectosigmoid junction*								
	Male	0	0	0	0	2	9	32	43
	Female	0	0	0	0	1	18	29	48
Total (2.02)		**0**	**0**	**0**	**0**	**3**	**27**	**61**	**91**
2.03	*Malignant neoplasm of digestive organs and peritoneum, except stomach and colon*								
	Male	0	0	0	0	0	13	30	43
	Female	0	0	0	0	0	9	38	47
Total (2.03)		**0**	**0**	**0**	**0**	**0**	**22**	**68**	**90**
2.04	*Malignant neoplasm of trachea, bronchus and lung*								
	Male	0	0	0	0	1	5	6	12
	Female	0	0	0	0	0	1	8	9
Total (2.04)		**0**	**0**	**0**	**0**	**1**	**6**	**14**	**21**
2.05	*Malignant neoplasm of respiratory and intrathoracic organs, except trachea, bronchus and lung*								
	Male	0	0	0	0	0	2	7	9
	Female	0	0	0	0	0	0	0	0
Total (2.05)		**0**	**0**	**0**	**0**	**0**	**2**	**7**	**9**
2.06	*Malignant neoplasm of breast*								
	Male	0	0	0	0	0	0	1	1
	Female	0	0	0	0	3	29	35	67
Total (2.06)		**0**							
2.07	*Malignant neoplasm of cervix uteri*								
	Female	0	0	0	0	0	14	8	22
Total (2.07)		**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
2.08	*Malignant neoplasm of other and unspecified parts of uterus*								
	Female	0	0	0	0	0	8	20	28
Total (2.08)		**0**	**0**	**0**	**0**	**0**	**8**	**20**	**28**
2.10	*Malignant neoplasm of prostate*								

	Male	0	0	0	0	0	11	119	130
Total (2.10)		**0**	**0**	**0**	**0**	**0**	**11**	**119**	**130**
2.11	*Malignant neoplasm of bladder &other genitourinary organs*								
	Male	0	0	0	0	1	6	13	20
	Female	0	0	0	0	0	7	16	23
Total (2.11)		**0**	**0**	**0**	**0**	**1**	**13**	**29**	**43**
2.12	*Leukemia*								
	Male	0	0	1	1	1	2	3	8
	Female	0	0	0	0	0	0	4	4
Total (2.12)		**0**	**0**	**1**	**1**	**1**	**2**	**7**	**12**
2.13	*Malignant neoplasm of lymphoid, other hematopoietic and related tissue*								
	Male	0	0	0	0	3	9	7	19
	Female	0	0	0	0	0	1	9	10
Total (2.13)		**0**	**0**	**0**	**0**	**3**	**10**	**16**	**29**
2.14	*Malignant neoplasm of other and unspecified sites*								
	Male	0	0	0	0	2	10	36	48
	Female	0	0	0	0	0	15	32	47
Total (2.14)		**0**	**0**	**0**	**0**	**2**	**25**	**68**	**95**
2.15	*Carcinoma in situ, benign neoplasms and neoplasms of uncertain or unknown behavior*								
	Male	0	0	0	0	0	1	5	6
	Female	0	0	1	0	0	1	7	9
Total (2.15)		**0**	**0**	**1**	**0**	**0**	**2**	**12**	**15**
3.01	*Acute rheumatic fever and chronic rheumatic heart diseases*								
	Male	0	0	0	0	0	0	0	0
	Female	0	0	0	0	0	0	1	1
Total (3.01)		**0**	**0**	**0**	**0**	**0**	**0**	**1**	**1**
3.02	*Hypertensive diseases*								
	Male	0	0	0	0	3	16	60	79
	Female	0	0	0	0	1	5	91	97
Total (3.02)		**0**	**0**	**0**	**0**	**4**	**21**	**151**	**176**
3.03	*Ischemic heart diseases*								
	Male	0	0	0	1	1	19	76	97
	Female	0	0	0	0	1	12	68	81
Total (3.03)		**0**	**0**	**0**	**1**	**2**	**31**	**144**	**178**
3.04	*Pulmonary heart disease, diseases of pulmonary circulation and other forms of heart disease*								

