Executive summary

Objectives

- This brief explores trends in health expenditure and resource allocation in Mozambique between 2014 and 2018. It establishes a baseline for future assessments, with the objective of ensuring that resources continue to shift in alignment with the priorities laid out in the 2017 Investment Case for Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition (RMNCAH-N). This analysis can be carried out annually using the data produced by routine information and management systems.

Data and limitations

- The main data sources were BOOST/Sistema de Administração Financeira do Estado (e-SISTAFE) for health expenditure and e-SIP saúde (central HR database) for data on human resources. The Ministry of Health’s (MoH) survey data on off-budget health expenditures - Inquérito dos Fundos Externos (IFE) - was also used to analyze donor expenditures that are not tracked through e-SISTAFE. However, data availability issues limit its use, as complete data from IFE is only available until 2017.
- This brief reclassifies health expenditures into the following categories: operational expenditures of health care facilities; infrastructure development; institutional and administrative support; medicines; and spending to combat specific diseases. This was done using administrative codes and a detailed examination of the program names and codes.
- An added value of this analysis is that it assigns expenditures to the country’s four levels of care and re-classifies unspecified spending in e-SISTAFE. It also applies the same classification to off-budget expenditures. While this re-classification strengthens the dataset for further analysis, its ex-post nature leaves some margin of error.
- Resource allocations were identified using data produced by the available routine information and management systems for all priorities we can meaningfully analyze, acknowledging that the Investment Case includes priorities beyond those discussed here.

Main findings and recommendations

Despite an overall decline in health expenditure since 2013, driven by wavering external funds, more domestic resources have been mobilized for health during the period analyzed. After a decline in real terms between 2014-2017, domestic funds for health increased again in 2018 and made up 8.8 percent of total government expenditure, up from 7.1 percent in 2013 and 8.5 percent in 2014.

Uncertainty in external funds and lack of credibility of domestic allocations for health may hinder planning, budgeting, and, ultimately, executions. During 2016-2018, on-budget vertical funds – external on-budget funds managed by donors and directly administered to the ultimate beneficiaries – had much higher revised than initial allocations, but executions failed to catch up. ProSaude also exhibited low execution rates, indicating that donors do not disburse the full amount of their commitments. Conversely, domestic allocations for health were consistently revised downward after mid-year adjustments, which can be attributed to government-wide weaknesses in planning and financial management, low domestic revenue mobilization, cash rationing practices, and a high level of arrears.
During 2014-2018, domestic funds for health were largely dedicated to operational expenses of health facilities, with a high share on personnel, followed by administrative expenditures. On-budget external support is much more focused on health systems strengthening but is shifting toward a higher share of disease-specific spending. Off-budget funds, still a very significant portion of health expenditures (40% in 2017), are overwhelmingly focused on disease-specific programs, increasingly prioritizing malaria and continuing to fund HIV-AIDS programs over other Maternal and Child Health (MCH) programs. The earmarking of funds towards specific disease-related interventions and the decline in vertical funds drive falling investments in MCH.

Domestic spending on primary care increased 35 percent in real terms between 2014-2018, from an estimated 25 to 30 percent\(^3\) of recurrent domestic health expenditure. While this is a positive trend, the share of recurrent domestic health expenditure on primary care is considerably lower than the median of 65 percent for low-income countries. Investment in primary care is one of the main pillars of the IC, along with expanding demand for health services and changing behaviors and investing in the first-line reference for emergencies.

Recurrent spending and investment in secondary level care have increased significantly, but this trend must be accompanied by investments in primary care and an expansion of rural health centers. Domestically funded expenditures on secondary facilities increased 93 percent in real terms in 2018 from 2016 levels. Secondary facilities—rural, general, and district hospitals—also received the greatest infrastructure spending in 2018. While investing in first-line hospitals, such as district hospitals, is recommended in the Investment Case (IC) to reduce maternal mortality, it must be accompanied by investments in primary care to expand coverage and make referral networks effective.

The percentage of institutional deliveries—a key intermediate outcome for reducing maternal mortality—greatly improved from 54 percent in 2011 to 73 percent in 2015. The increase may reflect a more efficient and better-aligned use of resources. For example, 500 MCH nurses were added to the MoH’s staff just between 2016-2018. Nevertheless, it is imperative for domestic resources to continue to be channeled to Maternal and Child Health, as external funds for MCH programs have been declining.

