

Annex A (6)

*Analytical Evidence to Support Guyana's Green State Development
Strategy: Vision 2040*

Human Development and Well-Being

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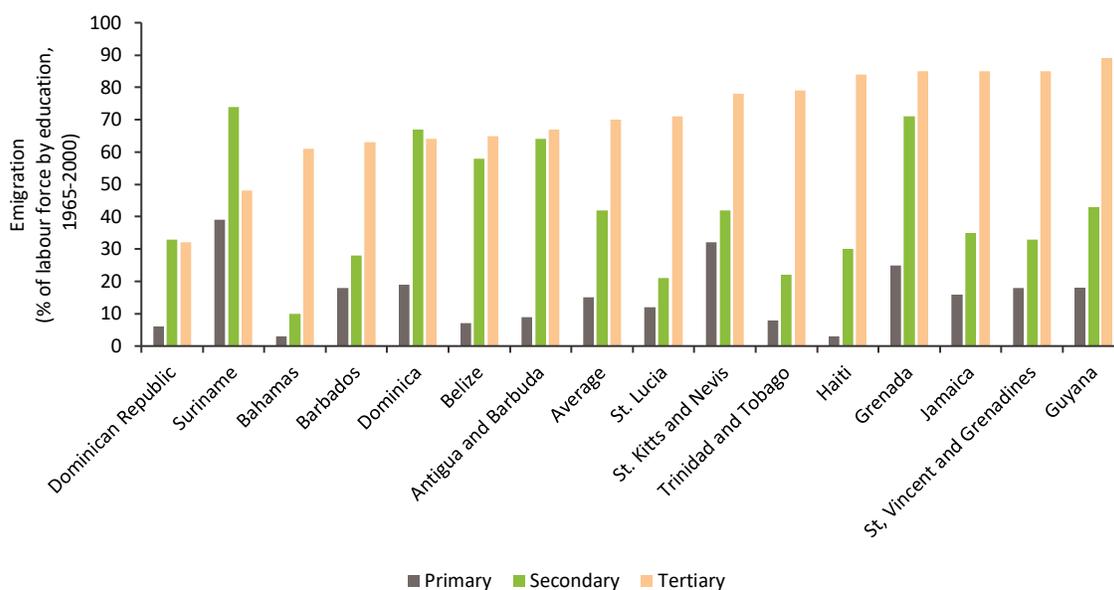
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A 6 Human Development and Well-Being

A 6.1 Labour & Human Capital

The lack of productive human capital in Guyana has been acknowledged as a severe constraint to growth.¹ Guyana's poor quality of education at the primary and secondary levels has led to very low tertiary enrolment rates (measuring at just 11.5% in 2012). The shortage of skilled labour is further exacerbated by the fact that most of Guyana's highly-educated citizens choose to live abroad (Figure 1), resulting in severe brain drain. Guyana specifically lacks skilled workers across healthcare, engineering and law. Low quality education has also led to a systematic skills mismatch, resulting in consistently high unemployment rates of 12% over the last decade. As such, according to the 2010 Enterprise Surveys, an inadequately educated workforce was the number one constraint to doing business in Guyana. Stakeholders from government and industry widely believe that the improving the quality of education will help Guyana achieve more robust, equitable and sustainable growth.

Figure 1: % of Labour Force by Education Level Living Abroad
(CARIFORUM Countries)



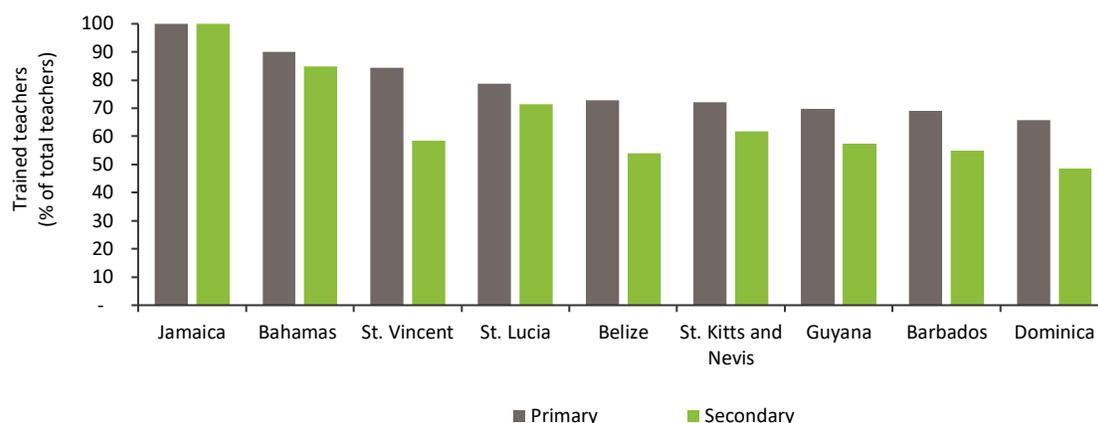
Source : Docuquir and Marfouk, 2004

Guyana's high enrollment and literacy rates mask the real problem of low educational quality. Guyana's relatively high literacy rate of 85%, as measured in 2014, and its near 100% enrollment rates for primary and secondary school, divert attention away from the fact that it lacks high-quality education. This is also evidenced by the completion rate, which when last measured in 2009, was 78%, which is lower than the enrolment rate. Guyana's low educational quality can, in part, be attributed to relatively packed schools with many untrained teachers. Guyana's schools have around 21 pupils for each teacher, which is the lowest ratio in the CARICOM region as shown by Figure 3. Additionally, nearly 30 to 40% of teachers across primary and secondary school are not trained

¹ IMF Econometric Study and Guyana Development Plan 2010

(Figure 2). It could be that the shortage of trained teachers is linked to the overall low quality of education and brain-drain but it is also possible that it relates partially to attractiveness of the education sector. There is evidence that suggests that Guyana’s education sector could be better resourced: public spending in 2012 was an estimated 3% of GDP which is lower than the Latin America and Caribbean average of 5.2%.

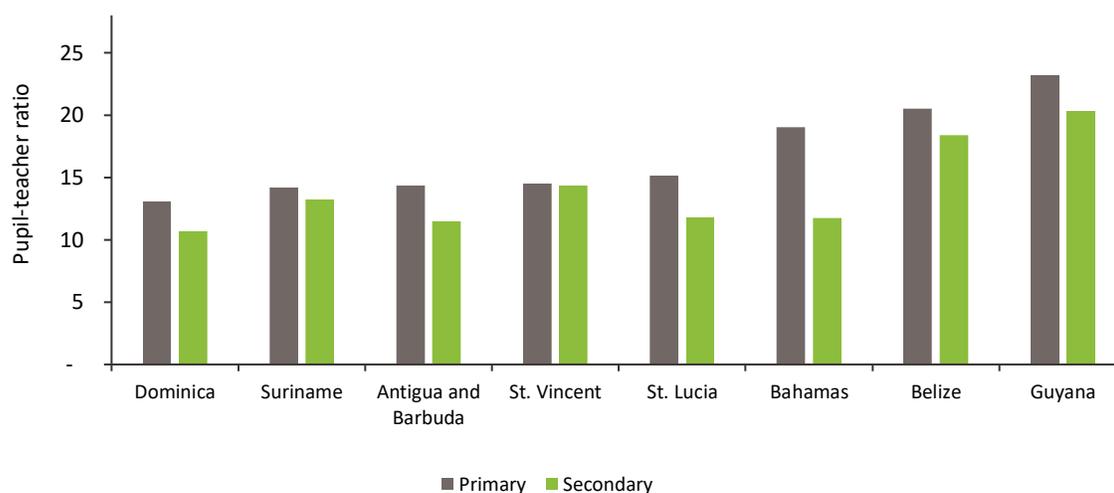
Figure 2: Trained Teachers as a % of Total Teachers (Selected CARICOM Countries)



Source : The World Bank

Note: Chart made using latest available data, Jamaica, Bahamas, St Kitts and Nevis, Barbados, Belize, Dominica (2016); Guyana (2010); St Vincent, Antigua and Barbuda (2015); St Lucia (2014). Using 2010 data for all countries, Guyana is still ranked third from the bottom.

Figure 3: Pupil to Teacher Ratio (Selected CARICOM Countries)



Source: The World Bank

Note: Chart made using latest available data, Guyana (2012); St Vincent, Jamaica and Belize, Bahamas, St Lucia (2016); Dominica, Suriname, and Antigua and Barbuda (2015)

Guyana has not yet unlocked the full potential of its girls and women, with the majority of females not participating in the labour force. There is a persistent asymmetry in labour force statistics for men and women in Guyana. While the average rate of unemployment for men has been 9% over the last decade, it has been 16% for women. Additionally, in 2017, the share of the working age men in the labour force was 79% but for women it was

only 44%. However, this asymmetry only starts in the job market. Women are as likely as men to be educated up to the tertiary level. As such, it is possible that this is driven by norms of caretaker duties. According to UNDP's gender inequality index, which is based on political empowerment, economic equality and health, inequality is higher in Guyana (0.50) than the regional average for Latin America and the Caribbean (0.39).

Furthermore, while Guyana's working age population is relatively large, many remain out of the workforce due to poverty. The impact of poverty on Guyana's human capital cannot be overlooked. Guyana's total population is 773,000 and its dependency ratio is 0.5. This means that for every 1 dependent, there are two people of working age. This is broadly in line with the regional average. However, its labour force participation rate in 2017 was just 58%, which is lower than the average of 65% for Caribbean small states. Part of this could be attributed to the fact that 4 in every 10 Guyanese citizens lives in poverty. Those in poverty often suffer from poor health, malnutrition and a lack of access to basic social services. This can drastically lower productivity and make it challenging to find and maintain a job.

Closely related to poverty, childhood malnutrition and stunting are widespread problems that impact human capital accumulation. Nearly half of all children under the age of 16 live in families that are in poverty, contributing to malnutrition and stunting. Malnutrition in the early years of life is known to severely affect educational outcomes and human capital accumulation. Nearly 12% of children under the age of 5 are stunted in Guyana, as measured in 2017. The corresponding figure for Latin America and the Caribbean is 9.6%. As a result of stunting, people can become 'trapped' in poverty and remain permanently out of the workforce. Moreover, since the already limited medical resources are mostly concentrated in Georgetown, it can be difficult for the rural population to access medical care, which further exacerbates human capital accumulation.

A 6.2 Health

A 6.2.1 Background to Guyana's Healthcare System

Guyana's national public health system was inherited from the British more than two centuries ago and structured according to the geographical configuration of the county system (Berbice, Demerara, Essequibo), where the population and administrative services were also concentrated. Public health then was governed by a central Ministry of Health headed by a Minister, supported by a Permanent Secretary and Director of Medical Services. County health officers were appointed to oversee the health of the population in each county. The sugar and bauxite industries, with their community services and infrastructures also supported the provision and delivery of health services to their surrounding communities.

In the *1969 Blueprint for Action*, the country's national development strategy after independence, regionalisation was the prevailing philosophy for the delivery of healthcare across the coast and hinterland areas in Guyana. As such, levels 1 and 2 primary healthcare services were designed for Indigenous communities in the hinterland, while levels 3, 4 and 5 secondary and tertiary care services, were designed for populations in urban areas. Under the *Blueprint*, five regions were established to implement these services at two administrative levels - regional and central. The Ministry of Health was the central body responsible for policy, regulation, standards and oversight. The priorities of the health system were the preventive and curative aspects of diseases, access to healthcare, and human resources development.

In 1986, to increase the efficiency and effectiveness of healthcare delivery, there began a process of structured decentralisation of service delivery in alignment with the local government system. The context was the passage of the Local Democratic Act in 1980 which established ten (10) administrative regions, each governed by a Regional Democratic Council responsible for the delivery of public services. The health care system then was subsequently

analysed to be inefficient and ineffective because of fragmentation and lack of coordination of services, high cost (especially ambulatory care, maternal and child health services), and other factors related to underutilisation of district hospitals, concentration of health services in urban areas and centralised decision-making.

By September 1998, the government proposed a sector-wide health reform programme.² The objective was that health services should be accessible, equitable and effectively delivered across Guyana. Health sector reform became institutionalised through the financing of the *Health Sector Policy and Institutional Development Program* funded by the Inter-American Development Bank (1999-2005). The Program prioritised institution and capacity building, restructuring of the health sector i.e. decentralisation of health services, and human resource development. The Program developed a strategic plan with legislative reform, which included key pieces of legislation enacted in 2005 - the Regional Health Authorities Act, the Ministry of Health Act - and subsidiary legislation. Decentralisation of health services was again a key objective of the reform plan. The policy, financing, standards development and monitoring function was left as a centralised responsibility of the Ministry of Health. Responsibility for the delivery of health services devolved to Regional Health Authorities with the decision-making authority mandated under the Regional Health Authorities Act. Only one health authority was established (Berbice Health Authority) but this no longer exists today. The reform process also incorporated the Georgetown Public Hospital Corporation and the Materials Management Agency Limited as autonomous bodies responsible for delivery of levels 3, 4 & 5 health services and procurement/distribution of goods and services, respectively.

Guyana took the policy decision to promote primary health care as the most effective investment and the mechanism for achieving health for all. In addition, environmental health was considered an essential component to good health and through cooperative agreements, the Ministry of Health pursued collaboration with the Environmental Protection Agency and other relevant institutions. Specialised boards and agencies also established included the Cancer Board, the National AIDS Programme Secretariat and the Mental Health Board, dealing with those related illnesses. Also established was the health referral and health information system, capacity building for health workers and definition of a basic, guaranteed health package for Guyanese that included both free and cost-sharing services.

