Data Collection Survey on the Health System in Mozambique

Final Report

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Japan International Cooperation Agency

TA Networking Corporation

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This report was prepared based on the information collected in Mozambique and Japan from November 2020 to March 2021. The recommendations are suggested by the Survey Team and do not represent JICA's official cooperation strategy for the particular sector or country.

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Tables and Figures

Abbreviations

Acronym	English, Portuguese
APE	Agente Polivalente Elementar
ABC	Brazilian Cooperation Agency
AIDS	Acquired Immunodeficiency Syndrome
AMETRAMO	Association of Traditional Healers of Mozambique
CDCS	District HIV/AIDS Council
CMAM	Central Medicine Stores, Central de Medicamentos e Artigos Médicos
CNCS	National Council to Fight HIV/AIDS
COVID-19	Coronavirus disease 2019
CP	Counterpart
CPCS	Conselho Provincial de Combate ao HIV/SIDA
CRVS	Civil Registration and Vital Statistics
DCNT	Non-Communicable Conical Diseases
DHIS2	District Health Information Software
DHS	Demographic and Health Survey
EU	European Union
GAVI	Global Alliance for Vaccines and Immunization
GBD	Global Burden of Diseases
GDP	Gross Domestic Product
GNI	Gross National Income
HIV	Human Immunodeficiency Virus
IIMS	Multiple Indicator and Health Survey
IMASIDA	Immunization Indicators Survey, Malaria and HIV/AIDS
IPTp	Intermittent Preventive Treatment in Pregnancy
JBPP	Japan Brazil Partnership Program
NCDs	Non-communicable Diseases
NGOs	Non-governmental Organization
NTDs	Neglected Tropical Diseases
PDN	Plano de Desenvolvimento Nacional
PESS	Mozambique Health Sector Strategic Plan
PHC	Primary Health Care
PNDS	National Health Development Plan
PQG	Programa Quinquenal do Governo
SARA	Service Availability and Readiness Assessment
SDSMAS	District Services of Health Women Social Action
STIs	Sexually Transmitted Infections
SUN	Scaling Up Nutrition
TBA	Traditional Birth Attendant
UHC	Universal Health Coverage
UNAIDS	Joint United Nations Program on HIV and AIDS
UNICEF	United Nations Children’s Fund
USAID	United States Agency for International Development
WFP	World Food Programme
WHO	World Health Organization

Source: United Nations HP. Available from https://www.un.org/geospatial/content/angola (Accessed 2020.11.25)

Summary

1. After the end of the civil war in 1992, Mozambique's political situation has been relatively stable and it has achieved high economic growth. However, it is still ranked as a low-income country with a GNI per capita of $480 (2019).
2. Health indicators, such as its maternal mortality rate of 289 (per 100,000 live births: 2017) and neonatal mortality rate of 28 (per 1,000 live births: 2018), compare favorably or equivalently with the average for sub-Saharan Africa and low-income countries. In Mozambique, infectious diseases account for a large proportion of deaths, particularly HIV/AIDS and sexually transmitted diseases, which account for more than a quarter of all deaths (2019).
3. Mozambique's UHC service coverage indicator is 46 (2017), which is comparable to the African region and better than the average for low-income countries. However, the country has a low rating for "service capacity and access", which consists of the number of hospital beds and health care workers.
4. Maternal and child health services are relatively well utilized, with 54.68% of women receiving four or more antenatal checkups, 70.3% of institutional births, and 65.8% of 1-2 years old receiving all basic immunizations, but there is a disparity between urban and rural areas. Mozambique's HIV infection rate among 15–49 years old is 8.9% (2019), which is very high compared to the average for sub-Saharan Africa but has seen a significant decline over the past two decades. In addition, the number of malaria infections (per thousand population) is 305 (2018), which is very high compared to the sub-Saharan African average of 219.
5. The government of Mozambique has formulated the Government's Five-Year Plan (Programa Quinquenal do Governo 2020–2024) as its national development plan, and one of the strategic goals is to "expand access to and improve the quality of health services" and to strengthen PHC. In addition, the Plano Estrategico do Sector da Saude 2014–2019 (Strategic Plan for the Health Sector) exists as a medium- to long-term strategy for the health sector. This plan was originally planned to end in 2019, but in 2020, it was decided to extend to 2024.
6. Health services are provided by primary to quaternary health facilities. Although the number of facilities is gradually increasing, there is a serious shortage of health personnel and frequent stock-outs of medicines and other supplies.
7. Seventy-nine percent of Mozambique's health sector budget is domestically funded, with the remaining 21% coming from outside the country (2019), with a heavy reliance on foreign funding. In particular, the numbers of development partners and their aid performance (amount) in supporting health policy and administration, malaria control, infectious disease

control, and basic health care services are large. Japan has so far developed the infrastructure for training schools for health workers and the educational system, including standardization of curriculum in training schools. In addition, Japan plans to support the promotion of maternal and child health and nutrition improvement initiatives at the community level through the operation of the Maternal and Child Health Handbook.

8. One of the challenges in the health sector is that the authority to recruit and deploy health personnel is in the process of being transferred from the Ministry of Health to the provincial and district health departments due to decentralization. In response to these issues, there is a great need to strengthen health personnel recruitment and deployment plans at the provincial and district levels and to support the formulation of health financing strategies to mobilize domestic funds.

1 Introduction

1.1 Background and Objectives of the Survey

In recent years, the African region has seen an increase in the number of non-communicable diseases in addition to infectious diseases, maternal and child health, and nutrition problems, and these health sector challenges are having a significant impact on society and the economy. To alleviate the impacts, countries and the global community have been promoting the Universal Health Coverage (UHC), in which the goal is for "all people should have access to appropriate health promotion, prevention, treatment and functional recovery at a cost they can afford". UHC can be realized by working on the following two points: "access to quality essential health services" and "protection from financial risk". In other words, the strengthening of the health system is required to achieve UHC.

To contribute to the promotion of UHC in Mozambique, Angola, and Nigeria in the African region, this study aimed to confirm the current status of health systems, cooperation needs, and trends in cooperation among development partners in these three countries, and to examine future cooperation policies. This report summarizes the results of the survey on Mozambique.

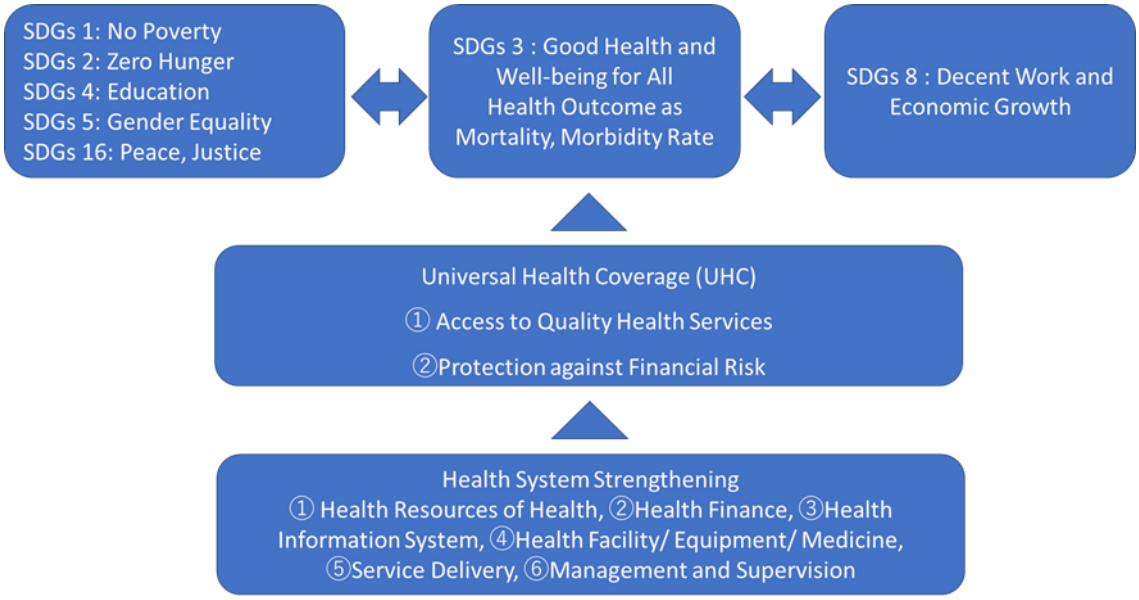


Figure 1: Health and Social Issues, UHC, and the Challenges of Health Systems Strengthening

Source: Prepared by the survey team based on UHC2030. (2017). Healthy systems for universal health coverage - a joint vision for healthy lives. Geneva: World Health Organization and the World Bank.

1.2 Survey Methodology

This study was conducted by a joint venture consisting of TA Networking Corporation and Samauma Consulting, LLC, and the study was initiated in November 2020 upon review of existing documents, as well as collection and analysis of basic information on Mozambique. In December of the same year, this basic information was compiled into an interim report and

discussed with JICA's Human Development Department to identify specific issues and target areas in Mozambique. In December of the same year, this basic information was compiled into an interim report and discussed with JICA's Human Development Department to identify specific issues and target areas in Mozambique. Health Administration/Finance and Health Information were selected as the specific issues in Mozambique. From January 2021, detailed information was analyzed through the collection of relevant materials by a commissioned consultant and interviews with relevant stakeholders. To identify particular needs for cooperation and to make recommendations for policies, using the collected information, a discussion with the Human Development Department of JICA was held in March 2021, after which, a final report was written as a compilation of all these findings.

2 Current Status and Issues of Health Care in Mozambique

2.1 National Health Status

2.1.1 Key Health Indicators

Mozambique gained independence in 1975 after a war of independence, but the political situation was not stable, and a 16-year civil war lasted from 1977 to 1992. Since the end of the civil war, Mozambique has deepened its relations with the West, achieved relative political stability, and achieved high economic growth. However, the Gini coefficient, a measure of income inequality, stood at 54.0 in 2014, which is a "chronic riot-prone level", and the absolute poverty rate is still high. Traditionally, many migrants from the southern region go to South Africa to work in the mines, and HIV/AIDS is spreading mainly in the southern part of the country as these migrants become infected with HIV. The national HIV infection rate among the 15–49-year-old population 13.2% (2015), with a particularly high rate of 24.4% (2015) in the southern province of Gaza. This is still a significant problem in the health sector in Mozambique, even with today's advancement of antiretroviral drugs.

Table 1: Key Social and Economic Indicators

Major Social and Economic Indicators	Mozambique	Sub-Saharan Africa average	Low-income countries average	Japan
Area (1,000 km^2)	786.4(2018)	NA	NA	364.6 (2018)
Total population (millions)	30.4 (2019)	NA	NA	126.2(2019)
Gross domestic income (GNI: US dollar 1billions)	14.6 (2019)	NA	NA	5,364(2019)
GNI per capita (US dollar)	480(2019)	1,550 (2019)	791(2019)	41,690(2019)
Poverty headcount ratio (% of population under 1.90$/day)	63.7 (2014)	42.3 (2015)	45.2 (2015)	0.7 (2013)
Primary education completion rate (%)	52.0 (2018)	68.8 (2018)	67.3 (2018)	NA
Life expectancy at birth (years)	60.2 (2018)	61.3 (2018)	63.5 (2018)	84.2 (2018)
UHC Service Coverage	46 (2017)	44 (2017)	42.06 (2017)	83 (2017)

Source: World Bank Open Data

The WHO organizes key health indicators into inputs, outputs, outcomes, and impacts levels

according to a concept of "results chain,"[1] and Table 2 shows key health indicators for Mozambique, sub-Saharan Africa, and low-income countries based on this methodology. As for indicators at impacts level in Mozambique, maternal mortality ratio (per 100,000 live births) and neonatal mortality ratio (per 1,000 live births) are estimated to be 289 (2017) and 27.8 (2018), respectively. Maternal mortality ratio in Mozambique is better than the average for sub-Saharan Africa and low-income countries, and neonatal mortality ratio in Mozambique is similar to averages for sub-Saharan Africa and low-income countries. In addition, the percentage of households with health-related expenditure of 25% or more of household expenditure/income is 0.4% (2014), a much lower percentage than the sub-Saharan African average of 1.9% (2019). The percentage of women with access to modern family planning and the percentage of births attended by skilled health staff, which are outcomes level indicators, are 45.2% (2015) and 54.3% (2011), respectively, with the percentage of women with access to modern family planning higher than the sub-Saharan African average and the low-income country average. The proportion of births attended by skilled health staff is similar to these averages.

Output and input level indicators are directly related to the first step towards improving health service quality. The number of physicians (per thousand population), an input, is 0.08 (2018), which is extremely low compared to the average for sub-Saharan Africa of 0.23 (2017), and the number of nurses and midwives[2] (per thousand population) is also low at 0.68 (2018). At the output level, the percentage of HIV patients treated with antiretrovirals is 60% (2019) and the TB treatment success rate is 90% (2017), which is comparable to the sub-Saharan African averages of 70% (2019) and 82% (2017).

[1] WHO (2018) Global Reference List of 100 Core Health Indicators

[2] Nurses and midwives include professional nurses, professional midwives, auxiliary nurses, auxiliary midwives, enrolled nurses, enrolled midwives, and other associated personnel, such as dental nurses and primary care nurses. As described in section 2.1. "Human Resources for Health", in Mozambique, there is no qualification corresponding to midwife, but there is a similar qualification, maternal and child health nurse. Therefore, if the situation in Mozambique were to be faithfully described, the term "nurse" would be used, but in this chapter, for the sake of international comparison, the term "nurse and midwives" will be used, which is widely used worldwide.

Table 2: Key Health Indicators

Key Health Indicators	Mozambique	Sub-Saharan Africa average	Low-income countries average
Impact			
Maternal mortality ratio (per 100,000 births)	289 (2017)	534 (2017)	455 (2017)
Neonatal mortality rate (per 1,000 births)	27.8 (2018)	27.7 (2018)	26.4 (2018)
Incidence of catastrophic expenditure at 25% of household total consumption or income (%)	0.4 (2014)	1.9 (2015)	1.5 (2015)
Outcome			
Demand for family planning satisfied by modern methods (% of married women with demand for family planning)	45.2 (2015)	27.1 (2017)	27.2 (2017)
Births attended by skilled health staff (%)	54.3 (2011)	59.9 (2016)	59.8 (2016)
Immunization, DPT (% of children ages 12–23 months)	88 (2019)	73.5 (2016)	79.3(2019)
Prevalence of stunting, height for age (% of children under 5)	42.3 (2015)	33.0 (2019)	34.1 (2019)
Output			
Antiretroviral therapy coverage (% of people living with HIV)	60 (2019)	70 (2019)*1	-
Tuberculosis treatment success rate (% of new cases)	90.0 (2017)	82.0 (2017)1	88.0 (2017)
Input			
Number of physicians (per 1,000 population)	0.08 (2018)	0.23 (2017)	0.34 (2017)
Number of nurses and midwives (per 1,000 population)	0.68 (2018)	0.98 (2018)	0.91 (2018)
Number of hospital beds (per 1,000 population)	0.7 (2011)	-	0.8 (2011)

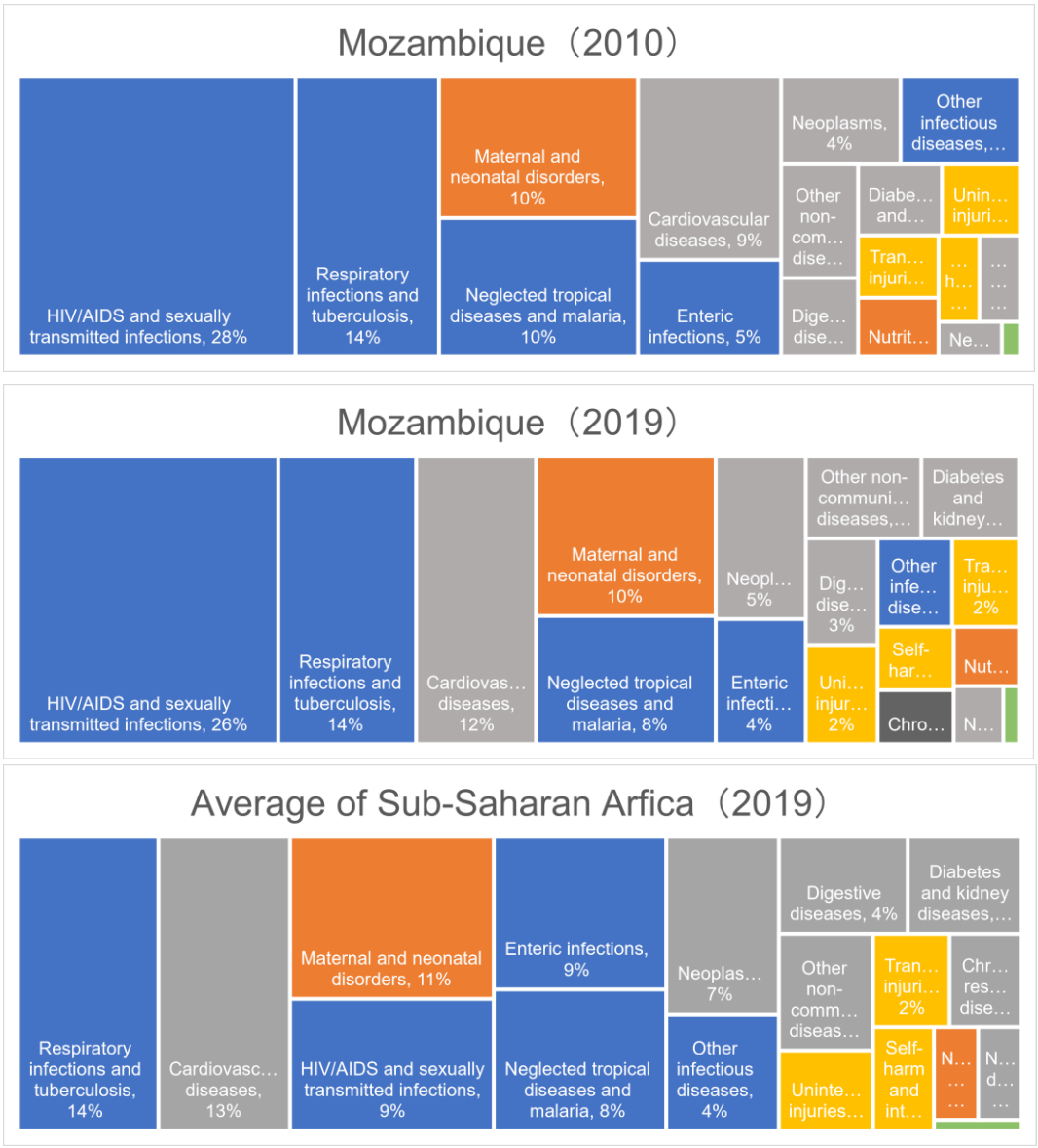
*1: Average for the African region

Source: World Bank Open Data and WHO Global Health Observatory Data.

2.1.2 Disease Structure

The Global Burden of Diseases (GBD) survey results are used to examine the transition of the burden of disease in Mozambique. It can be seen that infectious diseases account for a large proportion of deaths when compared to the sub-Saharan African average of 45% (2019), Mozambique was at 54% (2019). Among infectious diseases, HIV/AIDS and sexually transmitted infections (HIV/AIDS STIs) account for a particularly large share, accounting for more than a quarter of all deaths, 28% in 2010 and 26% in 2019.

With economical development in the African region, the disease structure has gradually shifted from one in which infectious diseases account for the largest share to one in which non-infectious diseases account for a larger share. Although infectious diseases still account for a large proportion of deaths in Mozambique, a comparison of the causes of death between 2010 and 2019 shows that deaths from infectious diseases decreased from 60% to 54% of total deaths, while deaths from non-communicable diseases (NCDs) increased from 23% to 29%.



Note: Infectious diseases are shown in blue, maternal and nutrition-related diseases in orange, non-infectious diseases in gray, and injuries in yellow.

Figure 2: Trends in Major Causes of Death for All Ages in Mozambique (% of all deaths)

Source: Prepared by Survey team by Institute for Health Metrics and Evaluation (IHME). GBD Compare Data Visualization. Seattle, WA: IHME, University of Washington. Available from http://vizhub.healthdata.org/gbd-compare. (Accessed 2020.11.20)

2.1.3 Progress of UHC

To monitor the progress in achieving universal health care (UHC), the UHC Monitoring Indicators have been developed. The UHC Monitoring Indicators consist of two major items: 1) Essential Health Service Coverage Index, and 2) Incidence of Catastrophic Health Expenditure. Mozambique's UHC service coverage index is 46 (2017), which is comparable to the average for the African region. Looking at the component areas of the UHC service coverage index, Mozambique has a low rating for "service capacity and access". This "service capacity and access"

consists of access to hospitals (number of hospital beds per capita), human resources for health (number of doctors, psychiatrists, and surgeons per capita), and health crisis response (core capacity index based on international health regulations). As described in section 1.1.1 "Key Health Indicators", this is due to the low number of physicians, among others. As for 2) Incidence of Catastrophic Health Expenditure, 1.6% of households have health-related expenditures that account for 10% or more of the total household expenditures; 0.4% of households have health-related expenditures that account for 25% of their total household expenditure. Both are considerably lower than the average for the African region (7.3 and 1.8 percent, respectively) and the average for low-income countries (6.9 and 1.5 percent, respectively) (Table 3). The two-year trend from 2015 to 2017 (Table 4) also shows some progress in the UHC monitoring indicators in a short period of time, ranging from 43 to 46. In particular, the score for infectious diseases has improved from 36 to 47, confirming progress in this area. However, there has been no improvement in service capacity and access.

Table 3: UHC Monitoring Indicators in Mozambique (2017)

	Mozambique	Average for the African region*1	Low-income countries
UHC Service Coverage Index	46	46	43
Maternal and Child Health*2	57	54	54
Infectious disease	47	42	43
Non-communicable disease	66	71	67
Service capability and access	25	30	25
Percentage of population with high health-related expenditure as a percentage of household expenditure or income.			
Incidence of catastrophic expenditure at 10% of household total consumption or income (%)	1.6 (2014)	7.3 (2015)	6.9 (2015)
Incidence of catastrophic expenditure at 25% of household total consumption or income (%)	0.4 (2014)	1.8 (2015)	1.5 (2015)

*1: The average for "sub-Saharan Africa" is used elsewhere, but since information on the same value could not be collected, the average for the "WHO African Region" is used in this table.
*2: "Reproductive, maternal, newborn and child health" to be precise

Source: WHO Global Health Observatory data

Table 4: Trends in UHC Monitoring Indicators

	2015	2017
UHC monitoring indicators	43	46
Maternal and child health	56	57
Infectious disease	38	47
Non-communicable disease	65	66
Service capability and access	25	25

Source: Tracking Universal Health Coverage: 2019 Global Monitoring report, WHO, The World Bank

2.1.4 Maternal and Child Health

(1) Changes in maternal mortality over time

The change in Mozambique's maternal mortality ratio over time is shown in Figure 3. In 2000, the maternal mortality ratio was very high at 798 (per 100,000 live births), but in 2017, it was 289, which is a significant decrease. It can also be seen that the mortality rate is low compared to the sub-Saharan Africa average. A report by the WHO Regional Office for Africa attributed the decline in maternal mortality to the increased use of health services, especially antenatal checkups, and the early diagnosis and treatment of pregnancy and delivery complications.[3] The Strategic Plan for the Health Sector (2014–2019) has set a target for the maternal mortality ratio, aiming to reduce it to 190 by 2024.

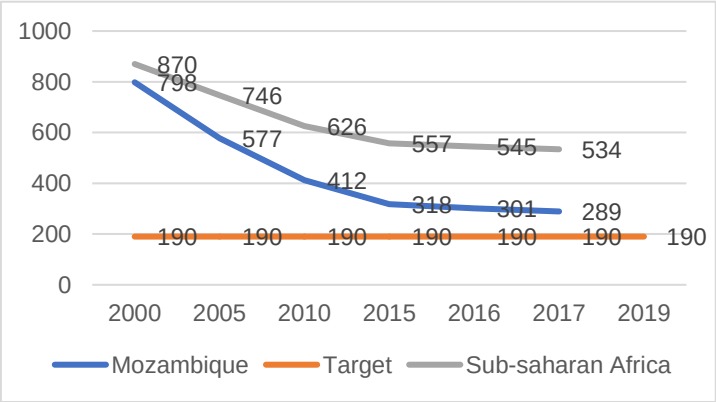


Figure 3: Maternal Mortality Ratio (per 100,000 live births)

Source: World Bank Open Data; targets are from the Health Sector Strategic Plan (2014–2019).

(2) Causes of maternal mortality

Figure 4 shows the causes of maternal deaths in Mozambique. Most of the deaths can be avoided by emergency obstetric care, antenatal checkups, delivery attended by skilled health staff, and postnatal checkups. In Mozambique, 55.3% of deaths are due to indirect obstetric causes, which are diseases that existed prior to pregnancy but worsened with pregnancy, and the main indirect obstetric causes are HIV/AIDS and malaria.[4] Therefore, appropriate measures against these infections for pregnant and nursing women may contribute to reducing mortality.

[3] WHO Regional Office for Africa. Increasing access for child and maternal health care services: the Mozambique experience. 2013

[4] Health Sector Strategic Plan (2014–2019)

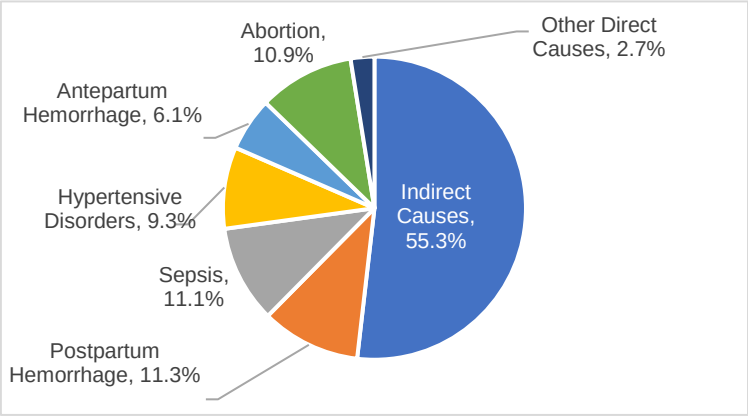


Figure 4: Major Causes of Maternal Deaths

Source: Global Causes of Maternal Death: A WHO Systematic Analysis, 2014

In 2015, the percentage of pregnant women who received four or more prenatal checkups on average in the country was 54.6% (Table 5). However, there is a large regional disparity, with the highest uptake rate in Gaza estimated at 81.2%, while the lowest in Manica Province is 39.4%.

Table 5: Number and Percentage of Pregnant Women who Received Four or More Antenatal Care*1

Region	Province	Rate of four or more antenatal care
North	Niassa	56.4%
	Cabo Delgado	68.4%
	Nampula	41.4%
Central	Zambezia	41.9%
	Tete	61.0%
	Manica	39.4%
	Sofala	58.1%
South	Inhambane	62.2%
	Gaza	81.2%
	Maputo Province	73.7%
	Maputo City	64.4%
National Average		54.6%

*1: IMASIDA 2015 defines it as the percentage of mothers of children born without death in the past two years aged 15–49 years who received four or more prenatal checkups.

Source: Inquérito de Indicadores de Imunização, Malaria e HIV/SIDA (2015)

Table 6 shows the utilization of major maternal health services. The percentage of women with access to modern family planning was 25.3% on average in the country (2015, as seen in Table 6), but only 16.7% among the poorest quintile. The national averages for the percentages delivered in a health facility and delivered by a skilled provider were 70.3% and 73.0%, respectively, but there is much room for improvement, especially in rural areas, where the percentages were 63.1% and 66.6%, respectively.

Table 6: Utilization of Major Maternal Services (%: 2015)

Region	Province	Percentage of women with access to modern family planning	Percentage delivered in a health facility	Percentage delivered by a skilled provider
North	Niassa	21.6	82.6	85.2
	Cabo Delgado	19.9	68.8	67.2
	Nampula	21.8	67.5	74.4
Central	Zambezia	17.8	41.8	45.7
	Tete	29.4	53.8	56.8
	Manica	18.1	71.3	73.3
	Sofala	14.4	87.8	89.5
South	Inhambane	33.8	89.2	89.1
	Gaza	41.9	84.9	85.7
	Maputo Province	43.9	87.5	88.6
	Maputo City	46.5	95.5	95.7
National average		25.3	70.3	73.0
Rural		21.5	63.1	66.6
Urban		34.3	90.7	91.4
Poorest		16.7	51.9	56.6
Wealthiest		43.0	95.3	95.8

Source: Inquérito de Indicadores de Imunização, Malaria e HIV/SIDA (2015)

(3) Barriers to the use of maternal and child health services

As for barriers to seeking health services when health problems arise, 61.7% of women in the country reported at least one challenge in accessing health services. This percentage is higher in rural areas than in urban areas, at 75.8% and 35.2%, respectively. The most frequently cited challenge was the distance to health facilities, with 52.5% of women facing this dilemma. In particular, 79.7% of women in Zambezia and 77.8% in Carbo Delgado had problems with distance to health facilities (Table 7).