Despite increases in district-executed health expenditures, spending remains centralized and regional inequities persist. While district-executed health expenditure increased from 14 to 24 percent between 2014 and 2018, it is overwhelmingly fueled by personnel expenditures, not discretionary spending—unearmarked transfers over which districts have the autonomy to make decisions. In 2018, the central level executed more than half of health expenditures. Three provinces—Nampula, Tete, and Zambezia—had some of the lowest non-central per capita health spending. These provinces display some of the worst health outcomes, such as chronic infant malnutrition, in the country. They also have the lowest density of medical professionals, including maternal and child nurses and midwives.

A few key recommendations emerge from this analysis: 1) Increasing the share of domestic resources for health is imperative given declining on-budget external expenditures and the unpredictability of external funds for health; 2) More timely and credible allocations for health are required for more effective planning; development partners should provide more accurate and timely forecasts of full contributions, while domestic health expenditures stand to gain from more realistic allocations; 3) Investment in secondary care facilities must be accompanied by the strengthening of referral networks which start with improved community and primary care and prevention, and an expanded network of Type I\(^4\) health centers; 4) Improving the accuracy of expenditure recording in e-SISTAFE would benefit future analyses. As noted above, a large share of on-budget health expenditure is classified as “unspecified health spending,” necessitating a detailed analysis of individual program names and administrative codes. Future assessments of how well public health expenditures with IC priorities would benefit from a more precise recording of expenditures.

Context and significance

Despite Mozambique’s significant improvements towards the achievement of the Sustainable Development Goals, Universal Health Coverage, and RMNCAH goals, many challenges persist. Maternal mortality did not change between 2011 and 2015, neonatal mortality declined at a slow pace, and challenges and inequalities persist in health services.

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\(^3\) Excludes expenditure on medicines and infrastructure investment.

\(^4\) Primary care health facilities are classified by size/complexity and location. In rural areas, these include (in ascending order), Type I and II health centers, followed by first line referral district/rural hospitals.
Macro-fiscal vulnerabilities in the country challenge its capacity to raise domestic revenue and ensure budget credibility, affecting health expenditures. In 2016, the revelation of the country’s undisclosed debt debilitated Mozambique’s economy and raised concerns among development partners regarding accountability for external funds. Global demand and commodity prices also influenced a slowdown in investment in gas and coal, two key industries for Mozambique. The average rate of growth dropped from 8.4 percent between 2003 and 2015 to 3.3 percent between 2016 and 2019. As Mozambique emerges from this crisis, it is crucial that the country’s limited resources for health are used efficiently and equitably.

The Investment Case for RMNCAH-N, or IC, was initiated in 2016 with the aim of prioritizing the national health strategic plan. While focusing on reproductive, maternal, neonatal, child and adolescent health and nutrition, the IC also defines priorities for strengthening the National Health Service. It focuses on coverage, quality, and access to essential primary health care services, as well as systems strengthening interventions such as improving data collection and monitoring. The Investment Case also promotes a greater volume, efficiency, and equity of domestic and external health financing. Some of its concrete priorities include increased regional allocation (more expenditure at district level, and greater allocation to district hospitals); expansion of the network of primary health care; increased efficiency and effectiveness in both district hospitals and rural health centers; better planning, budgeting and monitoring of plans and funds at the provincial and district levels; and higher share of domestic expenditure towards RMNCAH-N. This brief examines trends of health expenditures and resource allocation between 2014-2018. Given the implementation of the Investment Case (IC) started in 2016, this brief aims to establish a baseline for the allocation of health resources before and immediately after. This analysis mostly draws on annual data produced by the available routine information and management systems to ensure resources continue to shift in alignment with the priorities set in the IC.

How is the health system organized?

Health care in Mozambique is mainly provided publicly by the National Health Service. A group of institutions receive autonomous budget allocations and can execute expenditures. These include the Ministry of Health (MoH), at the central level, 11 provincial health directorates, 150 District Services for Health, Gender, the Child, and Social Action, the Central Agency for Medicines and Medical Articles, as well as several hospitals and other agencies.

Within the National Health Service, there are four levels of care. The primary level comprises health posts and centers providing basic preventive and curative services. Rural (19), general (7), and district hospitals (23) lie at the next level of care, with some of these also providing surgical services. Diagnostic and specialist services are available at the tertiary level of care across seven Provincial Hospitals. The highest, or quaternary, level comprises the Central Hospitals of Maputo, Beira, Nampula, and Quelimane, as well as two specialized hospitals.

How is the system funded?

