# Investing Further in Health: Suriname

In Suriname's National Strategic Plan for Health and Wellbeing 2019-2028 (Ministry of Health, 2019), the government states its commitment to provide high-quality healthcare services while reducing inequities and protecting the population against financial burden. Suriname is an uppermiddle-income country with a gross domestic product (GDP) per capita of 15,500 purchasing power parity (PPP<sup>i</sup>) dollars and annual expected economic growth of 2% (World Bank, 2019). Suriname is burdened by its sovereign debt amounting to 72 percent of GDP (IMF, 2019). Public investment in health presents an opportunity to secure durable health gains and position the country for future economic growth. Government investment in the health sector can help to improve the standard of living for its citizens and reduce poverty.

Public expenditure on health has a high return on investment. Population health is linked to income growth, where investments in health can lead to a more productive, educated, and therefore wealthier population (Bloom & Canning, 2008). Among the contributions of five sectors-education, natural resources, climate, capital, and health-improved health leads to more wealth than the other sectors combined (Yamey et al., 2016). Evidence shows a positive association of health investments with development outcomes (Basta et al., 1979; Bleakley, 2003; Bleakley, 2010; Lucas, 2010). The return on investment (ROI) for each US dollar of government spending on health has an estimated return of US\$4.3 (Reeves et al., 2013). A 2016 meta-study identified a very favorable Rol for public health interventions with an economic return of 14 to one (Masters et al., 2017). Delaying public health investments represents bad economics. Investing in health now will generate millions of dollars of savings to the health system and foster prosperity as well as economic growth.

Greater investment is required to meet international commitments and achieve national goals. In 2014, the Pan American Health Organization (PAHO) recommended member states achieve an annual public health spending target of at least 6 percent of GDP in pursuit of universal health coverage (PAHO, 2014). Suriname aspires to this goal in the country's *National Strategic Plan* and has increased its share of public health spending as a percent of GDP in recent years, from 2.2 to 4.2 percent (Figure 1) (WHO, 2019a). The

#### Why should Suriname invest further in health?

- 1. Public expenditure on health has a high return on investment.
- 2. Greater investment is required to meet international commitments and achieve national goals.
- 3. Public spending on health contributes to poverty reduction through the reduction of out-of-pocket payments and catastrophic health expenditure.
- 4. Continued gains in public spending will be needed to counter a trend of decreasing external and private investment.
- 5. Investing in global health security is essential to protect lives and the economy.

#### Figure 1. Domestic general government health expenditure as a percentage of GDP, 2000-2016



Source: World Health Organization, 2019a

### Figure 2. Total health expenditure per capita in international dollars, 2017



Source: World Health Organization, 2019a

government's increase in health spending despite broader economic constraints demonstrates its impressive commitment to health, the *National Strategic Plan,* and international targets set out in the Sustainable Development Goals (SDGs) and the Sustainable Health Agenda for the Americas (PAHO & WHO, 2017). Total health expenditure per capita in Suriname was \$946 in international dollars as of 2017 (WHO, 2019a). Compared to other countries in the LAC region, Suriname has lower health expenditure per capita (Figure 2), which has negative consequences on the health and economic well-being of its population.

#### Public spending on health contributes to poverty reduction through the reduction of out-of-pocket payments and catastrophic

health expenditure. Out-of-pocket expenditure in Suriname has remained largely stable since 2010, hovering between 20 and 25 percent of total health expenditure. Recognizing the harmful effects of such payments, the Strategic Plan for Health and Wellbeing in Suriname 2019 - 2028 (MOH, 2019) targets a reduction in outof-pocket expenditure to a maximum of 20 percent of total health expenditure, and at least a 33 percent reduction in the incidence of catastrophic health expenditures. Catastrophic expenditure occurs when out-of-pocket health expenditure represents a substantial percentage percent. In 2016, 4.9 percent of households in Suriname faced health expenditures of 10 percent or more of total household expenditure and 1.4 percent faced catastrophic health expenditures of 25 percent or more (PAHO, 2017). These high levels of out-of-pocket expenditure are a threat to those on the edge of poverty (4.5 percent of the population) and a drag on impoverished persons' (9.4 percent) efforts to escape poverty (UNDP, 2019).

By increasing public investment in health, Suriname can reduce the need for out-of-pocket expenditure and its impoverishing side-effects on the most vulnerable people, provide financial risk protection and foster economic growth.