Table 7: Barriers in Accessing Health Care (%: 2011)

Inhibiting factor	National average	Urban	Rural	Wealthiest*1	Poorest*2
Get permission from your family	10.8	6.9	12.9	4.4	16.7
Prepare for medical expenses[5]	39.7	24.0	48.1	15.3	65.6
Distance to health facilities	52.5	22.0	68.8	15.5	80.3
I don't want to go alone	19.3	9.9	24.4	6.9	29.7
One or more of the above	61.7	35.2	75.8	25.9	88.8

*1: Uppermost quintile obtained (80–100%)
*2: Lowermost quintile obtained (0–20%)

Source: Instituto Nacional de Estatística. Inquérito Demográfico e de Saúde 2011. 2013.

(4) Neonatal, infant, and under-five mortality over time, regional and provincial comparisons

Indicators on child mortality are very important in order to measure the level of development

[5] This factor indicates only the cost of medical treatment in the narrow sense, and does not include transportation costs. At first glance, this may seem contradictory to the fact that services at public health facilities are basically free, but especially in rural areas, people often go to traditional practitioners, and the cost of treatment is not small. In addition, there are cases where people pay bribes to health care providers to reduce waiting time, or to have hidden medicines issued, so it is possible that they are describing these burdens.

in a country and to determine the country's policies. The trends in the mortality rates of newborns, infants, and children under five in Mozambique are shown in Figure 5. In particular, the under-five mortality rate (per thousand live births) is estimated to have decreased from 169.7 in 2000 to 74.2 in 2019, a significant improvement in each of these figures. This decrease can be attributed to improved immunization coverage and access to other health services, as shown in Figure 6, which shows the percentage of children who have been immunized. In addition, the WHO Regional Office for Africa report attributes the improvement in under-five mortality to the promotion of Integrated Management of Childhood Illness (IMCI), which has led to a significant reduction in mortality, especially in rural areas.[5] The Health Sector Strategic Plan (2014–2019) aims to reduce the rate to 23, 45, and 55 in 2019, respectively.

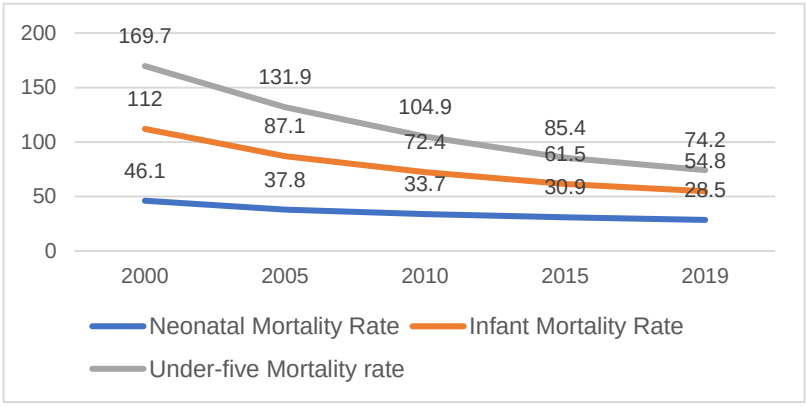


Figure 5: Neonatal, Infant, and Under-five Mortality Rates (per 1,000 live births)

Source: World Bank Open Data

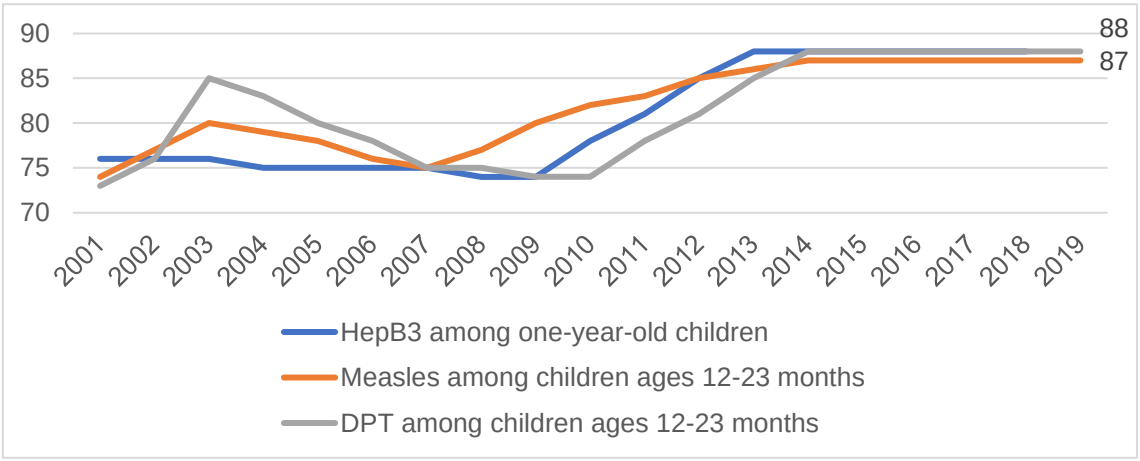


Figure 6: Trends in Immunization Rate among Children

Source: World Bank Open Data

(5) Causes of deaths of newborns and children aged 1 month to under 5 years

The causes of death among newborns and children aged 1 month to under 5 years are shown

in Figure 7, with malaria, pneumonia, and diarrhea accounting for more than 60% of deaths. These diseases are preventable and treatable in many cases, but health services are often not available even when the disease is suspected or the child presents with symptoms. As shown in Table 8, as of 2015, the utilization of health services during fever and diarrhea was limited to 40-50%, especially in the provinces of Niassa and Zambezia. In addition, the percentage of children aged 1–2 years who have received all the basic vaccinations by province is 82.8% (2011, as shown in Table 8) in Maputo Province, while it is 49.9% in Zambezia, the province with the lowest percentage of vaccination, revealing the regional disparity. According to the local experts, the reasons for this are: the population is so large that it accounts for more than 20% of the country's total population, there are no adequate health facilities to cover the large population, and the province has one of the lowest numbers of medical personnel per person.

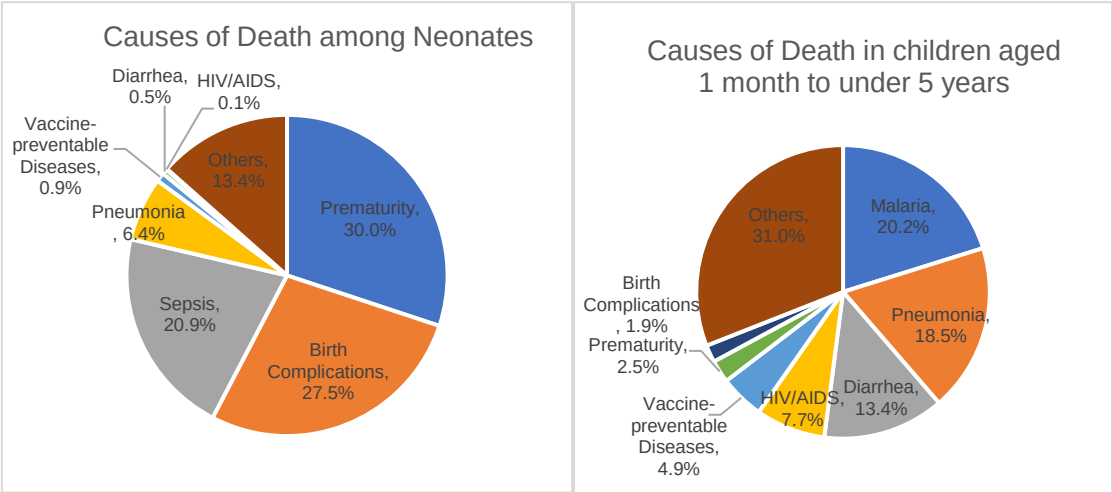


Figure 7: Causes of Death among Newborns and Children aged 1 month to under 5 years

Source: WHO-MCEE Estimates for Child Causes of Death, 2015

Table 8: Key Indicators for Child Health (%:2015)

Region	Province	Percentage of children aged 1–2 years who have received all basic vaccinations[6]	Health service utilization rates for suspected acute respiratory infections among children under 5 years of age	Health service utilization rate for fever among children under 5 years	Health service utilization rate for diarrhea among children under 5 years
North	Niassa	78.0	47.3	45.4	50.3
	Cabo Delgado	86.2	-	54.7	72.2
	Nampula	52.1	-	56.9	54.0
Central	Zambezia	49.9	30.5	47.2	43.4
	Tete	53.1	-	59.2	62.8
	Manica	65.8	75.1	65.5	60.6
	Sofala	69.1	-	69.7	69.2
South	Inhambane	81.0	-	71.5	53.0
	Gaza	84.8	65.5	70.8	68.6
	Maputo Province	82.8	-	56.3	-
	Maputo City	87.1	-	56.0	55.8
National average		65.8	56.5	56.5	55.5
Rural		61.7	54.0	53.3	53.0
Urban		77.9	63.8	69.0	63.6
Poorest		52.7	48.6	47.2	42.4
Wealthiest		85.1	59.1	65.8	53.7

Source: Inquérito de Indicadores de Imunização, Malaria e HIV/SIDA (2015)

2.1.5 Infectious Disease

(1) HIV/AIDS

The HIV prevalence rate in Mozambique (15–49 years old) is very high compared to the sub-Saharan African average, but it has been declining over the years and was 8.9% (per thousand uninfected population aged 15–49 years) in 2019. Looking at the HIV prevalence rate, the national average was 13.0% as of 2015, however, there is an overwhelmingly high prevalence in the south, for example, the rate was 24.4% in Gaza province. The high prevalence rate in the affluent and urban areas is also characteristic. This is because many people in the southern part of the country are migrating to South Africa to work, and many of them are infected. The percentage of people who have knowledge about HIV infection and prevention is 31.5% for males and 29.3% for females, which is higher in urban areas than in rural areas.

In 2014, the Joint United Nations Programme on HIV/AIDS (UNAIDS) set three 90% goals to be achieved by 2020 as a strategy to control the HIV epidemic (90—90—90).[7] In other words, the global strategy is to (1) ensure that at least 90% of infected people are diagnosed and aware of their infection, (2) ensure that at least 90% of diagnosed infected people receive treatment, and (3) control the viral load in the blood of at least 90% of infected people on treatment. In Mozambique, the percentage of HIV patients treated with antiretroviral drugs is on the rise,

[6] Three doses of pentavalent and polio vaccines, excluding BCG, measles, and polio at birth.
[7] UNAIDS 90−90−90 An ambitious treatment target to help end the AIDS epidemic

increasing to 60.0% in 2019, but lower than the sub-Saharan African average of 69.6%.

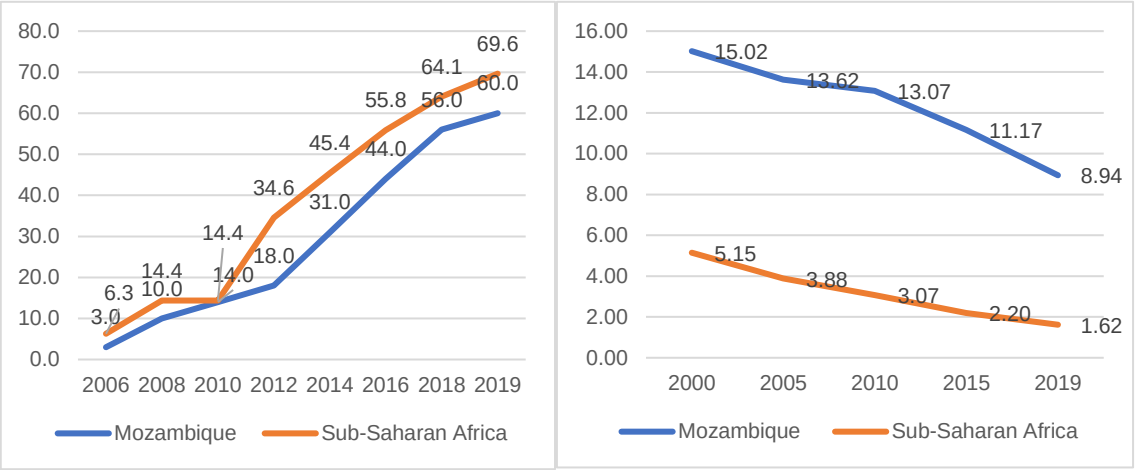


Figure 8: Trends in the Percentage of HIV Patients Treated with Antiretroviral Drugs (left); HIV Prevalence Rate (per thousand uninfected population aged 15–49) (right)

Source: World Bank Open Data

In terms of HIV testing rates during prenatal checkups, which are necessary to prevent vertical transmission, the rate has improved from 44% in 2009 to 67% in 2015, but there is still much room for improvement. Forty-four percent of HIV-infected pregnant and breastfeeding mothers are on antiretroviral therapy, and 13.1% of children born to HIV-infected mothers are infected with HIV, leaving much room for improvement.[8]

[8] Inquérito de Indicadores de Imunização, Malaria e HIV/SIDA (2015)

Table 9: Key Indicators for HIV/AIDS

Region	Province	HIV prevalence (15–49 years)	Men who have knowledge about HIV infection and prevention (males)[9]	Women who have knowledge about HIV infection and prevention
North	Niassa	7.8	17.8	33.0
	Cabo Delgado	13.8	21.0	17.3
	Nampula	5.7	21.1	18.0
Central	Zambezia	15.1	28.3	19.6
	Tete	5.2	25.5	46.5
	Manica	13.5	47.7	29.0
	Sofala	16.3	30.3	28.2
South	Inhambane	14.1	56.9	60.9
	Gaza	24.4	44.1	27.5
	Maputo Province	22.9	28.3	50.1
	Maputo City	16.9	53.4	41.9
National average		13.0	31.5	29.3
Rural		11.0	26.2	25.3
Urban		16.8	38.9	38.9
Poorest		9.6	20.2	18.2
Wealthiest		16.2	46.4	44.7

Source: Inquérito of Immunization, Malaria and HIV/AIDS Indicators (2015)

(2) Malaria

As shown in Figure 9, although the number of malaria infections (per 1,000 population) is decreasing, it was 305.4 in 2018, which is higher than the sub-Saharan African average of 219.1, making it one of the health challenges in Mozambique. The use of insecticide-treated mosquito nets is very effective in preventing malaria, with a national average of 45.4% of the population using the nets (2015, same as below). WHO also recommends a minimum of three cycles of intermittent preventive treatment (IPTp) with sulfadoxine-pyrimethamine (SP) during pregnancy. However, in Mozambique, only 22.4% of pregnant women have received at least three IPTp. As discussed in Section 1.1.3 (Maternal and Child Health), about half of pregnant women in Mozambique receive four or more prenatal checkups, but the percentage of IPTp is low, indicating that they do not receive IPTp at every antenatal care (Table 10).

[9] Knowledge of HIV transmission and prevention means knowing that the risk of HIV infection can be reduced by consistent use of condoms during intercourse and having one uninfected partner. They are aware that a healthy person can get HIV; they reject the two most common misconceptions about HIV transmission or prevention (you can get HIV from a mosquito bite or from eating with someone who has HIV).

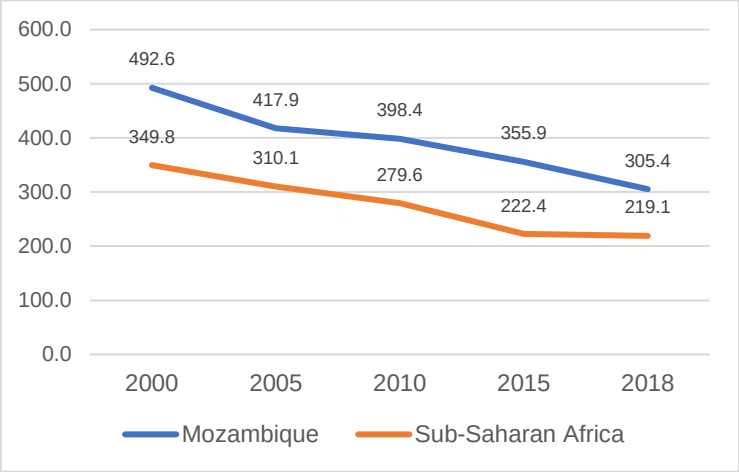


Figure 9: Number of Malaria Cases (per 1,000 population)

Source: World Bank Open Data

Table 10: Key Indicators for Malaria (%: 2015)

Region	Province	Percentage of the population sleeping under insecticide-treated mosquito nets	Intermittent prophylactic treatment during pregnancy (IPTp: 3 or more times)[10]	Prevalence of malaria in children under 5 years[11]
North	Niassa	46.3	13.5	36.3
	Cabo Delgado	59.5	25.8	29.4
	Nampula	51.1	19.2	66.0
Central	Zambezia	44.1	27.5	67.9
	Tete	38.3	6.5	30.4
	Manica	30.8	21.9	25.5
	Sofala	44.8	36.1	31.5
South	Inhambane	60.8	17.6	22.8
	Gaza	24.3	37.2	16.3
	Maputo Province	46.3	20.4	2.8
	Maputo City	42.7	7.7	2.2
National average		45.4	22.4	40.2
Rural		43.4	18.8	47.0
Urban		49.8	32.6	19.4
Poorest		39.7	18.2	60.5
Wealthiest		51.4	29.5	7.4

Source: Inquérito of Immunization, Malaria and HIV/AIDS Indicators (2015)

(3) Tuberculosis

The TB prevalence rate (per 100,000 population) in Mozambique has increased slightly since 2000 to 551 as of 2018, which is more than twice as high as the sub-Saharan African average of 231. On the other hand, the success rate of TB treatment is 90% (2017), which is higher than the sub-Saharan African average of 82% (Figure 10).

[10] Percentage of SP fixed dose/Fansidar received and administered.
[11] Rates of trich fever malaria or tropical fever malaria or both.

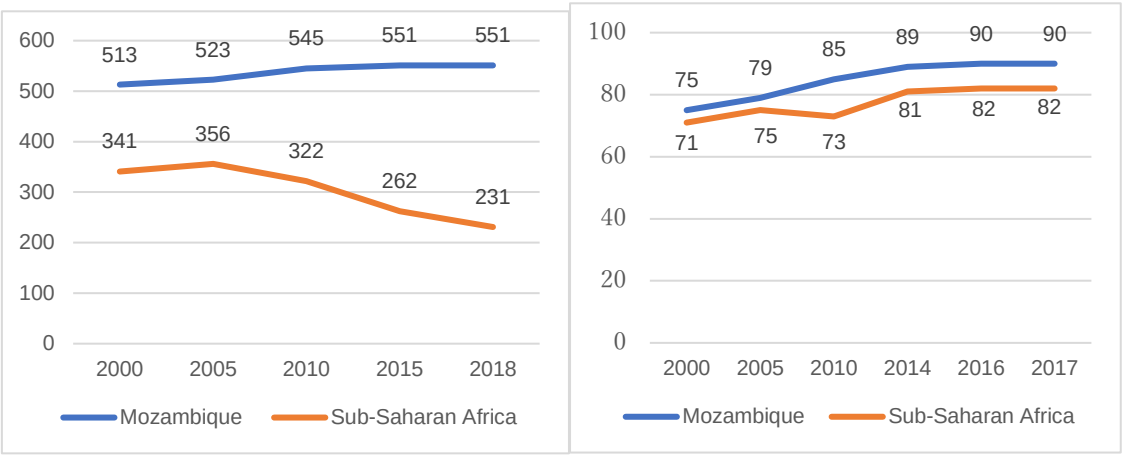


Figure 10: Trends in Prevalence of Tuberculosis (per 100,000 population) (left) and Success Rate of Tuberculosis Treatment (% of new cases) (right)

Source: World Bank Open Data

2.1.6 Nutrition

Table 11 compares the eight WHO risk factors[12] for nutrition in sub-Saharan Africa and low-income countries. Although the timing of the data makes exact comparisons difficult, the main indicators related to nutrition are worse in Mozambique than in the region and in countries with comparable incomes. In particular, the percentage of stunting (failure to meet age-appropriate height standards) among children under five, which represents chronic malnutrition, is very high at 42.3% (2015). In order to improve nutrition, exclusive breastfeeding up to 6 months is recommended, but this rate in Mozambique is 41.0% (2013), and the Health Sector Strategic Plan (2014-2019) aims to improve this value to 50% or more.

Table 11: Key Indicators for Nutrition

	Mozambique	Sub-Saharan Africa Average	Low-income Country Average
Exclusive breastfeeding rate 0-5 months of age (%)	41.0 (2013)	44.9 (2016)	48.0 (2016)
Early initiation rate of breastfeeding (%)	76.7 (2011)	-	-
Incidence of low birth weight among newborns (%)	13.8 (2015)	-	-
Chilreren under 5 years who are stunted (%)	42.3 (2015)	33.0 (2016)	30.1 (2019)
Children under 5 year who are wasted (%)	6.7 (2011)	-	-
Children aged under 5 years who are overweight (%)	7.0 (2015)	3 (2019)	4.7 (2019)
Anemia prevalence in children	60.2 (2016)	59.9 (2016)	52.2 (2016)
Anemia prevalence in women of reproductive age(%)	50.7 (2016)	45.9 (2016)	47.2 (2016)

Source : World Bank Open Data、Instituto Nacional de Estatística. Inquérito Demográfico e de Saúde 2011. 2013

[12] WHO. Global Reference List of 100 Core Health Indicators. 2018

Although it is older in time than the latest data in Table 11, the national average stunting rate for children under five was 42.6% as of 2011, the rate was higher in rural areas at 45.5% compared to 35.0% in urban areas. Both the stunting rate and the anemia rate are particularly high in the two provinces of Carbo Delgado and Nampula.

Table 12: Main Indicators of Nutrition (%: 2011)

Region	Province	Children under 5 years who are stunted	Anemia prevalence in children years[13]	The average duration of exclusive breastfeeding (Median) (Unit：Month)
North	Niassa	46.8	64.1	0.5
	Cabo Delgado	52.8	75.8	2.7
	Nampula	55.4	72.6	0.6
Central	Zambezia	45.2	79.2	1.4
	Tete	44.2	67.6	2.0
	Manica	41.9	67.5	0.6
	Sofala	35.7	62.6	0.7
South	Inhambane	36.0	62.1	0.6
	Gaza	26.8	58.9	3.6
	Maputo Province	22.7	51.7	2.4
	Maputo City	23.2	54.5	0.6
National average		42.6	68.7	1.3
Rural		45.5	72.0	1.1
Urban		35.0	59.7	1.8
Poorest		51.1	77.8	1.4
Wealthiest		24.1	51.5	1.9

Source: Instituto Nacional de Estatística. Inquérito Demográfico e de Saúde 2011. 2013

Figure 11 shows the trend in the percentage of stunting among children under five in Mozambique and the sub-Saharan Africa average. Although the stunting rate in Mozambique is gradually decreasing, it is still consistently higher than the sub-Saharan Africa average, and the 2015 value of 42.3% in Mozambique is about the same as the sub-Saharan Africa average of 42.9% in 2000, 15 years earlier.

[13] Percentage of hemoglobin below 11g/dl

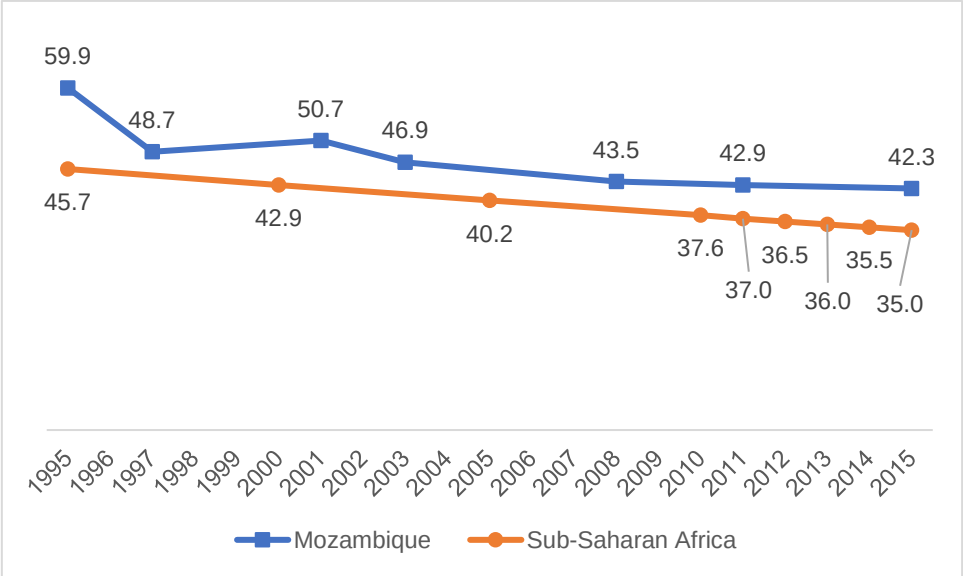


Figure 11: Trends in the Percentage of Stunting in Children Under 5 Years Old

Source: World Bank Open Data

The Food Consumption Score[14] shows a significant improvement in the country's overall score between 2006 and 2009, and a slight deterioration in 2013, but not to the same level as in 2006.

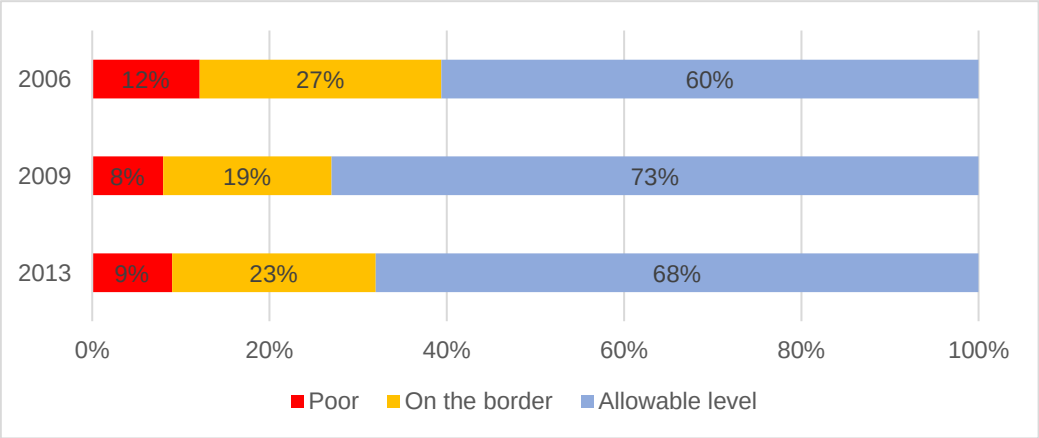


Figure 12: Household Food Security Status (2006, 2009, 2013)

Source: WFP: Trend Analysis: Key Food Security & Nutrition Indicators, Mozambique (2016)

When we look at rural and urban areas separately, we can see that urban areas improved slightly between 2009 and 2013, while rural areas deteriorated.[15] The WFP's Trend Analysis: Key Food Security & Nutrition Indicators, Mozambique (2016) states that "since 2009,

[14] Food Consumption Score: A weighting based on a combination of the diversity of foods, the number of days each food group is consumed, and the relative nutritional importance of the food groups, and is considered an excellent indicator of household food security.

[15] Trend Analysis: Key Food Security & Nutrition Indicator Mozambique (2016), World Food Peogramme

households have become more dependent on purchasing food from the market, self-sufficiency has declined, and the poor have become more vulnerable to food insecurity when market prices rise."