Over the next decade, Guyana focused on implementing the health reform programme and achieving set targets and outcomes in partnership with development partners (e.g. PAHO/WHO, private sector). Training and capacity building programmes were delivered to all categories of medical personnel and environmental health workers. Bachelors level degree programmes in medicine, dentistry and nursing were established at a new Faculty of Medicine at the University of Guyana, along other with other specialised training courses with other and at medical schools in Cuba and the Georgetown Public Hospital Corporation. Emergency and obstetrics services were given special attention to address maternal health and infant mortality issues and other non-communicable diseases.

By 2014 the Ministry of Health launched its “Vision 2020” in anticipation of the Sustainable Development Agenda and goals. The goal was for Guyanese to be among the healthiest in the Caribbean and the Americas by the year 2020. Several strategies were established for long term health, consolidating health outcomes and strengthening the health system to close the remaining gaps in meeting the Millennium Development Goals (MDGs). The aims of Vision 2020 were also to expand universal health coverage and promote behavioural and cultural changes in and through the delivery of improved health services. The Ministry of Public Health is also promoting a revised “Package of Essential Health Services” that outlines the facility-based health care services available to the public, free of charge, for each level of the health care system.

² Health Sector Reform Programme Cabinet Paper, September 1998.

In 2015, with a new Government administration, the Ministry of Health was renamed the Ministry of Public Health and in collaboration with the then Ministry of Local Government and Regional Development continued to administer health services across the country under the prior structure that remains the same today.³

Vision 2020 also guided the development of the Ministry of Public Health's "*National Health Strategy for Guyana, 2013-2020*". The Strategy adopted the recommendations of the World Health Organization relating to six key building blocks upon which national health systems should be constructed: governance, health financing, service delivery, human resources for health, pharmaceutical management and health information systems. The Ministry added a seventh pillar – strategic partnerships – given the important role played by its development partners and added "leadership" to the governance component.

The Strategy analyzed the structure and operations of the health system through the lens of the building blocks, identifying strengths, weaknesses, opportunities and threats (SWOT analysis), and recommending a strategic framework with the following:

- *Vision*: The Vision requires that by the year 2020, "all Guyanese are among the healthiest in the Caribbean and in the Americas". The Ministry of Public Health takes a leadership role, collaborating with all stakeholders to deliver on its mission and Vision. There are three key values that characterise the Guyana health service: (i) "health as a human right" - recognizing the rights of citizens to enjoy good standards of living, health and wellbeing; (ii) "equity" - universal access is provided to all regardless of gender, socio-economic status or geography; and (iii) "solidarity" - with health as a priority all citizens must engage in the delivery of good health services and especially to poor and disadvantaged groups.
- *Founding principles*: Based on the above mission and value-system, the health system must also observe its founding principles described as: (i) a focus on primary health care for the important role it plays in prevention of disease and ill health; (ii) empowerment and responsibility of individuals to make responsible health choices in their lives; (iii) all levels of society participating to encourage healthy individuals and communities; (iv) decision-making facilitated by and resources allocated through evidence-based approaches; (v) good health and sustainable development are mutually reinforcing and drives a virtuous cycle of development.

Three strategic goals are prioritised:

- (i) *The advanced wellbeing of all Guyanese*: as measured by set targets and indicators for life expectancy at birth; maternal-, infant- and child mortality; mortality rates of the key non-communicable diseases (cancer, diabetes, lung disease); prevalence of 4 related risk factors (smoking, alcohol use, physical activity and unhealthy diets); risk, incidence and prevalence of communicable diseases (malaria, tuberculosis and HIV/AIDS). The targets are also aligned to the 2030 Sustainable Development Goals and targets.
- (ii) *Reduced health inequalities*: for disadvantaged groups e.g. women, youth/adolescents, indigenous people, persons with disabilities, LGBTQI, the elderly, and not only from the standpoint of the disparity in quality services between the coast and hinterland regions, but also in relation to building awareness, available health information and overcoming stigmas.

³ From 1986 today, even though health services delivery has devolved to the Regional Democratic Councils under the Ministry of Communities, the Ministry of Public Health has retained responsibility for vertical health programmes e.g. vector control, rehabilitation services, dental care, mental health, Hansen's Disease, HIV/AIDS, alcohol and drug abuse.

- (iii) *Improved management and provision of evidence-based, people-responsive, quality health services*: that is client-focused and accessible, well financed, governed and monitored against the desired health outcomes.

The Strategy describes in some detail the associated objectives and activities for each goal and the identified 20 targets and measures for monitoring progress and achievement. Health Vision 2020 requires a shift in attitudes and behaviour. Activities are being implemented in two phases that are conditioned by the feasibility of the recommended actions, in terms of available human, financial and legislative resources and capacity, and levels of stakeholder engagement.

The first phase of implementation (2013-2015) was driven by the context of the 2030 Sustainable Development Agenda and related goals (SDGs) that built upon the Millennium Development Goals (MDGs). The Ministry of Public Health was eager to consolidate health system gains and complete the country's reporting on the MDGs, establish a culture of data collection and analysis for better management, and close any gaps in health system legislation and reform.

Phase II (2016-2020) focused on the expansion of health coverage, prioritising primary health care beginning with a revised Package of Publicly Guaranteed Health Services (PPGHS) as the basic level of freely available health services, particularly for the poor and disadvantaged population. New legislation was slated for enactment and planned activities for prevention of chronic diseases implemented. These are summarized below.

A 6.2.2 Current Healthcare System

Vision 2020 has refined the policy for achieving universal health, good quality healthcare and delivery of services via three key units in the Ministry of Public Health and related subsector strategies:

- *The Chronic Disease Control Unit*: The top four causes of premature death in Guyana are cardiovascular diseases, cancer, diabetes and chronic respiratory diseases. To address these, the Unit promotes a multisectoral integrated approach to accomplish its goals: to reduce risk factors, to promote good health and disease prevention, and to foster integrated disease management and patient self-management. The Unit also conducts surveillance, monitoring and evaluation of chronic diseases including data analysis, public policy and advocacy, and awareness raising for preventive care and well-being. The Unit maintains a national health surveillance system that involves daily and monthly tracking and reporting on communicable and non-communicable health conditions.
- *The Mental Health Unit*: The objective of the Mental Health Unit is the promotion of mental health, reducing psychiatric diseases, preventing disabilities and developing rehabilitation. The *National Mental Health Action Plan (2015-2020)* addresses the multifaceted relationship between physical and mental health including a range of socio-economic and psychological factors through comprehensive actions for promotion, prevention, treatment and recovery. The *National Suicide Prevention Plan (2015-2020)* addresses high risk individuals and groups promoting mental health as the strategy for reduced suicide risk. Special focus is placed on children and young people and issues such as bullying and lack of self-esteem. Preventive measures include targeting inappropriate media coverage of suicides and more supportive community and school environments. The Unit has also set up a suicide prevention helpline and peer support networks to provide counselling for those with suicidal tendencies. There are programmes for women and children experiencing domestic violence or abuse, for men, and for ensuring there is treatment at all levels of the healthcare system. Other programmes support persons in contact with the criminal justice system, those abusing drugs and alcohol, and persons experiencing bereavement and other family issues.

- *The Maternal and Child Health Unit:* The goal of the Maternal and Child Health Unit is "to ensure that women, children and family members obtain maximum healthcare". The Unit provides key programmes for women (ante-, intra- and postnatal), families (family planning services, immunisations), children (pediatric and adolescent/youth care and services) and communities (basic healthcare and illness prevention).

A 6.2.2.1 Healthcare Facilities

Guyana's five-tier public health care system is based on specific levels of care in health facilities:

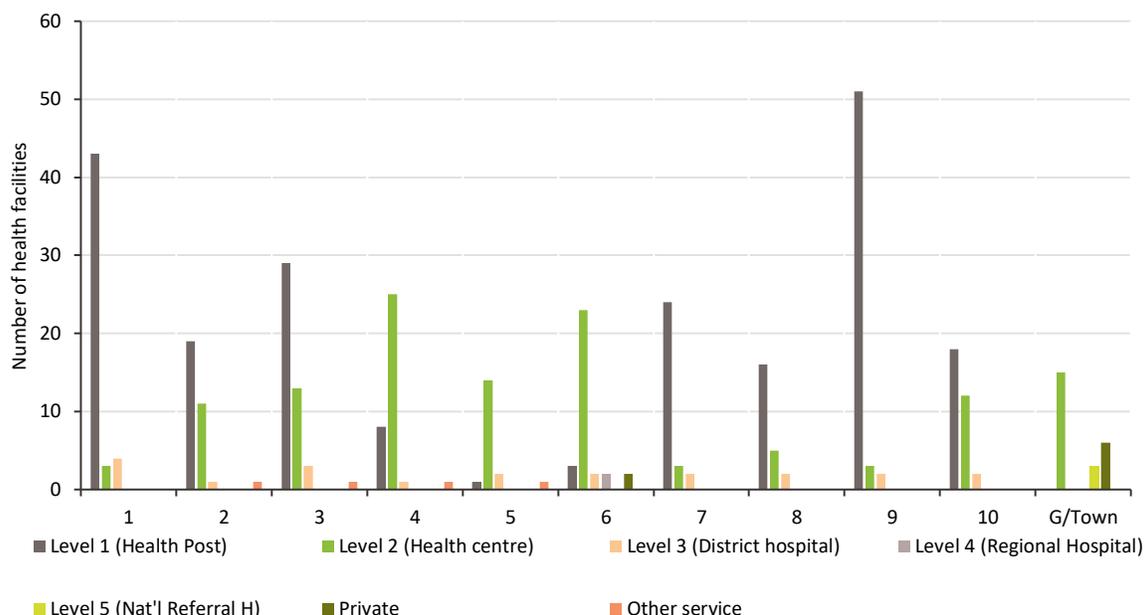
- *Level 1 (Health post/clinic):* At this level, the provision of health care is through a primary clinic that offers basic services such as immunisation, antenatal care, family planning, and treatment of common diseases. Some health clinics may have additional services for HIV/AIDS counseling or tuberculosis treatment, but these are not always available. If a health clinic is not able to assist, the patient will be referred to a community health centre. Currently, there are 199 health clinics across the country. Of this total, 83% are located in hinterland areas and mainly serve the healthcare needs of the Indigenous communities.
- *Level 2 (Community health centre):* A community health care centre offers similar services to a primary health care clinic with additional services available at sub-district level, e.g. maternity, emergency care and casualty and a short stay ward, among others. Currently, there are 127 community health centres; 72% are located in coastal areas (Essequibo Islands-West Demerara, Demerara-Mahaica, Mahaica-Berbice and East Berbice-Corentyne).
- *Level 3 (District hospital):* The third level of healthcare includes the district hospital that provides generalist support to health clinics and community health centres at district and sub-regional levels. These facilities offer clinical services including surgeries, geriatrics, obstetrics and gynecology, pediatrics and orthopedic, out-patient department, casualty and clinical forensic medical services. Other services may include radiology (x-ray), laboratory services, mental health, eye care and rehabilitation services. There are 18 district hospitals and 61% are located in hinterland regions.
- *Level 4 (Regional hospital):* Referrals to the regional hospital are received from and provide specialist support to district hospitals at regional levels. If the regional hospital is not able to provide adequate support, the patient is referred to national hospitals. There are seven regional hospitals, five of which are located in hinterland regions.
- *Level 5 (National referral hospital):* This is the highest level of health care and a referral hospital that provides multi-specialty clinical services, innovation and research. These services may include neurosurgery, neurology, plastic and reconstructive surgery, cardiology, urology, occupational health and orthopedics, amongst other services. In some instances, emergency cases may be referred out of the region for immediate and life-saving interventions. Currently, there are three national referral hospitals that service all 10 regions, none of which is located in hinterland regions. These include Georgetown Public Hospital in Georgetown and two specialised hospitals in East Berbice-Corentyne (i.e. ophthalmology and psychiatry).

Within each administrative region there are at least three levels of healthcare. The 5 levels define a referral system (Table 1) from primary (level 1) up to the specialised national referral hospital (level 5). Although, many patients

bypass the primary level preferring the more specialised services available at the regional and national referral hospitals.⁴ The Regional and District health facilities play a support and coordination role in all 10 regions.

⁴ "Guyana Health System Profile", PAHO/WHO, 2001, 22pp.

Figure 4: Health Service Levels by Region



Source: Health Vision 20/20: A National Health Strategy for Guyana 2013-2020

Table 1: Referral System and Number of Facilities

Health Facility	Coast (Essequibo Islands-West Demerara, Demerara-Mahaica, Mahaica-Berbice, East Berbice-Corentyne)	Hinterland (Barima-Waini, Pomeroon-Supenaam, Cuyuni-Mazaruni, Potaro-Siparuni, Upper Takutu-Upper Essequibo and Upper Demerara-Berbice)	Hinterland Facilities (as % of total facilities)
National Referral Hospital	3	-	-
Regional Hospital	2	5	71%
District Hospital	7	11	61%
Health Centre	91	36	28%
Health Post	33	166	83%

Note: These numbers do not include (a) 4 diagnostic centres in the following areas Suddie, Pomeroon-Supenaam; Leonora, Essequibo Islands-West Demerara; Diamond East Bank Demerara, Demerara-Mahaica; and Mahaicony, Mahaica-Berbice and (b) 4 private hospitals in Georgetown (i.e. Dr. Balwant Singh's Hospital, Davis Memorial Hospital, Woodlands Hospital and St. Joseph Mercy Hospital).

Source: Adapted and modified from UNICEF. 2016. The Situational Analysis of Children and Women in Guyana. Georgetown. Data is compiled from Ministry of Public Health. Accessed at: <http://www.health.gov.gy/index.php/a-complete-list-region-1> [Accessed on: 15 August 2018]

Hinterland regions have more facilities at level 1 (83% of total health clinics), level 3 (61% of total district hospitals) and level 4 (67% of total regional hospitals), and much lower facilities at level 2 (28% of total health centres). The high number of primary level facilities in the hinterland regions is to cater for the nomadic lifestyles of residents of the Indigenous communities and to also expand health reach in vast, remote interior.