The health sector is financed by the state budget and external funds from donors, with a small contribution from out-of-pocket payments. Taxes and own revenues fund the state budget, Orçamento do Estado, hereafter designated as domestic resources or domestic funds for health. External funds are contributed by development partners through General Budget Support, pooled funds, namely ProSaude, and the Primary Health Care Strengthening Program (PHCSP), as well as vertical funds.

ProSaude and PHCSP are both on-budget pooled funding mechanisms, but while ProSaude is tied to a broader health program, PHCSP links disbursements to the achievement of specific indicators. Vertical funds are managed by the donors, with some degree of consultation with the MoH, and are often disbursed through non-governmental organizations to the ultimate beneficiaries rather than the government itself.

Spending can be on and off-budget. On-budget spending is recorded in the Ministry of Economy and Finance accounts through the government’s electronic financial management information system, e-SISTAFE. Expenditure that is not entered into this system is off budget. All domestic and pooled funds are on-budget, while vertical funds can be on or off-budget. In 2017, domestic resources contributed 47 percent to health spending; ProSaude 5 percent; and vertical funds (on and off budget) 48 percent.

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6 Health expenditure in this analysis refers to public health expenditures and excludes out-of-pocket payments and other private expenditure.
7 General Budget Support, despite being a consistent source of financing over the years for priority sectors – including health– was suspended in 2016 and remains suspended in response to the country’s loan scandal.
What are the main trends in health expenditures?

Real health expenditure peaked in 2013, mostly fueled by a fast rise in external funds. As these funds tapered off in 2014, actual expenditure slowly decreased until 2017. Figure 1 below depicts health expenditures by source of funding from 2009-2017. Data on off-budget external expenditures for 2018 was not available at the time of writing. Mozambique’s high inflation rates contributed to the decrease in actual health spending, particularly in 2016, when the country experienced a large uptick in inflation. However, the stagnation of external funds from 2013-2016 and the decline in 2017 are substantial in nominal terms as well.

ProSaude funds fell considerably during the period analyzed, but preliminary data indicates a recovery in 2019. ProSaude funds fell from approximately MT 2.6 billion (USD 78 thousand) in 2014 to MT 778 million (USD 11.6 million) in 2018. The decline can be explained by donors switching to alternative funding modalities in the aftermath of the undisclosed loan scandal. Still, the 2019 State Budget contains ProSaude allocations of roughly MT 2.1 billion, or USD 31 million, and a preliminary execution report shows executions of MT 1.4 bn (USD 20.5 million).

The Primary Health Care Strengthening Program, which began in 2017, is another pooled fund for health that can serve to mitigate the decline in on-budget funds in recent years. However, unlike ProSaude, it links monetary disbursements to the achievement of specific indicators, ensuring greater accountability. In 2018, PHCSP transferred USD 23.8 million for the health sector to Mozambique’s Central Bank as an advance of performance-based payments.

Domestically funded health expenses have risen considerably over the past nine years, potentially in response to external resources becoming a less reliable source of funding. Domestic health expenses increased by 200 percent in real terms between 2009 and 2018. Domestic funds for health declined in real terms between 2014-2017 (debt crisis) but recovered in 2018 (Fig.2). In nominal terms, domestic resources for health rose from approximately MT 4bn in 2009 to MT19 bn in 2018. The share of health expenditures financed with domestic resources also increased from about 29 percent in 2013 to 47 percent in 2017. Preliminary analysis of the 2019 State Budget, however, reveals that domestic funds for health are likely to have declined again in 2019.

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7 Real expenditure was computed by establishing 2009 as the base year and deflating subsequent years by the CPI. CPI was retrieved from the IMF.
Table 1: Change in Initial and Revised Allocations in the MoH to execute late commitments by development partners, as further explained below.

ProSaude’s low and declining execution rates, at 71 percent in 2018, indicate that donors do not disburse the full amount of their commitments to the ProSaude common fund. ProSaude execution has oscillated over the past decade peaking at 88 percent in 2013 and reaching a low of 65 percent in 2016.

In alignment with IC recommendations, health is increasingly prioritized within government expenditure. In 2018, domestically funded health expenditures10 made up approximately 8.8 percent of total government expenditures11. If we include on-budget external support for health, that is closer to 10 percent. This is an important achievement as it also delivers on one of the goals of the PHCSP of having at least 8.5 percent of government expenditure allocated to health in 2018. The share of government expenditure allocated to health is moving in the right direction but still falls short of the 15 percent share committed to under the Abuja Declaration in 2001.