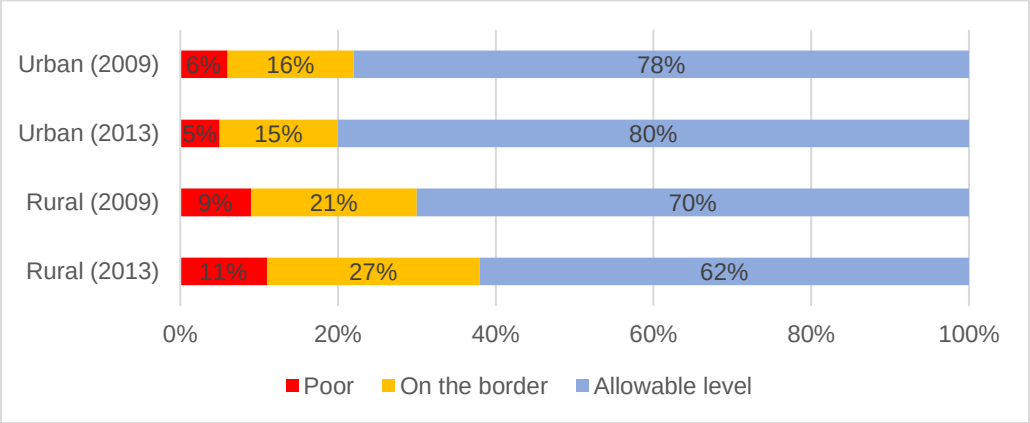
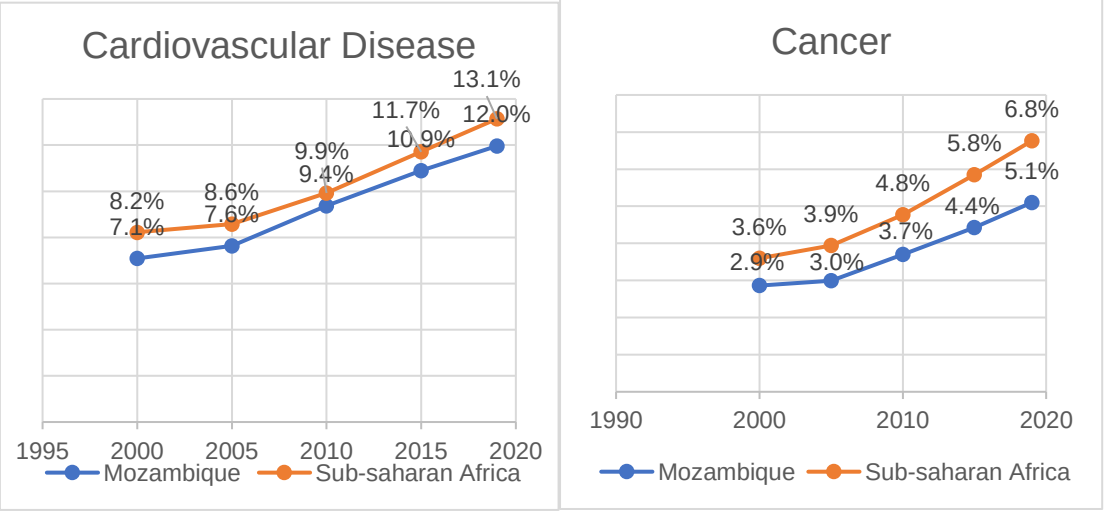


Figure 13: Urban and Rural Food Security Status (2009, 2013)

Source: Trend Analysis: Key Food Security & Nutrition Indicators, Mozambique (2016) World Food Programme

2.1.7 Non-communicable Disease

Non-communicable diseases (NCDs) are caused by factors such as smoking, lack of exercise, inadequate diet, and consumption of harmful amounts of alcohol. In Mozambique, 29% of all deaths are related to NCDs. Trends in mortality rates for cardiovascular disease, cancer, diabetes, and chronic respiratory disease are shown in Figure 14. All of these rates are lower than the average for sub-Saharan Africa, but they show an increasing trend year by year.



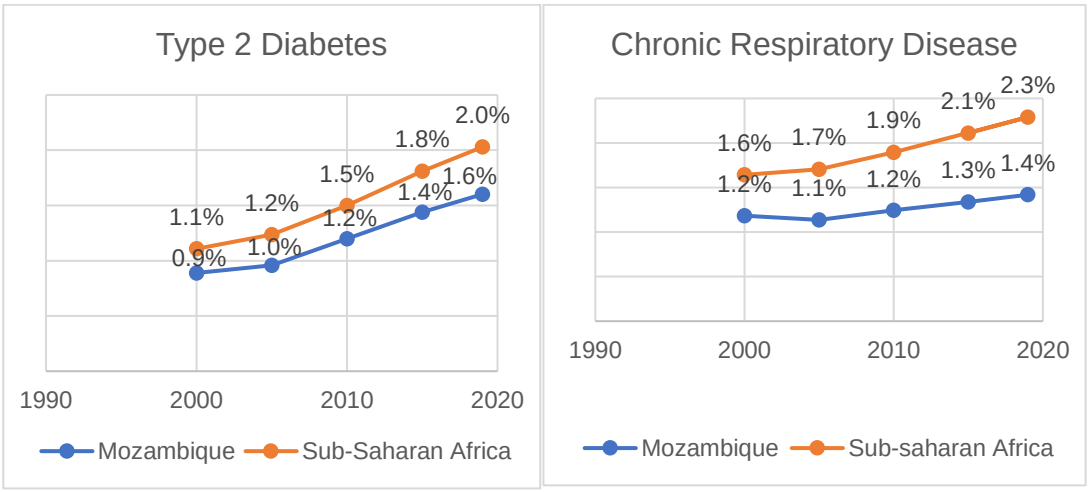


Figure 14: Trends in Mortality Rates for Cardiovascular Disease, Cancer, Type 2 Diabetes, and Chronic Respiratory Disease

Source: Prepared by Survey team based on Institute for Health Metrics and Evaluation (IHME). GBD Compare Data Visualization. Seattle, WA: IHME, University of Washington. Available from http://vizhub.healthdata.org/gbd-compare. (Accessed 2020.11.20)

As for alcohol consumption, which is important in the fight against NCDs, per capita alcohol consumption per person (aged 15 years and older) in terms of net alcohol consumption per year (calendar year) increased slightly from 1.7 L/person in 2010 to 2.4 L/person in 2016.

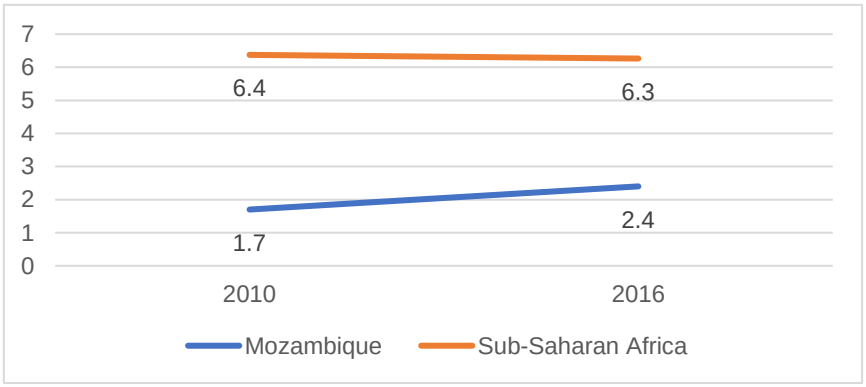


Figure 15: Alcohol Consumption Per Capita (15 years and older) in terms of Net Alcohol Consumption per Year (calendar year)

Source: World Bank Open Data

The smoking rate in Mozambique for people between the ages of 15 and 49 is 19.7% for men and 2.9% for women. The average rate for men and women is 16.6%, which is higher than the sub-Saharan African average of 10.2%.

Table 13: Smoking Rates by Gender

	National average	Urban	Rural	Wealthiest	Poorest
Smoking rate (male)	19.7	14.1	23.1	10.6	24.9
Smoking rate (female)	2.9	2.2	3.2	0.9	4.9

Source: Instituto Nacional de Estatística. Inquérito Demográfico e de Saúde 2011. 2013

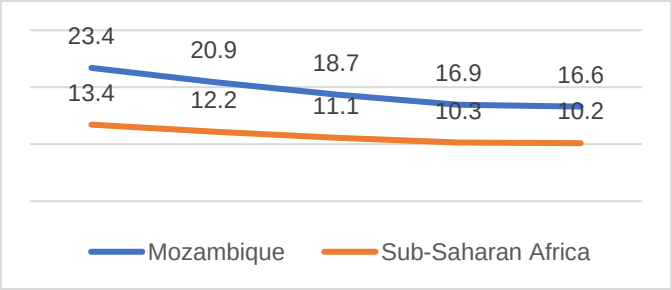


Figure 16: Smoking Prevalence, Total (age 15+)

Source: World Bank Open Data

2.2 National Development Plans and Related Policies and Plans in the Health Sector

2.2.1 National Development Strategy 2015–2035 (Estratégia National Development 2015–2035)

Mozambique has formulated a long-term development plan, the National Development Strategy 2015–2035 (Estratégia Nacional de Desenvolvimento 2015–2035). It aims to improve the living standards of the people through structural change, expansion, and diversification of the economy and has four main pillars: (1) human capital development, (2) infrastructure development, (3) research, innovation and technology development, and (4) organization, coordination and institutional articulation.

2.2.2 Government Five-Year Plan (Programa Quinquenal do Governo 2020–2024)

The Government of Mozambique has developed a medium-term development plan, the Government's Five-Year Plan (Programa Quinquenal do Governo: PQG 2020–2024), which was based on the National Development Strategy 2015–2035 and the commitments made in the October 2019 general elections. This plan has three priorities: i) developing human capital and social justice, ii) promoting economic growth, productivity, and job creation, and iii) strengthening sustainable management of natural resources and the environment. The plan is designed to improve the quality of life and reduce social inequality and poverty, and create a peaceful, harmonious and tranquil environment with strong incentives to create jobs by focusing on 8 issues: (1) peacekeeping, democracy, and national unity, (2) inclusive and sustainable growth, (3) social and economic stability, (4) the dynamization of productivity and competitiveness of the economy, (5) climate change, (6) job creation, (7) promotion of entrepreneurship and

tec hnological innovation, and (8) good governance and decentralization. In addition, this PQG 2020–2024 lists “expanding access to and improving the quality of health services” as one of its strategic goals and calls for strengthening PHC. The specific objectives are as follows :

a) Encourage use of maternal health services to increase institutional births
b) Reduce maternal mortality at health facility through the provision of basic diagnosis and treatment
c) Increase the number of children and adults receiving antiretroviral therapy
d) Expand the service of prevention, diagnosis and treatment to fight against malaria
e) Reduce prevalence and mortality of vaccine-preventable diseases
f) Promote cervical cancer screening among women aged 25–54 in reproductive health and family planning counseling
g) Equip intensive care unit to central hospitals and provincial hospitals
h) Ensure the availability of medicines in health facilities, especially in the area of maternal and reproductive health
i) Introduce the MRI (magnetic resonance imaging) at the Central Hospital in Nampula and Beira
j) Introduce hemodialysis at Kerrymane Central Hospital
k) Train traditional and alternative medicine practitioners to use socio-cultural approaches in primary health care
l) Improve the number of health professionals in special health care per population through the provision of more special health care professionals
m) Train medical specialists in different health specialties focusing on the area of general surgery, anesthesia and resuscitation, gynecology and obstetrics, internal medicine and pediatrics
n) Affect qualified health technicians in military health facilities
o) Ensure the supply of medicines to military health facilities

2.2.3 Position of the Health Sector in National Development Plans

The aforementioned “National Development Strategy 2015–2035" has limited reference to the health sector, and “Government Five-Year Plan” and “Strategic Plan for the Health Sector (Plano Estrategico do Sector da Saude: PESS 2014–2019)” are important national plans for the health sector (Table 14). The PESS was initially planned to end in 2019, but in 2020, it was decided that the content would remain unchanged, but only the duration would be extended to 2024.

Table 14: Summary of Strategic Plan for the Health Sector: (Plano Estrategico do Sector da Saude: PESS 2014–2019)

Top Targets	Poverty Reduction and Promotion of National Development
Vision	Contribute to the fight against poverty and the promotion of national development by progressively achieving UHC so that all Mozambicans, especially the most vulnerable, can enjoy the best possible health at an affordable cost
Mission	Lead the creation and delivery of more and better basic health services that are accessible to all, through a decentralized system that emphasizes partnerships, to maximize the health and well-being of all Mozambicans so that they can lead productive lives for individual and national development
Seven strategic goals to achieve the above	1. Increase access to and utilization of health care services 2. Improve the quality of services 3. Reduce inequities geographically and between population groups in access to health care services 4. Improve efficiency in service delivery and resource utilization 5. Strengthen partnerships for health based on mutual respect 6. Increase transparency and accountability in the way public goods are used 7. Strengthen the health system
Targets (Specific Indicators)	・ Reduction in maternal/neonatal mortality (maternal mortality rate, neonatal mortality rate, Delivery with SBA, contraceptive rate) ・ Improved child health/nutrition (vaccination rates, malnourished children under 5, under-five mortality rate, infant mortality rate, low birth weight rate) ・ Reduction in major diseases (tuberculosis mortality rate, AIDS multi-drug therapy continuation rate, HIV infection rate among 15–24-year-olds, malaria cases per thousand) ・ Prevention and treatment of chronic diseases (rates of alcohol consumption at harmful levels, smoking rates, cervical cancer screening rates) ・ Improving access to and utilization of health care services (rate of vertical infection prevention, percentage of children receiving regular check-ups, percentage of children vaccinated, number of maternal and child health workers per population, rate of institutional deliveries, rate of postnatal check-ups, number of community health workers and population coverage, etc.) ・ Quality improvement and humanization (humanized services) (acute malnutrition recovery rate, percentage of pregnant women receiving malaria prevention among antenatal checkup users, prenatal checkups, etc.) ・ Equity (reducing geographic and demographic disparities in access to health services) (number of HIV-infected adults receiving ART, number of health facilities per capita in each province and district, number of hospital beds per capita in each province and district) ・ Improving efficiency (productivity per facility and staff, DTP1-DTP3 dropout rates, number of beds per population per province and district) ・ Strengthened partnerships (intersectoral, public-private, etc.) (TB control programs, HIV-infected persons/tuberculosis patients receiving AIDS multidrug therapy and TB treatment, percentage and reduction in external funding, number and percentage of health facilities with established and functioning joint management committees) ・ Improved transparency and accountability (Ministry of Health budget execution rate; percentage of contraceptive purchase budget met by national budget; percentage of provinces with drug supply chain operations, management, and dispensing procedures meeting required levels)

2.3 Status of Other Donors' Support in Mozambique

2.3.1 Foreign funding for health sector budget

One key feature of Mozambique's health sector is its reliance on foreign funding: in 2019, 79% of the health sector budget was domestically funded, with the remaining 21% coming from outside the country. However, historical trends show that in 2019, both the real amount of domestic funds and their share of total funds, reflecting price increases, reached record highs, indicating that the share of foreign funds has been declining. The reason for the increase in the share of domestic funds in 2019 is that no new announcement was issued, but the government's

spending on health was on the rise (gradually increasing from 5.9 percent of the national budget in 2011 to 11.1 percent in 2017), as well as a significant decrease in foreign funds, coinciding with the Mozambican government's hidden debt problem, as discussed below. In 2019, the real amount of domestic funds increased by 22%, while foreign funds decreased by 54%.

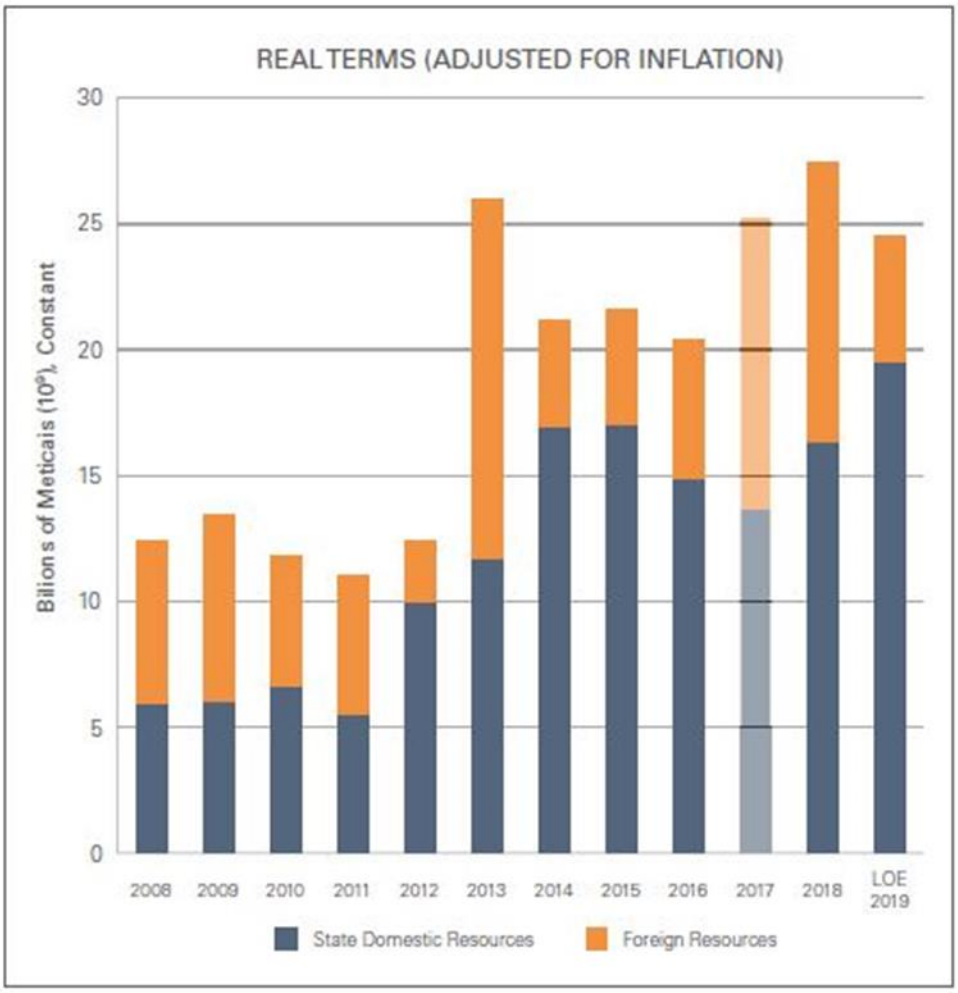


Figure 17: Health Sector Budget Trends (MZM)

Source: UNICEF Budget Brief: Health Mozambique 2019

The foreign funds are divided into common funds called PROSAUDE (used through the fund management system of the Mozambican government), bilateral projects directly managed by each development partner, loans, and in-kind donations such as medicines. The respective percentages in 2019 are shown in Figure 18.

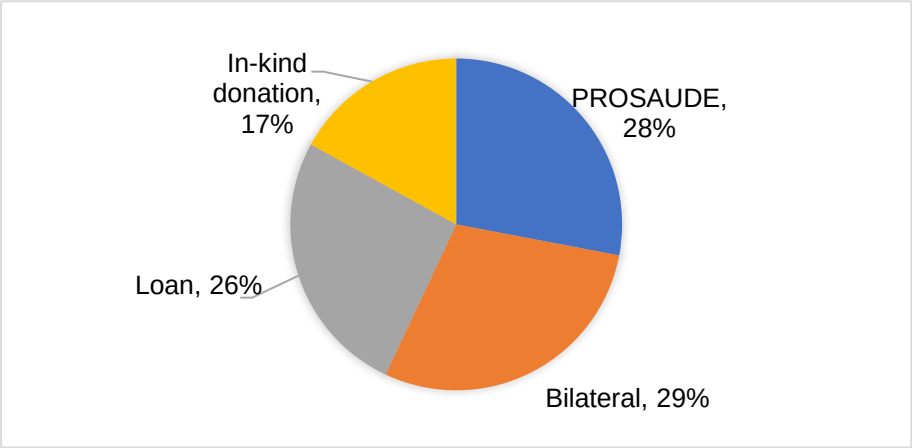


Figure 18: Forms of Foreign Funding in the Health Sector (2019)

Source: Prepared by surveyteam based on data from UNICEF Budget Brief: Health Mozambique 2019

According to the 2020 annual budget execution report, 61% of PROSAUDE contributions came from Ireland, followed by 15% from Belgium (Flanders region), 8% from Switzerland, 8% from Spain, 4% from Italy, 3% from UNICEF, and 1% from UNFPA. Contributions to PROSAUDE have declined rapidly since around 2015, with total commitments in 2019 at $18.2 million. This is about a quarter of the average ($71.7 million) for the last 10 years prior to 2019, and the lowest amount ever. This decline was triggered by the Mozambican government's hidden debt problem[16], which had a major impact on health financing in Mozambique. According to interviews with JICA Mozambique office, at the time of the sharp decline, there was a halt in the hiring of new medical personnel, a shortage of medicines, and a decrease in the overall health budget.

[16] The problem began to emerge around 2014, when $850 million in Eurobonds were issued in 2013 with the nation-owned Tuna Corporation as a dummy and was guaranteed by the country. Later, $622 million of ProIndicus debt and $535 million of Mozambique Asset Management debt, both under the State Intelligence and Security Service, were found. These loans were used to purchase battleships and fishing vessels through opaque procedures, and large amounts of unaccounted-for funds were also generated. In response, the IMF, other developed country donors, and others suspended many of their support in 2016.

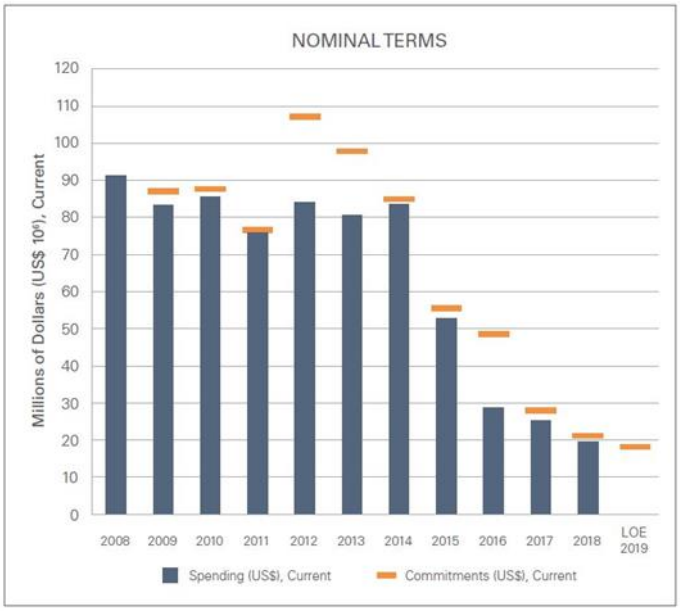


Figure 19: Trends in the Amount of Contributions to PROSAUDE

Source: UNICEF Budget Brief: Health Mozambique 2019

The current Common Fund, PROSAUDE III[17], is managed under a Memorandum of Understanding (MOU) with the donor countries, and the money from the Common Fund is distributed through the Mozambican government's Single Treasury Account (CUT) system (Conta Unica do Tesouro). All its expenditures are recorded in a government financial management system called SISTAFE (Sistema de Administração Financeira do Estado), which is reported in government reports and audited annually. The specific budget planning process is shown in Figure 20, and it can be seen that the intentions of the Mozambican government and the development partners are reconciled, so it is not a unilateral decision by either party.

The Technical Working Group (Portuguese: Grupos Técnicos de Trabalho) in Figure 20, is a coordination mechanism that integrates development partners in the health sector with government officials in the Ministry of Health. The technical working group was proposed in the early 2000s, and its purpose was to support the Ministry of Health in the areas of strategy, program, and finance, and to ensure efficiency and transparency.

In addition, Figure 20 says that "experts proposed the consensus document," and these experts are from the Unidade Técnica e Programática (UTP), with one representative from the administration and finance department of the Ministry of Health and two from the planning and cooperation department.

[17] PROSAUDE I: Conduced from 2003 to 2008, PROSAUDE II: 2009 to 2017, PROSAUDE III: 2018 to present.

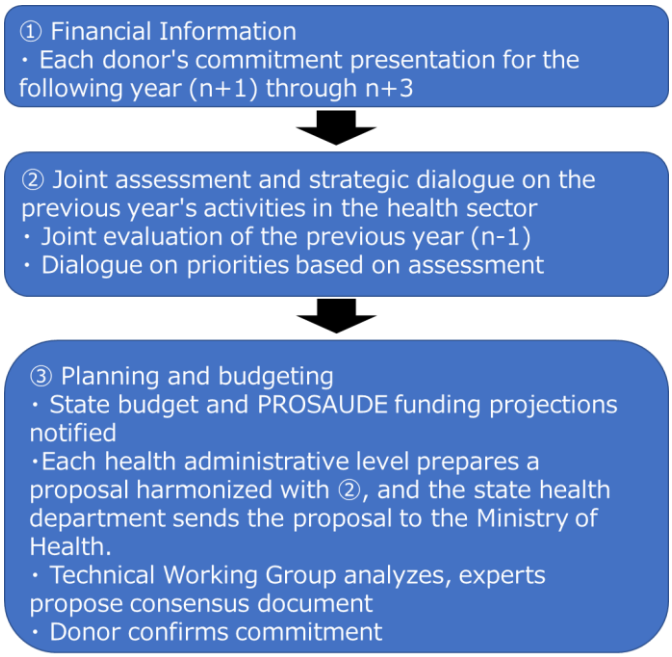


Figure 20: Budget Planning Process of RPOSAUDE

Prepared by survey team from the PROSAUDE III MOU Implementation Process Manual

The funds from PROSAUDE will be distributed in the following proportions: 20% to the Ministry of Health, 16% to the Provincial Department of Health, and 64% to the District Services of Health, Woman and Social Action (Serviço Distrital de Saúde Mulher Acção Social). It is calculated based on the distribution ratio calculation formula using an inverse number of population, workload, number of hospital beds, acute malnutrition rate, and population density. As mentioned above, the PROSAUDE mechanism itself is in place. However, looking at the actual operations, all PROSAUDE disbursements in 2018 have taken place in Q3‐4, with 23% of the disbursements in Q3 and 77% in Q4, with serious delays in December alone at 63% of total disbursements (Figure 21). The cause of this is unknown within the scope of this survey and will require additional study in the future.

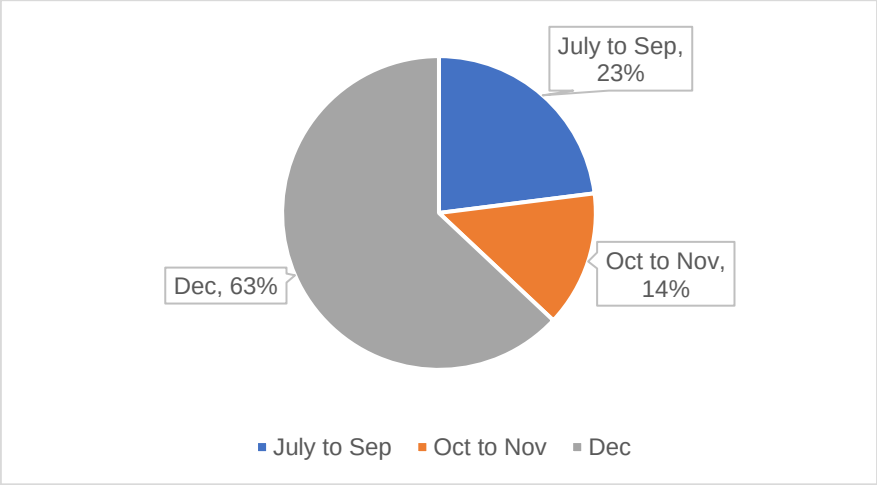


Figure 21: PROSAUDE Expenditure Period (2018)

Source: Prepared by Survey team based on the data from UNICEF Budget Brief: Health Mozambique 2019

Of the foreign funds, 28% are PROSAUDE, which can be treated by the Mozambican government as if it were its government's budget. Conversely, however, almost three-quarters of the funds do not go through the treasury account and therefore cannot be tracked by e-SISTAFE. Nevertheless, given the hidden debt problem and the delayed disbursement problem in PROSAUDE, it is more likely that development partners will reduce PROSAUDE funds rather than expand PROSAUDE, which will be a major challenge in the future.

2.3.2 Assistance Achievements

In the area of health in sub-Saharan Africa, the United States is the leading bilateral donor with $8.7 billion in total in 2009–2018, followed by $4.2 billion from the United Kingdom, $2.4 billion from Canada, and $1.2 billion from Japan.[18] In Mozambique, the U.S. ranked first with $469 million, similar to the overall trend in sub-Saharan Africa; this was followed by Canada's $236 million and Ireland's $167 million, the second and third largest bilateral donors.