Coastal regions have 33 health posts, 91 health centres, seven district hospitals and two regional facilities in addition to the three national referral hospitals. There are three diagnostic centres and these are in Essequibo Islands-West Demerara (Leonora), Demerara-Mahaica (Diamond East Bank Demerara) and Mahaica-Berbice (Mahaicony), respectively. In terms of district hospitals, three are located in East Berbice-Corentyne (Mibicuri, Port Mourant, and Skeldon), two in Essequibo Islands-West Demerara (Leguan and Wakenaam), one in Demerara-Mahaica (Dr. CC. Nicholson, Nabacalis), and another facility in Mahaica-Berbice (Fort Wellington). Regional hospitals are in Essequibo Islands-West Demerara (West Demerara) and East Berbice-Corentyne (New Amsterdam).

A compulsory National Insurance Scheme for public and private sector workers provides health coverage for illnesses, maternal and medical care and job-related injuries. Coverage includes consultations, hospitalization, overseas treatment, eye care/spectacles, dental care, surgery and drugs. Private hospitals are licensed to operate under the Private Hospitals Act and provide about half of all curative services, as well as diagnostic facilities, clinics and dispensaries⁵ on a fee basis.

A 6.2.2.2 Health Personnel

The health system, as in other public services, is under-resourced and experiences challenges in retaining an adequate number of qualified technical personnel especially in the hinterland regions. In 1968 the ratio of physicians to 10,000 persons in the population was 5.8, this was reduced to 1.7 in 1976 before rising to 3.3 in 1993⁶ and then to 9.5 in 2009 when it remained fairly constant until 2013.⁷ The number of nurses per 10,000 persons showed a consistent increase from 8.7 in 1976 to 12.8 in 2009 and 15.5 in 2013.⁸ Although there has been an increase in the number of healthcare workers, the annual turnover rate of the health workforce was still 50% in 2010.⁹ This increase in the supply of health workers is attributed to the Ministry of Public Health's health science education programme. This includes training programmes at the Georgetown Public Hospital and the University of Guyana, as well as programmes for recruiting of Cuban doctors and training of Guyanese students in Cuba and more recently Brazil. There has also been the establishment of nursing schools in other parts of Guyana, namely, New Amsterdam and Linden. These successes can be further enhanced through continued improvements to training and incentives for retaining trained health workers.

A 6.2.2.3 Health Care Financing

Health care in Guyana is predominantly financed and delivered by the Government, with contributions from the donor community, international NGOs and the private sector (Figure 5). The Ministry budgets for and implements seven recurrent programmes that are measured against benchmark indicators that effectively commenced in 2017¹⁰. The regional and clinical services component has the lion share of recurrent health expenditure at 89.4% in 2018. This component is responsible for coordinating functions in all regional health offices and in providing specialist healthcare services and urgent interventions (e.g. MedEvac) to all regions. For 2018, the disease control programme receives 12%, education program at 3.6%, disability and rehabilitation services at 2.2%. The Family healthcare Services Programme receives a comparatively smaller budget of 7.2% and is responsible for improving access to primary health care services and improving the capacity of health care professionals. The current allocation is likely

⁵ Ibid.

⁶ Health @50 in Guyana

⁷ National Population and Housing Census: Bureau of Statistics, 2012

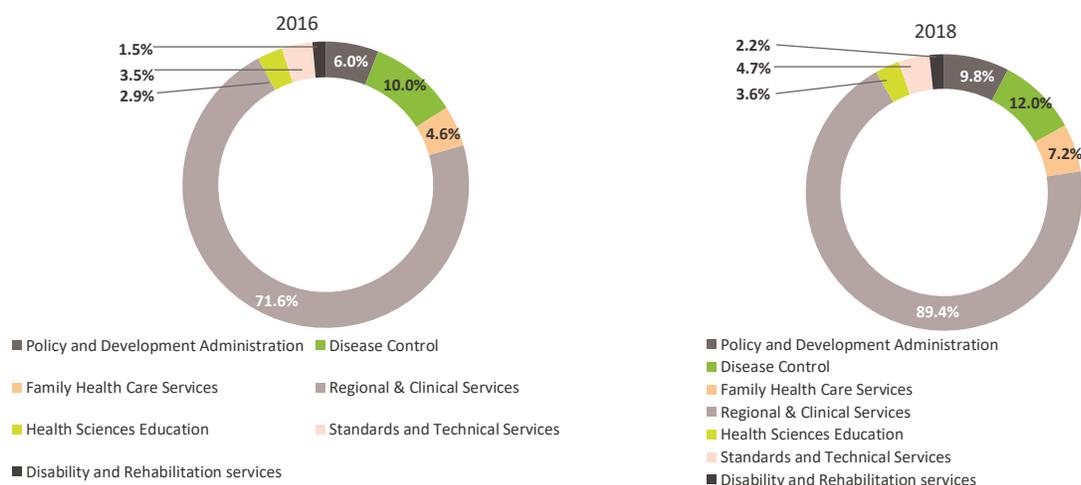
⁸ Ibid

⁹ Guyana Health Vision 2020

¹⁰ "Cooperative Republic of Guyana Estimates of the Public Sector: Current and Capital Revenue and Expenditure, as presented to the National Assembly" (2017 & 2018), Volumes 1, 2 & 3.

to limit maximum delivery of interventions in other key areas including preventive care initiatives, health education and skills training.

Figure 5: Budget Allocation for Recurrent Programmes, 2016 and 2018

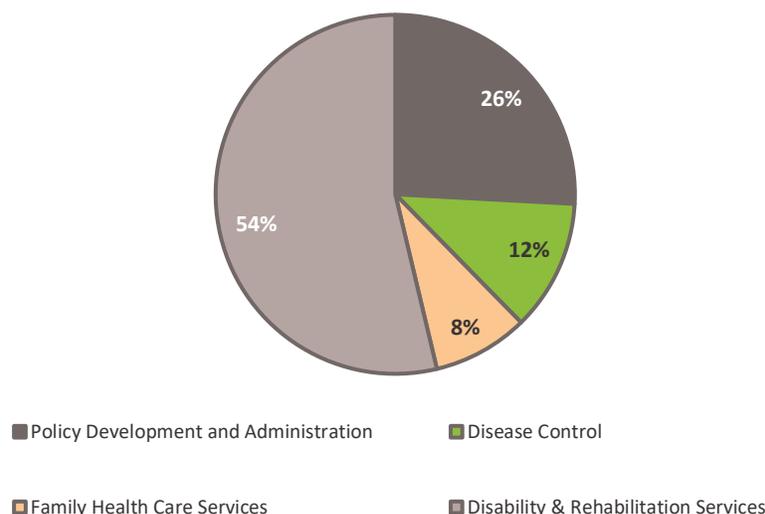


Source: Calculations based on 2018. Ministry of Finance. Current and Capital Revenue and Expenditures for the year 2018. Volume 1.

The Government provides subsidies and direct contributions to local agencies that support health-related initiatives. An estimated GY\$ 8.854 billion was allocated in 2018, a 10% increase from the revised 2017 budget. The majority is allocated to the Guyana Public Hospital Corporation (GY\$ 8.74 billion) under the sector’s “Regional and Clinical Services Programme”. The rest of the subsidies (GY\$ 115.92 million) goes to the following programmes: 54% to Disability & Rehabilitation Services¹¹, 26% to Policy Development and Administration (Presidential Commission on Non-Communicable Diseases receives one-third of the contribution), 12% in Disease Control (Cancer Board receives two thirds allocation), and 8% in Family Health Care Services (Salvation Army’s Drug Rehabilitation Programme) (Figure 6).

¹¹ The National Commission on Disability and the Ptolemy Reid Rehabilitation Centre receive almost equal contribution.

Figure 6: Subsidies and Contributions to Local Organisations by Health Programme, 2018



Note: Calculations do not include subsidies and contributions to Regional and Clinical Services, at GY\$ 7.95 billion. Data is in GY\$ thousands.

Data source: Calculations based on 2018. Ministry of Finance. Current and Capital Revenue and Expenditures for the year 2018. Volume 1. Accessed at: <https://finance.gov.gy/wp-content/uploads/2017/11/Budget-Estimates-2018-Volume-1.pdf> [Accessed on: 22 August 2018]

The approved 2018 budget allocation for public health has increased to GY\$ 23.46 billion; this is an upward revision of 14% from the revised 2017 budget for the Ministry of Public Health (Table 2). There is a relatively low rate of gross fixed capital formation in the healthcare sector, as implied by an 11% capital expenditure share from total expenditures; the rest is allocated to recurrent spending. Within capital expenditure, the majority goes to the purchase of medical equipment (GY\$ 136.7 million), construction of laboratories (GY\$ 52.7 million), provision of health facilities for maternal and child health improvement (GY\$ 150 million) and primary health care facilities (GY\$ 300 million), purchases of ambulances and construction of medical personnel's quarters (GY\$ 535 million).¹²

There are some indirect investments for upgrading health-related infrastructure systems that improve access to water supply and for management of wastewater. Health infrastructure is a critical aspect of improving health outcomes, but it requires high capital costs, which in effect carries a disproportionate fiscal burden. Currently, the higher level of care facilities such as referral hospitals, consume a significant share of the national health budget. The level of expenditure on these facilities may not necessarily be commensurate with the quality of services provided and their contribution to overall health outcomes.

¹² One component of IDB's loan package on maternal child health and nutrition.

Table 2: Details of Expenditure of the Ministry of Public Health (GYD)

Item	Actual 2016	Budget 2017	Revised 2017	Budget 2018
Total Appropriation Expenditure	128,182,567	21,490,320	20,573,939	23,455,957
Total Appropriated Capital Expenditure	1,541,480	1,981,186	1,670,541	2,508,461
Total Appropriated Current Expenditure	16,641,087	19,509,134	18,903,398	20,947,496
Total Employment Costs	4,984,423	6,397,930	6,128,722	6,649,604
Total Charges	11,656,663	13,111,204	12,774,675	14,297,892

Note: Data is in GY\$ thousands.

Data source: Calculations based on 2018. Ministry of Finance. Current and Capital Revenue and Expenditures for the year 2018. Volume 1. Accessed at: [Accessed on: 20 August 2018].

Development Partners: The major contributors to the sector are the Inter-American Development Bank, the Pan-American Health Organisation/World Health Organisation, the Global Fund to Fight AIDS, Tuberculosis and Malaria, and United Nations agencies. Development partners in the health sector are instrumental in assisting the Ministry of Public Health to implement the Health Vision 2020 strategy and are active in ensuring that it shapes the future direction of the health sector in Guyana. Additionally, an increasing number of non-governmental organisations support the country's development efforts as full-fledged development partners.

Since 2005, the Global Fund has been providing support to the Ministry of Public Health through the multi-year project 'Strengthening the National Response to HIV/AIDS in Guyana'. About 92% of the total grant (US\$39.7 million) has been disbursed. This grant is implemented alongside programmes that are supported by the Inter-American Development Bank, USAID's President's Emergency Fund for AIDS Relief (PEPFAR)¹³ and the World Bank. Programmatic results are rated satisfactory despite low financial expenditure, as this was offset through co-financing arrangements with other donors. From an institutional standpoint, the HIV/AIDS programme has contributed to the strengthening of the Ministry's procurement systems and it is expected that other programs with similar procurement requirements will benefit from such improvement.¹⁴

The Inter-American Development Bank is providing US\$8 million in concessional loans for improving maternal and child health. The majority of the loan component has been allotted to infrastructure investments. These include improvements to the C.C. Nicholson hospital in Nabacalis, procurement of equipment for health facilities at the maternity and neonatal units of the Georgetown Public Hospital, and ambulances and communication systems for Essequibo Islands-West Demerara, Demerara-Mahaica and Upper Takutu-Upper Essequibo.

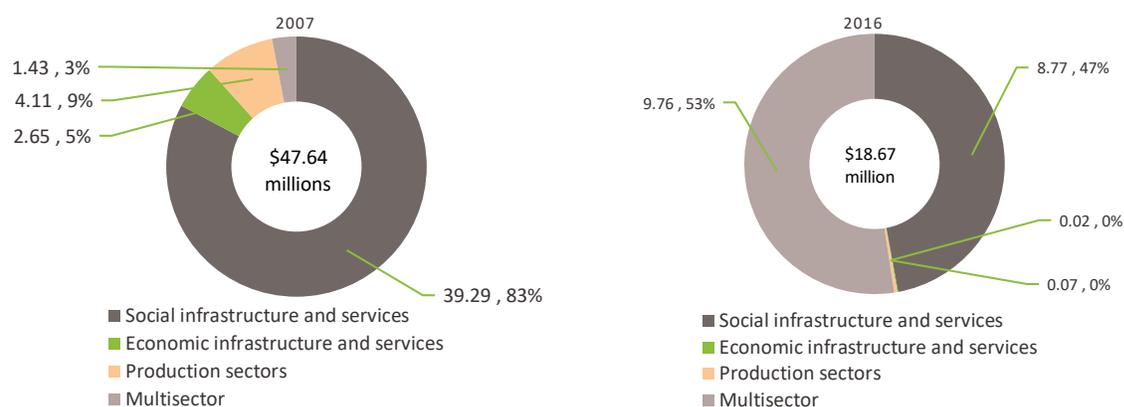
External development financing, although often substituted for domestic investment, has tumbled in the last 10 years. Official Development Assistance (ODA) commitments have substantially declined from \$47.67 million to

¹³ The U.S. President's Emergency Plan for AIDS Relief (PEPFAR) is the U.S. government's response to the global HIV/AIDS epidemic.

¹⁴ The Global Fund. 2017. Grant Performance Report: Strengthening the National Response to HIV/AIDS in Guyana.

