

Report No. 97175-ZW

Health Public Expenditure Review Zimbabwe



May 2015



WORLD BANK GROUP



Acknowledgments

This Public Expenditure Review (PER) was financed by the World Bank and developed by the World Bank Health, Nutrition and Population Task Team in collaboration with Zimbabwe's Ministry of Finance and Economic Development (MOFED) and Ministry of Health and Child Care (MOHCC), with the input of development partners. The PER is a follow-up to the Health Policy Note of August 2013.

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The team acknowledges the guidance of Olusoji Adeyi (Director, Health Nutrition and Population Global Practice), Abdo Yazbeck (Acting Practice Manager, Health Nutrition and Population Global Practice), Nginya Mungai Lenneiye (former Country Manager for Zimbabwe), Camille Lampart Nuamah (Country Manager for Zimbabwe) and Vijay Pillai (Country Program Coordinator for Zimbabwe). The team could not have completed this analysis without the leadership and ownership demonstrated by the MOHCC through Brigadier General Dr. Gwinji (Permanent Secretary). The team likewise appreciates the guidance and input from the MOFED's Mr. Churu (Principal Director for Budgets), Mr. Vela-Moyo (Director for Budgets), Ms. Matenda (Sr. Economist), Mr. Masiyanise (Deputy Accountant General), and Ms. Mudzi (Chief Accountant). The team wishes to acknowledge the following technical and senior staff from the MOHCC for their technical input and support: Ms. Machamire (Director of Finance and Administration), Mr. Mutyambizi (Chief Accountant), Dr. Mhlanga (Principal Director), Dr. Dhlakama (Principal Director), Mr. Gwati (Economist), and Mr. Banda (Acting Director).

The team gratefully acknowledges external partners who provided data and made time for interviews, including: the Department for International Development (DFID); IrishAid; the United States Agency for International Development (USAID) and USAID's Maternal and Child Health Integrated Program; the U.S. President's Emergency Plan for AIDS Relief (PEPFAR); the European Commission; UNICEF; Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ); the Embassy of Norway; the World Health Organization (WHO); and the Global Fund to Fight AIDS, Tuberculosis and Malaria. Local partner input and data were made possible by the Organization for Public Health Interventions and Development, Premier Service Medical Aid Society and Econet Wireless.

The report benefited from internal peer review comments by Owen Smith (Senior Health Economist), Gayle Martin (Senior Health Economist), and Okore Okorafor (Senior Health Economist) from the Health, Nutrition and Population Global Practice.

The team gratefully acknowledges input from external peer reviewers: Antony Daly (Deputy Basic Services Team Leader, DFID); Patron Mafaune (Provincial Medical Director, MOHCC); Nyasha Masuka (Provincial Medical Director, MOHCC); and Paolo Barduagni, Advisor, European Commission).

Contents

EXECUTIVE SUMMARY	VIII
1. BACKGROUND AND SCOPE OF THE PUBLIC EXPENDITURE REVIEW	1
1.1 BACKGROUND	1
1.2 SCOPE.....	1
2. OVERVIEW OF HEALTH OUTCOMES AND NEEDS	4
2.1 HEALTH STATUS AND HEALTH RISKS.....	4
<i>Key Health Indicators</i>	<i>4</i>
<i>Lifestyle and Risky Health Behaviors</i>	<i>8</i>
<i>Distribution of Health Status.....</i>	<i>9</i>
2.2 SERVICE UTILIZATION AND HEALTH-SEEKING BEHAVIOR.....	10
2.3 HEALTH INPUTS	14
<i>Distribution of Inputs to Service Delivery</i>	<i>14</i>
<i>Staffing.....</i>	<i>16</i>
<i>Quality of Care</i>	<i>17</i>
2.4 COVERAGE OF IMPORTANT PUBLIC HEALTH PROGRAMS	18
<i>Immunization</i>	<i>19</i>
<i>Maternal and Reproductive Health.....</i>	<i>19</i>
<i>Infectious Diseases</i>	<i>20</i>
<i>NCDs.....</i>	<i>20</i>
3. HEALTH EXPENDITURES	21
3.1 GOVERNMENT HEALTH EXPENDITURES.....	22
<i>Overview</i>	<i>22</i>
<i>MOHCC: Health Expenditure Analysis</i>	<i>24</i>
<i>GHE through the NAC.....</i>	<i>32</i>
3.2 DONOR FINANCING OF HEALTH EXPENDITURE	34
<i>Trends and International Comparisons</i>	<i>34</i>
<i>Programmatic Allocation of Donor-financed Health Expenditure.....</i>	<i>35</i>
<i>Two Donor-Funded Programs</i>	<i>37</i>
3.3 PRIVATE HEALTH EXPENDITURE.....	39
<i>Household OOP Spending.....</i>	<i>39</i>
<i>Private Prepayment Schemes.....</i>	<i>42</i>
3.4 EFFICIENCY ANALYSIS: LINKING PUBLIC SPENDING TO HEALTH OUTCOMES	43
<i>Methodology and Terms</i>	<i>43</i>
<i>Results</i>	<i>44</i>
4. PROSPECTS FOR ADDITIONAL FINANCING FOR HEALTH	47
4.1 FISCAL SPACE FOR HEALTH?	47