In addition, from 2009–2018, multilateral organizations have provided $11.4 billion in Global Fund, $6.7 billion in GAVI, and $4.9 billion in World Bank aid to the health sector in sub-Saharan Africa. Mozambique followed a similar trend, with the Global Fund, GAVI, the World Bank, and the EU in that order. Based on the classification method used by OECD.Stat, the number of donors supporting health policy and administration, malaria control, communicable disease control, and basic health services is high. In addition, Japan, Canada, Belgium, and the United Kingdom are providing support for the development of human resources for health, and South Korea has a large record of support for basic health infrastructure.

[18] OECD.Stat

Table 15: Top Donors for Bilateral Cooperation in Health (Total Amount, 2009–2018)

Classification	Rank	Name of country/institution	Amount (Millions of dollars)
Bilateral	1	United States of America	468.70
	2	Canada	235.59
	3	Ireland	167.81
	4	The United Kingdom	136.59
	5	Denmark	109.39
	6	Korea	78.62
	7	The Netherlands	70.49
	8	Spain	69.37
	9	Switzerland	67.66
	10	Belgium	58.54
	11	Japan	57.78
Multilateral organization	1	Global Funds	448.94
	2	GAVI	219.05
	3	World Bank	132.00
	4	EU	67.25
	5	UNICEF	24.84
	6	WHO	11.59
Private institution	1	Bill & Melinda Gates Foundation	47.36
	2	Charity Project Ltd	7.95

Source: Prepared by the research team from OECD.Stat

The National Directorate of Planning and Cooperation of the Ministry of Health will be the contact point for the implementation of bilateral cooperation, and will submit requests to development partners. In the project implementation phase, the main CPs will be the departments in charge of the issues, such as the National Department of Public Health (Direccao National de Saude Publica), but the Department of Planning and Cooperation (Direccao de planificacao e Cooperacao) may also participate in the JCC as one member. According to the interview with JICA Mozambique office, even in bilateral projects, the two parties are able to coordinate and fully express the intentions of the development partner (Table16).[19]

[19] The classification of cooperation areas is based on the DAC and CRS code lists used by the OECD. More information is available at http://www.oecd.org/dac/financing-sustainable-development/development-finance-standards/dacandcrscodelists.htm

Table 16: Areas of Cooperation of Development Partners in Mozambique

(Cooperation from 2009–2018, over $5 million, rounded to the nearest decimal point)

	Health policy. administrative management	Medical education and training	Human resource development	Medical research	Medical care services	Basic health care services	Basic health infrastructure	Nutrition	Health education	Infectious disease control	Malaria control	Tuberculosis control
Donor	Ireland: 155 WB:79 Switzerland: 52 UK: 43 Denmark: 41 Spain: 35 Netherlands: 29 US: 28 Canada: 28 Belgium: 24 EU:21 Japan: 18 GF:13 Finland: 13 Italy: 10 France: 9 WHO: 7 ADF: 6	Italy: 15	Japan: 37 Canada: 13 Belgium: 10 UK: 7	Spain: 14 Sweden: 7	Italy: 8	GAVI:219 Canada:95 Denmark: 55 Netherlands: 41 UK: 36 US: 21 Switzerland: 15 EU:10 Belgium: 7 UNICEF: 7	Korea: 73 Canada: 19 EU:9	USA: 103 Canada: 28 WB:22 EU:21 UK: 18 Denmark: 13 Ireland: 9 UNICEF: 6	UNICEF: 5	GF:88 Canada: 22 BMGF: 20 US: 12 UK: 8	GF:289 US: 257 Canada: 23 BMGF: 22 UL: 21 WB:15 CP: 8	GF:57 US: 46 WB:12 Belgium: 7

Note: ADF: African Development Fund; BMGF: Bill & Melinda Gates Foundation; GF: Global Fund to Fight AIDS, Tuberculosis and Malaria; UK: United Kingdom, US: United States, WB: World Bank; WHO: World Health Organization; EU: European Union; CP: Charity Project Ltd.

Source: Compiled by the research team from OECD.Stat

(1) Bilateral cooperation #1: United States

The amount supported by U.S. bilateral cooperation has been much larger than that of other countries. The main areas of focus are malaria control, nutrition, tuberculosis control, and health policy and operations management. The major U.S. projects are as follows:

- Malaria: Deliver Project for Malaria/Indoor Residual Spraying (2012–2016, $81.97 million), Insecticide-Treated Nets (ITNs) to Prevent Malaria (2009–2016 $16.12 million)
- Nutrition: McGovern-Dole Food for Education Program (2013–2015, $40.1 million), Commodity Cost of Food Aid under Food for Education Program (2010–2012, $14.27 million)
- Tuberculosis: TB CARE (2011–2014, $22.99 million), Challenge Tuberculosis (2015–2018, $13.97 million)
- Maternal and Child Health: Maternal and Child Survival Program (2015–2018, $18.73 million)

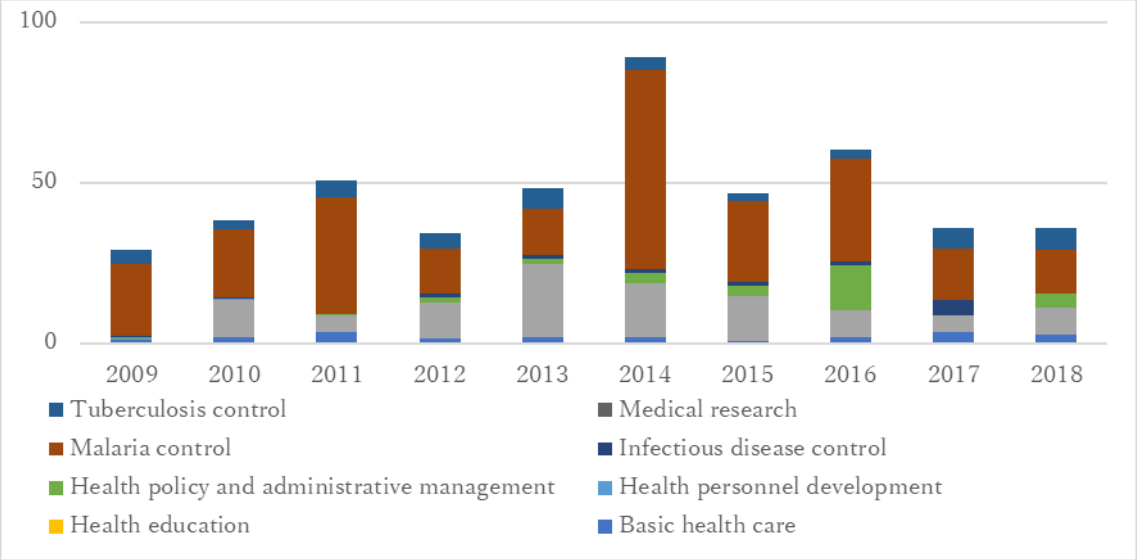


Figure 22: U.S. Assistance to the Mozambican Health Sector (US$ Million)

Source: Prepared by the research team from OECD.Stat

(2) Bilateral cooperation #2: Canada

Although Canada ranks second in terms of the amount from 2009–2018, the amount peaked in 2013 and has been rapidly declining since then. From 2011–2014, when the amount was large, the focus was on basic health services, but since 2014, the amount has declined each year. In recent years, the focus has been on nutrition, health policy and operations management (Figure 23). Major projects are as follows:

- Common Fund: Prosaude/Prosaude II (2009–2017, $121.56 million)
- Health system: Health Service Delivery Program （2010–2014, $13.75 million, Integrated Health Systems Strengthening（2009–2012, $11.1 million）
- Maternal and Child Health: High-Impact Intervention for Maternal, Newborn and Child Health (2012–2014, $9.86 million）
- Malaria and other infectious diseases: Community-Based Treatment of Malaria and Pneumonia/Malaria, Pneumonia and Diarrhea Program (2009–2010, $5.92 million)
- Vaccines: Maximizing the Effectiveness of the Delivery of Vaccines (2013, $4.67 million)
- Nutrition: School Feeding Program (2009–2015, $16.71 million)

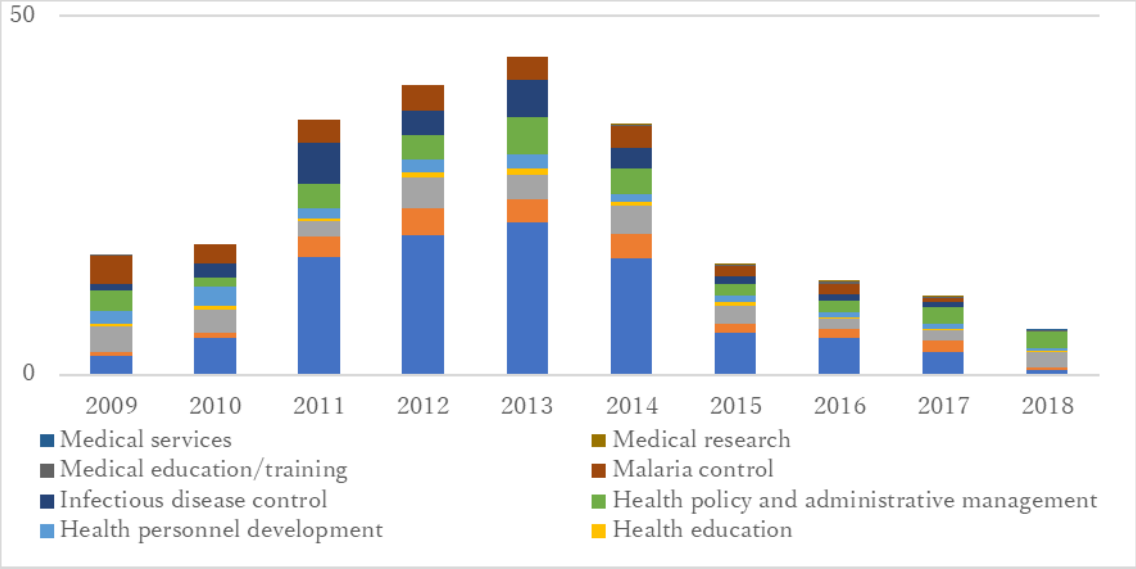


Figure 23: Canada's Assistance to the Mozambican Health Sector (US$ Million)

Source: Prepared by the research team from OECD.Stat

(3) Bilateral Cooperation #3: Ireland

Consistently, the focus has been on investments in basket funds for health policy and operations management. The scale of aid has remained constant, with no increase or decrease. Major projects are as follows:

- Health Sector Common Fund: PROSAUDE (2014–2018, $52.86 million)

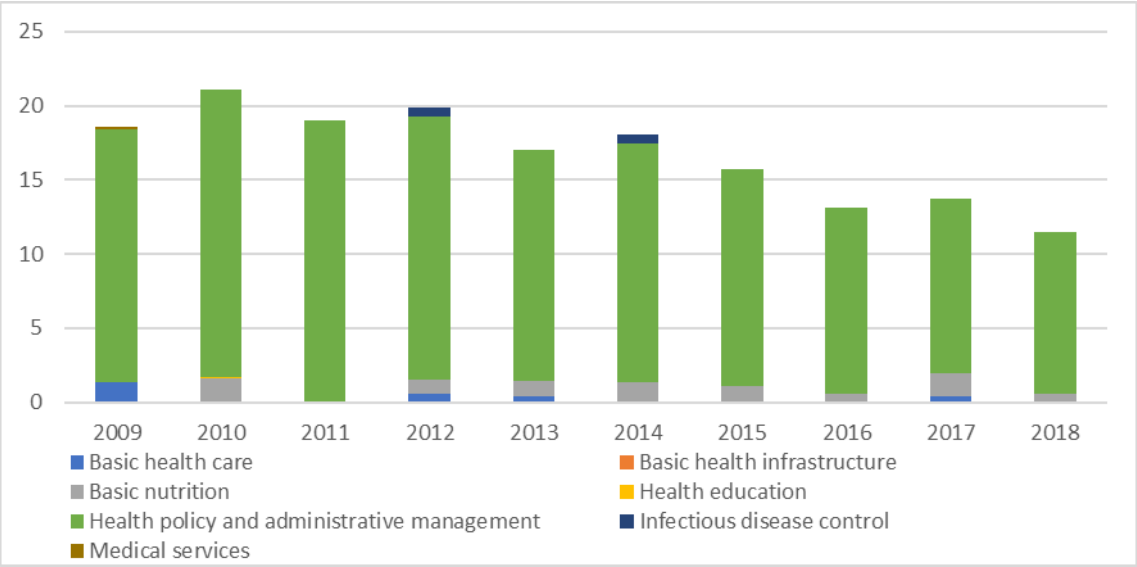


Figure 24: Ireland's Health Sector Assistance to the Mozambican Health Sector (US$ Million)

Source: Prepared by the research team from OECD.Stat

(4) Bilateral cooperation #11: Japan

In 2015, the field of support changed from health policy and operations management to a focus on health human resource development (Figure 25). The main project is the construction of medical personnel training schools in Maputo and Nacala.

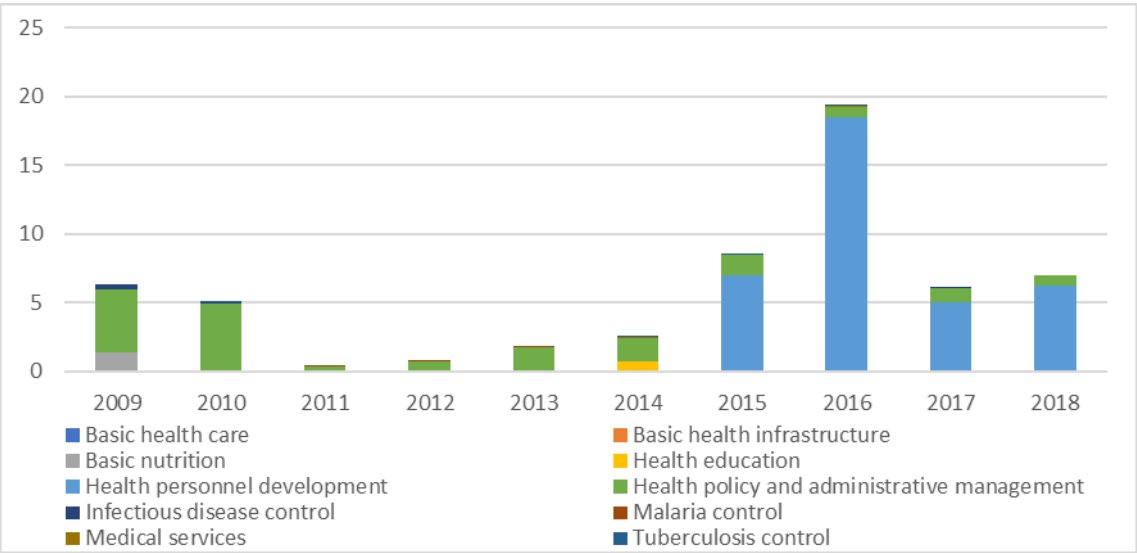


Figure 25: Japan's assistance to the Mozambican Health Sector (US$ million)

Source: Prepared by the research team from OECD.Stat

(5) Other Bilateral Cooperation: Brazil

Based on the Japan Brazil Partnership Program (JBPP) signed by the governments of Japan and Brazil in 2000, Japan and Brazil are jointly implementing triangular cooperation with Mozambique. Although the amount of money is extremely limited, the project to strengthen the Nampula Provincial AIDS Control Office was formally implemented jointly with Japan as a triangular cooperation under Japan's Advisor for Strengthening the HIV/AIDS Control System (2015–2018). In addition, Japan paid for the dispatch of the Brazilian experts, while the Brazilian side (ABC) paid for some expenses such as air tickets when the Mozambican trainers were dispatched to Brazil. In the case of the Gaza Provincial AIDS Control Committee Capacity Building Project (2012–2015), a Brazilian expert was dispatched, but the contract was made as a consultant contract, and it was not a formal triangular cooperation through ABC.

A third-country training course on "Humanized Childbirth" (started in 2016 and was scheduled to end in 2020 but was extended for one year due to the COVID-19 pandemic) has been conducted for Mozambique and Angola, with Sofia Feldman Hospital as the host for the course. Again, the ABC is covering some of the costs.

In addition, an evaluation mission from ABC and Sofia Feldman Hospital came to Angola in December 2019 to evaluate the third country training. On this occasion, Mozambicans who had participated in the third country training on "humanized childbirth" also participated in the seminar on maternal and child health organized by the JICA Angola office. The messages of the presentation of the "humanization" initiative in Mozambique, such as "incorporating humanization training into all health-related training" and "holding seminars with provincial governors and mayors", were very impressive to the participants from other countries.[20]

(6) International Organization #1: Global Fund

Malaria control has consistently been the main focus, but tuberculosis control is also on the rise. Infectious disease control increased sharply in 2015 but has since declined sharply (Figure 26). Major projects include the following:

- HIV/AIDS, TB: Reinforcing the collaboration for a better HIV and TB response (2015–2017, $82.12 million)
- Malaria: Accelerating and Strengthening the quality of Malaria Control interventions (2015–2018, $81.79 million)

[20] Interview with a project official, "Improving Maternal and Child Health Services through the Maternal and Child Health Handbook Project," Angola.

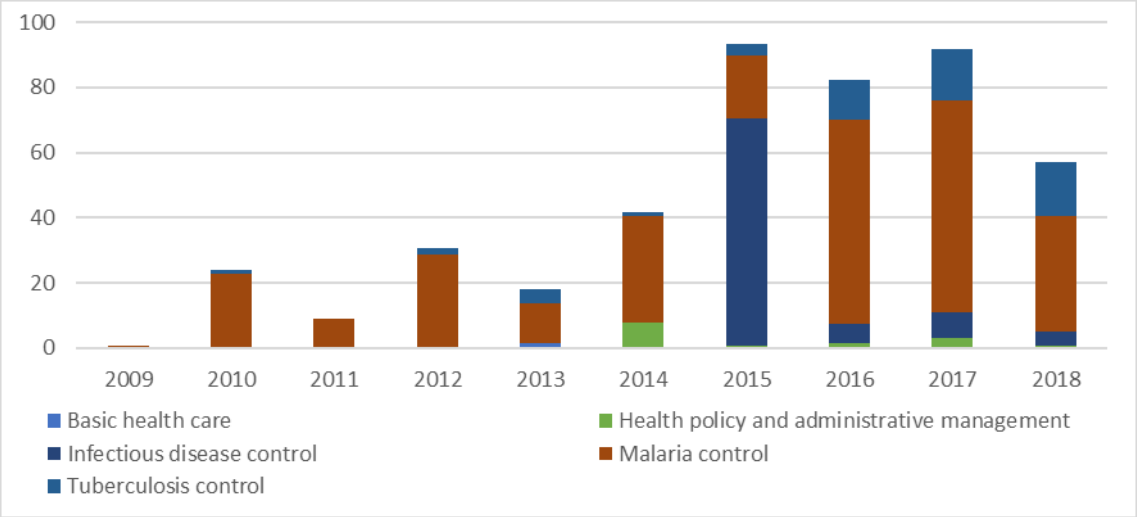


Figure 26: Global Fund's Assistance to the Mozambican Health Sector (US$ million)

Source: Prepared by the research team from OECD.Stat

(7) International Organization #2: GAVI the Vaccine Alliance (GAVI)

Assistance with basic health care (vaccinations) is provided annually.

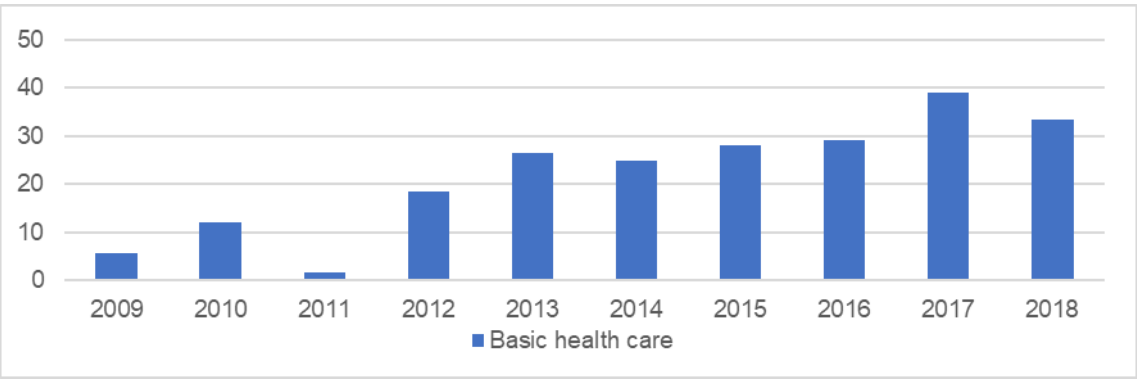


Figure 27: GAVI's assistance to Mozambican Health Sector (US$ million)

Source: Prepared by the research team from OECD.Stat

(8) International Organization #3: World Bank

The focus has consistently been on health policy and operational management. Major projects are as follows:

- Mozambique Primary Health Care strengthening Program (2018, $14.48 million)
- Health Service Delivery (2010–2016, $34.01 million)
- Public Financial Management Program for Results (2014–2018, $8.26 million)

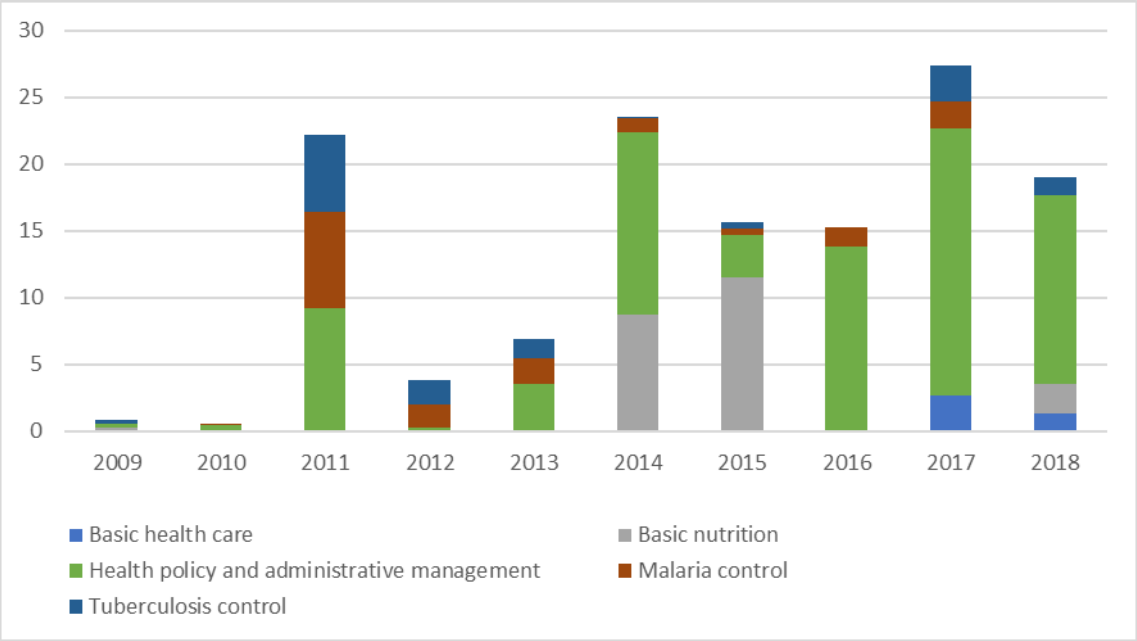


Figure 28: World Bank's assistance to the Mozambican Health Sector (US$ million)

Source: Prepared by the research team from OECD.Stat

(9) Private sector #1: Bill & Melinda Gates Foundation

The number one private sector donor is the Bill & Melinda Gates Foundation. The foundation's main focus was on support for infectious disease control, but in 2014 it shifted to support for malaria control (Figure 29). It is by far the largest donor in the private sector.

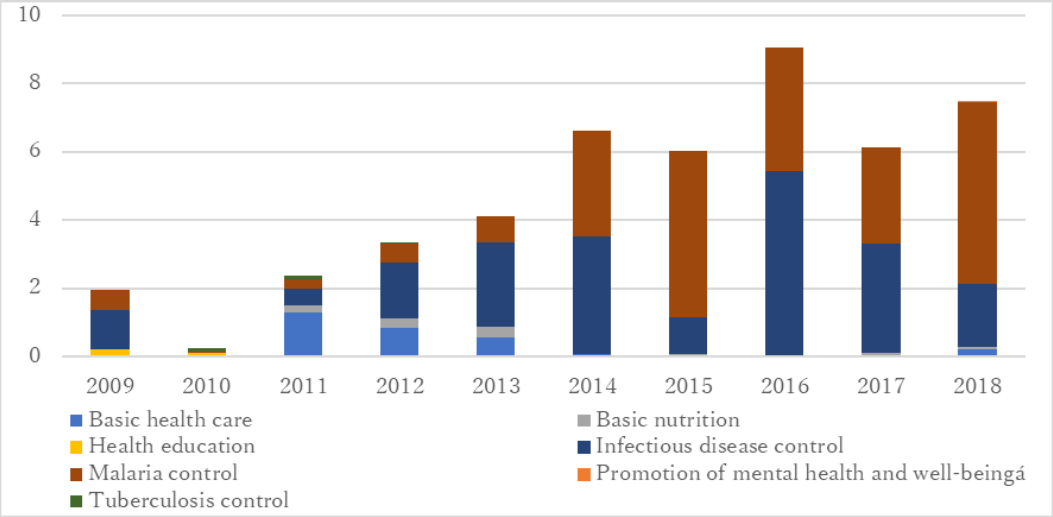


Figure 29: BMGF's support items and amount of support to Mozambique (US$ million)

Source: Prepared by the research team from OECD.Stat

2.3.3 Support Policy

(1) World Health Organization (WHO)

WHO has identified the following five priorities in its strategy for cooperation with Mozambique (2018–2022). The priorities and focus areas are shown in Table 17.

1. Strengthening Health Systems
2. Reduction of morbidity and mortality among pregnant women, newborns, children, and adolescents
3. Reduction of the disease burden of tuberculosis, malaria, HIV/AIDS, and NTDs
4. Capacity to alert and response capability to public health emergencies
5. Prevention and control of non-communicable diseases and addressing social and environmental factors that contribute to health

Table 17: WHO Priorities and Focus Areas

Strategic priority	Work area
Strengthening health systems	• Leadership and governance including reforms for UHC • Planning, budgeting, information, monitoring, evaluation, and research system for more and better people-centered health services • Access and rational use of medicines and health technologies
Reduction of morbidity and mortality among pregnant women, newborns, children, and adolescents	• Access to RMNCHA and nutrition services • Responsiveness of quality maternal and neonatal health services • Vaccination coverage for populations, including communities living in remote and inaccessible areas
Reduction of the disease burden of tuberculosis, malaria, HIV/AIDS, and NTDs	• Policies, strategies, and plans for elimination of HIV/AIDS, TB, malaria, and NTDs • Universal access to prevention, diagnosis, and treatment of HIV, TB, malaria, and NTDs • Ability to produce evidence on endemic diseases including antimicrobial and insecticide resistance
Capacity to alert and response capability to public health emergencies	• Key country capabilities related to International Health Regulations (IHR) • Integrated disease surveillance and response system • System resilience for public health emergencies, including cross-border control
Prevention and control of NCDs and addressing social and environmental factors that contribute to health	• National capacity for risk factor prevention and response to NCDs and trauma • Responsiveness to environmental risk factors and health effects of climate change

Source: WHO, Country Cooperation Strategy at a glance

(2) World Bank

The Mozambique Cooperation Strategy published by the World Bank is the latest in the Partnership Framework 2017–2021, which is a selection of priorities from the 2015–2019 Five-Year Plan. In line with Mozambique's priority targets: 1) promotion of productivity, 2) investment in human capital, and 3) strengthening sustainability and residence, World Bank will support agricultural development, natural resource management, social protection, and disaster risk

management, among others. The health sector is placed under 2), the investment in human capital component, which includes improving the quality of health service delivery and supporting WASH programs.

(3) United States Agency for International Development (USAID)

USAID has four development goals for Mozambique: 1) strengthen democratic governance, 2) promote robust and broad-based economic growth, 3) improve the quality of the Education Development Cooperation Strategy 2014–2020, and 4) improve the health status of the target population. In the area of health, the government has identified three priority areas to be addressed in the area of improving the health status of the target population (Table 17).