\$18.67 million between 2007 and 2016. In 2007, about 82% of total ODA was committed to social infrastructure and services and, of this share, 16% went to improving water supply and sanitation. In 2016, the ODA share of social infrastructure and services was reduced to 47% and of this share, 0.3% went to water supply and sanitation; ODA per capita in medical research and basic health sectors stood at 2.85 (Figure 7).^{15,16}

Figure 7: Official Development Assistance by Sector, 2007 & 2016



Source: Calculations based on Organisation for Economic Co-operation and Development (OECD). 2018. OECD.Stat [online database]. Paris: Organisation for Economic Co-operation and Development. Accessed at: <http://stats.oecd.org/> [Accessed on: 20 August 2018].

Private Sector: In 2008, private sector expenditure was 12% of total health expenditure and continued to grow at an average rate of 4% per year.¹⁷ Concomitant with this increase in private expenditure on health was an increase in demand for private insurance coverage. There has also been an increase in private care facilities and clinics.

¹⁵ WHO. 2018. World Health Statistics 2018. monitoring Health for the SDGs, sustainable development goals. Geneva.

¹⁶ Organisation for Economic Co-operation and Development (OECD). 2018. OECD.Stat [online database]. Paris: Organisation for Economic Co-operation and Development. Accessed at: <http://stats.oecd.org/> [Accessed on: 20 August 2018].

¹⁷ Guyana Health Vision 2020

A 6.2.3 Preventive Health, Treatment and Care

A 6.2.3.1 Health Profile

Guyana has made good progress toward improving its national health outcomes with the implementation of a universal healthcare system (Table 2). National average life expectancy at birth, between 1990 and 2018 (Ministry of Public Health estimates) improved from 63.3 years to 68.9 years. This is driven largely by improvements in child survival and to some extent, housing, sanitation and education. Since 2010 there has been a reduction in maternal and child mortality; decreased incidence, prevalence and mortality from communicable diseases; high levels of immunisation coverage; greater awareness of environmental health issues; and improved water and sanitation facilities.¹⁸

Table 3: Guyana's Health Profile

Guyana – Health Indicators	Values
<i>Child health</i>	
• % infants exclusively breastfed for the first six months of life (2009)	23.3
• % 1-year old receiving Diphtheria tetanus toxoid and pertussis (DTP3) immunization (2015)	97
<i>Demographic and socioeconomic statistics</i>	
• Life expectancy at birth (years) (2018) - both sexes (MoPH est.)	68.9
○ Male	65.7
○ Female	71.8
• Population (in thousands) total (2012 Census)	746,955
• % Population under age 15 (2015)	28.8
• % Population over age 60 (2015)	8.3
• % Literacy among adults aged >= 15 years (2007-2012)	85
• Gender Inequality Index rank (2014)	114
• Human Development Index rank (2014)	124
<i>Mortality and global health estimates</i>	
• Neonatal mortality rate (per 1000 live births) (2018, MoPH est.) (range 2012-2017: 21.8-18.6)	17.2
• Under-five mortality rate (probability of dying by age 5 per 1000 live births) (range 2012-2017: 26.7-21.5) (2018, MoPH est.)	20.8
• Maternal mortality ratio (per 100 000 live births) (range 2012-2017: 168.5 – 136.4) (2018, MoPH est.)	116.7
• Births attended by skilled health personnel (%) (range: 2012-2017: 86.1-92.5%) (2018, MoPH est)	94.2
• HIV/AIDS (2017) ¹⁹ :	

¹⁸ PAHO/WHO Country Strategy 2016-2020

¹⁹ Source: [UN AIDS Guyana Website](#) (stats updated March 2019).

Guyana – Health Indicators		Values
<i>Child health</i>		
○ HIV prevalence per 1,000 population (15-49 years)	-	1.09
○ Adult age HIV incidence rate (15-49 years)	-	1.7%
○ New HIV infections	-	<1,000
○ AIDS-related deaths	-	<200
○ Persons living with HIV/AIDS	-	8,200
○ Percent accessing anti-retroviral therapy	-	64%
○ Percentage of pregnant women living with HIV/AIDS were getting treatment	-	64%
○ Number of children newly infected with HIV/AIDS (mother-to-child transmission)	-	<100
○ HIV prevalence in vulnerable groups:	-	
○ Sex workers	-	6.1%
○ Men having sex with men	-	4.9%
○ Transgender people	-	8.4%
○ Education and awareness	-	
○ Knowledge about HIV/AIDS prevention among youth ages 15-24	-	48.6%
<i>Public health and environment</i>		
● Population using improved drinking water sources (%) (2015) - total		98.3
○ Urban	-	98.2
○ Rural	-	98.3
● Population using improved sanitation facilities (%) (2015) - Total		83.7
○ Urban	-	87.9
○ Rural	-	82.0

Guyana is experiencing an epidemiological transition. While communicable diseases are still prominent in the country's disease profile, chronic non-communicable diseases (NCDs) are an increasing burden.²⁰ Non-communicable diseases (NCDs) have been associated with the largest mortality in Guyana since 1996 accounting for 70% of deaths by 2017 (see below).²¹ Apart from HIV/AIDS and acute respiratory infections, they have occupied the top 9 places as causes of mortality. Among the NCDs, cerebro-vascular disease (CVD) and ischemic heart disease (IHD) have been consistently among the top 2 causes of morbidity and mortality, while neoplasms, HIV/AIDS and Diabetes Mellitus have interchanged between third, fourth and fifth places respectively, over time. HIV/AIDS was a greater cause of mortality than the other 2 in the latter part of the 1990's and the early 2000s but was replaced by neoplasms from around 2006 onwards.²²

In 2012, the World Health Organization rated Guyana as the country with the highest per capita rate of suicide in the world. Suicide is a leading cause of mortality among adolescents and young adults. An area of critical success

²⁰ PAHO/WHO Country Strategy 2016-2020

²¹ Health @50.

²² Health @50

has been child health and mortality. Between 1990 and 2015, the infant mortality rate fell from 46 to 28 per 1,000 live births against the Millennium Development Goal target of 14 per 1,000 live births by 2015.²³ In 2015, only 1% of children aged 12-23 months is yet to be immunised; a stark improvement from the 27% figure of 1990. Considering the trend of the last fifteen years, Guyana is on track to meet the Sustainable Development Goal targets for child and neonatal mortality and fares even better than the global average.

A 6.2.3.2 Maternal Health & Mortality

The national Maternal and Child Service is reported to be fairly well utilized in Guyana by pregnant women, their infants and their children. The percentage of pregnant women attending antenatal clinics increased from 42% in 1984 to 92% in 2014²⁴. This might have contributed to the decline in maternal mortality rate from 162.5 per 100,000 live births (26 actual deaths) in 2005 to 112.5 (16 deaths) in 2012.²⁵ However, by 2015, the estimated maternal mortality rate increased to 229 maternal deaths per 100,00 live births (Figure 8). This fell short of the Millennium Development Goal target of 43 deaths per 100,000 live births by 2015 and shows a reversal in progress.²⁶ There is a need to pick up the pace at which interventions are implemented to meet the new 15-year target of less than 70 per 100,000 live births by 2030 (SDG 3).

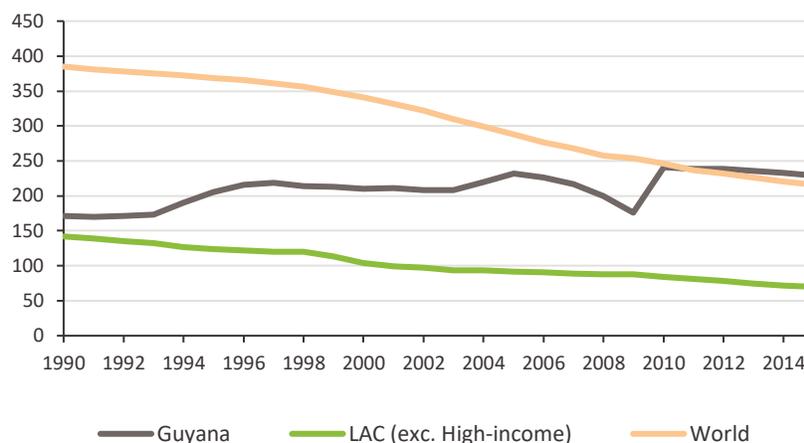
²³ The Millennium Development Goals (MDG) on child mortality has a target of 67% reduction between 1990 and 2015.

²⁴ Ibid

²⁵ Ibid

²⁶ The Millennium Development Goals (MDG) on maternal health has a target of 75% reduction in maternal mortality between 1990 and 2015.

Figure 8: Maternal mortality ratio



Data source: World Bank. 2018. *World Development Indicators*.

According to the Ministry of Public Health, one reason for the regression is that pregnant women are joining antenatal clinics later than they are required.²⁷ This low antenatal care attendance implies that doctors and healthcare providers will have inadequate time and information to undertake medical preventive maintenance prior to child delivery and respond to health complications that may arise during pregnancy. According to the *2014 Multiple Indicator Cluster Survey (MICS)*,²⁸ about 91% of women who received antenatal care between 2012 and 2013 complied with WHO guidelines i.e. they had their blood pressure measured, samples of urine and blood taken and tested for malaria.

On the sub-national level, higher maternal mortality rates are reported at the public hospitals in Demerara-Mahaica, East Berbice-Corentyne²⁹ and Pomeroon-Supenaam³⁰ than any other Region. During the period 2010-2012, post-partum hemorrhage was the leading cause of direct maternal deaths i.e. accounting for 55% of all deaths directly related to maternal health. Other leading causes during that time were pregnancy-induced hypertension and placenta/previa hemorrhaging.³¹ Since most deaths occurred at referrals hospitals,³² it can be surmised that the quality of health care being offered is one of the root causes of maternal deaths in Guyana. Quality issues are related to inadequate or poor access to emergency obstetric and newborn care facilities, poor functionality of the national referral system for high-risk and emergency cases, the unavailability of necessary equipment and supplies³³ and a shortage of skilled professionals.³⁴

²⁷ Ministry of Public Health. 2018. Mothers-to-be advised to register early at clinics. July. Available at: <http://dpi.gov.gy/mothers-to-be-advised-to-register-early-at-clinics/> [Accessed on: 13 August 2018].

²⁸ Bureau of Statistics – UNICEF–IDB–UNFPA. 2014. Multiple Indicator Cluster Survey. Monitoring the Situation of Children and Women.

²⁹ Pan-American Health Organization: 2009: Guyana Country Cooperation Strategy 2010-2015. PAHO, WHO.

³⁰ Ministry of Finance 2011: Millennium Development Goals: Guyana Progress Report 2011.

³¹ Ibid.

³² Pan-American Health Organization: 2009: Guyana Country Cooperation Strategy 2010-2015. PAHO, WHO.

³³ Ibid

³⁴ Pan-American Health Organization: 2009: Guyana Country Cooperation Strategy 2010-2015. PAHO, WHO

Maternal deaths during childbirth can be prevented when medical facilities and skilled health staff are available. From 2000-2005, the availability of skilled health workers increased from 83% to 97%, however this dropped to 81% the following year. In 2014, about 85.7% of deliveries were attended by skilled staff, which is slightly better relative to the regional average (78.5%) but below par on the global average (94.5%).³⁵ Accordingly, there is less than one health worker per 1,000 of the population in the country. At the end of 2014, there were three Obstetrician/Gynaecologist (OB/GYN) consultants at the GPHC, and 12 doctors – all of whom were enrolled in the Obstetrics and Gynaecology Post-Graduate Residency Programme.³⁶

A 6.2.3.3 Non-Communicable Diseases

Over the last decade, non-communicable diseases have been among the leading causes of death with ischemic heart disease, cerebrovascular disease, neoplasms, diabetes and hypertension being among the top five. In 2009, non-communicable diseases accounted for 60% of deaths amongst males and over 70% of deaths amongst females and it was anticipated that deaths due to chronic diseases would rise by 17% by 2015. Non-communicable diseases are the main contributor to the burden of disease with an estimated annual economic burden of US\$ 221.5 million in direct and indirect costs, and accounting for 46.9% of all Disability Adjusted Life Years lost in 2000.

- *Cerebrovascular disease*: Those within the 45-64 age group are disproportionately affected by this disease which is also the leading cause of death for those over age 64. Since 1990, this disease has been predominant as the leading cause of death, increasing from 11.6% in 1996 to 13.1% in 2009.
- *Ischemic heart disease*: in 1979, the percentage of deaths attributable to ischemic heart disease was 6.1%. By 1996, this had increased to 9.9%, and by 2009 13% making it the 2nd leading cause of death in Guyana. This is more prevalent in the 45-64 age group.
- *Neoplasms (cancers)*: Guyana has the highest incidence of cancer mortality in the Caribbean region. In 2009, deaths from cancer accounted for 8.9% of total mortality and is one of the leading causes of death in the 5-14 and over 64 age group. Since 2003, there has been a progressive increase of the incidence of cancer with an average annual rate of 86.7 per 100,000 of the population.
- *Diabetes and Hypertension*: Death because of diabetes is most prevalent in the 45-64 age group. Along with hypertension, diabetes was among the most diagnosed illnesses in 2000 and are the leading causes for patients to attend chronic disease clinics. An average of 7,000 new cases of diabetes are diagnosed every year. Together, these diseases amount to an annual direct cost of between US\$7.2 million and US\$10.8 million.

The increase in non-communicable diseases is driven in large part by lifestyle and health choices linked to poor diet and nutrition, obesity, physical inactivity, and smoking, alcohol and other substance abuse. The Ministry of Public Health has adopted the target of a 20% reduction in premature mortality from non-communicable diseases by 2020. A dedicated unit, the Chronic Disease Unit, has been established to lead government's efforts to reverse the upward trend of non-communicable diseases. In 2013, the Ministry of Public Health articulated a non-communicable diseases strategy which prioritised five lines of actions to tackle non-communicable diseases, with the primary ones being risk factor reduction, health promotion and disease prevention.

³⁵ World Bank. 2018. World Development Indicators.