Continued gains in public spending will be needed to counter a trend of decreasing external and private investment. External health expenditure has decreased significantly since 2010, from approximately US\$14 million to under US\$1 million in 2017 (WHO, 2019a). Private health expenditure, consisting mainly of insurance premiums paid by employees and employers, has also dropped precipitously, from a high of nearly US\$100 million in 2014 to about US\$42 million in 2017. This presents a challenging situation for Suriname, in which public health spending will be needed to keep total health expenditure – and health gains – from backsliding in the near-term.

Investing in global health security is essential to protect lives and the economy. Although it is too early to quantify the impact of COVID-19 at the national level, the global economy is projected to contract by -3 percent in 2020. As economic activity normalizes, a rapid recuperation and growth by 5.8 percent is expected in 2021 (IMF, 2020). In fact, getting the COVID-19 pandemic under control is required to save livelihoods. The IMF and WHO recommend that countries place health expenditures at the top of the priority list. The course of the global health crisis and the fate of the global economy are inseparably intertwined and fighting the pandemic is a prerequisite for the economy to rebound (Georgieva & Ghebreyesus, 2020). Epidemic preparedness is an investment to protect the economy (WHO, 2018a) and effective policies and investments to protect lives are essential to achieve human and economic health.

#### Conclusions

As alternate sources of funding for health decrease in Suriname, greater public investment in health becomes increasingly necessary to meet the country's international commitments and national development goals, and to reduce poverty by protecting vulnerable households from out-of-pocket and catastrophic health expenditures. Greater government investment to prevent total health expenditure backsliding will save money in the long term through a healthier population and accompanying greater economic productivity.

# Investing Further in HIV

HIV is the most burdensome disease in Suriname and the main cause of premature death and years lived with disability (PAHO, 2019b). The current prevalence rate for HIV in adults ages 15-49 is 1.4 percent, more than three times the regional prevalence rate (UNAIDS, 2018). HIV prevalence is much higher in certain key populations, including sex workers (10.3 percent) and men who have sex with men (16.6 percent). However, the country has already made some progress, with reductions in the number of new infections since 2017 (UNAIDS, 2018). Increased public investment in HIV will be needed to protect this progress, respond to changes in external assistance, meet the country's treatment goals, limit future HIVrelated costs, and benefit from the economic returns of epidemic control.

Investment in HIV has important economic impacts and a high return on investment. The income of HIV-affected households is about 35 percent to 50 percent lower than that of nonaffected households; and in some countries, HIV is also associated with a 6 percent increase in the likelihood of unemployment (Yamey et al., 2016). HIV, whether affecting students or caregivers, can also negatively impact educational outcomes including school attendance, behavior, and completion (Guo et al., 2012; Pufall et al., 2014), in turn affecting future economic productivity. Averting these negative trends, each dollar spent on HIV treatment and prevention can have a major, positive economic impact. Spending on treatment yields a particularly high return on investment. For every dollar spent on antiretroviral therapy (ART), LAC countries obtain almost US\$4 of returns in economic benefits (Forsythe et al., 2019). The Copenhagen Consensus (2015) reported that each dollar spent on HIV treatment generates up to US\$10 in returns through better health and higher productivity. Under several scenarios and different economic contexts. ART is a smart investment showing consistent favorable costbenefit returns.

### Further investments are needed in HIV testing and treatment to achieve the 90-90-90

targets. In 2018, only 60 percent of people who were living with HIV knew their status. Of those who knew their status, 52 percent were on antiretroviral therapy, and 45 percent of people who were on antiretroviral therapy had achieved viral suppression (UNAIDS, 2018). When a

### Why should Suriname invest further in HIV?

- 1. Investment in HIV has important economic impacts and high return on investment.
- 2. Further investments are needed in HIV testing and treatment to achieve the 90-90-90 targets.
- 3. Investing now in prevention reduces the number of new cases and future resource needs.
- 4. As external funding declines, greater public investment is needed to maintain the decline in new HIV infections.

person is virally suppressed, they can live a healthy and productive life, and crucially cannot transmit the virus to others through sexual contact (Cohen et al., 2016). A major effort to increase HIV testing, rapidly initiate those who are positive on antiretroviral therapy, and help people stay on treatment to maintain their health and achieve viral suppression will be needed to reach the 90-90-90 targets. Increased public investment in HIV will enable testing and treatment expansion among the general population and among key populations with higher incidence rates.