Table 18: Development Goals and Focus Areas in the Health Sector by USAID

Development Goals in the health sector	Focus items
Increased coverage of high impact health and nutrition services	• Increased utilization of quality facility-level services • Increased utilization of quality community services • Improved active and completed referrals between community and facility services
Increased adoption of positive health and nutrition behaviors	• Improved ability of individuals to adopt healthy behaviors • Improved community environment to support healthy behaviors • Improved systems to design, implement, and evaluate social and behavior change communication
Strengthened systems to deliver health, nutrition, and social service delivery	• Improved financial management, strategic planning, and budget execution of key functions • Improved logistics management of commodities to ensure availability at local levels • Strengthened civil society engagement in the health sector • Improved generation, dissemination, and use of health data for more effective decision making

Source: USAID, Development Cooperation Strategy 2014–2020

2.3.4 Japan's Cooperation to date and Current Status

In its Basic Policy on ODA to Mozambique, Japan has set "Promotion of sustainable economic growth and poverty reduction using existing potentials as a major goal. Japan's ODA policy for Mozambique lists the following priority areas: 1) regional economic revitalization including corridor development, 2) human development, and 3) measures related to the prevention of natural disasters and climate change. The health sector is included in 2) human development area, and support will be provided to improve access to health services and basic education, and to expand access to safe water through the improvement of water supply facilities, with the aim of improving the human development index. In addition, support will be provided to expand access to safe water through the development of water supply facilities. The main supports in the health sector so far are shown in Table 19.

Table 19: Japan's Major Assistance in the Health Sector over the Past Decade

Scheme	Period of cooperation	Name
Grant aid	2013–2015	Project for construction of health science institute in Maputo
	2013–2015	Project for strengthening capacities of NPCS for HIV responses in Gaza province
	2013	Project for construction of health science institute in Maputo (Detail Design Survey)
	2010	Project for improvement of infrastructure and equipment of training schools for health personal
Technical cooperation projects	2016–2019	Project for strengthening pedagogical and technical skills of health personnel in Mozambique (ProFORSA 2)
	2013–2017	Project on promoting sustainability in rural water supply, hygiene, and sanitation in Niassa province in the Republic of Mozambique
	2012–2015	Project for strengthening pedagogical and technical skills of teachers of health training institute
Preparatory Survey for Project	2015	Preparatory survey for the project for construction of health science institute in Nacala
	2013-2014	Preparatory survey for the project for construction of health science institute in Maputo
Grassroots and Human Security Grants	2018	Construction of a youth health consultation corner in Beira, Sofala
	2016	Project for the construction of the health center for women in Zimpeto
	2015	Construction of a training school for health professionals in Nacala
	2015	Installation of a digital X-ray system in the city of Beira
	2015	Construction of a maternity waiting house in Chicuque, Maxixe
	2014	Improvement of sanitation in Quissanga, Cabo Delgado
	2013	Ambulance maintenance for Maputo City and Nacala Port City
	2012	Construction of a facility for the elderly in Katembe, Maputo
	2012	Construction of a maternity waiting house in Zavala and Maxixe, Inhambane
	2012	Construction of HIV/AIDS control center in Matola, Maputo
	2010	Construction of wells in Moamba, Maputo

Source: Official Development Assistance (ODA) Country Data Book, Ministry of Foreign Affairs of Japan

3 Current Status and Challenges of the Health System in the Target Country

3.1 Health Human Resources for Health

3.1.1 Type of Occupation and Placement

Health personnel working in the public sector are mainly classified into the following job categories:

Table 20: Type of Occupation and Training Courses for Health Personnel in Mozambique

● Nurses (including maternal and child health nurses) ➢ Primary level nurse: Técnicos de nível elementar (7 years of basic education + 8 months of specialized training) ➢ Basic level nurse: Técnicos de nível básico (10 years of basic education + 18 months of specialized training) ➢ Intermediate level nurses: Técnicos de nível médio (12 years of basic or higher education plus 2.5 years of specialized education; however, 10 years of basic or higher education is acceptable to reduce the shortage of nurses. Includes maternal and child health nurses.) ➢ Advanced level nurses: Enfermeiros graduados (12 years of basic and higher education + a 4-year university nursing degree. Includes maternal and child health nurses)
● Various technicians ➢ Intermediate level technician: Técnicos de nível médio (12 years of basic and higher education plus 2 to 2.5 years of specialized education. Prosthetic technicians, pharmaceutical technicians, laboratory technicians, anesthesiology technicians, hospital administration technicians, nutritionists, radiology technicians, dental technicians, psychiatric and mental health technicians, physical therapists and rehabilitation technicians, health statistics technicians, and hospital equipment maintenance technicians exist) ➢ Advanced level Technician: Técnicos de nível superior (12 years of basic and advanced education + 4 years of university studies. There are physiotherapists, pharmacists, laboratory technicians, equipment technicians, hospital administration technicians, nutritionists, clinical psychologists, orthopedic technicians, dental technicians, anesthesiology technicians, radiotherapy technicians, radiology technicians, and optometrists.)
● Physician ➢ Auxiliary doctor ➢ Medical technician: Técnico de Medicina (2–3 years of specialized nursing education + at least 3 years of work experience) ➢ Surgical Technician: Técnico de Cirurgia (above + 2 years surgical training + a 1-year internship) ➢ Physician (6 years of education at a university medical school)

Source: Prepared by Survey team based on the data from Mid-level health workers for delivery of essential health services, Annex 6. Mozambique (Global Health Workforce Alliance, WHO, 2013)

According to the National Human Resources Development Plan for Health (Plano Nacional De Desenvolvimento De Recursos Humanos Para A Saúde, 2016–2025), as the facility level increases, more advanced level personnel will be deployed.

Table 21: Major Health Worker's Deployment Plan by Level

Facility Type	Physician	Nurses	Nutritionist
Rural Health Center Type 2	Medical technician: 2	Intermediate Nurse: 1 Intermediate maternal and child health nurse: 2	Intermediate Nutritionist: 1
Rural Health Center Type 1	Medical technician: 5 General Physician: 2	Intermediate Nurse: 16 Intermediate Maternal and Child Health Nurse: 12 Advanced Nurse: 2	Intermediate Nutritionist: 2
Urban Health Center	Medical technician: 5 General Physician: 4	Intermediate Nurse: 4 Intermediate maternal and child health nurse: 8 Advanced Nurse: 2	Intermediate Nutritionist: 2 Advanced Nutritionist: 1
Secondary Hospital (District Hospital)	Medical technician: 7 General Physician: 8 Specialists: 2	Intermediate Nurse: 42 Intermediate maternal and child health nurse: 20 Advanced Nurse: 6 Advanced maternal and child health nurse: 4	Intermediate nurses: 2 Advanced Nutritionist: 1
Secondary Hospital (General Hospital)	Medical technician: 5 General Practitioner: 20 Specialists: 24	Intermediate Nurse: 100 Intermediate Maternal and Child Health Nurse: 45 Advanced Nurse: 8 Advanced maternal and child health nurse: 4	Intermediate Nutritionist: 3 Advanced Nutritionist: 1
Tertiary Hospital	Paramedic: 5 General Physician: 20 Specialists: 57	Intermediate Nurse: 100 Intermediate Maternal and Child Health Nurse: 45 Advanced Nurse: 12 Advanced maternal and child health nurse: 4	Intermediate Nutritionist: 3 Advanced Nutritionist: 2
Quaternary Hospital (Central Hospital)	General Physician: 10 Specialists: 213	Intermediate Nurse: 500 Intermediate maternal and child health nurse: 90 Advanced Nurse: 60 Advanced maternal and child health nurse: 4	Advanced Nutritionist: 8
Quaternary Hospital (Maputo Central Hospital)	General Physician: 10 Specialists: 350	Intermediate Nurse: 1000 Intermediate Maternal and Child Health Nurse: 160 Advanced Nurse: 101 Advanced maternal and child health nurse: 4	Advanced Nutritionist: 10

Source : Prepared by Survey team based on data of Plano Nacional De Desenvolvimento De Recursos Humanos Para A Saúde 2016-2025

In Mozambique, one of the challenges in the health workforce is the overwhelming shortage of health personnel in rural areas. As shown in Figure 30, the number of doctors, nurses, and midwives per 1000 population have been consistently low compared to the sub-Saharan average. One of the reasons for this was because doctors were killed and kidnapped during the civil war, and in recent years, many medical workers have died of HIV/AIDS. The concentration of doctors in Maputo has also been a problem. It has been pointed out that although there are systems in place to promote the retention of human resources in rural areas, such as special benefits for health workers in public health facilities in rural areas, these systems have not been fully implemented.[21]

[21] Francisco Mbofana. The retention of health workers in rural and remote areas in Mozambique. 2012

For physicians, in particular, lack of interaction with other health care professionals, transportation, and insufficient/low compensation were cited as complaints.[22]

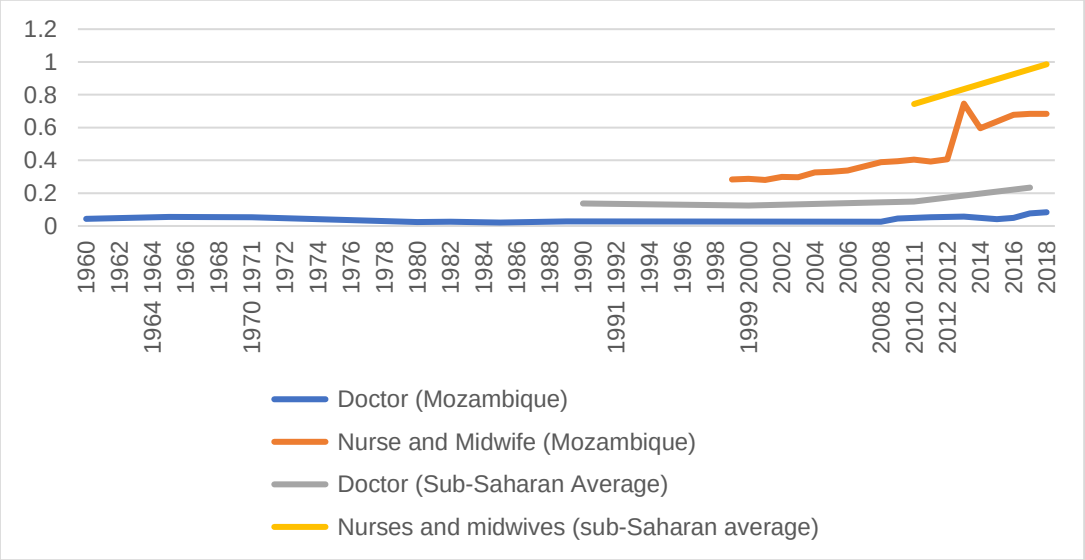


Figure 30: Doctors, Nurses and Midwives per 1,000 population[23]

Source: World Bank Open Data

In this reality, there is a wide range of tasks handled by intermediate-level positions other than doctors and university graduate-level nurses. The Ministry of Health aimed in the National Human Resources Development Plan for Health 2008‑2015 (Plano Nacional de Recursos Humanos da Saúde 2008–2015) to deploy senior-level nurses or maternal and child health nurses with the capacity to perform cesarean sections in rural areas and to provide emergency obstetric care in primary health care facilities (health centers and health posts) whenever possible. The roles expected of nurses are as follows (Table 22).

[22] The World Bank. The Human Resources for Health Situation in Mozambique. 2006

[23] As described in "1.1 National health status", we will use the term "nurses and midwives", which is widely used worldwide in international comparisons.

Table 22: Level Requirements and Roles of Nursing Professionals in Mozambique

Level requirements	Role
Primary level nurses: They receive general education up to the 7th grade level, 8 months of specialized education, and training in rural health facility such as health posts when they are 15–17 years old.	• Checking vital signs, bathing, changing clothes, etc.
Basic level nurses: They should have received general education up to grade 10 level, plus 18 months of professional education, and training in health facilities.	• Health education (including reproductive health and family planning) • Health check-ups for pregnant women, mothers, and children • Referral to a higher health facility if pregnancy complications are found • Vaccinations and general wound care
Intermediate level nurse: In the past, the educational background requirement was at least grade 12, but in response to a shortage of health personnel, the Ministry of Health has lowered this requirement to grade 10. This is in addition to 2.5 years of specialized education, they take further specialized training. (The government is considering upgrading those in the lower two categories and eliminating the primary/basic level in the future)	• Breastfeeding education and support • Care for women before, during, and after childbirth • Abortion Care • Infant Care • An intermediate level nurse can have specializations; maternal and child health specialized nurses can provide basic emergency obstetric care • After 10 years of experience, this level nurse may be promoted to head nurse.
Advanced level nurses: They should have received general and higher education up to grade 12 (high school graduate level) and nursing education at a four-year university.	• Diagnosis, treatment, and monitoring of pregnancy complications • Counseling • Comprehensive emergency obstetric care • Officially performed cesarean sections in rural facilities

Source: Mid-level health workers for delivery of essential health services, Annex 6. Mozambique (Global Health Workforce Alliance, WHO, 2013)

According to the statistics of 2016, the total number of nurses employed in the country's health system is 7,591 (of which 750 are at the advanced level, 3,993 at the intermediate level, 2,341 at the basic level, and 507 at the primary level); the total number of maternal and child nurses is 5,516 (of which 62 are at the advanced level, 3,130 at the intermediate level, 1,878 at the basic level, and 446 at the primary level), indicating that the current nurses and maternal and child health nurses are mainly at the intermediate and basic levels.

However, according to the same statistics, only 10.3% of the total number of newly enrolled students are in the basic level nursing course and 14.0% in the maternal and child health nursing course, while the rest are in the intermediate level or above. In other words, it is expected that the majority of nurses including maternal and child health nurses will be in the intermediate level or above in the future.

Health care professionals (nurses and maternal and child health nurses) with at least an intermediate level of education/training and sufficient work experience (of at least three years) may enroll in the medical technician (Técnico de Medicina) training course. Medical technicians

were created due to the severe shortage of doctors after independence, and play an important role in city-level health facilities because they can perform certain medical treatments as doctors. The Ministry of Health is considering granting this position a degree equivalent to a bachelor's degree in the future.

A medical technician with sufficient competence and at least three years of work experience may take the more advanced training course for a surgical technician (Técnico de Cirurgia). This position was created in response to the need for emergency and surgical treatment during wartime and is capable of performing surgical procedures, including cesarean sections. However, these should be done with the support and supervision of a surgeon.[24]

Table 23: Number of Key Health Personnel in Public Health Services (2019)

Province	Other health personnel	Physician	Nurse	Maternal and child health specialized nurses
Niassa	2114	138	545	453
Cabo Delgado	2521	120	619	465
Nampula	4902	294	1253	968
Zambezia	4010	212	1150	765
Tete	2545	120	571	550
Manica	2387	132	658	469
Sofala	3328	273	919	603
Inhambane	2543	154	575	635
Gaza	2158	104	522	399
Maputo Province	1896	183	411	382
Maputo City	3631	826	927	486
Total	32035	2556	8150	6175

Source: Anuário Estatístico de Saúde 2019

3.1.2 Human Resource Development

Health human resource education is provided by the Ministry of Education and educational institutions under the jurisdiction of the Ministry of Health, and can be divided into three main types: (1) training of physicians and advanced level health professionals[25] at universities; (Undergraduate equivalent courses in nursing/surgery/rehabilitation/diagnosis/public health/nutrition/health facility management, master's equivalent courses in health education/health science/health statistics and planning, etc.), (2) training of intermediate level health professionals at the Instituto de Ciências de Saúde (ICS) (nurses, maternal and child health

[24] Mid-level health workers for delivery of essential health services, Annex 6. Mozambique (Global Health Workforce Alliance, WHO, 2013)

[25] Among the institutions for the training of advanced level health professionals is the Instituto Superior de Ciências de Saúde (ISCISA), integrated into the Agostinho Neto University and located in Maputo / Quelimane / Beira / Nampula. The school was originally founded in 1990 as the Instituto Superior de Enfermagem (Superior School of Nursing), integrated into the Agostinho Neto University in 2001, and reorganized as the Superior School of Health Sciences in 2009. Other institutions such as the Catholic University of Mozambique also have faculties of medicine, nursing, and pharmacy.

nurses, prosthetic technicians, pharmaceutical technicians, laboratory technicians, anesthesiology technicians, hospital administration technicians, nutritionists, radiology technicians, dental technicians, psychiatric and mental health technicians, physical therapists and rehabilitation technicians, health statistics technicians, hospital equipment maintenance technicians), and (3) training at the Centro de Formação de Saúde (CFS) for basic level health professionals.

3.1.3 Employment

With the progress of decentralization, the Ministry of Health used to be the main employer of health care workers, but now they are employed at various health administration levels. The District Services of Health, Women, and Social Action will compile and submit to the Provincial Department of Health a plan for the recruitment of health personnel needed in the primary and secondary health care level health facilities under its jurisdiction. The Provincial Health Department will submit the plan submitted by the District Services of Health, Women, and Social Action to the Ministry of Health, along with a plan to recruit the health personnel needed for the tertiary level health facilities under its jurisdiction. The Ministry of Health compiles these plans, coordinates with the Ministry of State Administration and Public Function, and after deliberation by the Diet, the budget is approved. The budget will then be allocated to each health administrative level, and each health administrative level will begin the hiring process. However, in reality, it is difficult for District Services of Women and Social Action to grasp the current situation of health personnel working in health facilities, calculate the number of people needed, and make a plan to recruit them. In particular, doctors are hired at the provincial level and assigned to the district level. The hiring process for intermediate health care workers is handled by the Provincial Department of Health and District Services of Health, Woman, and Social Action, but the final authority for hiring and employment (including subsequent promotions) rests with the Provincial governor and district mayors.

3.2 Health Financing

3.2.1 National Health Account

In order to promote UHC, the contributions to the health system by the government budget (including social insurance) are essential. In 2001, the African Union issued the Abuja Declaration, which aims to increase the share of government health expenditure to at least 15% of government expenditure. In contrast, the government of Mozambique's budget allocation to the health sector is inadequate, only 4.7% (2017).

In achieving UHC, "government spending must be at the level of out-of-pocket health expenditure as a percentage of current health expenditure: 20% or less"[26], "government health

[26] Xu, K., Saksena, P., Jowett, M., Indikadahena, C., Kutzin, J., & Evans, D. B. Exploring the thresholds of health

expenditures as a percentage of GDP: 5% or more", and "government health expenditures per capita: $86.3" are necessary.[27] In Mozambique, these values are 7.4%, 1.5%, and $6.3 (all in 2017) (Table 24). Out-of-pocket health expenditure as a percentage of current health expenditure is kept very low, while domestic government health expenditure is lower than the sub-Saharan African average, both as a percentage of GDP and in per capita terms.

Table 24: Key Health Financing Indicators

Health Financing Indicators	Mozambique	Average for sub-Saharan Africa	Average for low-income countries	Japan	International Goals
Current Health Care Expenditures (US dollar 1million)	625 (2017)	-	-	531,481 (2017)	-
Current health care expenditure as a percentage of GDP (%)	4.9 (2017)	5.1 (2017)	5.7 (2017)	10.9 (2017)	-
Per capita recurrent health care expenditures (US dollar)	21.1 (2017)	83.8 (2017)	44.8 (2017)	4,169.0 (2017)	-
Domestic government health expenditure as a percentage of current health expenditure (%)	29.9 (2017)	36.1 (2017)	20.1 (2017)	84.1 (2017)	-
User co-payments as a percentage of recurring health care expenditures (%)	7.4 (2017)	35.5 (2017)	51.5 (2017)	12.9 (2017)	20*1
Foreign aid as a percentage of current health care expenditures (%)	61.2 (2017)	11.2 (2017)	22.3 (2017)	-	-
Domestic government health expenditure as a percentage of GDP (%)	1.5 (2017)	1.9 (2017)	1.2 (2017)	9.2 (2017)	5%*2
Domestic government health expenditures per capita (U.S. dollar rate in dollars)	6.3 (2017)	30.2 (2017)	9.0 (2017)	3,505.8 (2017)	86.3*2
Domestic government health expenditure as a percentage of government expenditure (%)	4.7 (2017)	-	-	23.6 (2017)	15

*1: Xu, K., Saksena, P., Jowett, M., Indikadahena, C., Kutzin, J., & Evans, D. B. Exploring the thresholds of health expenditure for protection against financial risk, World Health Report; 2010

*2: McIntyre, D., Meheus, F. Fiscal Space for Domestic Funding of Health and Other Social Services. Chatham House Centre on Global Health Security Working Group Papers; 2017

Source: Prepared by Survey team based on data of World Health Organization Global Health Expenditure database and Africa Scorecard on Domestic Financing for Health

In recent years, domestic government health expenditure per capita has been on the rise, reaching $12.4 in 2014, but has declined in the last three years. Similarly, current health expenditure per capita peaked in 2014 and has declined since then, but out-of-pocket expenditure

expenditure for protection against financial risk, World Health Report; 2010

[27] McIntyre, D., Meheus, F. Fiscal Space for Domestic Funding of Health and Other Social Services. Chatham House Centre on Global Health Security Working Group Papers; 2017

per capita has been kept low (Figure 31).

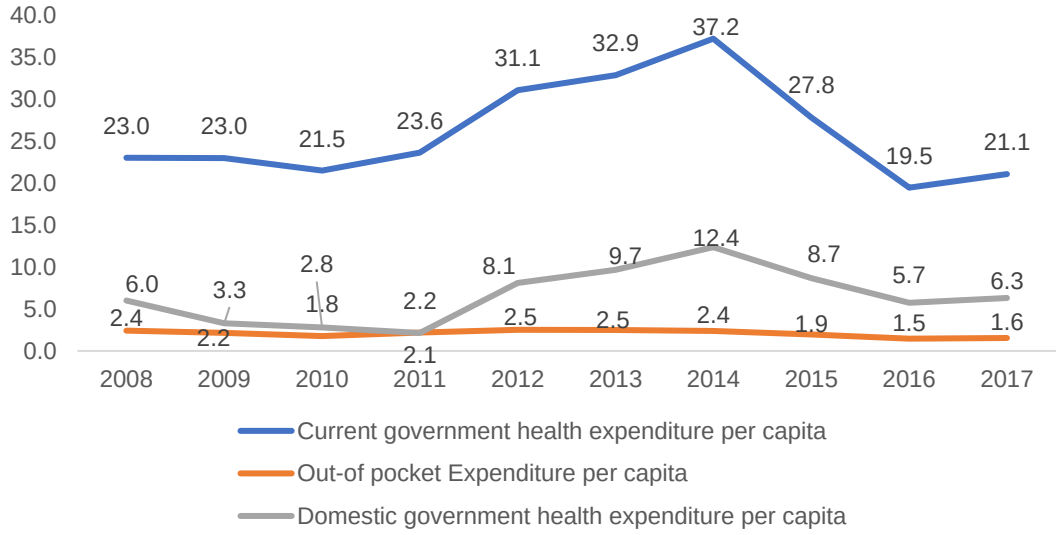


Figure 31: Per capita Health Expenditure in Mozambique (US$ exchange rate: $)

Source: World Health Organization Global Health Expenditure database

Foreign aid account for a large share of health expenditure resources in Mozambique. As shown in Table 24, Mozambique's foreign aid as a percentage of current health expenditure is 61.2% (2017, shown in Figure 32 below), which is very high compared to the sub-Saharan African regional average of 11.2%, and is the third highest in the world after the Federated States of Micronesia (71.5%) and South Sudan (68.1%) (note that there are some differences in the values due to slightly different classification methods, such as the definition of "foreign aid" in Table 24 and "donor" in Figure 32).

UNICEF's Budget Brief (2019) stated that in the last decade, domestic funding was 60% and foreign funding 40%, but in 2019, domestic funding was 79% and foreign funding 21%, a sharp decline in the foreign funding percentage with a decrease in foreign funding. The aforementioned data based on the World Health Organization Global Health Expenditure database and Africa Scorecard on Domestic Financing for Health in 2018, and the UNICEF Budget Brief: Health Mozambique 2019, has some discrepancies, but the UNICEF data states that "this funding structure does not take into account external funding outside of national budgetary control, which has been difficult to track in the past," and that is where the differences arise. In general, Mozambique's health budget has been heavily dependent on external sources, and although this has been decreasing in recent years, the dependency ratio is still high and needs to be monitored. The foreign funds are used for "investment" (construction of facilities, equipment, etc.), while the government's budget is used to pay the salaries of health personnel.

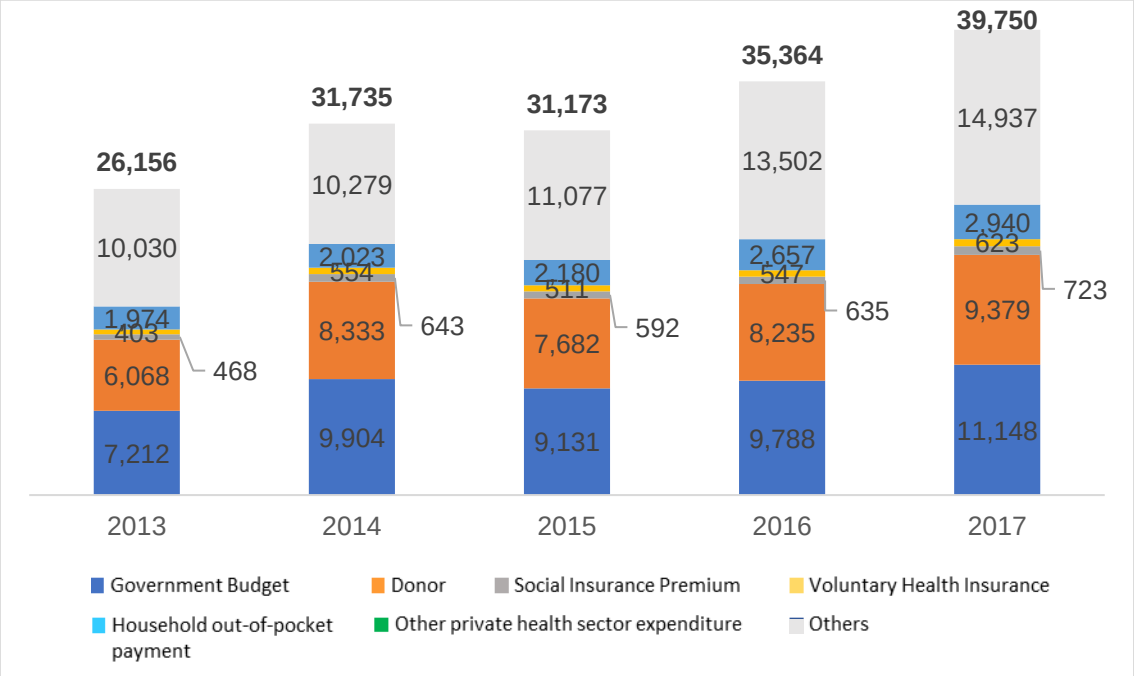


Figure 32: Breakdown of Funding Sources for Recurrent Health Care Expenditures in Mozambique (Unit: Million MZM)

Source: World Health Organization Global Health Expenditure database

3.2.2 The Flow of Health Budget and Implementation

As part of the decentralization efforts, in 2020, the provincial government was divided into the provincial governor, the provincial assembly, and the provincial administration, in which the authority to execute the health budget at each administrative level was established. The Ministry of Health is mainly responsible for the development of health facilities and procurement of medicines and equipment at the secondary to quaternary levels, the Provincial Health Department is responsible for the development of health facilities at the primary level and operating costs (including personnel costs) at the primary to tertiary levels, and the District Services of Health, Woman and Social Action is responsible for operating costs (including personnel costs) at the primary and secondary levels (Figure 33).

Budget planning starts with the District Services of Health, Woman and Social Action, which coordinates with the Provincial Health Department for each district, and the Provincial Health Department sends it to the Ministry of Health. Based on the central needs and information from the provinces, the Ministry of Health prepares the health sector budget, consults with the Ministry of Finance, and finally submits it to the National Assembly for final approval. Once approved, both the central and provincial levels can make direct requests to the finance ministry in line with what has been approved. Currently, the District Services of Health, Woman and Social Action does not request funds directly from the Ministry of Finance, but through the Provincial Health Department. The current system began in 2020 and is not yet fully established, so further

information should be collected.