<i>Macroeconomic Developments and Fiscal Revenues</i>	47
<i>General Trends in Expenditure Allocation</i>	49
4.2 PROSPECTS FOR DOMESTIC GENERATION OF FUNDS FOR HEALTH	51
<i>General Tax Revenue</i>	51
<i>Earmarked Taxes</i>	51
<i>AIDS Levy</i>	52
<i>Excise Taxes</i>	52
<i>Public–Private Partnerships</i>	53
4.3 MOBILIZING EXTERNAL FUNDING	53
5. CONCLUSIONS AND RECOMMENDATIONS	56
5.1 CONCLUSIONS	56
5.2 RECOMMENDATIONS	56
ANNEX 1. ADDITIONAL TABLES AND FIGURES	59
ANNEX 2. INSTITUTIONAL BACKGROUND AND BUDGET PROCEDURES	60
INSTITUTIONAL BACKGROUND	60
OVERVIEW OF ZIMBABWE’S CURRENT BUDGET PROCEDURES	60
<i>Zimbabwe’s Reengineered Budget Process</i>	60
<i>Centralization</i>	61
<i>Fungibility</i>	61
ANNEX 3. EFFICIENCY ANALYSIS OF PUBLIC HEALTH EXPENDITURES	62
<i>General Methodology</i>	62
<i>Structural Efficiency Analysis—Methodology and Graphical Results</i>	63
<i>Current Efficiency: 2000–01 versus 2010–12 Expenditure Performance</i>	66
<i>Sample Regression Results</i>	67
ENDNOTES	71

Boxes

Box 1 Constraints to Quality of Health Services	18
Box 2 Practical Moves to Ease the Flow of Finance	25
Box 3 Allocative Efficiency Analysis Using Functional Allocations of Health Expenditure	26
Box 4 Constraints in the 2011/12 PICES and the 2014 RBF Midline Survey for Calculating OOP Spending	39
Box 5 Donor Spending Plans	55

Tables

Table 1 Socioeconomic Inequalities in MCH Services Utilization by Women, 15–19 Years (%)	11
Table 2 Staffing Levels for Select Critical Cadres, December 2014.....	16
Table 3 GHE in General Government Expenditures, 2012.....	26
Table 4 MOHCC Spending on Public Health Programs, 2009–13 (US\$ thousand)	28
Table 5 Donors' Health Expenditure Shares by Program Area, 2012	36
Table 6 HTF Expenditure, April–December 2013 (US\$ million)	37
Table 7 Impact of RBF Pilot on Key Maternal Health Care Services	38
Table 8 Mean OOP Spending by Expenditure Quintile	40
Table 9 CIMAS Key Figures, 2010–13 (US\$ thousand).....	42
Table 10 Changes in Zimbabwe's Efficiency Advantage	44
Table 11 Fiscal Trends and Projections (% of GDP)	49
Table 12 NAC Sources of Income, 2009–13 (US\$ thousand)	52
Table 13 Cigarette Tax Rates, Zimbabwe and Regional Peers	53

Figures

Figure 1 Life Expectancy at Birth, Total Population, 1960–2012 (years)	5
Figure 2 MMR Trends in Zimbabwe and SSA, 1990–c.2014	6
Figure 3 Trends in Child Mortality Indicators, Zimbabwe, 1989–94 to 2005–09	6
Figure 4 Causes of Mortality Among Children Under Five Years Old, 2011	7
Figure 5 Trends in HIV Prevalence among Adults (15–49 Years) and in Tuberculosis Prevalence and Incidence, SSA and Zimbabwe, 2004–12	7
Figure 6 NCD Contribution to Mortality in SSA, 2012	8
Figure 7 Distribution of Underweight Prevalence among Children	9
Figure 8 Per Capita Utilization of Public and Not-for-Profit Health Facilities, Poverty, and User Fees, 2012	10
Figure 9 Health-Seeking Behavior: Method of Treatment of Illness by Poverty Status, Evidence from 2011/12 PICES	11
Figure 10 Reasons for Not Seeking Medical Treatment among those who Fell Ill	12
Figure 11 Health-Seeking Behavior Across Quintiles: Evidence from Rural Areas, 2014	13
Figure 12 Inpatient and Outpatient Service Utilization by Wealth Quintile, 2010	13
Figure 13 Utilization of Hospitals versus Health Centers for Inpatient and Outpatient care in Rural Areas, 2014	14
Figure 14 Distribution of Health Facilities, by Province and Population Density	14
Figure 15 Provincial Distribution of Facilities, Nurses and Midwives, 2012	15
Figure 16 Distribution of Hospital Beds by Province, 2012	16
Figure 17 Quality Indicators for Antenatal Care Services, 1999–2009	17