Execution rates

The execution of the health budget – the share of the budget that is disbursed and spent – has decreased since 2014, mostly due to the poor execution of external funds. The share of health executions over revised budget allocations was 85 percent in 2018, down from 92 percent in 2014. This compares to a 95 percent budget execution rate in education, 94 percent execution rate in infrastructure, 85 percent in transportation and communications, and 7 percent in agriculture.12

The very low execution rates of on-budget vertical funds (49% in 2018) stem from the lack of absorptive capacity in the MoH to execute late commitments by development partners, as further explained below. ProSaude’s low and declining execution rates, at 71 percent in 2018, indicate that donors do not disburse the full amount of their commitments to the ProSaude common fund. ProSaude execution has oscillated over the past decade peaking at 88 percent in 2013 and reaching a low of 65 percent in 2016.

Figure 3: Declining health execution rates due to low execution of external funds

Source: BOOST/e-SISTAFE. Note: The figure shows the execution rates for expenditures classified as Health (BOOST—Funct: 07 Saude) as total expenditures over revised allocations.

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10 Excludes all external support, including ProSaude.
11 Calculated by dividing domestically funded health expenditures by total domestic expenditure excluding Investimento Externo. The government’s calculation of this share in a slightly different in that debt servicing is also deducted from the denominator, arriving at 8.87% in 2018.
Significant changes between initial and revised allocations of vertical funds may hinder planning, budgeting, and, ultimately, executions. Since 2016, vertical funds have had substantially higher allocations after mid-year adjustments (revised allocations). This phenomenon is likely a response to the country’s undisclosed loan and ensuing debt crisis, which prompted many donors to reduce commitments to pooled funds and general budget support in favor of vertical funds. However, expenditures did not increase accordingly due to a host of absorptive capacity issues, especially related to planning and procurement capacity and the tardy transfer of resources to provinces and districts. In 2018, initial allocations for on-budget vertical funds were MT 2.5 billion; revised allocations were MT 6.2 billion, and expenditure was about MT 3 billion. Conversely, revised allocations for domestic funds are lower than initial allocations. Government-wide weaknesses in planning and financial management, low domestic revenue mobilization, and outdated and ineffective cash rationing practices reduce the credibility of the domestic budget and often lead to underspending and low efficiency. The high level of arrears also contributes to the low predictability of budget allocation.

Functional composition: what is being financed and by who?

Most on-budget health expenditure is recurrent, a trend that has intensified over the period analyzed. Recurrent expenditures are typically incurred every year to cover the costs of regular health activities; they comprise expenditures on personnel and goods and services. The share of recurrent expenditure has increased from 61 to 74 percent between 2014 and 2018. Investment expenditures comprise mainly capital goods but may also include one-off expenditures on goods and services and personnel if they are deemed to serve a longer-term goal (e.g., money paid for the services of an engineering firm building new infrastructure.) It is important to note that all on-budget expenditures by development partners are automatically classified as investment expenditures, even if they are not strictly so. Given the decline in the share of external funds for health vis a vis domestic funds, the decline in investment expenditure is to be expected.

Expenditures can also be disaggregated into three categories – personnel, goods & services, and capital goods. Table 1 below depicts the share of spending across these categories by type of on-budget funds. Salaries and other personnel expenses are the largest category in total on-budget health spending (44% in 2018), lower than in 2016 (48%) but higher than in 2014 (36%). The share allocated to capital goods increased in 2018 (16%) over the previous two years (7% in 2016). Vertical funds financed by development partners invested most in capital goods (53% in 2018), while the pooled fund Prosaude was mainly made up of personnel expenditures.

<table>
<thead>
<tr>
<th>% change: initial and revised allocations</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
</tr>
<tr>
<td>Domestic resources</td>
</tr>
<tr>
<td>ProSaude</td>
</tr>
<tr>
<td>Vertical funds</td>
</tr>
<tr>
<td>Total, health</td>
</tr>
</tbody>
</table>

Table 1: Almost half of domestic resources for health funded personnel expenses in 2018

<table>
<thead>
<tr>
<th>Total, health</th>
<th>Domestic</th>
<th>ProSaude</th>
<th>On-budget vertical funds</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personnel</td>
<td>44%</td>
<td>47%</td>
<td>88%</td>
</tr>
<tr>
<td>Goods and services</td>
<td>40%</td>
<td>41%</td>
<td>7%</td>
</tr>
<tr>
<td>Capital goods</td>
<td>16%</td>
<td>11%</td>
<td>5%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: BOOST/e-SISTAFE 2018.