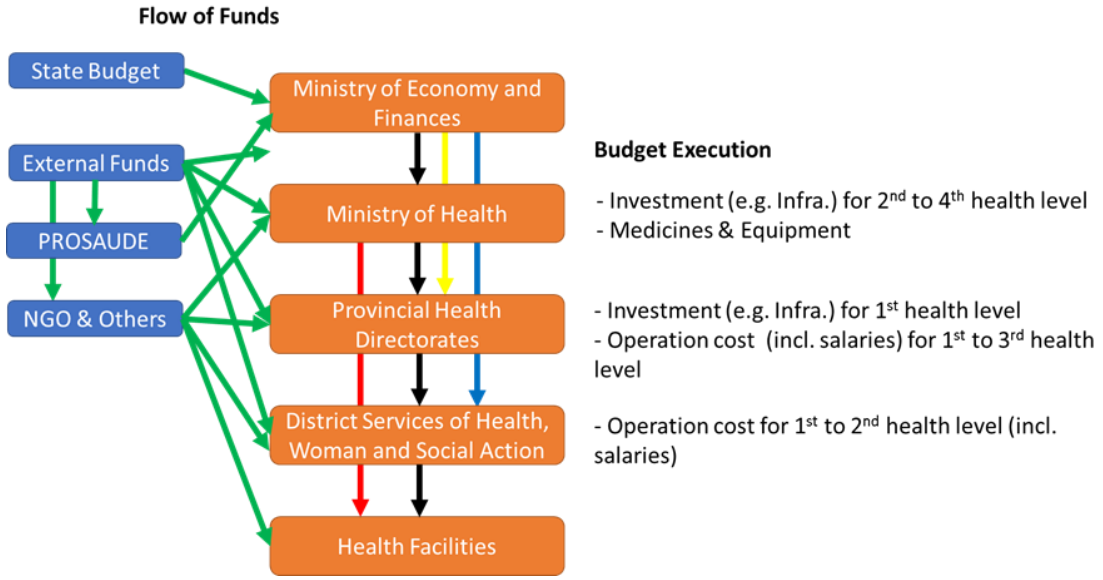


Figure 33: Flow of Health Budget and Implementation

Source: Prepared by Survey team based on the interview from Mozambique stakeholders

3.2.3 Health Related Budget

(1) National Budget

The breakdown of the draft 2021 national budget is shown for each of the three priorities and three pillars of the government's Five-Year Plan (Programa Quinquenal do Governo 2020–2024) (Figure 34). Priority ii) "promoting economic growth, productivity, and job creation" is the largest priority at 156.6 billion MZM ($2.07 billion), followed by priority i) "developing human capital and social justice", which includes the health and education sectors, is at 133.7 billion MZM ($1.77 billion). One of the unique features of the budget for priority i) is that the central level accounts for 52.3 billion MZM ($690 million, 34.3% of the total priority i)), while the provincial level accounts for 26.4 billion MZM ($350 million, 20.2% of the total priority i)), and the district level accounts for 55 billion MZM (730 million USD, 45.4% of the total priority i)). The share of distribution to localities is very large. The health sector is also considered to be more decentralized than other sectors. Figure 35 shows the breakdown of the priorities of the government's Five-Year Plan, "developing human capital and social justice". With the exception of the 2021 plan (draft), the percentage of allocation to the central level has decreased in recent years, while the allocation to the district level has increased, indicating that decentralization has been progressing over time. In the 2021 (draft), the allocation to the central level has increased, but this is because the central level is required to respond to the new coronavirus.

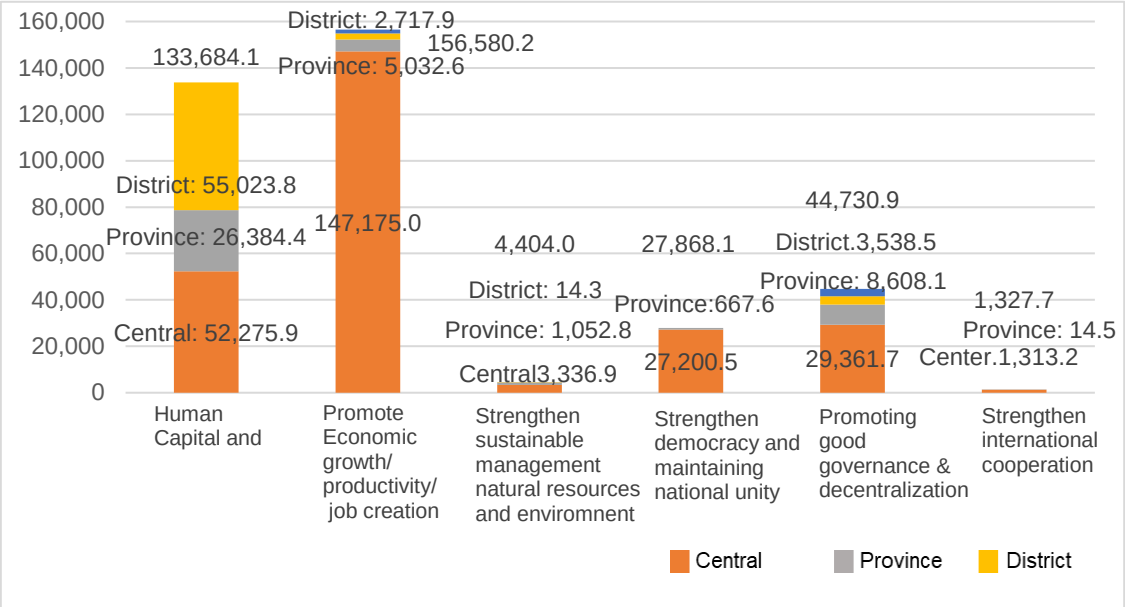


Figure 34: Breakdown of the Draft National Budget 2021 (Unit: Million MZM)

Source: Mozambique Ministry of Economy and Finance, National Budget.

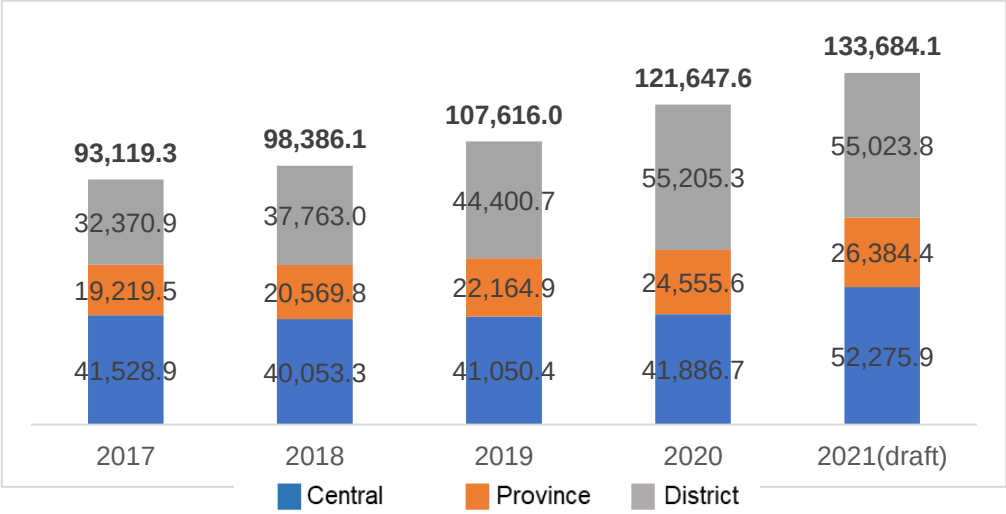


Figure 35: Breakdown of the Government's Five-Year Plan Priorities for Human Capital and Social Justice Development (Unit: million MZM)

Source: Mozambique Ministry of Economy and Finance, National Budget.

(2) Budget of Ministry of Health

The draft budget of the Ministry of Health for 2021 is 18.9 billion MZM ($250 million; calculated at 1 MZM = 0.01335 USD), which has been increasing in recent years, except for 2020. A breakdown of the budget shows that while operating costs have increased, capital expenditures have decreased significantly in 2020; in 2017, operating costs accounted for nearly 90% of the total MOH budget, but this percentage has decreased, and by 2021, capital expenditures will

account for about 40% (Figure 36). The PROSAUDE which is the common fund for the health sector is used for capital expenditure. However, as described in section 1.3.1 "Foreign Funds to the Health Sector Budget," contributions to the fund from development partners have been declining since around 2015. Therefore, it is assumed that the Ministry of Health has increased its capital expenditure.

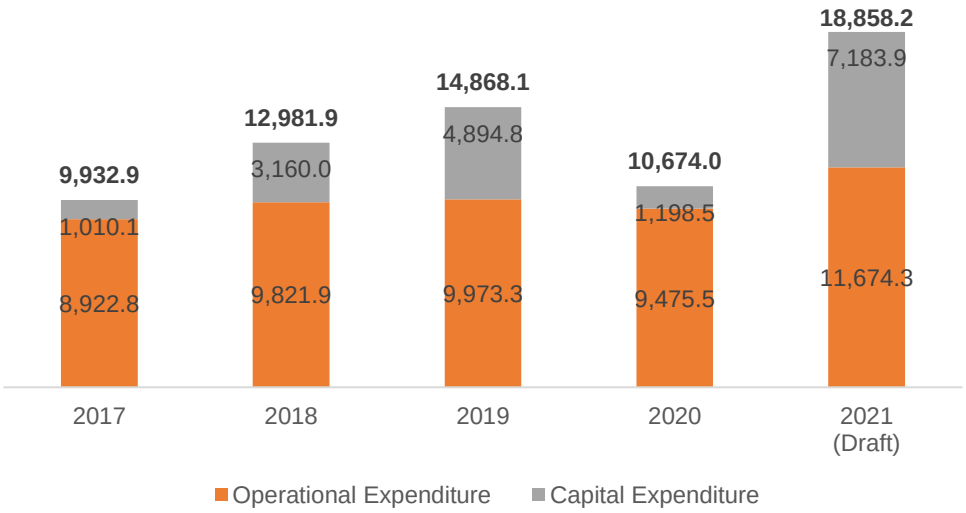


Figure 36: Breakdown of Ministry of Health Budget (Unit: Million MZM)

Source: Mozambique Ministry of Economy and Finance National Budget

3.2.4 Protection from Financial Risk

Co-payments at public health facilities are kept below one dollar, and prescription drugs are also kept at low cost by government subsidy. Certain health services are free of charge, including those for the poor, HIV/AIDS, tuberculosis, malaria, and maternal and child health.[28] However quite an outdated data, as of 2011, only 2.7% of both men and women aged 15–49 had health insurance.[29] The National Health Insurance Scheme (NHIS) for all citizens is being established, and the introduction of health insurance for civil servants was discussed at the Council of Ministers in 2019.[30]

[28] Health Policy Project. Health Financing Profile: Mozambique (https://www.healthpolicyproject.com/pubs/7887/Mozambique_HFP.pdf) (Accessed December 6, 2020)
[29] Instituto Nacional de Estatística. Inquérito Demográfico e de Saúde 2011. 2013
[30] Portal of the Government of Mozambique. Government designs insurance system for provincial employees. (https://www.portaldogoverno.gov.mz/por/Imprensa/Noticias/Governo-projecta-sistema-de-seguro-para-funcionarios-do-Estado) (Accessed December 6, 2020)

Table 25: Health Insurance Coverage for 15–49-year-olds (%: 2011)

Region	Province	Female	Male
North	Niassa.	2.2	0.6
	Cabo Delgado.	2.0	0.9
	Nampula	2.3	3.8
Central	Zambezia.	0.9	1.2
	Tete	1.3	2.0
	Manica	0.1	1.5
	Sofala	3.4	1.4
South	Iyannabane	6.0	4.8
	Gaza	2.6	3.0
	Maputo Province	5.0	5.7
	Maputo City	7.4	8.1
Rural		1.8	1.0
Urban		4.3	5.4
Poorest		1.2	0.0
Wealthiest people		5.9	8.3
National average		2.7	2.7

Source: Instituto Nacional de Estatística. Inquérito Demográfico e de Saúde 2011. 2013

As shown in "1.1.3. Progress of UHC" and "2.2.1. National Health Account," Mozambique has kept its "proportion of the population with large household expenditures on health as a share of total household expenditure or income" as well as its "out-of-pocket as a percentage of current health expenditure" low. As shown in Table 26, Mozambique is low on various levels of the incidence of impoverishment due to out-of-pocket health spending. These indicators for Mozambique are calculated from data from the Household Budget Survey (Inquérito sobre Orcamento Familiar) conducted in 2008‐2009 and 2014–2015. Although out-of-pocket health care costs have been kept low to date, health care expenditures (in real terms) have increased by more than 300% in 2014–2015 compared to 2008–2009.[31] As the survey is conducted approximately every five years, it is necessary to monitor the future trends.

Table 26: Incidence of Impoverishment due to Out-of-Pocket Health Spending

	Incidence of impoverishment due to out-of-pocket health spending		
	Absolute poverty line		Relative poverty line
	$1.90 a day	$3.20 a day	60% of median daily per capita consumption or income
Mozambique（2008）	0.2%	0.1%	0.3%
African Region*1（2015）	1.5%	1.4%	1.6%
Low Income Country（2015）	1.2%	0.9%	1.5%

*1:The averages for "sub-Saharan Africa" are mainly used in this report, but since information for the same region could not be collected for the indicators treated in this table, the averages for the "WHO Africa Region" are used in this table.

Source: WHO. Primary Health Care on the Road to Universal Health Coverage: 2019 Global Monitoring Report. 2020

[31] Alba Llop Gironés. Health care inequalities in Mozambique: needs, access, barriers and quality of care. 2018

3.3 Health Information System

3.3.1 Health Information System and Disease Burden Information System

The National HIS for Monitoring and Evaluation System (SIS-MA) was launched in 2012 under the Department of Health Information (Departamento de Informação para a Saúde, DIS) within the National Department of Health Planning and Cooperation, using the DHIS2 system. In 2012, the National HIS for Monitoring and Evaluation System (SIS-MA) using the DHIS2 system became operational. The system is currently in operation in all provinces and districts.

Health facilities use a form that they fill out each month to compile and report their data. The data from the health facilities are then delivered in paper form to the District Services of Health, Women and Social Action, where the data manager enters the data into the DHIS system. For example, each program officer in charge of HIV/AIDS control, maternal and child health, etc., also consolidates paper reports from health facilities in parallel and prepares summary reports. When the two types of reports are inconsistent, the data manager's information often takes precedence and the SIS-MA information is rewritten. In other districts, there are also cases where the program officer aggregates the paper data and enters the information directly into the system.

Although the health facilities record the data on paper media, they often do not have paper and substitute by re-writing the title of the existing form or make copies in the neighborhood, however, the quality is poor. In addition, there is no established data management method, and problems such as lack of information security perspective and no full-time data manager are observed. Since there are many different forms for each program, it takes time to fill out the data, increasing the burden on the health staff.[32]

The Ministry of Health has a system of weekly epidemiological bulletins (BES, Boletím Epidemiológico Semanal) that documents, compiles, and reports data on diseases subject to emergency notification such as HIV/AIDS and malaria. There are other information systems such as the Community Surveillance System in Health and Vital Events (SIS-COVE), the Laboratory Information System (SIL), the Electronic Staff Registry (e-SIP Saúde), and the Information System for Drugs and Medical Commodities (SIMAM). The integration and coordination of these systems is an issue.

3.3.2 Demographic and Population statistics

Birth registration is a fundamental children's right enshrined in the International Convention on the Rights of the Child and the African Charter (Article 6) to ensure that every child has the right to citizenship through a birth certificate. However, in Mozambique, the percentage of children under five years of age whose births are registered is only at 48% (2011).[33] Birth

[32] Characterization of the Health Information System in Mozambique, Swiss TPH / SCIH | PHISICC WS3 – Moçambique, 2017

[33] The Centre of Excellence for CRVS Systems Country Profiles (https://crvssystems.ca/country-

registration is the responsibility of Civil Registry Office[34] of the Ministry of Justice and is a legal obligation that must be completed within 120 days of birth.[35] There is no registration fee if it is done within 120 days. The registration of births requires the information listed in Table 27, and the method of registration and receipt of information is paper-based, not electronic. The collection and publication of birth statistics is carried out by the National Institute of Statistics, and is done manually on a monthly basis using statistical forms and statistical analysis. UNFPA and UNICEF are supporting the National Institute of Statistics to strengthen its capacity to produce regular birth statistics reports from the civil registration system. Canada is providing US$75,000 in 2018 to help strengthen the institute's capacity to produce birth statistics based on birth registration.[36]

Table 27: Information Required at Birth Registration

	Information required
Child	Name, gender, date and time of birth, date of registration, place of birth, place of registration, weight and height at birth, ethnicity, and living arrangement
Mother of the child	Name, date of birth or age, ethnicity, parents' names, place of usual residence, place/country of birth, Marital status, date of marriage, level of education, occupation, contact information

Source: UNICEF. CRVS profiles - Mozambique. Available https://data.unicef.org/crvs/mozambique/ (Accessed 2020.12.05)

Notification of death registration is also handled by the Civil Registration Office of the Ministry of Justice, and is a legal obligation that should be done within 48 hours of death. There is a fee for death registration, and the fee varies depending on the will and the property left behind. The information listed in Table 28 is required for death registration, and information is registered and accepted in paper form, not electronically.

Table 28: Information Required for Death Registration

	Information required
About the deceased	Name, nationality, gender, birth registration, age, level of education, race, marital status, name of widow or widower if married, property regime, occupation, name of the parents, place of usual residence
Death	Date of death, time, place of occurrence, place of registration, cause of death, whether death occurred while working or not, name of the person who has provided this information

Source: UNICEF. CRVS profiles - Mozambique. Available https://data.unicef.org/crvs/mozambique/ profile/mozambique)

[34] There are about 170 civil registration offices nationwide. Portal do Governo de Mozambique (https://www.portaldogoverno.gov.mz/por/Imprensa/Noticias/Governo-quer-melhorar-cobertura-do-registo-de-nascimento) (Accessed 2021/03/03)

[35] UNICEF Data: Monitoring the situation of children and women

[36] The Centre of Excellence for CRVS Systems Country Profiles (https://crvssystems.ca/country-profile/mozambique) (Accessed 2021/03/03)

3.3.3 National ID[37]

Activities related to identity cards in Mozambique are under the jurisdiction of the Ministry of the Interior in accordance with Presidential Decree 18/2000, which guarantees identity cards for all citizens. The new ID card is compliant with Southern African Development Community (SADC) standards and is a biometric (fingerprint) smart card with an embedded microchip. Within the scope of this survey, no information on the coverage rate of this type of national ID was available.

Figure 37: Sample of National ID Card

Source: Semlex Group（https://www.semlex.com/pt-pt/produtos/produits-image-11/）

The specifications of the National ID are as follows:

- Dimensions: 86 x 54 mm in accordance with the International Organization for Standard (ISO) 7810 ID-I
- Content: The background is the coat of arms of the Republic of Mozambique and a map of Mozambique, colored in orange and green, with security printing to prevent counterfeiting. Printed with the words “Republic of Mozambique” and “Identity Card” and the following information: identity card number, photograph, name, place of birth, sex, date of birth, parents’ names, marital status, place of issue, issuing authority, date of issue, expiration date, serial number.
- Internal: Contains a chip that stores an encrypted copy of the owner’s information.

It has a two-dimensional barcode and is supposed to aggregate social security and medical information along with driver’s license numbers, taxpayer-identification numbers, voter

[37] Direcção Nacional de Identificação Civil (DNIC) (http://196.3.96.161/mint.gov.mz/images/docs/dic.doc)（Accessed on 2021/03/03）

identification cards, etc. At present, it has not yet been effectively used for medical services (e.g., aggregation of personal medical information).

3.4 Procurement and Supply of Facilities, Equipment, Medical Supplies, etc.

3.4.1 Health Facility

Health facilities in Mozambique consist of four levels. The first level consists of health posts and health centers, and the second level consists of district hospitals, rural hospitals, and general hospitals. The third level corresponds to provincial hospitals, the fourth level includes central hospitals, specialized hospitals, and military hospitals. Table 29 shows the types and summary of health facilities at the primary health care level as defined by the Ministry of Health Ordinance of 2002. Three types of urban health centers are defined as A, B, and C.

Table 29: Types and Overview of Primary Health Care Level Health Facilities

Facility Type	Main Human resource for Health	Provided Service	Target population size
Urban Health Center（A）	Physician, dental technician	Though the same as Urban Health Center (B), have more advanced health workers.	40,000 – 100,000 people
Urban Health Center（B）	Same as Rural Health Center		18,000–48,000 people
Urban Health Center（C）	Same as Health Post		10,000–25,000 people
Rural Health Center	Medical technician, intermediate level nurse, pharmacy technician, laboratory technician	In addition to Health Post, Infectious disease control such as HIV/AIDS, Malaria, TB, Lab, X-ray, Dental care	16,000–35,000 people
Health Post*1	Primary, Basic level nurse	Health education, vaccinations, antenatal and postnatal care, family planning, birth assistance, etc.	7,500–20,000 people

*1: The source describes it as Regional Health Center (II).

Source: Publicacao oficial da república de Moçambique. Diploma Ministerial 127/2002

In 2019, 22 new facilities were built, from 1652 to 1674, but due to population growth, the average number of inhabitants per health facility increased rather from 16,855 in 2018 to 17,514 in 2019.[38] Fourth-level health facilities (central hospitals, specialized hospitals, and military hospitals) exist in four provinces, covering the northern, central, and southern regions. Looking at the tertiary and fourth levels collectively, there is at least one advanced health facility in every province.

[38] Mozambique Ministry of Health, Anuário Estatístico de Saúde 2019

Table 30: Number of Health Facilities by Province (2019)

Province	Primary Facilities			Secondary Facilities			Tertiary Facilities	Quaternary Facilities			Total	Population per Facility
	Urban health center	Rural health Center	Health post	District Hospital	Rural hospital	General hospital	Provincial Hospital	Central hospital	specialty hospital	Military hospital		
Niassa	15	162	0	2	1	0	1	0	0	0	181	10,682
Cabo Delgado	12	111	1	1	3	0	1	0	0	0	129	19,032
Nampula	29	172	22	4	3	1	0	1	0	1	233	25,906
Zambezia	26	202	27	6	0	1	0	1	0	0	263	20,639
Tete	8	120	2	1	3	0	1	0	0	0	135	20,839
Manica	9	106	1	4	0	0	1	0	0	0	121	16,992
Sofala	13	122	23	1	4	0	0	1	0	0	164	14,566
Iyannabane	20	111	6	2	2	0	1	0	0	0	142	10,679
Gaza	9	103	30	1	4	0	1	0	0	0	148	9,708
Maputo	13	82	21	1	1	1	1	0	0	0	120	17,762
Maputo City	23	7	1	0	0	4	0	1	1	1	38	29,542
Total	177	1298	134	23	21	7	7	4	1	2	1674	17,514

Source: Ministry of Health of Mozambique, Anuário Estatístico de Saúde 2019.

Physical access to health facilities is shown in Table 31. The national average area per health facility was 477.5 km^2, and the average travel distance to a facility was 12.3 km. In Maputo City, the average travel distance to a health facility was 1.6 km, while in Niassa it was 15.1 km and in Carbo Delgado, it was 14.3 km, having a difference of almost ten times.

Table 31: Area per Health Facility and Average Travel Distance to Facility

Region	Province	Area (km^2)	Number of facilities	Area/facility (km^2)	Average travel distance (km)
North	Niassa	129,056	181	713.0	15.1
	Cabo Delgado	82,625	128	645.5	14.3
	Nampula	81,606	227	359.5	10.6
Central	Zambezia	105,008	259	405.4	11.3
	Tete	100,724	134	751.7	15.4
	Manica	61,661	118	522.6	12.7
	Sofala	68,018	159	427.8	11.5
South	Iyannabane	68,615	140	490.1	12.4
	Gaza	75,709	146	518.6	12.8
	Maputo	26,058	118	220.8	8.3
	Maputo City	300	38	7.9	1.6
National		799,380	1674	477.5	12.3

Source：Ministry of Health, Anuário Estatístico de Saúde 2019

The system of responsibility for the development of health facilities varies depending on the medical level. For the primary health care level, the District Health, Women, and Social Action Department prepares the development plan and submits it to the Ministry of Health through the Provincial Health Department. The Ministry of Health, especially the Infrastructure Department within the National Health Planning and Cooperation Agency, reviews and coordinates these plans. After approval, construction and rehabilitation will be done by the Provincial Health Department. Planning (including budgeting) for the development of health facilities above the secondary level is done by the Ministry of Health. There are multiple budget sources for health facility development above the secondary health care level, with the Annual Social and Economic plan (which goes beyond the Ministry of Health) and the "One District Hospital in Each District" initiative launched by the President in 2019 as representative examples. The Ministry of Health has launched a plan to increase the number of health facilities at each health service level, especially at the secondary level, by 2025 (Table 32), and some items have already reached their targets.

Table 32: Number of Health Facilities that Mozambique's Ministry of Health Aims to Secure by 2025

Type of health facility		As of 2006	Target number (status as of 2020)
Hospital	Central Hospital	3	4 (already achieved)
	Provincial Hospitals (including specialty hospitals)	9	10 (unachieved at 7)
	District Hospital	8	87 (unachieved at 23)
	Rural hospital	27	32 (unachieved at 21)
	General hospital	6	12 (unachieved at 7)
Urban Health Center		104	142 (already achieved at 177)
Rural Health Center		756	1466 (unachieved at 1298)
	Total	913	1,753

Source: Mozambique National Health Account 2004–2006 and 2008 MISAU MPHHRD.

As for the number and ratio of public and private health facilities, the public-to-private ratio is 88:12, and nearly 90% of health services are provided through public health facilities as shown in Table 33. In addition, private health facilities exist only at the primary and secondary health care levels, with no business development at the higher health care levels. As stated in the Health Sector Strategic Plan (2014–2019), the Ministry of Health is working to promote public-private partnerships in the operation of health facilities and the supply chain of medicines, but private sector participation is limited. There are strict regulations governing the opening of private medical facilities, and public procurement of medicines and other products takes a long time and is an inefficient process, involving multiple submissions of similar documents and information. In addition, delays in payment from the government, it is customary for public procurements where 25% advance payment is required by law, but 100% deferred payment is customary, are reported as barriers to private sector participation in the health sector market.[39]

Table 33: Number of Public and Private Health Facilities by Health Care Level

Health facility type	Public	Private	Total	Percentage of the private sector (%)
Primary health level	1,563	194	1,757	11.0
Secondary level	51	30	81	37.0
Tertiary level	7	0	7	-
Quaternary level	7	0	7	-
Total	1,628	224	1,852	12.1

Source: USAID: Overview of Private Actors in the Mozambican Health System and Rapid Assessment of the Supply Chain 2019

The percentage of Mozambicans using health facilities by public and private sector in 2014–2015 was approximately 90% using public health facilities. Only 3.9% used the private sector, and 5.2%, which exceeds the percentage utilizing the private sector, used traditional medicine (Figure 38). The high rate of use of traditional medicine is one of the characteristics of Mozambique. It is customary and culturally accepted in Mozambique to see a traditional practitioner before seeking Western treatment. In some cases, as much as 70% of primary care in the community is provided by traditional medicine.[40] The Ministry of Health recognizes the contribution of traditional medicine to people's health and has established the Institute of Traditional Medicine (IMT) to promote knowledge and use of traditional and alternative medicine and to improve primary care service delivery.[41]

[39] USAID: Overview of Private Actors in the Mozambican Health System and Rapid Assessment of the Supply Chain 2019
[40] Plano Estratgico do Sector da Sade 2014–2019
[41] Plano Estratgico do Sector da Sade 2014–2019

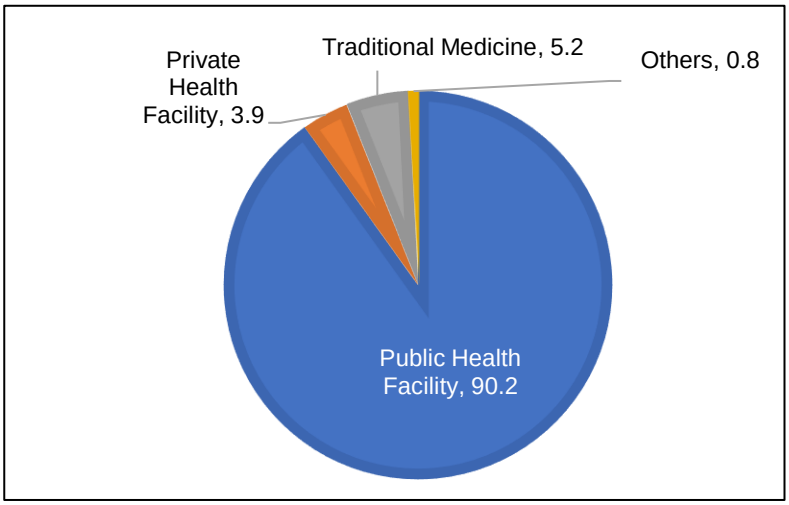


Figure 38: Percentage of Health Facilities by Public, Private, Traditional Medicine, etc.