³⁶ Ministry of Finance 2011: Millennium Development Goals: Guyana Progress Report 2011

A 6.2.3.4 Communicable Diseases

In recent years, Guyana has made steady progress in battling communicable diseases. The success of partnerships in response to communicable diseases has resulted in control of the three most prominent communicable diseases: HIV/AIDS, Tuberculosis and Malaria. However, Guyana still ranks in the top five countries of the Americas with the highest incidence of tuberculosis. Among CARICOM countries, Guyana has the third (behind Haiti and the Bahamas) highest prevalence of HIV/AIDS.³⁷ In 2015, there was an increase in the number of new HIV cases compared to reductions in the period 2010-2014. Malaria continues to pose a serious health risk even though the number of reported cases has decreased in 2014 and 2015.

While these three prominent communicable diseases have received the most attention, others such as dengue, intestinal and skin infections, sexually transmitted infections, lymphatic filariasis and acute respiratory infections continue to challenge the public health system. In keeping with its commitment to meet the target for elimination of lymphatic filariasis by 2020 set by the WHO, Guyana has embarked on a mass drug administration campaign in Essequibo Islands-West Demerara, Demerara-Mahaica, Mahaica-Berbice and Upper Demerara-Berbice. After an unsuccessful start of less than 65% coverage in 2016, the campaign had an 86% coverage in 2017 surpassing the targeted 65%. Another key component of the elimination process is mapping. As such, a remapping survey targeting primary school children aged 6-14 years of age in regions Barima-Waini, Pomeroon-Supenaam, East Berbice-Corentyne, Potaro-Siparuni and Upper Takutu-Upper Essequibo is scheduled for October of 2018 to determine the endemicity level of the disease in an effort to ascertain the need for mass drug administration.

- HIV/AIDS*: Since reaching epidemic levels in 1989, the incidence of HIV/AIDS in Guyana has been continually reduced to a stabilised level. The proportion of all deaths attributable to AIDS has declined steadily from 9.5 % in 2002 to 4.8% percent in 2012. Guyana is one of the few countries that has already achieved universal antiretroviral therapy coverage and reached 95% coverage for Prevention of Mother-to-Child Transmission services. Although there was an increase in the number of new cases of HIV in 2015, the past decade has seen a continued reduction in new cases being diagnosed. In 2015, 789 new cases were reported compared to 751 in 2014 and 758 in 2013. At the end of 2014 the prevalence of HIV/AIDS among the adult population decreased from 2.4% in 2013 to 1.4% 2014.³⁸ While initially HIV was more prevalent amount males, by 2003, the rate of infection was higher among females than males. This continued until 2009 when more males were infected than females. There was a reversal again in the level of incidence between 2010-2012 when more females were infected than males. In 2013, there was yet another reversal with more males being infected than females; this trend continued in 2014. Although the infection rate among females fluctuated, the proportion of pregnant women testing positive remained fairly constant at an average of about 1.4% between 2004 and 2014.³⁹ With respect to AIDS cases, the male to female ratio was consistently higher during the period 2002 to 2014 with the exception of 2004 and 2005.

The productive sector is affected by the high prevalence of HIV among those between the ages of 15-49 years. Though the infection rate among this age range showed a declining pattern from 2010 to 2014, the number of infected persons in this age range remained higher than any other age range over the four-year period.

Table 4: Distribution of reported HIV Cases by Age Range, 2010 – 2014

³⁷ Ibid

³⁸ Guyana's AIDS Response Report 2015

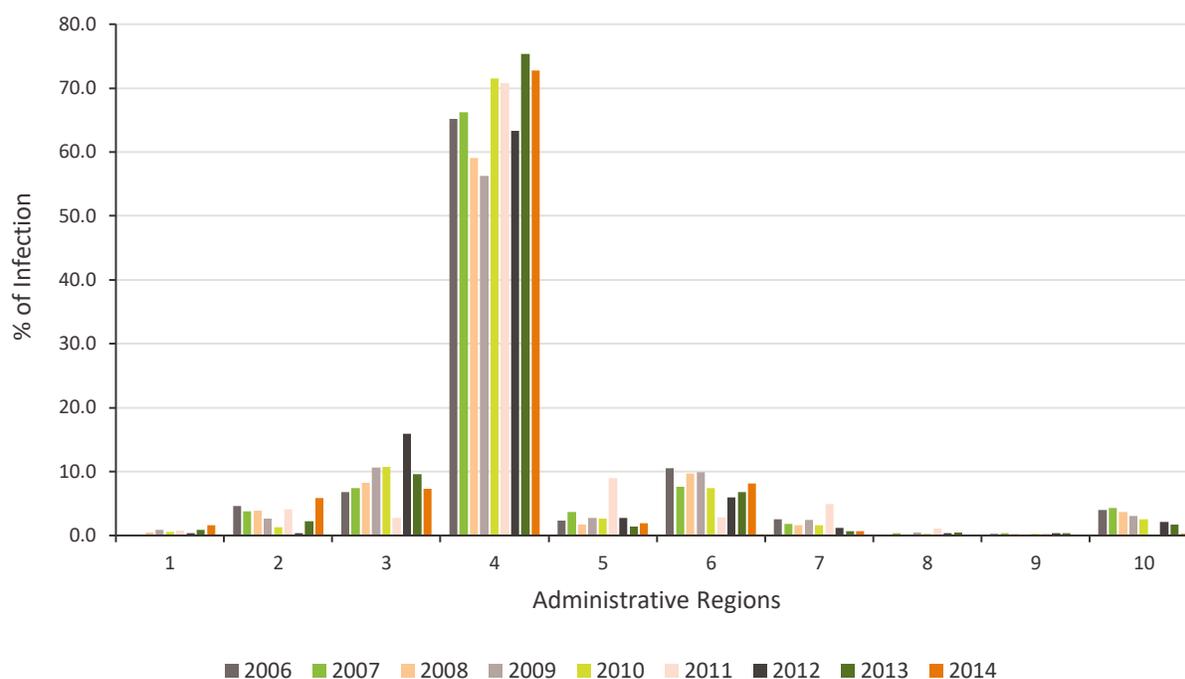
³⁹ Ibid

Age Range	Years				
	2010	2011	2012	2013	2014
Under 1	1	4	3	1	0
1 – 14	14	14	21	10	11
15 – 49	913	820	697	617	578
50+	90	116	84	107	134
Unknown	21	18	15	23	28
Total	1039	972	820	758	751

Source: Guyana AIDS Response Progress Report, 2015

The disaggregation of HIV/AIDS data also show that, since 2006, the highest number of reported cases occurred in the more populous regions of Demerara-Mahaica, Essequibo Islands-West Demerara and East Berbice-Corentyne.

Figure 9: HIV/AIDS Infection Rate Per Administrative Region



Source: Extracted from Guyana's AIDS Response Progress Report 2014

As part of its continued response to the elimination of HIV/AIDS, the Ministry of Public Health developed a *National HIV Strategic Plan 2013 – 2020*. This strategy prioritises the coordination of the HIV/AIDS response to ensure resource efficiency; decentralisation and strengthening of programmes to support prevention, particularly the reduction of new cases among high risk populations and mother to child transmission; strengthening of the health system to improve access to care, treatment and support; strengthen linkages between HIV and interconnected health issues such as tuberculosis, maternal and child health, and non-communicable diseases; and improved strategic information for the management of HIV/AIDS including related data and research.

- Malaria:** Over the past two decades, there have been peaks and troughs in the incidence of malaria infection in Guyana. From a high of 59,311 reported cases in 1995, it declined to 24,018 in 2000 then back up to 38,984 in 2005 with a decline in 2010 to 22,840. In 2013, there were 30,542 new reported cases of malaria, contrasted with 2014 and 2015, where there were 19,005 and 13,096 cases, respectively. This fluctuation in the incidence of malaria is related to the activity of gold mining. The majority of malaria cases (98%) occur in the hinterland regions of Barima-Waini, Cuyuni-Mazuruni, Potaro-Siparuni and Upper Takukutu-Upper Essequibo. The increase in mining activities in these regions correlates to the increase in reports of malaria. The reduced incidence of new cases reported in 2013 and 2014 have been attributed to a dip in global market prices for gold. As gold prices drop, mining and logging activities in the interior decrease. The Ministry of Public Health executes a National Malaria Programme that prioritises the use of vector control methods, such as the use of Long Lasting Insecticide Treated Nets, and raising awareness of preventative measures and effective diagnosis and treatment of malaria in the affected regions. Most recently, the Ministry has started the development of a National Malaria Control Strategic Plan to guide its interventions post-MDGs toward reversing the incidence of malaria in Guyana.

A 6.2.3.5 Sector Issues and Constraints

In the light of the above, the country's successes e.g. reduced maternal and child mortality; decreased incidence, prevalence and mortality from communicable diseases; high levels of immunisation coverage; greater awareness of environmental health issues; and improved water and sanitation facilities, are laudable. However, core structural health challenges remain, including issues related to health system planning, capacity development, workforce attrition and optimisation. Skills shortages persist for registered nurses, midwives, radiographers, medical technologists and social workers.

Although the current health care system is universal and can be accessed by citizens free of charge for a limited number of health services, the standard of quality and access continue to be uneven across the country. The continuing threat of diseases are from chronic non-communicable diseases, while maternal health especially in rural and interior areas persist, along with mental health and suicides, particularly in young adults, which pose serious risks to the health and mortality of the population. Some of these threats are more prevalent than others in relation to other issues that affect health e.g. socio-economic status, geographical isolation, age, ethnicity and gender.

Public sector health expenditures also declined from 7.3% in 2008 to 3.3% in 2014⁴⁰ (the CARICOM average is 6.7%). Over the same period, donor funding, upon which the sector is reliant, significantly reduced from 41% to 7.2%, Out-of-pocket expenses average 34%. Vision 2020 and the health sector plan recognize that the demands to expand coverage and to improve quality of services will require increased funding. Programmes that reduce the modifiable risk factors are also on the increase e.g. for smoking - new legislation e.g. National Tobacco Legislation and related Cessation Programme; diet and nutrition – taxation on sugar beverages, physical activity; mental health – suicide prevention plan, monitoring and assistance.

A crucial entry point to tackle some of these threats is to ensure that health knowledge and practices are routinely taught at the primary health care level, particularly in areas of non-communicable diseases prevention and health promotion. Lessons from previous standalone projects imply that emphasis should be given to developing national health programs that focus on the core needs of the primary health care system and its contribution to improving community health and wellness. Therefore, programmatic interventions require a shift from curative care to prevention of illnesses including adoption of healthy lifestyles and behaviour, good hygiene and nutrition.

⁴⁰ "Guyana Country Cooperation Strategy, 2016-2020: Strengthening Health Systems to Achieve Universal Health"; PAHO/WHO; 53pp.

A 6.3 Education

A 6.3.1 Background

Historically, and even after the country gained its independence from Britain in 1966, Guyana's education system was regarded as among the best in the region. It evolved from the country's colonial past.⁴¹ In the early 1800s, religious institutions mainly from Britain operated the public-school system. A notable example was the London Missionary Society and its operation of the elementary school system. Throughout the 19th Century as schooling became more formalised, textbooks were prepared in Britain, taught British customs, traditions, literature and history, and the system of examinations was administered there. Trades were learned on-the-job. In 1876 primary level schooling for children aged 5 to 12 was compulsory except for Georgetown, New Amsterdam and Buxton. In 1968, compulsory primary school became compulsory throughout the country for those aged 5 years 9 months to 14 years.

A Ministry of Education was established in 1961 and it assumed responsibility for all schools marking a period of education reform. By 1966 when the country became independent, its education system was still rooted in the British system. This was gradually changed to suit Guyana's multi-ethnic society, and its emerging political and economic systems. By 1976, private education was discontinued, and education became universally available from nursery school levels through to tertiary. Notwithstanding, the discontinuation of private education, there were still a number of denominational church body schools. This period also marked Guyana's achievement of equal access to education for all students, regardless of gender, income or social standing. High schoolers were provided options for pursuing solely academic, academic-technical, or vocational high schools, whilst trade schools offered work-related training in engineering and construction. The literacy rate reached 95%.

In the mid-1970s, with the rise of socialist government, tensions arose with teachers who, like many others, migrated in large numbers. The resistance to the social agenda and attempts to restructure the curriculum contributed to many teachers exiting the education system, migrating to other countries or staying away from school. It did not help that other Caribbean countries like The Bahamas has strong demands for teachers who were afforded greater opportunities offered in those countries. This had disastrous consequences for the school system, and standards of education and examination test results declined.

The economic crisis of the 1980s brought little relief as the continuation of free education only served to increase the strain on the sector's already scant financial resources. Facilities and equipment suffered neglect and deterioration, educational materials dwindled, and teacher salaries stagnated. The result was a decline in the quality of education, students and teachers, but with increased use of untrained teachers. The 1990s ushered in an economic recovery programme to stabilise the economy, and education system reform was prioritized. Reforms focused on teacher, student and curriculum quality, and continued into the new millennium.

Meanwhile, the University of Guyana was established in April 1963⁴² and commenced operations six months later reportedly with 164 students. In 1963 it functioned mainly as an evening institution with three faculties: Arts, Natural Sciences and Social Sciences. Its current location at Turkeyen (586 ha) was provided by the Booker Group of Companies in 1966, marking the beginning of the construction and evolution of the university campus. Enrollment at the University today, amounts to over 8,000 students.

Guyana still provides free public education to all its citizens, which is indicative of the importance placed on the sector's contribution to economic development. School is compulsory until the age of fifteen (15) in keeping with

⁴¹ Source: "Guyana History and Background", StateUniversity.com [accessed: 25 August 2018].

⁴² The University of Guyana was established by Ordinance of then Governor Sir Ralph Grey on April 18th 1963, while classes commenced in October.

the minimum age for employment. This includes all the years of primary education and about three (3) years of secondary education. Government provides nursery level education, but this is optional. Students enter primary school from the age of 5 years and 6 months and continue until they graduate secondary school at the age of 16 or 17 years.