In 2018, domestic funds for health were allocated somewhat evenly between primary care provision (26%), administrative and institutional support (21%), tertiary & quaternary care combined (19%), and medicines (18%). In 2017 and 2018, primary care provision surpassed institutional & administrative support as the top expense for domestic funds. In 2018, almost all domestic funding for primary care was spent on general primary care – operating expenditures of health posts and centers, excluding spending on programs that address specific diseases. Two percent of domestic health expenditure was allocated to disease-specific programs. Overall, an estimated 47 percent of domestic resources funded recurrent expenses of health.

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13 Initial budget proposals are submitted to the central government between February and April. Revised allocations are consolidated in August and approved first by council of ministers by mid-September and finally by the Parliament by mid-December.

14 Excludes off-budget data, as IFE does not allow for this classification.
facilities (not including medicines) over 2014-2018. For comparison purposes, an estimated 36 percent of domestic health expenditures funded recurrent expenses of health facilities in 2010.\textsuperscript{15}

**The decline in domestic funding for administrative & institutional support expenditure is significant.** At its peak in 2010, it made up 57 percent of domestic funds for health, compared to 21 percent in 2018.\textsuperscript{16} Spending on medicines as a share of domestic resources remained stable in 2014-2019, while the share allocated to infrastructure declined between 2014-2017 and rose again in 2018.

Disease-specific programs make up the lion’s share of external funds, particularly in off-budget expenditures. Such programs are funded mostly by external vertical funds and focused on specific diseases, namely HIV-AIDS, malaria, and RMNCAH-N programs such as child nutrition, vaccinations, and maternal and reproductive health. HIV-AIDS makes up the largest share of vertical funds (37%), at nearly MT 6.1 billion in 2017 (USD 102 million). External spending on malaria programs increased between 2014 and 2017, from about MT 1.4 billion to 4.5 billion (USD 75 million). In third place are nutrition programs (7%), followed by reproductive, maternal, and child health (6%). While spending on HIV remained the greatest external expenditure on health, and spending on malaria increased, spending on MCH programs decreased from 12 percent of external funds in 2014 to six percent in 2017.

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\textsuperscript{16} Ibid
Allocation of health resources and IC priorities

Resources for health service provision vs. health systems strengthening

Domestic spending on administration and institutional support fell since the implementation of the Investment Case started, while spending on secondary health facilities, medicines, and infrastructure development increased. The share of domestic health funds allocated to administrative and institutional support declined from 29 percent in 2016 to 21 percent in 2018. Conversely, domestic operational expenditures on secondary level facilities, including district hospitals, increased by 93 percent in real terms. Domestic spending on primary care increased 19 percent in real terms between 2016 and 2018. Domestic spending on infrastructure and medicines also increased during this period.

Domestic spending on primary care increased between 2014-2018, both as a share of domestic health expenditure and in real terms but remains low compared to other low-income countries (LICs) in the region. In 2018, operational expenditure on primary care, excluding medicines,\(^7\) made up roughly 30 percent of recurrent domestic health expenditure. WHO’s 2019 global health spending report found that, among 88 countries, the median share of primary care was 65% of government health expenditure in L1Cs and 66% in low-income Sub-Saharan African countries.\(^8\)

Domestic primary care spending increased 35 percent in real terms between 2014-2018, from an estimated 25 to 30 percent of recurrent domestic health expenditure. While this is a step in the right direction, primary care expenditure is still lagging. Countries like Mali (83%), Mauritania (56%) and Niger (61%) all spent a higher share of their current health expenditure on primary care. It is important to note that there is great variation across countries, depending on the share of donor support to health expenditures, as donor funds tend to be much more skewed toward primary care. In fact, as seen in the section above, 79 percent of external health expenditure (on and off-budget) funded disease-specific programs in 2017, most of which falls under primary care. The study also found, however, that LICs and lower middle-income that fund primary health care through government revenues tend to have better coverage.