	Male	0	0	1	1	4	22	74	102
	Female	0	0	0	1	3	14	66	84
Total (3.04)		**0**	**0**	**1**	**2**	**7**	**36**	**140**	**186**
3.07	*Cerebrovascular diseases*								
	Male	0	0	0	0	4	20	90	114
	Female	0	0	0	0	1	19	104	124
Total (3.07)		**0**	**0**	**0**	**0**	**5**	**39**	**194**	**238**
3.09	*All other diseases of the circulatory system*								
	Male	0	0	0	0	0	2	9	11
	Female	1	0	0	0	2	3	17	23
Total (3.09)		**1**	**0**	**0**	**0**	**2**	**5**	**26**	**34**
4.02	*Fetus and Newborn affected by obstetric complications, birth trauma*								
	Male	0	0	0	0	0	0	0	0
	Female	1	0	0	0	0	0	0	1
Total (4.02)		**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
4.03	*Slow fetal growth, fetal malnutrition and immaturity*								
	Male	0	0	0	0	0	0	0	0
	Female	1	0	0	0	0	0	0	1
Total (4.04)		**1**	**0**	**0**	**0**	**0**	**0**	**0**	**1**
4.04	*Respiratory disorders specific to the perinatal period*								
	Male	0	0	0	0	0	0	0	0
	Female	2	0	0	0	0	0	0	2
Total (4.04)		**2**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
4.05	*Bacterial sepsis of newborn*								
	Male	0	0	0	0	0	0	0	0
	Female	2	0	0	0	0	0	0	2
Total (4.05)		**2**	**0**	**0**	**0**	**0**	**0**	**0**	**2**
4.06	*Remainder of certain conditions originating in the perinatal period*								
	Male	9	0	0	0	0	0	0	9
	Female	10	0	0	0	0	0	0	10
Total	**-4.06**	19	0	0	0	0	0	0	19
5.01	*Motor Vehicle Traffic Accidents*								
	Male	0	0	0	0	4	1	0	5
	Female	0	0	0	0	1	0	1	2
Total (5.01)		**0**	**0**	**0**	**0**	**5**	**1**	**1**	**7**
5.03	*Falls*								

	Male	0	0	0	0	2	2	2	6
	Female	0	0	0	0	0	1	6	7
Total (5.03)		**0**	**0**	**0**	**0**	**2**	**3**	**8**	**13**
5.04	*Accidents caused by firearms discharge*								
	Male	0	0	0	7	14	3	1	25
	Female	0	0	0	0	1	0	0	1
Total (5.03)		**0**	**0**	**0**	**7**	**15**	**3**	**1**	**26**
5.05	*Accidental drowning and submersion*								
	Male	0	0	0	0	4	2	2	8
	Female	0	0	0	0	0	0	0	0
Total (5.03)		**0**	**0**	**0**	**0**	**4**	**2**	**2**	**8**
5.06	*Accidental threats to breathing*								
	Male	0	0	0	2	4	2	7	15
	Female	0	0	0	0	2	0	0	2
Total (5.06)		**0**	**0**	**0**	**2**	**6**	**2**	**7**	**17**
5.08	*Exposure to smoke, fire & flames*								
	Male	0	0	1	0	0	0	1	2
	Female	0	0	1	0	0	1	0	2
Total (5.09)		**0**	**0**	**2**	**0**	**0**	**1**	**1**	**4**
5.09	*Accidental poisoning by and exposure to noxious substances*								
	Male	0	0	0	0	1	0	1	2
	Female	0	0	0	0	0	1	0	1
Total (5.09)		**0**	**0**	**0**	**0**	**1**	**1**	**1**	**3**
5.10	*All other accidents*								
	Male	1	0	0	0	3	5	28	37
	Female	0	0	0	0	1	3	29	33
Total (5.10)		**1**	**0**	**0**	**0**	**4**	**8**	**57**	**70**
5.12	*Assault (homicide)*								
	Male	0	0	0	0	4	1	0	5
	Female	0	0	0	0	0	0	0	0
Total (5.12)		**0**	**0**	**0**	**0**	**4**	**1**	**0**	**5**
5.13	*Events of undetermined intent*								
	Male	0	0	1	1	6	4	3	15
	Female	0	0	0	0	1	1	2	4
Total (5.13)		**0**	**0**	**1**	**1**	**7**	**5**	**5**	**19**