A 6.3.2 Sector Reform and Planning

During the 1990s, with economic recovery and stabilisation came greater urgency for reform in the education system. The country produced an initial five-year education policy and implementation plan (1990) that commenced the practice of five-year planning cycles that continues to today.

The *National Development Strategy* (1996, 2000) aimed to arrest the decline in the country's educational standards. Its international backdrop was UNICEF's global work⁴³ on improving the situation of women and children by the millennium and UNESCO's World Declaration on Education for All⁴⁴ both during 1990. As a result, priorities were established for special needs children who were traditionally "hidden" from the formal education system because of the stigma associated with their disability, and consequently also for the poorest of women and children in hinterland and rural areas. The Strategy listed as objectives a resource effective and flexible system that addressed regional inequalities in education and gender sensitivity of the education system. It focused more on scientific and technical education, computer literacy, and informatics and sought to maximise results throughout the formal education system (from kindergarten to university). The Strategy also aimed to increase the importance of primary education, provide universal secondary education and undertake remedial adult education.

The *Poverty Reduction Strategy Paper* (2002 – 2011) with its objective to increase access to social services promoted gross enrollment rates at the primary level, which achieved 100% during 2002-2006 at national and regional levels, with net enrollment ratios topping 96%. Throughput of that cohort to secondary education increased with an enrollment rate of more than 65%. Reduction in overcrowding, introduction of nutrition programmes, and implementation of other support programmes contributed to the increased access in secondary education particularly in rural coastal and hinterland areas. The availability of secondary schools with residential facilities in hinterland and deep riverain communities was a major contributor to increased access in these areas.

The Curriculum Development Unit of the National Centre for Educational Resource Development (NCERD) played its supporting role by developing literacy and numeracy standards for Nursery 1 to Grade 2 Primary. The Cyril Potter College of Education, the teacher training college at nursery, primary and secondary levels, also began delivering campus-based and in-service (distance learning) teacher training certificate programmes. There was a consequent increase in the number of students in General Secondary School, providing an opportunity for more students to take the Secondary School Certificate Examination. At that time also, the Basic Competency Certificate Programme (BCCP) was launched, providing an alternative pathway for secondary students with high academic qualifications and an interest in technical subjects.

Despite an increase in teacher training, one of the key challenges that persisted was the high student-teacher ratio. At the primary education level in particular, the student-to-trained-teacher ratio averaged about 50 to 1, which far exceeded the Caribbean average. Administrative regions Barima Waini, Potaro-Suparuni and Upper

⁴³ In 1990 UNICEF convened a World Summit for Children where 71 heads of State met to discuss and agree on ways to improve children's health, nutrition and social conditions, that included strengthening women's rights by providing equal opportunities and treatment. The Summit adopted the "Declaration on the Survival, Protection and Development of Children" and a Plan of Action.

⁴⁴ "World Declaration on Education for All and Framework for Action to Meet Basic Learning Needs", adopted at the global conference in Jomtien, Thailand, 5-9 March 1990, that addressed concerns on widening inequality in education systems and the vital importance of basic education to social progress. The Conference called for the provision of universal primary education, elimination of adult illiteracy, improvement in quality basic education and more effective ways to meet the special needs of disadvantaged groups.

Takutu-Upper Essequibo have student-teacher at two times less than the national average. Consequently, the Remote Area Incentive (RAI) was developed to provide improved remuneration and other incentives for hinterland teachers and has helped to bridge the national divide in student-teacher ratio between the coastal and hinterland regions. This and other initiatives contributed to the eventual reduction of the national average to 21 students to 1 teacher.

An updated *Poverty Reduction Strategy Paper* (2011-2015) recommended that attention be focused on improving access to quality and equitable education at the pre-primary and primary levels; improving literacy and numeracy; improving School/Classroom Environment; improving Innovative Technology; strengthening school health, nutrition, HIV& AIDS in the curriculum; and attaining universal secondary education. Those goals were also reflected in the Education Strategic Plan (2014-2018). The challenges identified for the successful implementation of the PRSP included availability of donor financing which would require a prioritization of development needs; human resource constraints in engineering, ICT and agro-processing; poor telecommunications infrastructure; volatility in energy and food prices; climate change and natural disasters.

Since the *National Development Strategy*, several other interrelated strategies including the *National Competitiveness Strategy* (2006) and the *Low Carbon Development Strategy* (2010, 2013) continued the priorities of the *Poverty Reduction Strategy Paper*. Under the *National Competitiveness Strategy*, access to new knowledge, skills and competencies, and lifelong learning to cope with rapid changes to improve employability and entrepreneurship were the critical factors identified for Guyana to adapt to a fast-changing global economy.

In considering the severity of the ‘brain-drain’ affecting Guyana, the Strategy recommended investments in skills at all levels and measures to reverse its effects. Specific interventions included greater vocational and technical training, strengthening links with the Guyanese Diaspora, maximizing remittances, special incentives for retention of skills, changing donor modalities to retain specialists within the public services and the enactment of the Technical and Vocational Education and Training Act.

The *Low Carbon Development Strategy* called for investments to expand and improve the delivery of education, particularly for Indigenous communities and capacity building in agencies responsible for micro- and small enterprise development. The *Climate Resilience Strategy and Action Plan* (2016) provided the reference for addressing key climate risks and prioritising resilience and capacity building actions, and a relevant institutional framework. Regarding education, the Plan recommended tailoring and generating climate change knowledge products to meet the educational needs of targeted communities in the frontline battle against climate risk, and helping local government agencies access skills, training, knowledge and tools to understand and manage climate adaptation.

The *Education for Sustainable Development* (ESD) Policy was developed in 2015, with goals to integrate sustainable development into education through a shared commitment to education that empowers people for change. The impetus was the *2030 Agenda for Sustainable Development*⁴⁵.

The Education for Sustainable Development policy objectives are to:

- i. Develop education and training strategies that will enhance capacities for the achievement of sustainable development;

⁴⁵ The international community in September 2015 signed onto an action agenda for the planet, people, peace and prosperity with goals to eradicate poverty in all its forms, especially extreme poverty, in collaborative partnerships between countries and stakeholders, with implementation measured through achievement of its 17 goals and 169 targets. See: <https://sustainabledevelopment.un.org/>.

- ii. Embed ESD into the education system through literacy and lifelong learning in all aspects which concern sustainability;
- iii. Provide equitable and inclusive access to high-quality formal, non-formal and informal education;
- iv. Raise public awareness and understanding of the principles of sustainable development, drawing on the capacities and comparative strengths of the media, public sector, private sector and civil society.

It should be noted that there were efforts in 2014 to update legislation for the education sector via the Education Bill of 2014. This Bill was drafted to repeal the Education Act of 1876 and its 1976 amendments, to reform the legal framework of education in Guyana and provide an effective system of education related to the needs of the people. It addresses, among other things, the administration of the education system, the rights and responsibilities of students and parents, management of public educational institutions, other forms of education, employment of teachers, curriculum assessment, and inspection and review of the education system. The Bill is currently stalled in the Parliament; but a review is needed for alignment with the Green State Development Strategy.

The Ministry of Education has also been undergoing a restructuring to consider the interrelationship between education, culture, youth and sports. Guyana's *National Cultural Policy* would presumably guide the Ministry's evolving activities. The *Policy* provides a framework of interventions for the period of 2018 to 2025 along 3 main lines: i) mainstreaming culture in development; ii) cultural heritage preservation, protection and promotion; and iii) development of creative arts industries.

Policy priorities for education include:

- A comprehensive examination of the challenges faced by students, particularly in indigenous communities, undertaking courses in their language of first instruction.
- Enhancement of arts education in schools within a comprehensive STEM+A policy paradigm.
- Ensuring that cultural equity is created and sustained within the public education system.
- Enhancement of the role of multicultural education as a critical component of curriculum reform.

The current and 5th five-year *Education Sector Plan* (2014-2018) builds on previous plans and articulates the vision for education in Guyana, thus:

"...education should be the main and most effective contributor to the development of a citizenry able to modernize Guyana; to support the citizenry in becoming more productive and tolerant; and to live in mutual respect".

To achieve this vision, the Plan articulates its mission for a quality education system in three key goals:

- Eliminate illiteracy;
- Modernise education; and
- Strengthen tolerance.

There is an implied guarantee of universal access to education for all citizens of Guyana regardless of race, creed or ability, and for the purpose of enabling national development, reducing poverty and fostering happy and productive lives.

The country's education system is marked by a persistent disparity and deficiency in learning outcomes – between the coast and the hinterland, among sub-groups of its population (particularly the at-risk/vulnerable and special

needs children) and in English and Mathematics. The Sector Plan emphasises actions addressing this disparity and deficiency, and for the various organizations and units in the education system with responsibility for delivering on outcomes.

Three system components that have an *indirect* effect on learning are prioritised for action: i) improving the capacity of the implementing units: this includes well-structured and adequately resourced organisations, qualified staff, and a system of incentives encourage focus on improving learning outcomes; ii) an accountability system that uses exit examinations and learning assessments to measure learning results at the school and national level. This incentivises students, teachers, and regional and national departments to deliver better results; and iii) providing limited autonomy to schools over process and personnel decisions which aids in better learning outcomes.

In addition to these, four factors that *directly* affect learning are identified for action: i) quality of facilities; ii) curriculum quality; iii) quality of teachers and instructional tools; and iv) the amount and quality of time spent by students in schools.

The measure of progress for and achievement of these outcomes are described in six intermediate outcomes:

- i) Improved performance of the government departments responsible for delivering on learning outcomes;
- ii) An incentivised, accountability system;
- iii) Improved quality of school facilities;
- iv) Improved quality of teaching;
- v) Improved quality of curricula, teaching and learning materials and training programmes; and
- vi) Increased instructional time.

A 6.3.3 System & Facilities

Guyana is divided into eleven education districts. Ten of these education districts correspond with the administrative and geographical regions of the country, while the capital, Georgetown, is treated as a separate education district. The formal education system of Guyana commences at nursery level, continuing through to primary level education, then secondary education. Post-secondary education includes technical/vocational education and training (TVET), teacher training, whilst tertiary education, the highest level, begins and ends at university. There are 333 nursery schools, 440 primary schools and 117 general secondary schools (with the latest addition being Kato) under the management of the Ministry of Education. There are also 6 special schools that cater to students with special physical, sensory and/or mental needs, and for others who are socially disadvantaged or in especially difficult circumstances.

Continuing education is provided by the Institute of Distance and Continuing Education (IDCE), an arm of the University of Guyana and the Adult Education Association. There is also a growing number of private schools and private sector institutions that provide nursery to post-secondary education.

The Ministry of Education through its various units is responsible for:

- i) Policy analysis and review, formulation and development.
- ii) National Education Strategic Planning.
- iii) Resource mobilization.

- iv) Provision of centralized services e.g. teacher training and development, curriculum development, procurement and distribution of text books and exercise books, school feeding, administration of external and local examinations and reporting, setting of academic and non-academic standards.
- v) Monitoring, evaluation, reporting and development of the entire education system and delivery process.

The Permanent Secretary has oversight responsibility for the Ministry's operations. The implementation of the education programme in all administrative regions of Guyana is the responsibility of the 10 Regional Democratic Councils (RDCs), with the exception of Georgetown, which, as a special education district, is directly managed by the Ministry of Education. Each region has its own education budget, which includes among other things staffing and infrastructure. There is a somewhat complicated relationship with the regional education departments. The regional education departments are accountable to the Regional Democratic Councils, and the Ministries of Communities and Education. While they have a reporting responsibility to the Ministry of Communities, they are supervised on a day-to-day basis by the Regional Executive Officer of the relevant RDCs. In addition, they are accountable to the central Ministry of Education on matters of policy and the execution of policies and plans in the national education plan.

Georgetown, on the other hand, is accountable to the Ministry of Education. The structure was instituted to decentralise the management system and achieve greater efficiency of human resources. There is a direct reporting line relationship between the RDCs and their regional Departments of Education, but a staff-level, horizontal relationship between the regional Departments of Education and the Policy Implementation and Monitoring Unit (PIMU) of the Ministry of Education (in the office of the Deputy Chief Education Officer).

The Ministry of Education's office of the Chief Education Officer (CEO) serves as its professional arm. It is responsible for education policy implementation and monitoring, evaluation, reporting and development, and technical and vocational training and development, with these responsibilities split between 2 deputies reporting to the Chief Education Officer. The next professional level down, comprises four Assistant Chief Education Officers (ACEOs) with responsibilities for nursery, primary, secondary and TVET operations, as well as an ACEO Inspectorate position which remains vacant; and the Principle of the Cyril Potter College of Education (CPCE). Staff at this level also have a direct reporting line to the Chief Education Officer. It is at the level of the Deputy CEO – PIMU where interaction occurs across ministerial lines to the Regional Executive Officer/RDC of the Ministry of Communities. The latter has oversight of the regional Departments of Education.

The Ministry of Education's Policy, Implementation and Monitoring (PIM) Unit has the responsibility of ensuring that all Education Districts comply fully with the Education Act, and policies and regulations developed by the Ministry of Education. The head of this unit, Deputy CEO (Administration) functions as a chief liaison between the Ministry of Education and Departments of Education to ensure overall accountability. Generally, this unit has the responsibility for:

- Assisting with the development of the national education plan and policies;
- Preparing work plans and estimates, follow up and review;
- Preparing quarterly and annual reports; and
- Performing general administrative functions for the education system.
- Oversight of school boards, parent-teachers associations and the School Welfare Unit

The Monitoring, Evaluation, Training and Support (METS) Unit is responsible for monitoring of education delivery across the eleven Education Districts. It has absorbed some of the roles and functions of the prior School System

Management Committee and all those of the Inspectorate Unit in respect of quality assurance. The MERD Unit conducts a monitoring visit to each Education Department at least once per school term. Monitoring reports from these visits are typically disseminated to the Regional Education Departments and other Ministry senior staff. With the planned use of ICT to bridge the communication gap in remote hinterland areas under the e-Government project, monitoring activities can be improved and the responsibilities of the Education Planning Unit and Management Information System (MIS) Unit are likely to expand.