Each dollar spent on HIV treatment generates up to US\$10 through better health and higher productivity if other social benefits are considered.



Source: Copenhagen Consensus Center

Investing now in prevention reduces the number of new cases and future resource needs. External donor funding covered the bulk of prevention and support services, particularly for key populations (Ministry of Health, 2018). According the *Suriname 2016 Health Accounts Report, the country* is spending just 12 percent of HIV funds on prevention efforts (Ministry of Health, 2018). As of 2019, external funding for these services has dropped sharply, with the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) ceasing operations in Suriname and the Global Fund significantly

### (5) The Global Fund

reducing funding. Without increased domestic investment in prevention to replace the external donors, Suriname is at risk of an increase in new infections. International evaluations have demonstrated that HIV prevention programs that benefit groups at high risk and that are implemented at scale are cost-effective, providing good value for money expended in low-resource settings (Vassall et al., 2014). Acting now to bridge the funding gap with public health spending is vital to prevent a worsening epidemic and reduce future costs of treatment.

#### As external funding declines, greater public investment is needed to maintain the reduction in new HIV infections. The

incidence rate of HIV in Suriname has declined in recent years, from one case per 1,000 population in 2016 to 0.8 cases per 1,000 population in 2018 (Figure 3). The recent progress is encouraging after several years without change; however, a continued reduction in HIV incidence is still needed to reach full epidemic control.

### Figure 3. HIV incidence and prevalence in adults ages 15–49 years



Source: UNAIDS, 2018

#### Figure 4. Funding for HIV by Source



Source. Suriname: country funding landscape table submitted to the Global Fund, 2019

Domestic funding for HIV is gradually increasing (Figure 4) and is expected to reach US\$3 million by 2021. However, international funding is decreasing, emphasizing the need for planning a sustainable response that catalyzes further government investment and prevents a reversal in recent progress. This will require investment in prevention, testing, and treatment. Given the reduction of donor funding for HIV shown in Figure 4, it is up to the Government of Suriname to fill this funding gap. The annual gap is estimated at US\$ 800,000. While the Government has increased its spending on HIV over the past few years, greater investment will be needed to close the funding gap and ensure service coverage expands rather than contracts, threatening recent gains and necessitating more resources in the future. If Suriname wants to achieve the 90-90-90 targets and ultimately spend less by avoiding a larger HIV burden in the future, higher investment is required now to address the funding gap and take greater national control of the response.

#### Conclusions

Suriname has made important reductions in new HIV infections and has a high proportion of viral suppression among patients on antiretroviral therapy. However, HIV remains a serious burden in the country and gaps remain in case detection and treatment initiation. There is need for increased public investment on HIV to protect and continue progress in epidemic control. Increased government investment will benefit the people of Suriname by limiting the future financial and human costs of the HIV, while also generating economic returns.

# **Investing Further in Tuberculosis**

April 2020

In Suriname, the tuberculosis (TB) incidence rate has hovered around 30 cases per 100,000 population for most of the past decade, with little evidence that the country is moving toward elimination (WHO, 2019c). Over the same period, multi-drug-resistant TB (MDR-TB) has emerged in the country, with a steadily increasing number of cases. These trends are concerning, particularly as donor support for TB in Suriname is decreasing. Greater public investment in TB is needed to move the country towards greater TB control and prevent further spread of MDR-TB.

#### Spending on TB yields a high return on

**investment.** Evidence on the cost-effectiveness and benefits of expanded financing for TB control suggests that such investments will yield a high economic return. The Lancet Commission on Tuberculosis found that based on deaths averted, the benefit-to-cost ratio for TB interventions was 10 to one (Reid et al., 2019). According to the Copenhagen Consensus Center, each dollar spent on TB generates up to US\$30 through better health and higher productivity and can reach up to US\$43 if other social benefits are considered. Ultimately, it is more cost-effective to invest now in TB to prevent spread of the disease and drug resistance than to treat new and complex cases in the future.

Each dollar spent on TB generates up to US\$30 through better health and higher productivity and can reach up to US\$43 if other social benefits are considered.