### Table 2: Domestic and external funds are shifting away from administrative & institutional support

<table>
<thead>
<tr>
<th></th>
<th>Domestic resources</th>
<th>External resources*</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016</td>
<td>2018</td>
</tr>
<tr>
<td>Total</td>
<td>13,918</td>
<td>19,452</td>
</tr>
<tr>
<td>Primary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>3,610</td>
<td>5,152</td>
</tr>
<tr>
<td>Share</td>
<td>26%</td>
<td>26%</td>
</tr>
<tr>
<td>Disease-specific primary care</td>
<td>144</td>
<td>41</td>
</tr>
<tr>
<td>Share</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>General primary care</td>
<td>3,466</td>
<td>4,742</td>
</tr>
<tr>
<td>Share</td>
<td>25%</td>
<td>24%</td>
</tr>
<tr>
<td>Secondary</td>
<td>611</td>
<td>1,410</td>
</tr>
<tr>
<td>Share</td>
<td>4%</td>
<td>7%</td>
</tr>
<tr>
<td>Tertiary</td>
<td>970</td>
<td>1,080</td>
</tr>
<tr>
<td>Share</td>
<td>7%</td>
<td>6%</td>
</tr>
<tr>
<td>Quaternary</td>
<td>1,787</td>
<td>2,480</td>
</tr>
<tr>
<td>Share</td>
<td>13%</td>
<td>13%</td>
</tr>
<tr>
<td>Not a level of care</td>
<td>6,940</td>
<td>9,330</td>
</tr>
<tr>
<td>Share</td>
<td>50%</td>
<td>48%</td>
</tr>
<tr>
<td>Institutional and administrative support</td>
<td>3,990</td>
<td>4,080</td>
</tr>
<tr>
<td>Share</td>
<td>29%</td>
<td>21%</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>662</td>
<td>1,733</td>
</tr>
<tr>
<td>Share</td>
<td>5%</td>
<td>9%</td>
</tr>
<tr>
<td>Medicines</td>
<td>2,290</td>
<td>3,520</td>
</tr>
<tr>
<td>Share</td>
<td>16%</td>
<td>18%</td>
</tr>
</tbody>
</table>

Source: BOOST/e-SISTAFE. Expenditures are presented in million meticais (total) and as a share of domestically and externally funded health expenditure.

* External expenditures are on-budget only.

Note: upward arrows signal that the share of health expenditures for a given category increased between 2016 and 2018; downward arrows signal that the share decreased.

\(^7\) Excludes infrastructure and medicine expenditure. We are not able to include expenditures on medicines in this estimation, as not enough detail on medicine spending was provided at the time of writing to differentiate it by level of care.

On-budget external funding for health is much more focused on institutional & administrative support, although that also appears to be shifting. The share of on-budget external funds dedicated to administrative support dropped from 79 to 66 percent in 2016-2018. Meanwhile, the amount channeled to primary care increased dramatically, from 8 percent in 2016 to 33 percent in 2018. Externally financed institutional & administrative spending targets health systems strengthening, while domestic funds cover operational expenses of the several institutions that make up the health system, particularly the MoH and provincial directorates. In 2018, externally-funded programs promoting health systems strengthening included: Human Resources (HR) development (MT 458 million) and support for the MoH in retaining qualified HR (MT 109 million); PFM strengthening (MT 163 million); improving service delivery through e-SISTAFE (MT 252 million), among other programs that strengthen the health system. External funds also contributed to institutional/administrative infrastructure, which is discussed in the section below.

Infrastructure

Infrastructure spending inscribed in the State Budget was over MT 2 billion in 2018, roughly double the 2016 amount in real terms. In 2018, infrastructure was financed largely with domestic resources with a contribution from external on-budget funds. About 65 percent of total infrastructure spending went to health facilities; 30 percent went to administrative and support infrastructure, such as training centers and medicine warehouses, mostly financed by development partners. About 5 percent of infrastructure spending is unclassified in BOOST/e-SISTAFE.

The largest item for domestic spending on infrastructure was secondary facilities. In 2018, around MT 1.2 billion were invested in infrastructure spending on rural, general and district hospitals – the highest investment in these facilities since 2014. In fact, expenditure on secondary care infrastructure surpassed primary care infrastructure every year except in 2017 during the period analyzed. In 2018, approximately 30 percent of the investment in secondary care infrastructure came from external resources.

Investing in first-line hospitals (district and rural hospitals) must be accompanied by investments in primary care and an expanded network of rural health centers. Infrastructure spending on primary care facilities averaged MT 150 million per year over 2014-2018. After a dip 2016, it increased in 2017 and 2018 to an estimated MT 262 million. Tete, Zambezia and Nampula received the highest spending in primary care infrastructure both in 2017 and 2018. In 2018, investment in primary care infrastructure was overwhelmingly funded with domestic resources.

Medicines and contraceptives

Expenditure on medicines increased from approximately MT2.5 billion in 2013 to MT3.5 billion in 2018. Detailed and comprehensive data on medicines purchases was not available at the time of writing, but a preliminary 2019 MoH execution report indicates that more than double this amount was donated to the MoH as in-kind donations of medicines by development partners in 2019. Future analysis should examine whether flows and stocks of medicines for RMNCAH-N and other essential medicines have increased.