Source: USAID: Overview of Private Actors in the Mozambican Health System and Rapid Assessment of the Supply Chain 2019

In the fight against AIDS, malaria, and tuberculosis, these traditional medical practitioners are trained to learn the characteristics of these diseases, and when a suspected sick person visits them, they provide traditional medicine (pray, medicinal herbs, etc.) and bring the person to a health center or hospital. These traditional practitioners are often organized in Associação dos Médicos Tradicionais de Moçambique: AMETRAMO, an association of traditional medical practitioners, and if they can be successfully involved, they can become a strong partner in the health care system. This is also the case with traditional birth attendants.

It is also widely practiced as a traditional healing method to prevent evil spirits from entering the body by carving various patterns on the body with razor scars. However, in Mozambique, where the HIV infection rate is high, this has become a very dangerous practice, and there have been a number of HIV infections among traditional medical practitioners. Therefore, in Gaza province, training on HIV/AIDS prevention was conducted and AMETRAMO called for the use of disposable razors, which was effective. Similarly, in the southern region, when a husband dies, there is a ritual in which the surviving wife has sexual relations with the husband's brother to purge the impurity, which was seen as one of the causes of further spread of the disease at a time when there were many deaths from AIDS. However, as a result of the efforts of the health authorities and NGOs, AMETRAMO proactively changed this ritual by saying that "defilement is purged by herbal tea and prayer". In some cases in northern region, traditional practitioners cooperate in using disposable razors or having medical technicians from health centers perform male circumcision. Initiation rites for girls, where girls who have started menstruating are brought together to live together for a certain period of time and are taught various village etiquette,

customs, and rituals, and in many cases are encouraged to have sexual intercourse, are conducted by the elder women of the village, who often overlap with traditional practitioners. In some areas, NGOs have approached the women who perform these initiation rituals and changed the rituals to include appropriate HIV/AIDS prevention knowledge.

3.4.2 Medicines

The Ministry of Health established the National Essential Medicines List Review Committee to establish the Essential Medicines List. This list was established in 2010 and revised in 2017. This list is based on the WHO's National Basic Drug List Methodology. Each essential medicine is categorized according to symptoms and uses, and five prescription levels are defined. Prescription levels are organized as follows:

- Level 0: drugs that can be prescribed by general pharmacies
- Level 1: drugs that can be prescribed by nurses in the health facility
- Level 2: drugs that can be used during surgery or by special technicians
- Level 3: drugs that can be prescribed by doctors
- Level 4: drugs that can only be prescribed by specialists.[42]

Logistics for medicines, vaccines and medical equipment in Mozambique is managed through two institutions under the Ministry of Health, those are the Central Medicine Stores (CMAM, Central de Medicamentos e Artigos Médicos) responsible for procurement of medicine and equipment, and the Supply Centre (SC) responsible for the logistics. The selection and quantity review of drugs required every month is done by CMAM. Medicines for HIV/AIDS, malaria and tuberculosis are calculated based on the prevalence of the disease, while other basic medicines are calculated based on past consumption. In other words, it uses the push method instead of the pull method. CMAM's distribution route covers up to the provincial level, after which the provincial distribution center delivers to the District Services of Health, Women and Social Action.[43] Delivery to health facilities is the responsibility of the District Services of Health, Women and Social Action, and as of 2018, only two provinces, Zambezia and Tete, had private logistics providers to deliver to health facilities. Child immunization is managed by the Expanded Program on Immunization (EPI).[44]

The Government of Mozambique established the National Agency for the Regulation of Medicines (ANARME) as a public institution by Law No. 12 of 2017. The agency will be responsible for regulating the production, procurement, sharing, and commercialization of all medicines and vaccines used in the country. It will also be responsible for establishing a system

[42] Lista Nacional de Medicamentos Essenciais 2017
[43] Health Sector Strategy Plan (2014-2019)
[44] USAID: Overview of Private Actors in the Mozambican Health System and Rapid Assessment of the Supply Chain 2019

for quality assurance of medicines, harmonizing domestic medicines with international standards, simplifying the registration system for medicines, establishing a pricing system, developing a framework for sanctioning fraud, counterfeiting, and smuggling, and adapting current regulations to WHO recommendations.[45]

The Service Availability and Readiness Assessment (SARA) conducted in 2018 surveyed 1,643 health facilities (primary: 1,575, secondary: 54, tertiary-quadratic: 7) across the country for basic medicines in each health facility and the results were as follows (Figure 39). While almost all health facilities had oral rehydration salts and uterine contractions, no health facility had all 15 medicines assessed. The average availability of medicines was 55%, which means that on average they had about 8 out of 15 medicines.

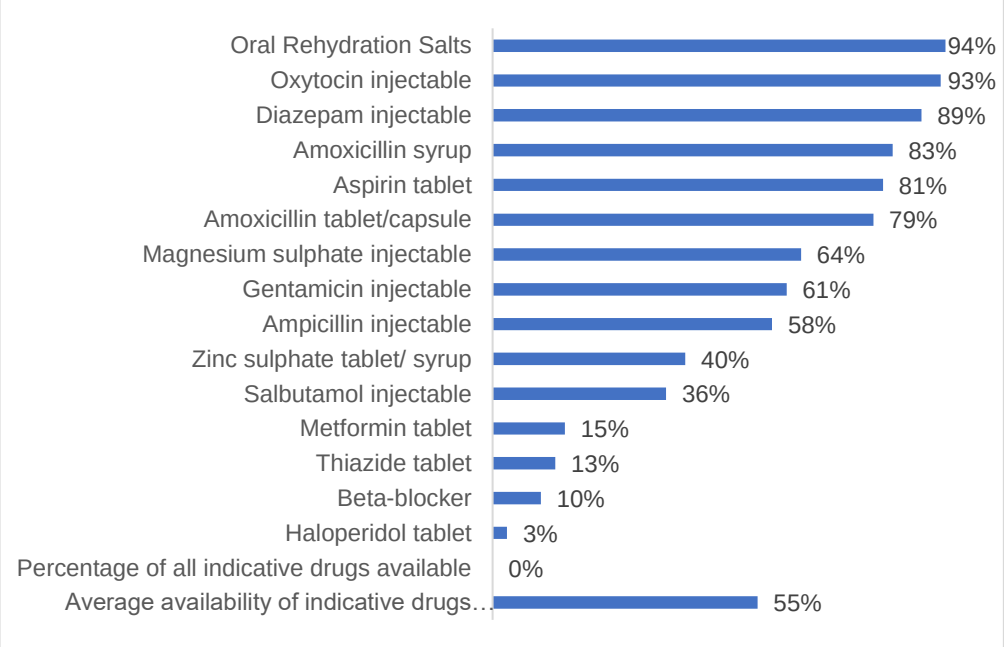


Figure 39: Percentage of Facilities with Access to Basic Drugs

Source: SARA2018 Inventário Nacional

A comparison of the average availability of the aforementioned basic medicines by province is shown below, with the highest average availability in Carbo Delgado and the lowest in Maputo and Niassa (Figure 40).

[45] USAID: Overview of Private Actors in the Mozambican Health System and Rapid Assessment of the Supply Chain 2019

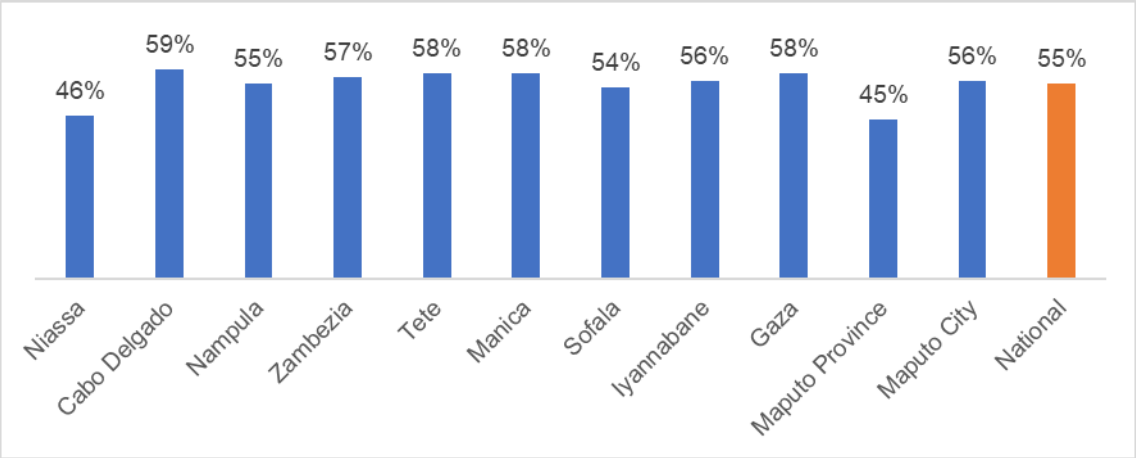


Figure 40: Average Availability of Basic Drugs by Province

Source: SARA2018 Inventário Nacional

3.4.3 Medical Equipment

The following items have been identified as the minimum equipment needed to provide quality health services.

- Basic medical equipment: adult scales, pediatric scales, thermometers, stethoscopes, sphygmomanometers, light sources for clinical observation

The aforementioned Service Availability and Readiness Assessment (SARA) conducted in 2018 included 1,643 health facilities with an basic medical equipment survey and the results are shown below (Figure 41). Although many facilities have scales because they are relatively unbreakable, one-fifth of facilities are unable to use thermometers, stethoscopes, sphygmomanometers, and other items that are fragile and need to be replenished regularly, indicating that basic services such as antenatal care are also hindered. The average availability of basic medical equipment was 74%, meaning that on average they had about 5 out of the 6 pieces of equipment assessed.

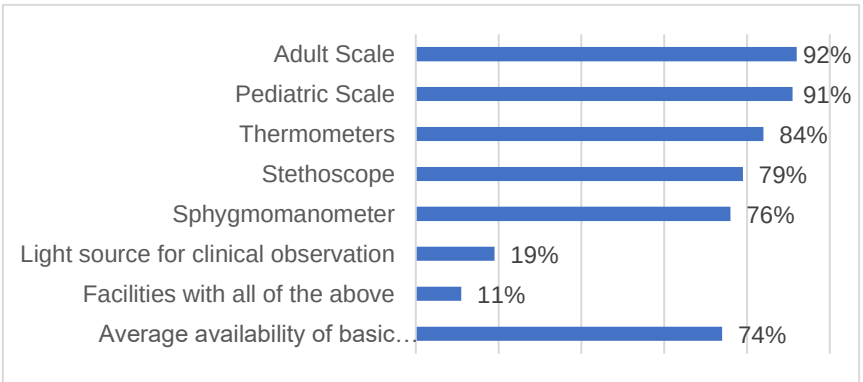


Figure 41: Percentage of Facilities with Access to Basic Medical Equipment

Source: SARA2018 Inventário Nacional

A comparison of the average availability of the aforementioned basic medical equipment by province is shown below, with Maputo City having the highest average availability and Niassa and Nampula having the lowest (Figure 42).

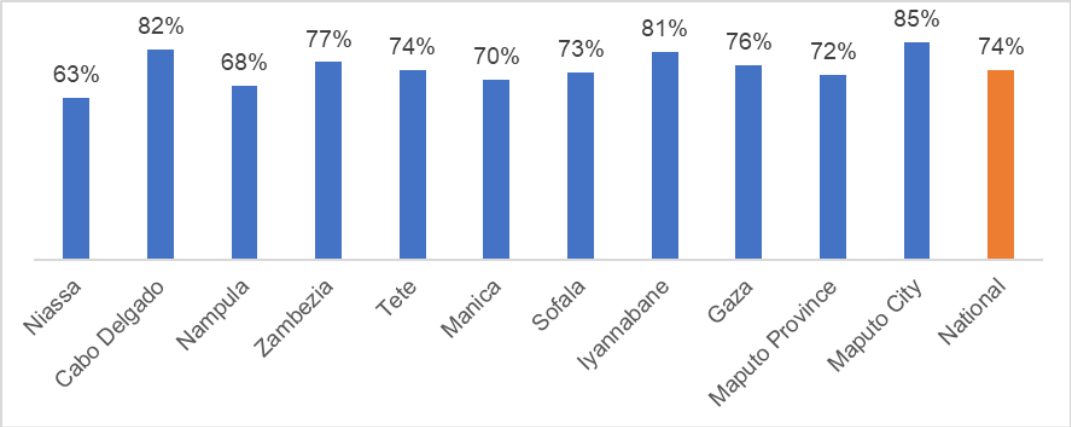


Figure 42: Average Availability of Basic Medical Supplies by Province

Source: SARA2018 Inventário Nacional

The availability of goods/items related to biosafety has also been investigated in the above SARA. The results are shown in Figure 43. The results show that about half of the facilities are in a situation where hand washing and hand sanitizing are not available, which makes them vulnerable when infectious diseases such as COVID-19 emerge. The majority of health facilities do not have safe final disposal of infectious waste, and only 6% have all biosafety supplies/items available, which is still a dangerous situation.

Figure 43: Percentage of Facilities with Access to Biosafety-Related Goods/items

Source: SARA2018 Inventário Nacional

Comparing by province, biosafety goods/items, as well as basic medical equipment availability, are seen to be lower in Niassa and Nampula (Figure 44).

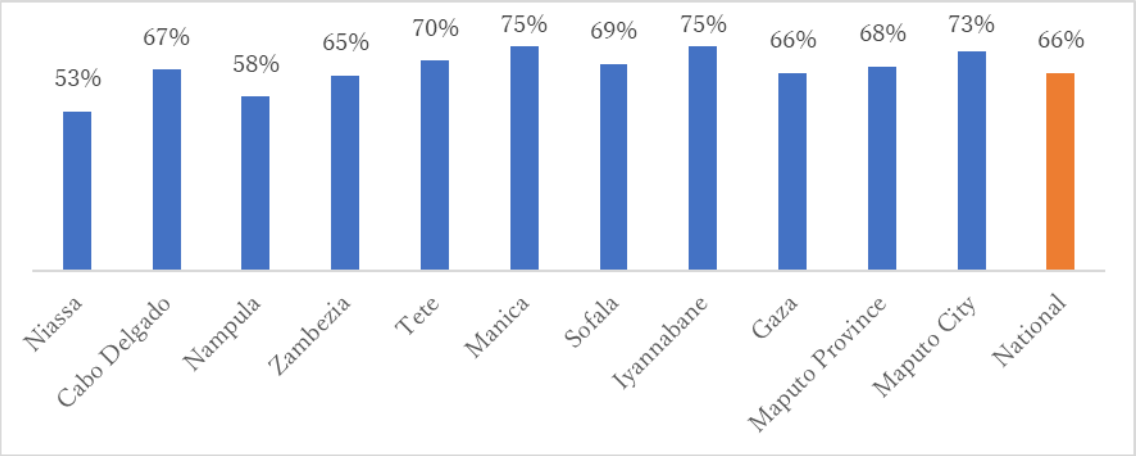


Figure 44: Average Availability of Biosafety-Related Goods/items by Province

Source: SARA2018 Inventário Nacional

3.5 Management and Supervisory Functions

3.5.1 Development of Decentralization

Currently, decentralization is being promoted in Mozambique: until 2019, provincial governors, the heads of provincial governments in Mozambique, were appointed and posted by the central government, and senior officials, such as provincial health authorities, were mainly sent from the centeral level. This was the policy of the governing party to prevent Mozambique, which was still healing from the scars of the civil war, from losing its unity as a country and splitting up, and to prevent nepotism from occupying the civil service only with the families of powerful people. However, the democratization process has made it inevitable to hold gubernatorial elections, and from the elections at the end of 2019, the provincial party leader of the party that wins the most votes in the provincial assembly elections will serve as the provincial governor. However, the power of provincial governors has been reduced to a lesser extent than in the past, and this is manifested in a new system in which a Secretary of Government (Secretario do Estado) is appointed by the central government and placed in each province. This is a duplication of administrative organization and can be seen as an attempt to reduce the power of elected provincial governors and maintain the power of the central government. In reality, however, the governing party, FRELIMO, won all provincial elections, and the governors of the 10 provinces other than Maputo are from the governing party.

3.5.2 Health Administration

The Ministry of Health formulates policies, plans and regulations, monitors and manages

various programs, and procures and distributes essential medicines. As shown in Figure 45, under Ministry of Health, Vice Minister and Permanent Secretary, there are 8 national directorates: 1) National Department of Public Health (Direcção Nacional de Saúde Pública), 2) National Department of Medical Assistance (Direcção Nacional de Assistência Médica), 3) National Department of Pharmacy (Direcção Nacional de Farmácia), 4) National Department of Training for Health Professional (Direcção Nacional de Formação de Profissionais de Saúde), 5) National Department of Traditional and Alternative Medicine (Direcção Nacional de Medicina Tradicional e Alternativa), 6) National Department of Planning and Cooperation (Direcção de Planificação e Cooperação), and 7) National Department of Human Resources (Direcção de Recursos Humanos), and 8) National Department of Quality Management and Assurance (Direcção de Gestão e Garantia de Qualidade).

Each province has a Provincial Department of Health (DPS: Direcção Provincial de Saúde), which allocates and executes budgets for the development of health facilities at the primary health care level and operating costs (including personnel costs) at the primary to tertiary health care levels, and hires, manages human resources, and conducts monitoring, as described in section 2.2.2 “The Flow of Health Budget and Implementation”. This is under the supervision of the governor of each province, and the salaries of the provincial health department staff are paid by the Provincial government. Under the province, there is the District Services of Health, Woman and Social Action (Serviço Distrital de Saúde Mulher e Acção Social: SDSMAS), which is responsible for the management and operation of health facilities in the district under the supervision of the district mayors (Administrador distrital). The salaries of these staff are also paid by the district government. Under decentralization, procurement and logistics management of drugs and equipment are managed by agencies under the jurisdiction of the Ministry of Health, while the development of primary health care level health facilities (including budget execution) is carried out by the Provincial Department of Health. In addition, the recruitment and deployment of health personnel is now handled by the Provincial Health Department and the District Services of Health, Woman and Social Action.

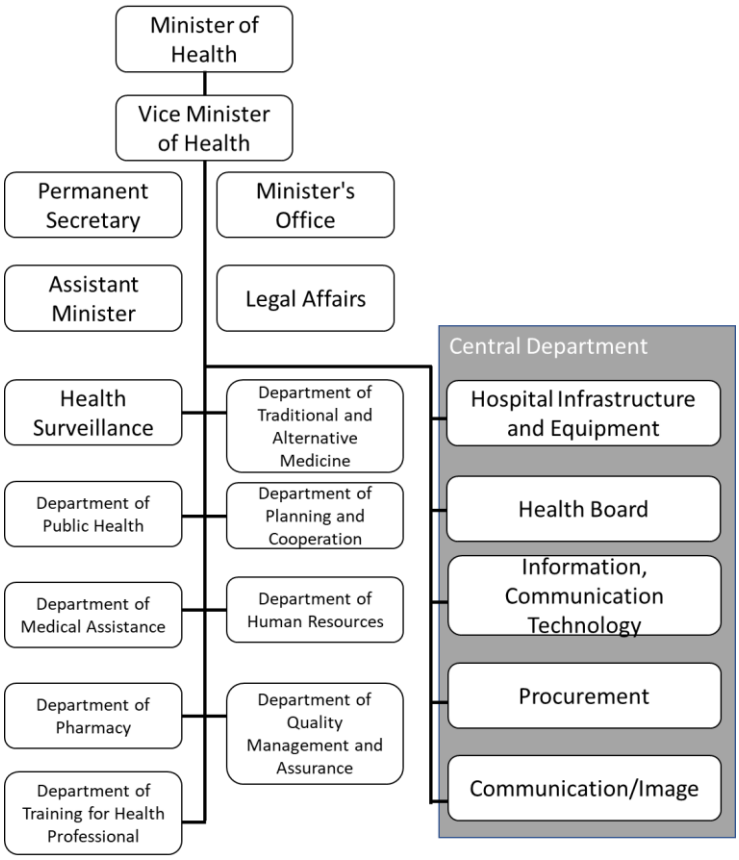


Figure 45: Ministry of Health Organizational Chart

Source: Republica de Moçambique. Diploma Ministerial 79/2019

3.5.3 Multi-Sectoral Management and Supervisory Bodies

Health issues cannot be solved by the health sector alone, but collaboration with other sectors is essential. In particular, the fight against HIV/AIDS and the improvement of nutrition requires multi-sectoral efforts, and policy formulation, management and supervision bodies are being established beyond the health administration. Multi-sectoral efforts to control HIV/AIDS and improve nutrition are shown in Table 34 and Table 35.

Table 34: Multi-Sectoral Initiatives on HIV and AIDS

Item	Contents
Multi-sectoral AIDS control implementation system	• The Conselho Nacional de Combate ao HIV/SIDA (CNCS) is a multi-sectoral AIDS control agency under the direct control of the Prime Minister. Under the CNCS, there is a Conselho Provincial de Combate ao HIV/SIDA (CPCS), comprised of up to 10 staff members, assigned to each province in the country. Under the CPCS, there is a Conselho Distrital de Combate ao HIV/SIDA (CDCS) which exists in every city of all provinces, and usually has one city staff member called the “city AIDS focal point”. In many cases, these district AIDS focal points are also staff members of the District Services of Health, Woman and Social Action (SDSMAS-Serviço Distrital de Saúde Mulher e Acção Social). In such cases, they may only report what CPCS tells them to report, if at all. • This initiative was stronger before, when there was a basket fund against AIDS that was contributed by donors, and the budget was distributed to various NGOs

	working in each city. However, due to problems in management, the basket fund disappeared leaving only Mozambique's own budget, with a weaker budgetary power. • The district focal point is expected to promote AIDS control in a controlled manner with district government departments and the private sector including companies/NGOs/associations.

Table 35: Multi-Sectoral Initiatives on Nutrition

Item	Contents
Multi-sectoral action plan on nutrition	• Plano de Acção Multissectorial para Redução da Desnutrição Crónica (the Multisectoral Action Plan for the Reduction of Chronic Undernutrition in Mozambique, 2011–2020) is a central action plan for the nutrition sector which is currently in effect. Its strategic objectives include: o Strengthening measures to improve health and nutrition for young girls (10–19 years), women of childbearing age, and children under 2 years o Strengthening support to households to improve access to and intake of high nutritional value foods o Strengthening advocacy, coordination, and management functions in human resource development and implementation of nutrition improvement measures o Strengthening the nutrition surveillance system
Multi-sectoral Nutrition Improvement Implementation System	• Secretariado Técnico de Segurança Alimentar e Nutricional (SETSAN) or the Technical Secretariat for Food and Nutrition Security o Established in 2006 as a multi-sectoral coordinating body on nutrition under the Ministry of Agriculture o Focal of Scaling Up Nutrition (SUN) • Grupo Tecnico de PAMRDC or the Technical Working Group for PAMRDC (GT-PAMRDC) o SETSAN-led multi-sectoral technical working group on nutrition to coordinate and facilitate PAMRDC planning and implementation o Meetings held every 2–3 months o Participating members include relevant ministries, development partners, and the civil society o Established in 11 provinces across the country, led by SETSAN officers, to coordinate nutrition projects at the provincial level • Nutrition Partner Forum o Forum for development partners providing nutrition-related support, established in 2011, held every two months • SUN Network o Joined in 2011; SUN focal point is the Executive Director of SETSAN o Government ministries and agencies network: GT-PAMRDC o Donor Network: DFID o Civil Society Network: Association for Food and Nutrition and Helen Keller International host Civil Society Platform o Business Network: launched in 2016 with support from WFP/GAIN; 100 member companies (as of 2019)
Major multi-sector nutrition projects	• Improved nutrition for adolescent girls (10–19 years) o Improve anemia, reduce young pregnancies, and strengthen nutrition education o Led and coordinated by Ministry of Health, Ministry of Education, Ministry of Women and Social Welfare, etc. • Strengthen measures to improve health and nutrition for women of childbearing age o Reduce micronutrient deficiencies and anemia, combat infectious diseases, and reduce under-nutrition and underweight o Led and coordinated by Ministry of Health and Ministry of Women and Social Welfare • Strengthen measures to improve health and nutrition for children under 2 years o Promote full breastfeeding in the first 6 months of life o Promote appropriate complementary foods for infants o Led and coordinated by Ministry of Health and Ministry of Women and Social Welfare

	• Strengthen household support to improve access to and intake of high nutritional value foods
	  ○ Strengthening local production capacity of high nutritional value foods and promoting their intake by poor households.
	  ○ Strengthen capacity on appropriate food processing and storage practices. Strengthening access to social security services for households with low levels of food security.
	  ○ Increase supply and intake of fortified foods, especially iodized salt. Improve basic sanitation for poor households with young girls, pregnant women, and children under two years of age.
	  ○ Led and coordinated by the Ministry of Agriculture and Food Security, Ministry of Health, Ministry of Women and Social Welfare, Ministry of Economy, Trade and Industry, etc.
	• School Feeding Project
	  ○ Started in 2013, providing school lunches in selected elementary school in 7 provinces. Food ingredients are purchased from local farmers as much as possible. Nutrition education for teachers and children has also been strengthened.
	  ○ Due to budget shortage, the project has not yet been expanded nationwide and the coverage of the target children is still low.
	  ○ Implemented by the Ministry of Education with the cooperation of WFP
	• Basic social security projects
	  ○ To improve malnutrition among children and vulnerable groups through long-term cash transfers to poor households (including child allowance and disability allowance)
	  ○ Implemented by the Ministry of Women and Social Welfare
	• Nutrition Improvement Project
	  ○ A five-year project launched in 2017 in two northern provinces (Zambezia and Nampula Province), based on the principle of supporting PAMRDC implementation, to strengthen the capacity of nutrition administration at the provincial and township levels, improve water and sanitation facilities, and implement an essential nutrition package for children, youth, and women, involving community health workers and agricultural extension workers, APE[46]
	  ○ EU funding, UNICEF implementation support, etc.
	• Resilient Agriculture Market Activities Project (Agriculture and Food Security Project)
	  ○ Started in 2016 in two northern provinces
	  ○ To improve agricultural productivity and enhance resilience to climate change by promoting new technologies for environmentally friendly agriculture an mechanization
	  ○ To improve the quality of use of agriculture-related information, such as climate and market information
	  ○ The goal is to enhance poverty reduction and hunger prevention
	  ○ USAID implementation

4 Identification of cooperation needs and recommendations

4.1 Challenges and needs of the health sector

The issues and needs identified in the analysis of the current state of the health sector in Mozambique so far can be summarized as shown in Table 36.

[46] APE: Agente Polivalente Elementar (Basic Multipurpose Activity Agent). Officially recognized by the Ministry of Health as a community health worker. Their main activities are health promotion and disease prevention for the community, but they also provide simple medical treatment.

Table 36: Challenges and Needs of the Health Sector in Mozambique

Current status of disease burden	High burden of maternal and child health and infectious diseases	
Issue	Health services are being used to some extent, but the quality of services is low	
Possible causes	• There is a shortage of health personnel and medicines • Weak capacity for hiring and deploying health personnel and managing logistics for medicines	• Heavy reliance on foreign funding, but this funding is on a downward trend • When foreign funding declined sharply, shortages of medical supplies occurred.
Necessary measures	• Strengthening the administrative capacity of Provincial/District Department of Health	• Formulate a strategy for mobilizing domestic funds

(1) Current status of disease burden

High burden of infectious diseases and maternal and child health

Looking at the major causes of death for all ages in 2019, deaths from infectious diseases accounted for a prominent 54% of all deaths, compared to the next largest proportion which is non-communicable diseases (29%). Among infectious diseases, deaths are particularly high from HIV/AIDS and sexually transmitted diseases (26%), respiratory infections including childhood pneumonia and tuberculosis (14%), and malaria and neglected tropical diseases (NTDs; 8%). Perinatal and neonatal disability is the fourth-largest cause of death, comprising 10% of all major causes of death for all ages. Regarding the causes of maternal deaths, indirect obstetric causes account for the majority at 55% (2014), and the main indirect obstetric causes are HIV/AIDS and malaria, indicating that infectious diseases are also deeply involved in perinatal and neonatal disorders. Although Mozambique's maternal mortality rate (per 100,000 live births) was 289 in 2017, this is better than the average for sub-Saharan Africa (534) and low-income countries (455). However, there is still much room for improvement, as many of the problems can be avoided by providing appropriate infectious disease control measures to pregnant women during antenatal care. In addition, malaria (20% in 2015), pneumonia (19%), and diarrhea (13%) are the main causes of death among children aged 1 month to under 5 years, and these diseases are also preventable or treatable by primary health care in many cases.