Source: Copenhagen Consensus Center

Public spending on TB can help protect households from catastrophic health expenditures and impoverishment. Suriname's *National Strategic Plan for Health and Wellbeing* commits to better financial protection for patients by reducing incidence of catastrophic health expenditure by at least 33 percent. As catastrophic health expenditure is measured in proportion to household income, households with TB patients who are unable to work are particularly vulnerable. In low- and middle-income countries, household income is estimated to decline by an average of 39 percent when a

### Why should Suriname invest further in TB?

- 1. Spending on TB yields a high return on investment.
- 2. Public spending on TB can help protect households from catastrophic health expenditures and impoverishment.
- 3. Progress against TB has stagnated for much of the last decade, and increased funding will be necessary to make inroads against this disease.
- 4. Under-investment allows for the emergence of drug resistance, increasing the long-term costs of TB treatment.
- 5. Increased public investment will be necessary to close the funding gap as external assistance recedes.

### Figure 5. Incidence of TB and HIV-Negative TB Mortality Rate, per 100,000 Population



Source: WHO, 2019d.

## Figure 6. Notified cases of MDR and Rifampicin-resistant TB





### (5) The Global Fund

member of the family has TB (Tanimura et al., 2014). By increasing public spending on TB, Suriname can help ensure patients do not face out-of-pocket expenditures for treatment while their household income is depressed, and they are more susceptible to catastrophic health expenditure.

Progress against TB has stagnated for much of the last decade, and increased funding will be necessary to make inroads against this disease. Little progress has been made in reducing TB incidence and mortality in recent years (Figure 5). After an encouraging decline from 46 to 29 cases per 100,000 between 2010 and 2011, the incidence rate has since averaged around 30 per 100,000 (WHO, 2019d). Similarly, TB mortality has remained largely steady since 2010, currently standing at 2.7 per 100,000. Increased funding is needed to expand coverage of prevention and treatment efforts and continue reducing TB incidence and mortality.

Under-investment allows for emergence of drug resistance, increasing the long-term costs of TB response. The emergence of MDR-TB poses a major threat to health and epidemic control. The number of MDR-TB cases in Suriname has been increasing steadily in recent years (Figure 6). Drug resistance emerges when drugs are of poor quality, patients stop treatment early, anti-TB medicines are used inappropriately, and prescriptions are incorrect (WHO, 2018b). Treating MDR-TB is an expensive and long process. A review of 50 countries found that the mean treatment cost per patient in lower-middle income countries was US\$273 for drug-sensitive TB and US\$6,313 for DR-TB (Laurence et al., 2015). Additionally, MDR-TB treatment can last up to two years, versus six months for a case of drug-sensitive TB (Dall, 2017).

#### Figure 7. Tuberculosis funding, by source US\$



Source. Suriname: country funding landscape table submitted to the Global Fund, 2019

Investing in basic TB screening and treatment is key to stop MDR-TB from spreading and avoid a more serious and costly epidemic (WHO, 2007).

Increased public investment will be necessary to close the funding gap as external assistance recedes. While public investment in TB has been increasing in Suriname, donors have historically been a major source of TB funding in the country. As seen in Figure 7, donors provided an average of US\$ 400,000 towards TB prevention and treatment in Suriname. As this external funding tapers off, there is a projected funding gap of US\$ 80,000 per year between 2019 and 2021. Increased public investment in TB will be necessary to fill the funding gap and ensure the health and financial protection of TB patients.

#### Conclusions

As donor funding for TB in Suriname recedes, the Government of Suriname will need to fill the gap. Increased public spending on TB prevention and treatment will protect vulnerable households from catastrophic health expenditures, limit the spread of costly and difficult to manage DR-TB, and yield economic returns in the form of lives saved and increased productivity.

# **Investing Further in Malaria**

April 2020

According to WHO, Suriname is on track to reach zero indigenous malaria cases by 2020 (WHO. 2019e). While this is a major achievement on the part of Suriname, continued efforts are needed to protect this progress and prevent a resurgence of the disease. This is particularly true in the remote and hard-to-reach interior of the country, where the few remaining indigenous cases of the disease and the more numerous imported cases are clustered. As shown in Table 1, the amount the Government of Suriname budgeted for malaria decreased by 40 percent, from US\$106,372 in 2016 to US\$63,194 in 2018 (WHO, 2019e). This downward trend in public investment, which represented just 7 percent of total funding in 2018, must be reversed if Suriname is to maintain its gains toward the elimination of malaria.