6.01	*Diabetes mellitus (E10-E14)*								
	Male	0	0	0	0	2	22	97	121
	Female	0	0	0	0	1	11	136	148
Total (6.01)		**0**	**0**	**0**	**0**	**3**	**33**	**233**	**269**
6.02	*Nutritional deficiencies and anaemias*								
	Male	0	0	1	0	0	1	0	2
	Female	0	0	0	0	0	0	2	2
Total (6.02)		**0**	**0**	**1**	**0**	**0**	**1**	**2**	**4**
6.03	*Mental and behavioral disorders*								
	Male	0	0	0	0	1	3	15	19
	Female	0	0	0	0	0	0	23	23
Total (6.03)		**0**	**0**	**0**	**0**	**1**	**3**	**38**	**42**
6.04	*Diseases of the nervous system, except meningitis*								
	Male	0	0	1	4	0	7	21	33
	Female	0	0	0	0	2	3	28	33
Total (6.04)		**0**	**0**	**1**	**4**	**2**	**10**	**49**	**66**
6.05	*Chronic lower respiratory diseases*								
	Male	0	0	0	2	1	1	12	16
	Female	0	0	0	0	0	2	9	11
Total (6.05)		**0**	**0**	**0**	**2**	**1**	**3**	**21**	**27**
6.06	*Remainder of diseases of the respiratory system*								
	Male	1	0	2	2	10	32	204	251
	Female	1	0	1	1	11	25	203	242
Total (6.06)		**2**	**0**	**3**	**3**	**21**	**57**	**407**	**493**
6.07	*Appendicitis, hernia of abdominal cavity and intestinal obstruction*								
	Male	0	0	0	0	0	0	7	7
	Female	0	0	0	0	0	1	11	12
Total (6.07)		**0**	**0**	**0**	**0**	**0**	**1**	**18**	**19**
6.08	*Cirrhosis and certain other chronic diseases of liver*								
	Male	0	0	0	0	3	5	10	18
	Female	0	0	0	0	0	2	1	3
Total (6.08)		**0**	**0**	**0**	**0**	**3**	**7**	**11**	**21**
6.09	*All other diseases of the digestive system*								
	Male	1	0	0	0	2	10	38	51
	Female	0	0	0	0	3	6	33	42
Total (6.09)		**1**	**0**	**0**	**0**	**5**	**16**	**71**	**93**

6.10	*Diseases of the urinary system*								
	Male	0	0	0	0	3	8	73	84
	Female	0	0	0	1	1	7	39	48
Total (6.10)		**0**	**0**	**0**	**1**	**4**	**15**	**112**	**132**
6.11	*Hyperplasia of prostate*								
	Male	0	0	0	0	0	2	12	14
Total (6.11)		**0**	**0**	**0**	**0**	**0**	**2**	**12**	**14**
6.12	*Pregnancy, childbirth and the puerperium*								
	Female	0	0	0	0	1	0	0	1
Total (6.12)		**0**	**0**	**0**	**0**	**1**	**0**	**0**	**1**
6.13	*Congenital malformations, deformations and chromosomal abnormaliti*								
	Male	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**2**
	Female	**4**	**0**	**0**	**0**	**0**	**1**	**0**	**5**
Total (6.13)		**4**	**1**	**1**	**0**	**0**	**1**	**0**	**7**
6.15	*Remainder of all other diseases*								
	Male	0	0	1	0	3	10	42	56
	Female	0	0	1	3	3	11	73	91
Total (6.15)		0	0	2	3	6	21	115	147
GRAND TOTAL		**39**	**2**	**16**	**28**	**137**	**551**	**2544**	**3317**