(2) Challenges

Health services are used to some extent, but the quality of services is considered low

As mentioned earlier, the health burden from infectious diseases, many of which are related to maternal and child health, can be prevented or treated through primary health care. In terms of utilization of basic health services in Mozambique, the percentage of women with access to modern family planning is 45% (2015), the percentage of births in the presence of a skilled provider is 54% (2011), and the DPT immunization coverage is 88 (2019), which is comparable or better than the average for countries in the same region and with similar incomes.

However, the situation of input-level indicators, such as health personnel and medicines, leaves much room for improvement. In 2018, the number of physicians per thousand population is 0.08, and the number of nurse and midwife is 0.68, which is extremely lower compared to the countries in the same regions (0.23 and 0.98, respectively), and countries with similar incomes (0.34 and 0.91, respectively). The 2018 survey also found that no health facility had all 15 basic medicines assessed, and health facilities only had an average of eight medicines out of them. The survey also studied basic medical equipment, and found that fragile items such as thermometers, stethoscopes, and sphygmomanometers that need to be replenished regularly were out of service in one-quarter to one-fifth of the facilities, which also hindered the delivery of basic services such as antenatal care.

In Mozambique, although the use of certain health services, such as family planning and immunization, is better than the average for sub-Saharan Africa and low-income countries, many people still die of preventable and treatable diseases. This suggests that in addition to promoting the use of health services, improving the quality of these services is also a challenge. The current shortage of health personnel, equipment, and medicines suggests that the quality of services is considered to low.

(3) Possible causes and necessary measures

Challenge 1: Shortage of health personnel and medicines

With decentralization, the authority to recruit and deploy health personnel is being shifted from the Ministry of Health to the Provincial Department of Health/District Services of Health, Woman and Social Action

With the progress of decentralization, the Ministry of Health used to be the main employer of health workers, but they are now employed at various health administrative levels. However, in reality, it is difficult for the District Health, Women and Social Action (hereinafter referred to as District Department of Health) to grasp the current situation of health personnel working in health facilities, calculate the number of people needed, and make a recruitment plan, especially for doctors who are hired at the provincial level and then assigned to the district level. Hiring procedures for intermediate-level health care workers are carried out by the Provincial or District Department of Health, but the final authority for hiring and employment lies with the provincial governor or district mayor. Systems to promote human resource retention in rural areas, such as special allowances for health personnel working in public health facilities in rural areas, have been prepared, but it has been pointed out that these systems have not been fully implemented.

Medicines and consumables are procured at the central level, but the Provincial and District Department of Health are responsible for delivery to health facilities.

The procurement of medicines and equipment is done by the Central Medicines and Medical Supplies (CMAM), and the logistics of these are managed by the Supply Center. These agencies deliver the drugs to the Provincial Department of Health, which in turn delivers them to the District, which in turn delivers them to the health facilities. Outsourcing to private logistics providers was rare.

Need to strengthen the capacity of Provincial and District Department of Health in health administration (recruitment and deployment, logistics management)

Under the new decentralized system, the role of the Provincial Department of Health in recruiting and deploying health personnel will increase, but it is considered that the Provincial Department of Health is not sufficiently equipped to implement the new role it has taken on. In the case of medicines, at least in the Health Sector Strategic Plan 2014‐2019, although there is a high dependence on foreign funding, the problem is not so much the lack of budget or medicines themselves, but the complexity of procurement procedures, calculation of required quantities, and insufficient management of logistics. Provincial and District Department of Health are responsible for the "last mile" delivery to health facilities, and proper distribution planning, (including calculation of required quantities), which are necessary to prevent stock-outs at health facilities.

Challenge 2: Insufficient domestic government health spending

The health sector relies heavily on foreign funding, but this funding is decreasing.

One of the key features of Mozambique's health sector is its dependence on foreign funding. In order to achieve UHC, the following are required: "government health expenditure as a percentage of GDP should be at least 5%" and "government health expenditure per capita should be at least $86.3". However, these values for Mozambique are 1.5% and $6.3 (both in 2017), and domestic government health spending is lower compared to the average for sub-Saharan Africa (1.9% and $30.2) and low-income countries (1.2% and $9.0). Complementing domestic government health spending, the "foreign aid as a percentage of current health care expenditures" of Mozambique is at 61.2% (2017), the third-largest in the world, and indicating a heavy reliance on foreign funding.

However, while the health sector budget for the past decade has been 60% domestically funded and 40% internationally funded, in 2019, that ratio became 79% domestically funded and 21% internationally funded, showing a rapidly declining trend in foreign funding. The shortage of medicines and other commodities was particularly acute in 2016, when many development

partners stopped their support. The mobilization of domestic funds is essential for sustainable health system management.

The percentage of the population with a health-related expenditure of 10% and 25% or more of their household expenditure/income, which is also a UHC monitoring indicator, is at 1.6% and 0.4% (2014), respectively, which is lower than the African average (7.3% in 2015 and 1.8% in 2015). However, it is also true that 40% (2011) of women cited that "having money for medical treatment" was a barrier to the use of health services. In addition, a household survey conducted in 2014‐2015 revealed that health spending has increased by more than 300% compared to 2008‐09. Given that foreign funding has also declined sharply since 2016, financial risks among the population may have risen in recent years.

A strategy for mobilizing domestic funds should be developed.

As foreign funding declines, it is essential to increase domestic funding, especially government health spending rather than out-of-pocket expenditure, in order to run a sustainable health system. To increase government health spending, the government's financial capacity, i.e., its ability to mobilize public funds such as tax revenues must be improved. Then there is the issue of prioritizing the health sector in Mozambique's overall policies. As an indicator of policy priorities, the African Union issued the Abuja Declaration in 2001, which aims to "increase the share of government health spending in government expenditure to at least 15%". However, the share of government health spending in Mozambique is only at 4.7% (2017), which does not indicate that the health sector has been prioritized.

Both the financial capacity of the government and the priority of the health sector in policy should be coordinated and negotiated not only within the Ministry of Health, but also with the Ministry of Finance, which is responsible for tax collection and budgeting. For this, a medium- to long-term health financing strategy is essential. The Health Sector Strategic Plan (PESS 2014‐2019) also mentions "developing a financing strategy for the health sector" with the aim of "ensuring adequate and sustainable financing of health services". However, to the extent of the information collected in this survey, no health financing strategy has yet been developed.

4.2 Recommendations for future cooperation policy

We recommend these two measures to respond to the challenges and needs of the health sector: (1) Strengthening the capacity of Provincial and District Department of Health and (2) Supporting the development of a health financing strategy to mobilize domestic resources.

Figure 46 shows the relationship between the challenges and causes in Mozambique's health sector. In order to improve the quality of primary health care, it is necessary to strengthen the health administration capacity of the Provincial and District Department of Health which have

the authority to execute the budget for the provision of these services, and to develop a strategy for mobilizing domestic funds at the central level where the budget is disbursed from.

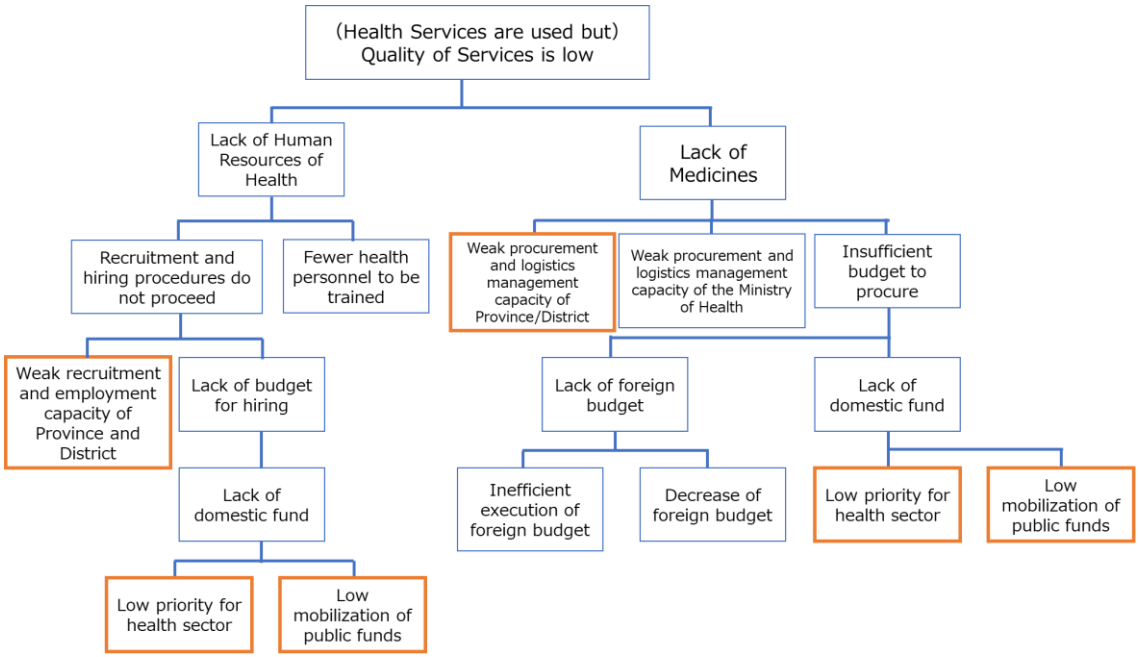


Figure 46: Relationship between Challenges and Factors in Mozambique

(1) Improving the quality of primary health care through strengthening the administrative capacity of Provincial and District Department of Health, especially in the recruitment and deployment of health personnel and management of pharmaceutical logistics.

[Background] Under the new decentralized system, the Provincial Department of Health plays a major role, especially in the recruitment and deployment of health personnel. On the other hand, it is difficult to get directly involved in the budget shortage through technical cooperation, so it is desirable to strengthen the recruitment and employment capacity of the Provincial and District Department of Health. Japan has been supporting the development of human resources for health in Mozambique for many years, and it would be significant for future assistance not only to train frontline health personnel but also to recruit and deploy the trained health personnel from the perspective of consistency with the past assistance. In terms of retention, not only the Ministry of Health or Provincial Department of Health but also other ministries and agencies in charge of the treatment of civil servants, have jurisdiction over many matters, and it is considered difficult for technical cooperation projects to be involved.

As for the shortage of medicines, it also is difficult to get directly involved in the budget shortage through technical cooperation. In addition, USAID is providing procurement support for medicines and consumables related to HIV/AIDS, malaria, family planning, and maternal

and child health through the Central Medicines Store, and there are concerns about duplication of support at the central level. Since the “last mile” delivery to the health facilities is handled by the Provincial/District Department of Health, it is desirable to strengthen the capacity of these departments in logistics management.
[Cooperation Target] Unit of human resources and Unit of pharmacy of Provincial/District Department of Health.
[Overall Goal] The quality of health services (especially primary health care) will be improved through better availability of health personnel and medicines.
[Objectives] The capacity of Provincial and District Department of Health will be strengthened through annual planning of recruitment and deployment of health personnel, and annual planning of management of pharmaceutical products, through the introduction and establishment of the PDCA cycle: Plan, Do, Check, and Act.
[Activities]

- Preparation of annual activity planning manual including PDCA cycle, and guidance according to the manual (assuming cascade training from Provincial Department of Health to District Department of Health)
- Implementation of monitoring and supervision from the Provincial Department of Health to the District Department of Health

[Note] It should be noted that the budget for the recruitment of health personnel requires negotiation with the provincial finance authorities, the (central) Ministry of Health, and the Ministry of Finance, and cannot be determined by the Provincial/District Department of Health alone, which are expected to act as counterparts. Similarly, it is a prerequisite of this proposal that the logistics management of medicines and other supplies be procured at the central level and properly delivered to the provincial level.

(2) Support for the development of health financing strategies to mobilize domestic resources
[Background] Budget shortage is at the root of not only a shortage of health human resources and medicines but the root of all problems. However, it is difficult for Japan to get involved in improving the efficiency of foreign funding and increasing Mozambique’s domestic budget, especially in the technical cooperation scheme. On the other hand, the Ministry of Health (MoH) recognizes the need for a health financing strategy, as stated in the Strategic Plan for Health Sector (PESS 2014‐2019), “develop a financing strategy for the health sector”. In the future, when the Ministry of Health coordinates and negotiates with the Ministry of Finance on the introduction and expansion of earmarked taxation for the health sector and the prioritization of the health sector in policy, it will be necessary for the Ministry of Health to ground its medium- to long-term health financing strategy. It is possible to study the impact of reduced foreign funding on the long-term

perspective of the formulation of this health financing strategy.

[Cooperation target] National Department of Planning and Cooperation in Ministry of Health, Provincial Department of Health

[Overall Goal] Discussions on medium- and long-term perspectives on how to mobilize domestic funds will be promoted

[Objective]

- Improved ability to develop cost estimates/budget plans necessary for new roles and responsibilities under decentralization
- The impact of the decrease in foreign funding on the service providers and users will become apparent

[Activities]

- Development of a cost estimation/budget planning manual for the Provincial Department of Health, and guidance in accordance with the manual
- Investigate the impact of reduced foreign funding on the health service delivery system and the current status of out-of-pocket payment and their impact on access to services

[Note] In the past, Mozambique has had a tax-based system (Beveridge model) though it has relied heavily on foreign financing but was mainly funded by general revenues. On the other hand, a national health insurance scheme for all citizens is being established, and the Council of Ministers has discussed the introduction of medical insurance for civil servants in 2019. It remains to be seen whether the government will be able to secure financial resources in the form of insurance premiums, objective taxes, and even user fees at the health facilities, and whether the people will tolerate such policies, if they were to be adopted.

4.3 Items to be confirmed in the future

The decentralization pursued by the government and the decrease in foreign funding for the health sector is making a significant impact on the health sector in Mozambique. The Demographic and Health Survey (DHS) was conducted in 2011, the Household Survey in 2014–15, and the Service Availability and Readiness Assessment (SARA), a survey on the current status of health facilities in 2018. However, it is not possible to determine from these surveys the impact of the phenomenon described at the beginning of this report. In addition, since the survey team was not able to collect information in the field, and the survey was conducted through recommissioning, limiting the amount of information obtained. Therefore, further information is needed to examine the cooperation policy in detail. Although there is overlap with the descriptions in Chapters 1 and 2, Table 37 summarizes the issues to be addressed.

Table 37: Items to be checked in the future

Decentralization	• With a new budgeting and execution system starting from 2020, many roles and responsibilities have been transferred from the central level to the provincial and district levels. It is necessary to collect information on the status of budget preparation and execution to confirm whether the provincial and district levels, in particular, can adequately fulfill their roles and responsibilities. It is also necessary to follow the trends of the transition period of decentralization in the future. • Since the elections at the end of 2019, there has been a dual system of Governor and Secretary of Government in the provincial government. The different roles/authorities of the two should be identified.
Trends in health financing and health coverage	• Although not limited to the health sector, efforts to improve the government's financial capacity, i.e., its ability to mobilize public funds such as tax revenues, and trends around the priority of the health sector in Mozambique's policies need to be reviewed. • Until now, Mozambique has had a tax-based (leveraged) system that is mainly financed by general revenues. On the other hand, a National Health Insurance Scheme for all citizens is developing, and the Council of Ministers has discussed the introduction of medical insurance for civil servants in 2019. It remains to be seen whether the government will be able to secure financial resources in the form of insurance premiums, objective taxes, and even out-of-pocket payment at health facilities, and whether people will tolerate such policies, if they were to be adopted.
Development partners	• In particular, it is necessary to confirm whether the decrease in contributions to the Common Fund, PROSAUDE, is to be continued in the future, and to confirm the causes of and measures to deal with delays in budget execution in the current PROSAUDE operation.
Ministry of Health	• The Strategic Plan for Health Sector (PESS 2014−2019) mentions "developing a financing strategy for the health sector". It is necessary to confirm the status of developing a medium- to long-term health financing strategy.
Province/ District Department of Health	• With decentralization, the government is now responsible for infrastructure development and the recruitment and deployment of health personnel, but capacity assessment for planning, implementation, and evaluation, including budgeting, is needed.
Health facility	• Foreign funding has been declining since around 2016. This has resulted in an overall shortfall in the health sector, directly in the capital expenditure budget and indirectly in the operating cost budget. A survey of the current situation in health facilities is needed to determine the availability of infrastructure and equipment for capital expenditures, and health personnel and medicines for operating expenses. The last health facility survey conducted was in 2018 and the situation may have worsened since then.
Household	• The results of the household survey conducted in 2014−2015 show that the people's financial risk is low, but health care expenditure (real value) has increased by more than 300% compared to 2008–2009; the decline in foreign funding since 2016 may have led to a sharp increase in household out-of-pocket payment, and an updated household expenditure survey is desirable. • In a household survey conducted in 2011, the greatest barrier to using health services was "the distance to health facilities" cited by 53% of the women, and 40% also cited "prepare for medical expenses" in other words, foreseeing medical expenses. As mentioned above, household out-of-pocket payments may be increasing rapidly, and the impact on access to health services needs to be confirmed.

The necessary items to be confirmed in two areas are summarized below: (1) capacity building of Provincial and District Department of Health, and (2) support for the development of health financing strategies to mobilize domestic resources.

(1) Strengthening the administrative capacity of Provincial and District Department of Health

In this survey, we mainly collected information on the current status of the health system and the roles and responsibilities of each level of health administration. In order to examine the details of the cooperation project, it is necessary to conduct a capacity assessment (including staff allocation) of the potential target Provincial Department of Health. It is also necessary to follow the trends of the roles and responsibilities of each administrative level under the ongoing decentralization, the difference in authority between the governor and the secretary of government in the Provincial government, and the transition period of decentralization.

(2) Support for the development of health financing strategies to mobilize domestic resources

As mentioned earlier, the people's financial risk in using health services may have increased in recent years. The evidence that people are taking financial risks is a major consideration for the government of Mozambique to make serious efforts to mobilize domestic resources. While family budget surveys are conducted roughly every five years, it has already been seven years since the last survey, so the latest information is awaited. Similar to the above, a capacity assessment is needed to determine the extent to which the Ministry of Health and Provincial Department of Health can formulate budgets, including cost estimates, under the new decentralized system.

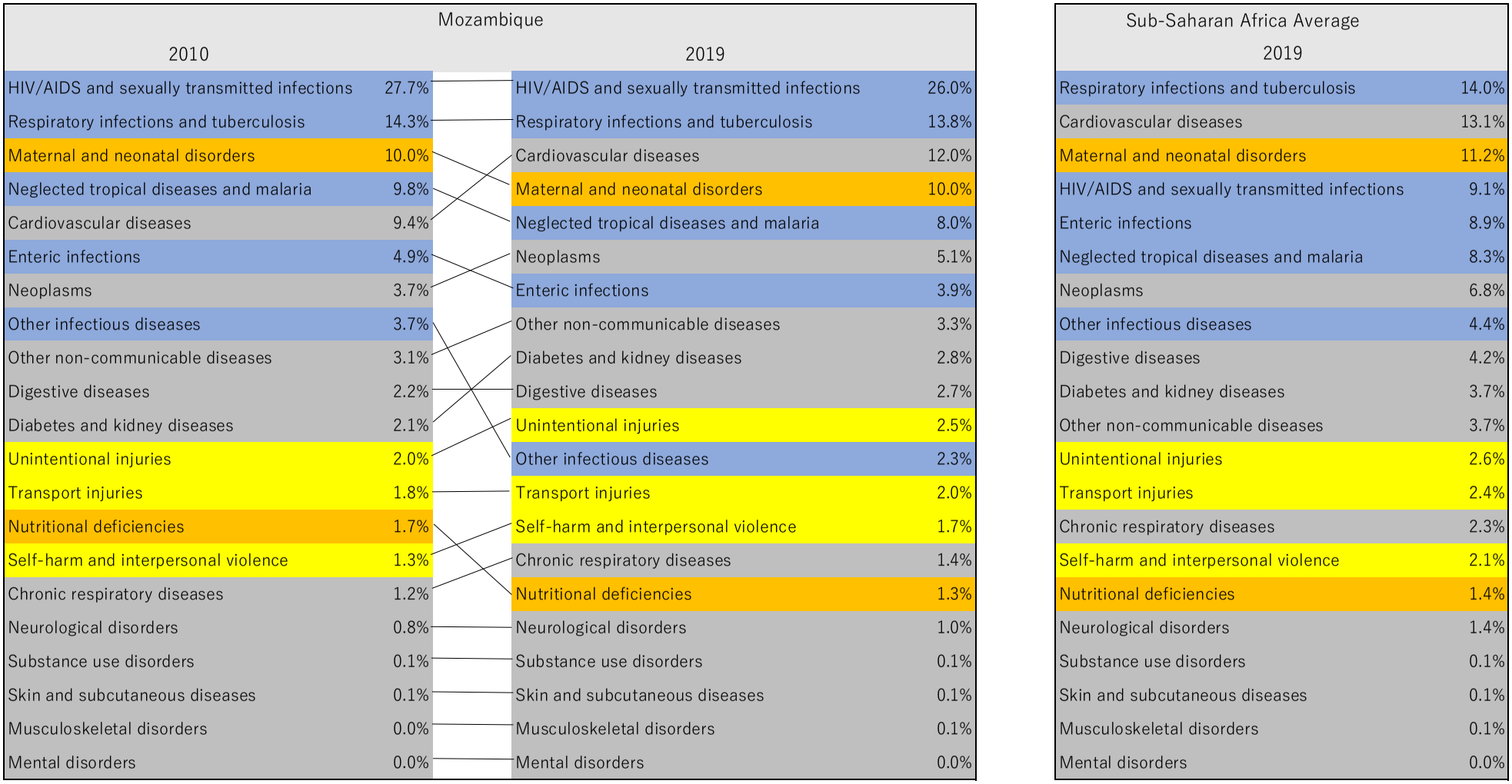
Appendix

SDGs Global Indicators: Mozambique, Angola, Nigeria

		モザンビーク/ Mozambique			アンゴラ/ Angola			ナイジェリア/ Nigeria		
グローバル指標名 Global Indicator Name		Value	Year	Rating	Value	Year	Rating	Value	Year	Rating
ゴール１：あらゆる場所のあらゆる形態の貧困を終わらせる	Goal 1: End Poverty in all its forms everywhere									
国際的な貧困ラインを下回って生活している人口の割合	Poverty headcount ratio at $1.90/day (%)	55.5	2020		21.0	2020		47.6	2020	
国際的な貧困ラインを下回って生活している人口の割合	Population living below the national poverty line(%)	46.1	2014		36.6	2008		46	2009	
ゴール２：飢餓を終わらせ、食料安全保障及び栄養改善を実現し、持続可能な農業を促進する	End hunger, achieve food security and improved nutrition and promote sustainable agriculture									
栄養不足蔓延率	Prevalence of undernourishment (%)	27.9	2017		25.0	2017		13.4	2017	
５歳未満の子供の発育阻害の蔓延度（WHO子ども成長基準で、年齢に対する身長が中央値から標準偏差-2未満）	Prevalence of stunting in children under 5 years of age (%)	43.1	2011		37.6	2016		43.6	2016	
５歳未満の子供の栄養不良の蔓延度（WHOの子ども成長基準で、身長に対する体重が、中央値から標準偏差+2超又は-2未満）（タイプ別（やせ及び肥満））	Prevalence of wasting in children under 5 years of age (%)	6.1	2011		4.9	2016		10.8	2016	
肥満の蔓延度（成人）	Prevalence of obesity, BMI ≥ 30 (% of adult population)	7.2	2016		8.2	2016		8.9	2016	
ゴール３ あらゆる年齢のすべての人々の健康的な生活を確保し、福祉を促進する	Goal 3 Ensure healthy lives and promote well-being for all at all ages									
妊産婦死亡率	Maternal mortality rate (per 100,000 live births)	289	2017		241.0	2017		917	2017	
専門技能者の立ち会いの下での出産の割合	Proportion of births attended by skilled health personnel	54.3	2011		49.6	2016		40.3	2017	
新生児死亡率	Neonatal mortality rate (per 1,000 live births)	27.8	2018		28.5	2018		36.0	2018	
５歳未満児死亡率	Mortality rate, under-5 (per 1,000 live births)	73.2	2018		77.2	2018		119.9	2018	
非感染者1,000人当たりの新規HIV感染者数（性別、年齢及び主要層別）	Number of new HIV infections per 1,000 uninfected population, by sex, age and key populations	5.3	2018		1.0	2018		0.7	2018	
抗レトロウイルス薬を利用しているHIVを保有する成人の割合（%）	People living with HIV receiving antiretroviral therapy (%)	56	2018		27.0	2018		53	2018	
10万人当たりの結核感染者数	Tuberculosis incidence per 100,000 population	551	2018		355.0	2018		219	2018	
発熱した5歳未満児の適切な抗マラリア薬による治療を受けている割合（%）	Proportion of children under 5 with fever who are treated with appropriate anti-malarial drugs (%)	98.6	2018		76.7	2016		20.6	2017	
10万人当たりのマラリアによる死亡率	Malaria mortality rate (per 100,000 population)	48.9	2018		43.6	2018		48.9	2018	
顧みられない熱帯病に対する予防的な化学療法のカバレッジ（%）	Coverage of Preventive Chemotherapy for Neglected Tropical Diseases (%)	72.8	2018		25.3	2018		64.6	2018	
心血管疾患、癌、糖尿病、又は慢性の呼吸器系疾患の死亡率（30-70才の成人 %）	Age-standardised death rate due to cardiovascular disease, cancer, diabetes, or chronic respiratory disease in adults aged 30-70 years (%)	18.4	2016		16.5	2016		22.5	2016	
10万人当たりの道路交通事故による死亡率	Traffic deaths (per 100,000 population)	30.1	2016		23.6	2016		21.4	2016	
1,000人当たりの青年期（15～19歳の女性）の出生率	Adolescent fertility rate (births per 1,000 adolescent females aged 15 to 19)	148.6	2017		150.5	2017		107.3	2017	
サービスカバレッジのユニバーサルヘルスカバレッジ(UHC)指標	Universal health coverage (UHC) index of service coverage (worst 0-100 best)	46	2017		40.0	2017		42	2017	
10万人当たりの家庭内及び外部の大気汚染による死亡率	Age-standardized death rate attributable to household air pollution and ambient air pollution (per 100,000 population)	110	2016		119.0	2016		307	2016	
WHO推奨のワクチンのうち2種を接種して生存する乳児の割合	Percentage of surviving infants who received 2 WHO-recommended vaccines (%)	80	2018		50.0	2018		57	2018	
出生時平均余命	Life expectancy at birth (years)	60.1	2016		62.6	2016		55.2	2016	
主観的健康感尺度	Subjective well-being (average ladder score, worst 0-10 best)	4.9	2019		3.8	2014		5.3	2018	
ゴール４ すべての人々への包摂的かつ公正な質の高い教育を提供し、生涯学習の機会を促進する	Goal 3 Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all									
初等教育純就学率（%）	Net primary enrollment rate (%)	93.9	2018		78.0	2011		64.1	2010	
識字率（15-24才 %）	Literacy rate (% of population aged 15 to 24)	70.9	2017		77.4	2014		75	2018	
ゴール５ ジェンダー平等を達成し、すべての女性及び女児の能力強化を行う	Achieve gender equality and empower all women and girls									
近代的手法によって、家族計画についての自らの要望が満たされている出産可能年齢（15～49歳）にある女性の割合（%）	Demand for family planning satisfied by modern methods (% of females aged 15 to 49 who are married or in unions)	55.5	2015		29.8	2016		42.8	2018	
ゴール６ すべての人々の水と衛生の利用可能性と持続可能な管理を確保する	Ensure availability and sustainable management of water and sanitation for all									
安全に管理された飲料水サービスを利用する人口の割合（%）	Population using at least basic drinking water services (%)	55.7	2017		55.8	2017		71.4	2017	
基本的な公衆衛生サービスを利用する人口の割合（%）	Population using at least basic sanitation services (%)	29.4	2017		49.9	2017		39.2	2017	

出典:2020 Africa SDGs Index and Dashboards と外務省 Japan SDGs Action Platform
Source: 2020 Africa SDGs Index and Dashboards and Japan SDGs Action Platform, MOFA.
: Major challenges, :Significant challenges, : Challenges remain, : SDG achieved, : Information unavailable

Trends in Major Causes of Death at All Ages in Mozambique and Sub-Saharan Africa



Source : Prepared by Survey team based on Institute for Health Metrics and Evaluation (IHME), GBD Compare Data Visualization. Seattle, WA: IHME, University of Washington. Available from http://vizhub.healthdata.org/gbd-compare. (Accessed 2020.11.20)

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