#### Table 1. Malaria Funding by Source

	2016	2017	2018
Government <sup>1</sup>	106,372	61,800	63,194
Global Fund <sup>2</sup>	170,752	1,168,802	819,904
PMI/USAID <sup>1</sup>	16,151	52,213	22,037
WHO <sup>1</sup>	60,176	12,920	

<sup>1</sup>Reported by country, <sup>2</sup>Reported by donor Source: WHO, 2019e

**Malaria control is affordable.** Sustained malaria control is a low-cost intervention that brings countries closer to elimination. At the global level, the cost to protect one person with an insecticide-treated bed net for one year is US\$2.10. Similarly, diagnosis and treatment each cost less than one dollar, with one rapid diagnostic test at US\$0.53 and treating one case of malaria with a full course of effective treatment at US\$0.90. (Macepa, 2016). Sustained control could avert costs to the public health system and to households of treating resurgent malaria, while bringing countries one step closer to malaria elimination.

Spending on malaria yields a positive return

**on investment.** The prevention and treatment of malaria are among the most cost-effective public health interventions. Tools to prevent and decrease malaria transmission are cost-effective with a cost of US\$5–8 per case averted (Laxminarayan & Raykar, 2014). Other studies show that every dollar spent on malaria control brings a return of US\$2–5 (Titus, 2012). The Copenhagen Consensus (2015) also reported that the benefit for every dollar spent can reach up to US\$36 if the social benefits are considered. The prevention and treatment of malaria are among the most cost-effective public health interventions available today.

### Why should Suriname invest further in Malaria?

- 1. Malaria control is affordable.
- 2. Spending on malaria yields positive return on investment.
- 3. Investing in malaria saves both lives and money.
- 4. Suriname is on the cusp of eliminating malaria but must invest further to prevent a resurgence of the disease.
- 5. The remaining malaria-affected areas in Suriname are remote and challenging to reach, necessitating greater resource investment.

Malaria prevention is a highly cost-effective intervention with a cost of just US\$5-8 per case avoided. The benefit for every dollar spent can reach up to US\$36 if other social benefits are considered.



Source: Copenhagen Consensus Center

Figure 8. Malaria incidence, per 1,000 population at risk



Source: WHO, 2019e.

Investing in malaria saves both lives and money. Malaria control has a positive impact on the economy. It has been estimated that for each 10 percent reduction in malaria incidence, there is an additional 0.3 percent growth on the GDP (Gallup & Sachs, 2001). Malaria-free countries have five times greater economic growth than countries with malaria or reduced malaria (Gallup & Sachs, 2001).

Suriname is on the cusp of eliminating malaria but must invest further to prevent a resurgence of the disease. The incidence rate of malaria in Suriname has dropped dramatically within the past decade (Figure 8). Only 30 indigenous cases of malaria were reported in 2018, compared to 1,700 cases in 2010 (WHO, 2019b). This decline in indigenous malaria cases came thanks to a concerted, large-scale effort by Suriname, supported by the Global Fund, to eliminate malaria. The large-scale interventions included extensive health promotion, massdistributions of insecticide-treated bed nets, indoor spraying of insecticides in high-risk areas, and active case detection surveys (WHO, 2019e). However, now is not the time to become complacent. To meet the county's goal of eliminating malaria, public investment must increase and become institutionalized in the national budget to prevent future resurgence, which can occur when prevention and treatment efforts wane over time due to a lack of resources (WHO, 2016).

The possibility of resurgence is particularly concerning in Suriname. In 2018, there were 198 imported malaria cases reported, overwhelmingly among migrant workers entering from nearby countries in which malaria is not as well controlled (WHO, 2019e). At the same time, Suriname's natural environment is conducive to the spread of mosquitos. Increased and continued public investment in malaria elimination will be necessary to reach the country's goal and prevent a resurgence.

The remaining malaria-affected areas in Suriname are remote and challenging to reach, necessitating greater resource investment. The vast majority of recent indigenous malaria cases in Suriname have been reported in the interior of the country, particularly around Brokopondo Lake and near the southern border with French Guiana (Hiwat et al., 2018). In these more remote regions, the cost of prevention and treatment service delivery is higher due to the limited road infrastructure, the reliance on alternative modes of transportation, and the lack of population density. Due to these challenges, the cost of preventing and treating malaria will be higher than in coastal areas, requiring increased public spending.

#### Conclusions

Suriname has made excellent progress toward the elimination of malaria. However, the current trend of declining public investment must be reversed in order to fully eliminate the disease, particularly in remote areas with hard-to-reach populations. The extra efforts required in remote areas will benefit the whole of Suriname by preventing future malaria resurgence.

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