Other units of the Ministry of Education include:

- The Examination Division managed by a superintendent who administers national and international examinations for public and private school candidates at primary, secondary and post-secondary levels. The work of the Examinations Division relies on and is integrated with all other agencies of the Ministry of Education, whilst also supporting the Ministry's PIMU.
- The Expenditure Programming Management Unit (EPMU) managed by a Deputy Permanent Secretary with responsibility for Finance;
- The Distribution Unit managed by a Deputy Permanent Secretary with responsibility for administration;
- The human resources manager;
- A Management Information Systems Unit managed by a unit head who reports to the Chief Planning Officer. The MIS Unit is developing a unified data information system that provides a complete database of all public schools, institutions and regional Departments of Education in the country. Under the World Bank funded "*Guyana Secondary Education Improvement Project*", an education management information system (EMIS) has been implemented to more efficiently manage education sector data, identify and address key sector issues. All 110 General Secondary Schools (GSS) each received two tablets to upload and access EMIS data, along with installation and training on use and data entry. Data from all 20 pilot schools (which represent 16.7% of the GSS) have now been collected. The system will also be expanded to additional secondary and primary schools as internet connectivity through the eGovernance Agency is completed. With completion expected by September 2018, the EMIS will allow for 'real time' details of enrollment, calculation of pupil-teacher ratios, assessment of students' performance among other areas for improved policy making, evaluation and efficiency of resource allocation.
- The National Centre for Education Resource Development (NCERD) managed by its director. This is a key agency for the Ministry and comprises the Curriculum Development Unit, the Test Development Unit, the Distance Education and Information Unit (which includes the education channel and broadcasts to schools), the Innovation and Technology Unit, the Learning Resource Unit, The Special Education Unit, the Science Unit and the Materials Production Unit; and
- The School Health Nutrition, HIV/AIDS Unit.

The Ministry of Communities implements the Education sector plan at the level of the Regional Democratic Council, with oversight from the Regional Education Committee (REC) and the Regional Education Departments (RED), which share functional relationships with the Ministry of Education.

Outside of the educational system, other agencies and institutions contribute to the development and implementation of education sector policies. These include a broad-based *Education for Sustainable Development Policy* Coordinating Body (ESDCB) within the Ministry of Education working in tandem with NCERD to support the implementation of the policy pillars that are linked to the curriculum development and implementation in partnership with the Environmental Protection Agency and Conservation International; the Cyril Potter College of

Education (CPCE), the University of Guyana (UG), the Institute of Applied Science and Technology (IAST), the Teaching Service Commission (for policy implementation), the private sector, NGOs and related institutions to support curriculum design and development, implementation and overall improvement.

NCERD also collaborates with the National Agricultural Research and Extension Institute (NAREI) to implement the public awareness and education component of the National Mangrove Management Action Plan. The Protected Areas Commission (PAC) includes biodiversity education in school programme tours and the Nature School Zoo camp.

The Ministry of the Presidency and the Ministry of Indigenous Peoples Affairs collaborate with the Ministry of Education to implement the *National Cultural Policy*.

A 6.3.4 Budget and Financing

Since 2009, the education sector appropriation comprising recurrent and capital expenditures, has remained steady at an average of 16% of the national budget or 3.1% of GDP. Recurrent expenditure accounts for an average of 67-69% of education expenditure (2009-2012). Similarly and over the same period, the share of the expenditure budget across nursery, primary, secondary and TVET levels consistently averaged 10%, 27%, 28% and 3% respectively.

The *Education Strategic Plan 2014-2018* allocates 55% of its estimated budget to recurrent cost; capital cost (45%) is allocated for new, rehabilitated or maintenance of infrastructure; purchase of equipment and tools and developmental projects. The major categories of expenditure are employment cost, training and development, construction/rehabilitation of education buildings, school feeding programme, equipment and learning materials, and developmental projects.

Employment costs for teachers and administrative staff of the sector account for just under half (42%) of the overall cost of the Strategic Plan. Employment costs are projected to grow from increases in salary, a proposed increase in the number of trained teachers, and any salary increases associated with upgrading the skills of existing staff in the sector. Also, training and development costs are direct costs associated with initial teacher training and continuous professional development for teachers across all levels.

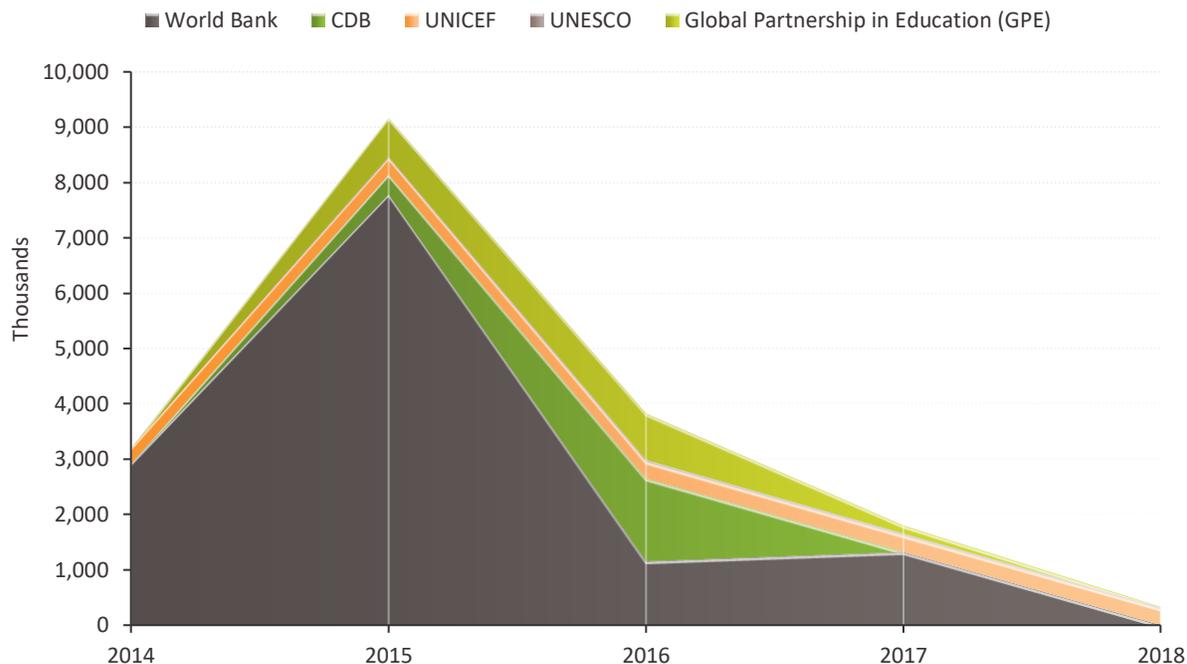
Main capital expenses relate to construction/rehabilitation of schools and teachers' accommodation. Almost one third of this cost is committed to rehabilitation/maintenance of schools, reinforcing the Ministry's commitment to its plan of maintaining 20% of hinterland schools and 15% of coastal schools per annum.

School feeding expenditure includes funding of the community-based hot meal programme in the hinterland regions, which started under the Education for All-Fast Track Initiative (EFA-FTI) programme and the national snack programmes. This covers nursery school students and Grades 1 and 2 students at the primary level. Moreover, spending on equipment and learning materials is geared towards improving the teaching-learning process, including the provision of textbooks, expanding the integration of ICT, promoting Inquiry Based Science Education (IBSE); and the distribution of literacy tool kits into schools.

Other initiatives that target support services of the sector, such as for welfare, school health and nutrition are also covered in the expenditure budget.

The sector continues to benefit from development partner funding although these sources appear to be in decline. Figure 9 below shows the donor commitment to various initiatives articulated in the *Education Strategic Plan* (2014-2018), with the lion's share provided by the World Bank. Comparing estimates of the Sector Plan's 2014-2018 budget needs with budgetary allocations, there is shortfall of 11% or G\$3.21 billion.

Figure 10: Donor funding in the education sector



Data source: Ministry of Education

A.6.1.1.1. Development Partner Project Support

For decades, development partners have been a critical source of funding, project development and implementation support for the education sector. These include UN system agencies and programmes, regional and multi-lateral banks, bilateral donors, hemispheric agencies and other non-profits.

The World Bank-funded *Education for All-Fast Track Initiative (EFA-FTI)* Project was implemented between 2008-2012 and promoted universal primary school completion for girls and boys by 2015, through improved primary education in hinterland regions (1, 7, 8 & 9). As a result, the nationwide primary completion rate increased and the primary completion rate in the hinterlands increased from 64.8% to 118.8%. There were positive results on school attendance, completion rates, academic performance, nutritional status and parent and community participation.

The *Enhancement of Technical and Vocational Education and Training (TVET) Programme (2008-2014)* funded by the Caribbean Development Bank (CDB) and the Government of Guyana improved the quality and effectiveness of the Technical and Vocational Education and Training (TVET) system in Guyana through the construction of 2 new technical schools and capacity building of personnel from the technical institutes. A TVET strategic plan and regional standards for key occupational activities was adopted and a teacher training programme, a competency framework, a TVET electronic database and a comprehensive maintenance plan for facilities were developed.

The *Improving Teacher Education Project (2011-2015)* funded by the World Bank aimed to improve the efficiency and effectiveness in the delivery of quality teacher education in Guyana. The project resulted in a reduction (from 7 years to 4 years) in the time taken to earn a Bachelor of Education Degree, reduced cost of teacher training related to Associate Degree programme at the Cyril Potter College of Education (CPCE) and the Bachelor of Education at University of Guyana, with an increase in the number of teachers graduating from the Associate's Degree programme and an improvement in the performance of CPCE Lecturers and student teachers.

A 6.3.5 Teacher & Student Quality and Development

The Cyril Potter College of Education is responsible for all initial training for teachers, provided via pre-service modules at its main campus in Turkeyen and in-service (distance learning modules) at 14 centres throughout the country. Teachers are offered full time courses in Early Childhood, Primary, Secondary and Pre-Vocational to cater for the all-round development of children.

NCERD provides professional development support through the development of training packages for all levels of education management and continuous professional development. In addition, the University of Guyana offers undergraduate and postgraduate programmes e.g. master's degrees in education.

Under the Guyana Improving Teacher Education Project (GITEP), the main intervention was the new Associate Degree programme at the Cyril Potter College of Education (CPCE) and the Bachelor of Education at University of Guyana. In 2016, the Minister of Education also added a green engineering course to the curriculum of senior secondary schools at the Caribbean Advanced Proficiency Examination (CAPE) level.

A 6.3.6 Sector Issues and Constraints

The persistent problems and challenges of Guyana's education system may be summarised in the following points:

A 6.3.6.1 Attendance and performance

Guyana made significant progress in meeting its Plan goals since 2008, with more than 70% of the teaching force professionally trained. Nevertheless, concerns remain about school attendance and performance in core subject areas. Between 2008 and 2014, the Ministry of Education indicated that attendance remain flat at less than 80% at all levels, and for all regions. The objective of increasing attendance by ten percentage points was not met.

Primary school performance, measured by the National Grade Six Assessment results, did improve substantially between 2009 and 2013 especially in Mathematics, but the proportion of students scoring better than 50% in Mathematics, English and Science remained at 31%, 20%, and 18%, respectively. Moreover, the disparity between the hinterland and coastal regions increased.

Secondary school results between 2008 and 2013 were mixed, as indicated by the Caribbean Secondary Education Certificate (CSEC) examination, with scores falling in Mathematics but rising substantially in English, and with far less than 50% of students achieving a passing grade in both subjects. One of the main challenges highlighted in the data analyses was the unavailability of recent population data from the Bureau of Statistics, which led to the use of estimates and outdated information.

The Bureau of Statistics conducted a Labour Force Survey in 2017 and it surmised in its *2017 Third Quarter Report* that the reduction in the youth unemployment rate from 25.3% in 2012 to 21.6% in 2017 was possibly facilitated by an increase in educational enrollment. However, there is still a proportion of youth (35.2 %) not in education, employment or training. The figures are higher for young women (63 %) and young urban dwellers (76.4 %).

A 6.3.6.2 Emigration

Due to the consistent emigration of skilled personnel, the country suffers from 'brain drain' and lacks a critical mass of expertise. In fact, human resource constraints were identified as a challenge for the successful implementation of the PRSP and NCS and will also probably affect the implementation of the *Green State Development Strategy: Vision 2040*.

A 6.3.6.3 Persistent inequality and disparity

Inequalities persist in access to quality education as low-income families are unable to afford the high costs. The Education Act is outdated, and little progress has been made in its revision since 2014. Also, teacher performance is impacted by the culture of poor curricula delivery, insufficient remuneration packages and incentives for teachers, which compounds the human resource problems.

The existing education system does not produce the required number of highly skilled personnel. This shortcoming is even more pronounced in remote hinterland communities as wide disparities remain between the Coastal region in terms of availability of education, number of trained and professional teachers, and the quality of facilities.

Guaranteeing a good quality of education in primary and secondary schools for indigenous children is a critical challenge. Despite improvements in the primary education grades of indigenous children, the gap has widened between the grades of hinterland children and those in coastal regions. Improvement gains were more significant for coastal regions. A similar disparity is evident in secondary CSEC scores, particularly for Mathematics and English.

A 6.3.6.4 Accessibility

Students that do not perform well at the National Grade Six Assessment exam are placed in Secondary Departments of Primary Schools and at a location nearest to home but not necessarily at the same primary school they previously attended. This is as a result of limited places available in secondary schools. This requires adjustment on the part of the child and may be disruptive. Another problem exists when the secondary departments do not always have trained teachers to teach the curriculum. Over the years, this problem has been reduced with the construction and expansion of new and current secondary schools.