APPENDIX II

Table 47: No. Deliveries at Queen Elizabeth Hospital 2020 - 2022

Number of Deliveries			
Age Group in Years	**2020**	**2021**	**2022**
< 15	1	5	1
15 – 19	202	160	143
20 -24	532	515	441
25 -29	579	510	513
30 -34	504	497	439
35 – 39	342	337	293
40+	105	111	103
Total	2265	2135	1933

APPENDIX III

Table 48: No. Termination of Pregnancies at the Queen Elizabeth Hospital 2020 - 2022

Number of Termination of Pregnancies			
Age Group in Years	2020	2021	2022
< 15	1	0	1
15 – 19	40	27	20
20 -24	76	66	47
25 -29	95	91	47
30 -34	56	37	44
35 – 39	38	26	30
40+	17	16	15
Total	323	263	204

APPENDIX IV

Table 49: Barbados Family Planning Association 2022

	JAN-MAR	APR-JUN	JUL-SEP	OCT-DEC	TOTAL
Oral	11	15	16	6	**48**
IUCD	4	5	3	1	**13**
Condom	1	0	0	0	**1**
Injection	21	27	21	15	**84**
Other	0	3	1	0	**4**
Medical Services	330	282	219	191	**1022**
New Client Total	367	332	254	213	**1166**
Old Client Total	1732	1713	1488	1203	**6136**
Total Attendance	**2099**	**2045**	**1742**	**1416**	**7302**
Age Group <19	44	44	28	27	**143**
20-24	47	72	66	47	**232**
25-29	54	54	37	40	**185**
30-34	31	39	28	31	**129**
35-39	28	42	29	18	**117**
40-44	13	22	19	12	**66**
45+	42	59	47	38	**186**
No. Responses	0	0	0	0	**0**
None	4	16	12	12	**44**
One	17	16	20	10	**63**
Two	16	9	9	3	**37**
Three	6	5	3	0	**14**
Four	2	0	1	0	**3**
Five	0	0	2	0	**2**
Six	0	1	0	0	**1**
No. Response	214	201	207	182	**804**
Total	1649	332	254	213	**2448**
Minor Procedures	3	2	2	0	**7**
Circumcision	3	5	2	4	**14**
Prostate Checks	9	8	1	0	**18**
Hernia Repairs	8	15	5	8	**36**
Vascetomies	2	4	1	0	**7**

Medical Services	192	217	156	122	**687**
Males Total	**217**	**251**	**168**	**134**	**770**
Old	0	0	0	0	0
Paps Smear	146	175	155	99	575
Colposcopy	3	4	3	9	19
Cryo Surgeries	8	5	2	4	19
Pipelles	3	5	2	2	12
Loop Cone Biopsy	1	2	0	4	7
Bartholins	0	1	1	3	5
Ultrasounds	0	2	2	0	4
Polypectomy	0	0	5	0	5
Vulva Biopsy	0	0	0	0	0
Female Total	**164**	**211**	**177**	**121**	**673**

APPENDIX V

Table 50: Primary Care Services- Polyclinics

		2019	Jan-Mar	Apr-Jun	Jul-Sep	Oct-Dec	T0TAL	% Utilisation as compared with 2019
General Clinic	**General Practice**	**144725**	28651	29342	30283	30239	**118515**	82
Specialty Clinics	**Asthma (DTPC)**	**6**	0	0	0	0	**0**	0
	Catheter	**2448**	612	588	575	557	**2332**	95
	Chest (WSPC)	**2065**	174	319	173	308	**974**	47
	Dermatology	**1048**	181	225	240	239	**885**	84
	Diabetic	**1946**	411	226	200	148	**985**	51
	Geriatric (BTPC)	**46**	7	4	8	19	**38**	83
	Mental Health	**1809**	670	869	1506	1491	**4536**	251
	NCD (WSPC)	**1636**	276	349	267	277	**1169**	71
	O&G	**669**	89	132	159	140	**520**	78
	Ophthalmology (WSPC)	**73**	15	12	12	16	**55**	75
	Renal (WSPC)	**74**	11	11	8	7	**37**	50
	Surgical Consultation	**158**	0	0	0	0	**0**	0
	Wound Healing	**19531**	3107	3295	3897	3691	**13990**	72
Maternal and Child Care	**Antenatal**	**5217**	856	943	1127	976	**3902**	75
	Child Health	**24094**	3696	3830	3694	3308	**14528**	60
	Immunization	**10818**	1142	1265	4731	1346	**8484**	78
	Family Planning	**8804**	1349	1737	2009	2074	**7169**	81
	Postnatal	**1124**	221	174	177	222	**794**	71
Sexual Health	**STI**	**1583**	17	356	534	533	**1440**	91