The number of modern contraceptive methods distributed from central and provincial deposits to health facilities increased by 52 percent between 2016 and 2019. The distribution of male condoms to health facilities increased by 47 percent in 2017-2019. Annual distribution of oral contraceptives (OCs), injectables, IUDs, and implants to health facilities have also increased (Fig 5). This increase is a positive trend considering the IC priority of continued growth in the supply and use of contraception and family planning methods, with the ultimate goal of reducing fertility rates and maternal and child mortality. Data from Family Planning 2020 estimates that the prevalence of modern contraceptives has increased (mCPR) from 20.5 in 2014 to 35 in 2019 among married women.

![Figure 5: Increased distribution of contraceptives to health facilities](image-url)

Note: This figure depicts flow of physical units of selected modern contraceptives in 2017-2019. It represents the distribution of contraceptives from central and provincial deposits to health facilities. Data obtained from the Central Agency for Medicines and Medical Articles.

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19 More information regarding the classification of infrastructure spending by donors might be taking place off-budget and not have been tracked by IFE.
20 It must be noted that these are merely estimates. E-SISTAFE does not record infrastructure spending as its own category, and this classification was obtained by examining program names
22 Analysis based on data provided by Central Agency for Medicines and Medical Articles
Distribution of health expenditures by administrative levels

As the IC clearly states, planning, budgeting, and expenditures should favor District Directorates or autonomous budget holder health facilities directly, as it is at that level that inputs are transformed into activities and results. However, 51 percent of on-budget health expenditures in 2018 were executed centrally. Domestic resources had a slightly lower share of central expenditure (46%) and a higher share of district-executed expenditure (28%). Eighty percent of on-budget vertical funds were centrally executed, while ProSaude funds were mostly executed at the provincial level (81%). The MoH executed 39 percent of expenditures, followed by the collective executions of Districts (24%) and Provincial Directorates (12%). Central and provincial hospitals slightly increased their executions (11 to 12 percent and four to five percent, respectively), while district hospitals execute only one percent of on-budget health expenditure.

District-level executions rose considerably between 2014-2018, but districts’ discretionary spending remains limited. The share of on-budget health expenditures executed at the district level increased from 14 to 24 percent between 2014 and 2018 (Table 3). However, this increase is fueled by shifting personnel expenses to districts: in 2014, 31 percent of personnel costs were executed by districts; in 2018, that was 49 percent. Ninety-two percent of district-executed expenditures are personnel expenses. Provincial-executed health expenditures also encompass a high share of personnel expenditures (60%) but have seen increases in spending on hospitals, equipment, training, and infrastructure for primary care facilities.

Most of the spending on medicines, infrastructure, and institutional & administrative support takes place at the central level. Provincial health expenditure is split between institutional and administrative support (30%) and spending on tertiary (18%), quaternary (16%), and primary (13%) levels of care. Central level spending was mostly allocated towards institutional and administrative support (37%), medicines (27%), and the quaternary level (13%).

Districts have had consistently high execution rates between 2014-2018, with executions hovering around 100 percent of revised budget allocations. Provincial execution rates declined between 2015 and 2017 but recovered in 2018. Centrally executed health expenditures have the lowest execution rates. This is largely because on-budget vertical funds have very low execution rates and are overwhelmingly executed at the central level.

Table 3: Share of district-executed health expenditure on the rise, but about half of health spending remains central24

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>48%</td>
<td>54%</td>
<td>52%</td>
<td>55%</td>
<td>49%</td>
<td>51%</td>
</tr>
<tr>
<td>Provincial</td>
<td>39%</td>
<td>31%</td>
<td>31%</td>
<td>27%</td>
<td>27%</td>
<td>25%</td>
</tr>
<tr>
<td>District</td>
<td>12%</td>
<td>14%</td>
<td>17%</td>
<td>18%</td>
<td>24%</td>
<td>24%</td>
</tr>
</tbody>
</table>

Source: BOOST/e-SISTAFE. Includes all on-budget expenditure (domestic and external).
Note: Three administrative levels—central, provincial, and district—refer to the levels at which the budget is finally executed. Central level spending is executed mainly by the MoH, Central Agency for Medicines and Medical Articles, and central hospitals, but also by other ministries, national councils such as the National AIDS council, and others. Provincial spending is mainly executed by province directorates and delegations and provincial hospitals. District-level spending is executed mostly by district directorates.