Access to schools is relatively high at primary school levels but this is not the same for nursery and secondary levels. The distance and the rough hinterland terrain between children's homes and the schools provide obstacles to physical access. Moreover, indigenous children with disabilities do not have access to any type of education, and their absence from the school system could be explained by the lack of universal access facilities, lack of trained special needs teachers, and/or ignorance of children's rights.

A 6.3.6.5 Lack of quality resources

The above problems also result from a lack of resources such as books and learning materials, as well as poor infrastructure at the schools, prevalence of old buildings, a lack of ICT resources and internet access and a lack of science labs in general. In addition, despite the fact that English is the official language of Guyana and is taught at all school levels, many students struggle to properly write and speak in English.

A 6.3.6.6 Importance of science and technology

Although increasing emphasis has been placed on digital skills, the educational curriculum has not resulted in graduates sufficiently trained in the sciences and technology, technical and vocational subjects, entrepreneurship and computer science that provide skills for current and future job markets. The continued poor performance in core subjects would therefore have an impact on enrollment in tertiary institutions, job eligibility and function. Compounded by limited integration between public and private sectors and a mismatch of the skills of graduates, these factors paint somewhat of a bleak picture for future employment particularly within the private sector.

A 6.3.6.7 Day care centres

Despite their contribution to the cognitive and physical development of the child, day care centres are not part of the formal educational system and are therefore not monitored or supervised by the Ministry of Education. Most

of the children living in Indigenous villages are only exposed to formal education at the age of three years and three months old when they start nursery school.

In addition, while children can attend nursery and primary schools in their villages, the same does not hold true for secondary schools. Due to the low demand, it is not cost effective to build secondary schools in every village. However, indigenous children have the opportunity to attend secondary schools in other communities, and even tertiary educational institutions aided by the hinterland scholarship programme.

A 6.3.6.8 Secondary level dropouts

A growing number of adolescents do not complete their formal education and dropout of secondary school. Some of the factors that increase school dropouts and absenteeism are poor family financial situations, lack of employment opportunities and teenage pregnancy. Another reason is the inadequacy of the schools' curricula. The content taught in primary and secondary schools has little relevance for indigenous children and the situation faced daily in their villages. Additionally, the school's curriculum is too theoretical and does not provide options for those children who prefer only to have a profession after finishing secondary school rather than progressing to the tertiary level. Some technical classes are available, but they do not fit the interests of the adolescents and are expensive.

Furthermore, the absence of extracurricular activities in some schools such as music, drama, games, sports, life skills education and opportunities for technical and vocational skills, adds to the strain of coping in the school system.

A 6.3.6.9 Reliance on donor funding

Despite consistent levels of appropriations for the education sector over the years, it is still dependent on donor support for filling financing gaps. Consequently, there is a risk of exposure to changes in donor priorities or loss in funding eligibility, which would undermine expectations of continuing project activities.

A 6.4 Vulnerable Groups

A 6.4.1 Indigenous Peoples

Most Indigenous communities are in the hinterland regions, and their populations are higher in Barima-Waini, Cuyuni-Mazaruni, Potaro-Siparuni and Upper Takutu-Upper Essequibo. The communities in these regions are mostly remote, with hostile terrain causing access to their villages to be difficult and expensive, particularly in the North Pakaraimas, Upper-Mazaruni and Deep South of Guyana. Some other Indigenous communities are also located in the Coastal Regions along rivers such as the Mahaica, Mahaicony, Pomeroon, Corentyne, Berbice and Demerara. Though the coastal Indigenous communities are easier to access than their hinterland counterparts, they are still faced with the challenges of high transportation costs and access roads that are, in most cases, in a deplorable state.

The prevalence of child (<5yrs) mortality malaria, malnutrition, respiratory illness, and diarrhoeal-related diseases are especially higher in Indigenous communities and might be due to poor water and sanitation conditions. High levels of teen pregnancy, poor maternal health, and decline in breast-feeding are other issues affecting Indigenous communities. Residents of many communities are discouraged from visiting Health Centres due to cost of travel and logistical challenges.

Infant mortality (< 5yrs) i.e. number of deaths per 1,000 live births⁴⁶ is higher among Indigenous women (40) than any other ethnicity and higher than the national average of 25 deaths per 1,000 live births. By contrast, this group has the highest fertility rate in the country (5.4).

Malaria, an endemic disease of the hinterland Regions (Barima-Waini, Cuyuni-Mazaruni, Potaro-Siparuni and Upper Takutu-Upper Essequibo) is one of the leading causes of death among pregnant women and infants in the under-5 age group. Ninety eight percent of all malaria cases occurred in hinterlands Regions, where the environmental practices of mining and logging are conducive for survival of the parasite. The reported number of malaria cases is also highest among Indigenous Peoples, accounting for at least 33% of all cases reported in 2012.

While the prevalence of cervical cancer cases is small among Indigenous Peoples, an analysis of the occurrence of all cancers within ethnic groups showed that cervical cancer was significantly common among Indigenous women.⁴⁷

Over 300 Guyanese teens become pregnant annually and are forced to drop out of school. The adolescent birth rate in Barima-Waini, Cuyuni-Mazaruni, Potaro-Siparuni and Upper Takutu-Upper Essequibo is almost 300% higher than that of the other Regions at 187 births per 1,000 women.⁴⁸ Among ethnic groups, adolescent pregnancy occurs in 21% of Indigenous girls between ages of 15 and 19 as compared to 16% of East Indian & Mixed raced girls and 11% of girls of African descent.⁴⁹

The attendance rates and the trained teacher to student ratios are lower in hinterland communities than on the coast. Many of those trained are non-Indigenous and non-residents of the communities. In some cases, secondary school children in some parts of the hinterland travel long distances to attend a boarding school away from their families and villages for long periods.

nearby creeks and rivers for their freshwater source. There are reported high incidences of water-borne diseases in the principal mining areas e.g. Regions Barima-Waini, Cuyuni-Mazaruni and Potaro-Siparuni. The use of pit latrines is also common in Indigenous communities and this, along with limited access to potable water might be reason for increases in number of diarrheal cases in these areas, especially during the rainy season.

A 6.4.2 Adolescent youths

According to the 2012 national population census, youths (<35 years) represent almost 69 percent of the national population,⁵⁰ with females making up at least 51 percent of all youths in the country.⁵¹ With such a youthful population Guyana has the potential to advance on efforts for sustainable development.

The Government Of Guyana's vision for youth is for "young people to be united, educated, trained, safe, happy, healthy and integrally involved in the decision making processes, while enjoying equality of opportunity and equal access to the resources of our country and are politically, economically and socially empowered".⁵²

Issues affecting youth have been described above related to education and health, and in other sections of this study. A brief summary of the key issues is discussed below.

⁴⁶ Guyana National Population Census 2012

⁴⁷ Plummer, W; Persaud, P and P.J. Layne 2015: Ethnicity and cancer in Guyana, South America.

⁴⁸ Annex E – UNFPA Concept Document to Inform the Green State Development Strategy: Vision 2040

⁴⁹ MICS 2014

⁵⁰ The National Youth Policy for the Cooperative Republic of Guyana 2015

⁵¹ Guyana Bureau of Statistics National Population Census 2012.

⁵² The National Youth Policy for the Cooperative Republic of Guyana 2015

A 6.4.3 Youth Challenges

According to UNICEF, adolescent youth face a wide range of challenges such as unemployment, violence and lack of opportunities. HIV/AIDS is increasing in the youth population and especially among young girls. The Ministry of Public Health has prioritised three areas to deal with adolescent HIV/AIDS: access to prevention of mother-to-child transmission (PMTCT) services; care and treatment; and reduction of transmission, especially among adolescents. With an emphasis on peer education and access to counselling and testing services, the Ministry of Public Health has been supported by USAID's PEPFAR programme, UNAIDS, UNICEF, UNFPA and NGOs to develop more youth friendly health services, including reproductive health, HIV testing and counselling and basic life skills. Other programmes promote abstinence or positive behaviour changes (e.g. Xchange and Me to You Campaign).

A 6.4.3.1 Unemployment

The youth unemployment rate for Guyana in 2002 was slightly above 35 percent,⁵³ and is now estimated to be around 40 percent,⁵⁴ i.e. almost three times the global rate of 13.5 percent. The proportion of unemployed male youths is higher than that of the young females. Reasons for their unemployment include the lack of skills, experience and qualifications required by the job market. Some other youths are qualified and willing to work but cannot find jobs. In the Hinterland Regions, most limited access to secondary and post-secondary education contributes to the lack of skills attainment and causes disillusionment among the youth population.

With this comes the propensity to be involved in crime, drug and alcohol abuse, preadolescent sexual engagements, prostitution, teenage pregnancy, suicide and a suite of other downstream socio-economic problems. Youth entrepreneurship and empowerment programmes are in place to alleviate the situation, but efforts are stymied by the absence of appropriate supporting mechanisms and limited access to business development services and credit schemes, and adult and continuing educational programmes.

A 6.4.3.2 Crime and conflict with the law

The existence of youth crimes is attributed to unemployment and poverty, particularly among males. While males are the perpetrators, young women are mostly the victims of the crimes (e.g. sexual and physical abuse) rather than the perpetrators. Though figures are not readily available most of the crimes and violence in recent times appear to be committed by youths between the ages 16-25 years.

A 6.4.3.3 Mental and Physical Disabilities

Disabled youths are most often marginalised due to inaccessibility to education, employment, health, recreation and other facilities. Recent estimates are not available but the total number of persons with disabilities recorded during the 2002 Population Census was 48,419, representing about 6.4 percent of the national population. Of this, 5,842 were children less than 15 years old.

A 6.4.3.4 School drop outs

There is a reported high rate of school dropout which is higher in the hinterland regions of Barima-Waini and Upper Takutu-Upper Essequibo. The factors responsible for school drop in Guyana include: learning disabilities, emotional problems, early adult responsibilities and parenthood, poor attendance, low education expectations, low socio-economic status, poor education of parents, and siblings not living with natural parents.⁵⁵ In Barima-

⁵³ Guyana Bureau of Statistics National Population Census 2012

⁵⁴ Caribbean Development Bank: 2015: Youth is our Future

⁵⁵ <https://www.stabroeknews.com/2008/news/guyana/11/06/hinterland-school-drop-out-rates-the-worst/>

Waini, parental neglect has been identified as the leading cause of school drop in the Region. Due to shortages of opportunities for employment, parents leave to go elsewhere leaving their children behind unattended.⁵⁶

A 6.4.3.5 Substance abuse

Substance abuse and addiction among Guyanese youths is not well studied. Marijuana and alcohol are said to be the most commonly abused substances among the youth population.^{57,58} Youths are also starting to use prohibited substances at an early age. The Guyana Secondary School Drug Prevalence Survey Project (2013) found that the average age of first time use for crack was 14.5 years, for ecstasy 14.7 years, for marijuana 12.8 years, for cocaine 12.1 years and for stimulants from 12.0 years to 11.7 years.⁵⁹

Both public and private sector personnel are well aware of the need for interventions, and have taken steps to provide assistance to addicts in need of help. The Ministry of Public Health manages drug and rehabilitation treatment centres that offer free clinical services to addicts, and there are education and awareness programmes run by the Ministry of Education. The Salvation Army Men's Rehabilitation Centre and the Phoenix All-Female Recovery Project are the two most prominent privately managed institutions.

A 6.4.3.6 Homelessness/Lack of parental care

Recent statistics are not available, but the number of children without parental care increased from around 550 in 2006 to 749 in 2011, with another 2,500 identified as being at risk of institutional care.⁶⁰

A 6.4.3.7 Early marriages and Teenage pregnancy

The national birth rate for females between the ages of 15 – 19 years is 88 births per 1,000. This puts Guyana among the highest in the region for teenage pregnancy. In the Hinterland Regions (Barima-Waini, Cuyuni-Mazaruni, Potaro-Siparuni and Upper Takutu-Upper Essequibo) where most of the Indigenous population reside the teenage and adolescent birth rate is 187 births per 1,000.⁶¹ Poverty is the main driver behind adolescent and teenage pregnancies with 25 percent of the teens from low income families, compared to only 10 percent from wealthier households becoming pregnant. In many cases, the prescribed cultural treatment for early sexual engagement or incest is marriage, particularly in poor families and rural areas.

Thirteen percent of all youths (both male and female) between ages of 15-19 years are victims of early marriages, and about 15 percent of young women between the ages of 15- 24 are in union with spouses that are 10 or more years older.⁶² Inadequate socio-economic development (e.g. school dropout) of young women is the overarching, and very noticeable consequence of teenage pregnancy in Guyana.

A 6.4.3.8 Low self-esteem and suicide

In 2014, Guyana had the highest suicide rate in the world with an estimated 44.2 deaths per 100,000 people, which at that time was five times higher than the world average.⁶³ Suicide is the one of the top three causes of

⁵⁶ Region One's Chairman Brentnol Ashley

⁵⁷ <https://www.stabroeknews.com/2017/features/06/19/drug-useabuse-humane-approach-needed/>

⁵⁸ <https://www.kaieteurnews.com/2009/04/19/alcohol-is-number-one-drug-problem-in-guyana/>

⁵⁹ <https://www.stabroeknews.com/2017/features/06/19/drug-useabuse-humane-approach-needed/>

⁶⁰ <http://childlinkgy.org/analysis-of-the-current-situation-for-children-without-parental-care/>

⁶¹ Annex E – UNFPA Concept Document to Inform the Green State Development Strategy: Vision 2040

⁶² *ibid*

⁶³ Suicide Mortality in the Americas: Regional Report. Washington, DC : PAHO, 2014

death among youths in the 15-24 age groups.⁶⁴ Factors responsible include: depreciated sense of self-worth, dysfunctional families, and domestic abuse.

⁶⁴ Health in the Americas, 2012 edition: *Country Volume*, PAHO, 2012