COVID Services	**COVID Immunization**	**0**	23817	11878	6288	1210	**43193**	
	COVID Testing Unit	**0**	7622	6637	4897	3216	**22372**	
Community Services	**Home Visit**	**3774**	218	413	419	327	**1377**	36
Auxiliary Services	**Nutrition**	**3472**	716	713	695	725	**2849**	82
	Phlebotomy	**0**	2568	3488	3769	3860	**13685**	
	Physiotherapy	**1222**	91	281	683	607	**1662**	136
	Podiatry	**4214**	681	731	859	799	**3070**	73
	Speech Therapy	**265**	158	161	139	160	**618**	233
Urgent Care Services	**24hrs Clinic (WSPC)**	**21225**	9878	9055	8268	9588	**36789**	95
	Extended Hours	**11089**	0	0	0	0	**0**	0
TOTAL		**273135**	87234	77034	75617	66083	**305968**	**112**

GLOSSARY/DEFINITIONS

Age-Specific Death Rate – The total number of deaths occurring in a specific age group of the population in a year per estimated population of the same age group in the same year. The age-specific death rate measures the risk of death among persons in a specific age group.

Crude Birth Rate – The number of live births per year per 1,000 mid-year population. The crude birth rate indicates the magnitude of the fertility level.

Crude Death Rate – The total number of deaths due to all causes occurring in a year per 1,000 mid-year population. The crude death rate is a measure of the frequency at which deaths from all causes are occurring in the population during a specific period.

Infant Mortality Rate – The infant mortality rate measures the risk of death occurring during infancy. I.e. The probability.

Life Expectancy at Birth – The number of years a newborn baby is expected to live, given the prevailing mortality conditions in the population.

Maternal Mortality Ratio – The total number of female deaths due to complications of pregnancy, childbirth and the puerperium in a year per total number of live births in the same year. The maternal mortality ratio measures the risk of women dying from maternal causes.

Natural Increase Rate – The rate of natural increase refers to the difference between the number of live births and the number of deaths occurring in a year, divided by the mid-year population of that year, multiple by 1000.

Neonatal Death Rate – The number of infant deaths occurring before the 28th day of life per total live birth occurring during a given year. The neonatal death rate measures the risk of an infant dying within 28 days of birth.

Perinatal Death Rate – The number of perinatal deaths occurring in a year per total number of live births and stillbirths occurring in the same year. The number of perinatal deaths is equal to the sum of the stillbirths and the number of infant deaths that occur under one week of age. The perinatal death rate is a measure of the risk of death occurring either during pregnancy after the 28th week of gestation or within one week after delivery.

Still Birth Rate – The number of stillbirths occurring in a year per total number of live births and stillbirths occurring in the same year. A stillbirth is a foetal death that occurs after the 28th week of gestation.

Total Fertility Rate – The expected average number of children that would be born to a woman in her lifetime, if she were to pass through her childbearing years experiencing the age-specific fertility rates prevailing in a given year/period for a given country. It is calculated as the sum of age-specific fertility rates (referring to women ages 15-49 years) times the sum of data given in year age groups.

Years of Protective Life Lost (YPLL) - Provides an estimate of the number of years of lives lost prematurely. It is the number of years of life lost by persons who die before 65 years of age.

Abbreviations

BMCLA – Barbados Medical Cannabis Licensing Authority

BNSI - Barbados National Standards Institute

CARPHA – The Caribbean Public Health Agency

MQCSD – Medicines Quality Control and Surveillance Department

NCSA – National Council on Substance Abuse

PPP – Private Participating Pharmacies

Uppsala - ***Uppsala*** Monitoring Centre (UMC) is an independent Centre for drug safety and scientific research