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24 Three administrative levels – central, provincial and district- refer to the levels at which the budget is finally executed. Central level spending is executed mainly by the MoH, Central Agency for Medicines and Medical Articles, and central hospitals, but also by other ministries, national councils such as the National AIDS council, among others. Provincial spending is mainly executed by province directorates and delegations and provincial hospitals. District level spending is executed mostly by district directorates.
Tete and Maputo Province had the lowest budget execution rates, 88 and 87 percent, respectively. These rates might suggest that these provinces did not have the capacity to execute the allocations made after mid-year adjustments. Maputo City had the highest execution rates.

Distribution of health expenditure by region

Zambezia (16%), Nampula (14%), and Sofala (11%) were allocated the greatest shares of non-central health expenditure, but per capita allocations tell a different story. Zambezia increased its share from 13 percent of health expenditures in 2012 to 16 percent in 2018. Nampula’s share of non-central health expenditures decreased from 17 to 14 percent between 2012 and 2018, despite an estimated average population growth of 6% per year between 2012 and 2017. Tete’s share of expenditures remained unchanged, at around 7%.

Zambezia, Tete, Nampula, and Manica were allocated the least non-central expenditures per capita in 2018 despite suffering from higher rates of infant malnutrition (Figure 7 below). Zambezia’s per capita expenditure increased between 2016 and 2018, while Nampula’s fell. Maputo City, Inhambane, and Sofala received the most non-central per capita public health expenditure. We cannot make inferences regarding the geographic distribution of medicines and infrastructure spending, as those are overwhelmingly executed at the central level and do not feature in the graph below.

However, it can be inferred that Zambezia, Tete, Nampula are likely to have the lowest per capita current expenditure on primary care, particularly on personnel, as most of the primary care level spending is executed at provincial and district levels.

Human resources

The number of staff in the health sector has grown over the years, but Mozambique still grapples with a critical shortage of health professionals. The ratio of health professionals – i.e., staff engaged in health-specific activities, namely doctors, nurses, midwives, and health technicians – to non-specific staff – staff engaged in support activities, such as administrative staff and ancillary workers (broadly classified as serventes) – has increased over the years as well, but is still skewed toward non-specific staff. In 2018, the ratio of medical professionals to non-specific staff within the health system was 30.5 / 26.8 (thousands).

Maputo City has by far the highest density of medical professionals (3 per 1,000 people), followed by Inhambane (1.6) and Gaza (1.5). In contrast, Maputo Province, Nampula, Tete, and Zambezia have the lowest densities, all below one medical staff per 1,000 people. Figure 8 below depicts the total number of health professionals by province in 2016 and 2018, as well as the density of health professionals in 2018.
The number of nurses and midwives has grown continuously every year between 2014 and 2018. The number of maternal nurses and midwives increased by over 500 staff between 2016 and 2018. Moreover, the number of MCH staff working in rural health centers has also increased, a critical input to reducing neonatal and maternal mortality, as laid out in the IC. Nevertheless, the country still experiences critical shortages of this essential staff and inequitable distribution across provinces. Maputo Province, Nampula, Tete, and Zambezia have the lowest densities of MCH staff, while Maputo City, Inhambane, and Gaza have the highest.

### Expenditure and outcomes

Three critical intermediate outcomes underlying child and maternal mortality rates show improvement over the past decade. Figure 9 below shows a positive trend in the administration of the first dose of measles vaccine (MCV1) and stable coverage of three doses of Diphtheria, Pertussis, and Tetanus vaccinations (DPT3). Interestingly, during the very sharp rise in spending of 2008-2013, the percentage of assisted deliveries barely moved. Perhaps this was because this sharp increase was driven mainly by vertical funds, specifically PEPFAR\(^25\) funding for HIV-AIDs\(^26\), and not necessarily on other RMNCAH services. The sharp increase in the percentage of assisted deliveries in 2015 is a positive trend, but Mozambique still fares worse than some of its neighbors- Malawi (90%).

### List of acronyms

- CPI: Consumer Price Index
- e-SISTAFE: Sistema de Administração Financeira do Estado (electronic financial management system)
- IC: Investment Case for Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition
- IFE: Inquérito dos Fundos Externos (MoH Survey for off budget external funds)
- IMF: International Monetary Fund
- MCH: Maternal and Child Health
- MoH: Ministry of Health
- PHCSP: Primary Health Care Strengthening Program
- RMNCAH-N: Reproductive, Maternal, Newborn, Child and Adolescent Health and Nutrition
- LICs: Low-income countries

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\(^{25}\) The President’s Emergency Plan For AIDS Relief (PEPFAR) is a United States governmental initiative to address the global HIV/AIDS epidemic and help save the lives of those suffering from the disease.

\(^{26}\) WBG 2016.