Figure 18 Knowledge Scores for Health Workers across Provinces, 2011.....	18
Figure 19 Immunization Coverage (Primary Course Completed)	19
Figure 20 Central Government Spending on Health, 2013 (current US\$)	23
Figure 21 MOHCC Expenditure in Total and as a Share of General Government, 2009–13.....	25
Figure 22 Functional Classification of MOHCC Expenditure in Shares and Levels, 2010–13.....	27
Figure 23 Economic Classification of MOHCC Expenditure, 2010–13	29
Figure 24 International Comparisons and Benchmarks for Share of Wages in GHE	30
Figure 25 Government Spending on Hospitals and Health Centers, 2009–13	30
Figure 26 Share of Sources of Revenue in Hospitals and Health Centers (%).....	31
Figure 27 MOHCC per Capita Transfers to Hospitals and Health Centers versus Poverty by Province	32
Figure 28 Total and Composition of NAC Expenditure, 2009–13 (constant US\$ million).....	33
Figure 29 Activity Areas within NAC Programs and Interventions	33
Figure 30 ODA for Health and its Share of Total ODA, 2002–12	34
Figure 31 Development Assistance for Health Per Capita, Selected African Countries (constant 2011 US\$)	35
Figure 32 Shares of ODA Disbursement for Health by Purpose, 2002–12	36
Figure 33 Yearly Differences in Receipt of Urine Test During ANC Care.....	38
Figure 34 Incidence of Catastrophic Health Expenditure (nonfood)	41
Figure 35 Average User Fees and Extreme Poverty Prevalence by Province	42
Figure 36 Current Efficiency of Government Expenditures on Health, 2010–12 (with comparisons to 2000–01)	45
Figure 37 Government Revenues, 2007–14 (US\$ million).....	48
Figure 38 Spending on Social Sectors, 2009–13	50
Figure 39 Wages in Social Sectors, 2009–13.....	50
Figure 40 Total Revenue and Tax Revenue as a Share of GDP, 2008, 2010, and 2013.....	51
Figure 41 ODA in Sub-Saharan Africa, 2007–12	54

Abbreviations

AIDS	Acquired Immuno-Deficiency Syndrome
ANC	Antenatal Care
CIMAS	CIMAS Medical Aid Society
DFID	Department for International Development
DHIS	District Health Information System
GDP	Gross Domestic Product
GHE	Government Health Expenditures
HIV	Human Immuno-deficiency Virus
HAD	Health Development Assistance
HMIS	Health Management Information System
HNP	Health Nutrition and Population
HTF	Health Transition Fund
IFC	International Finance Corporation
IMF	International Monetary Fund
LIC	Low-Income Country
MCH	Maternal and Child Health
MDG	Millennium Development Goal
MICS	Multiple Indicator Cluster Survey
MIMS	Multiple Indicator Monitoring Survey
MMR	Maternal Mortality Ratio
MOFED	Ministry of Finance and Economic Development
MOHCC	Ministry of Health and Child Care
NAC	National AIDS Council
NCD	Noncommunicable Disease
NHA	National Health Accounts
NIHFA	National Integrated Health Facility Assessment
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OOP	Out-Of-Pocket
PER	Public Expenditure Review
PICES	Poverty, Income, Consumption and Expenditure Survey
RBF	Results-Based Financing
SSA	Sub-Saharan Africa
UNDP	United Nations Development Program
WDI	World Development Indicators
WHO	World Health Organization
ZDHS	Zimbabwe Demographic and Health Survey

Executive Summary

i. This Public Expenditure Review (PER) for health in Zimbabwe is an analytical report developed by the World Bank Health, Nutrition and Population Task Team working with the World Bank's Macroeconomics and Fiscal Management Global Practice team, Zimbabwe's Ministry of Finance and Economic Development (MOFED) and Ministry of Health and Child Care (MOHCC), with input from development partners. The PER builds on the 2013 Health Sector Policy Note coauthored by the World Bank and senior management of the MOHCC.

ii. The aims of the PER are to provide objective evidence to inform the allocation of resources to enable equitable, efficient, and sustainable health care provision and to highlight questions about health sector performance for policy makers and key stakeholders. The findings also aim to present Zimbabwe's health sector spending in an international and regional perspective, highlighting key issues for improving health outcomes.

iii. The PER addresses the following main questions:

- What are the health priorities on which spending should focus?
- What are the needs of the public sector relative to health inputs and outputs?
- What are the major sources of health financing in Zimbabwe?
- What are the total level, composition, and distributional aspects of health care spending?
- Do government expenditures enhance efficiency and equity in the sector?
- Given limited public spending levels, what sources of additional financing are possible? What mechanisms/reforms could be put in place to mobilize such financing?

iv. The PER is based on analysis of primary and secondary data as well as an extensive review of existing literature. The research was complemented by interviews with key stakeholders, and data collection from major development partners and domestic health funders, including private companies. Micro-level data from household and health facility surveys in May–August 2014 (primarily for the impact evaluation of the Results-Based Financing (RBF) program supported by the World Bank)¹ complemented these scarce data.

v. The analysis was constrained by the lack of expenditure data disaggregated at subnational level and the limitations of the most recent (2010) National Health Accounts (NHA) data. That round was conducted when the country was emerging from an economic crisis; the volatility of pricing and currency at the time made it essentially impossible to generate expenditure figures. NHA 2010 therefore gives only a sense of the relative rather than precise figures.

Background—some improving health outcomes, but with inequities in distribution of staff and service utilization, and gaps in quality of care

vi. Zimbabwe has made some gains toward key Millennium Development Goals (MDGs), despite persisting inequities in health outcomes and a rapidly growing burden of noncommunicable diseases (NCDs). Life expectancy at birth has improved and the country has seen a reduction in maternal and infant mortality, as well as in the prevalence of HIV and tuberculosis—though it is falling short of some other MDG targets. NCDs have become increasingly important, responsible for 31 percent of all deaths in 2012. Changing lifestyles that include unhealthy diets, physical inactivity, risky sexual behaviors (especially among youth), and high smoking prevalence are further complicating the health profile. The burden of diseases and health risks disproportionately fall on poor and rural populations.

vii. While the distribution of public and not-for-profit health facility infrastructure corresponds to the incidence of poverty, distribution of qualified health personnel does not. Zimbabwe has a large network of health facilities and there is a higher per capita distribution of facilities in provinces with higher incidence of poverty. The situation is different when it comes to distribution of key health personnel, who tend to be more concentrated in rich areas with lower incidence of poverty.

viii. Coverage of services improved between 2009 and 2013, but inequity in service utilization remains an issue and there is also a major deficit in quality of care. While all population segments in Zimbabwe were reported to forgo health care due to financial constraints to some degree, when seeking care poorer people typically rely on lower-quality, low-level facilities, while richer people are more likely to use provincial or central hospitals, as well as private services. Across levels, major gaps stand out in practices for routine maternal and newborn services, among other priority services.

ix. Chronic malnutrition is a major development issue, but few interventions are addressing micronutrient deficiencies in infants and young children or promoting appropriate complementary feeding practices. Nutrition interventions are short term and poorly coordinated, have low coverage rates, and are largely centered on screening and treating severely malnourished children in health clinics.

Health expenditures—imbalances and no clear resource allocation system

x. Total health expenditure per capita appears to compare favorably with the Sub-Saharan Africa average but spending is potentially regressive due to a high burden of household out-of-pocket (OOP) expenditures at point of care. Although the 2010 NHA cannot be used to assess exact sizes and shares, with the 2001 NHA it can be used to evaluate the relative importance of different sources: OOP is usually the largest source of financing for health, often followed by off-budget foreign aid and government spending.

xi. Between the NHAs of 2001 and 2010, the share of household OOP in total health expenditure increased, while government spending fell to low levels. Over the last five years for which expenditure data are available (2009–13), MOHCC spending on health accounted for 7–8 percent of total government spending. Off-budget foreign aid for health fluctuates significantly each year but has risen in the last few years, such that in 2012 it was about the same as total government expenditures on health.

xii. Expenditure efficiency analysis of the health sector, linking government health expenditures to outcomes based on global data for 123–177 countries (depending on the type of analysis) reveals a mixed picture: Zimbabwe had achieved an advantage in structural efficiency through better or equivalent mortality outcomes with lower expenditure, but appears to have lost its advantage in more recent years. Still, for infant, child, and maternal mortality, a small increase in resources would likely help Zimbabwe make more than commensurate gains.

xiii. The composition of government expenditure is unbalanced on inputs (labor share) and outputs (curative versus preventive). A high share of MOHCC funding has been used to cover labor costs, crowding out capital investment, maintenance, and other expenditures for programs and service provision and creating a dependency on external financing. Given that wages are generally inflexible downward and that Zimbabwe struggles to staff medical facilities and retain qualified personnel, the situation is unsustainable. On outputs, nearly 90 percent of the budget goes to curative services (although its accounting does not allow us to separate all primary health from curative activities).

xiv. Public health expenditure remains centralized and lacks clear interprovincial allocation criteria based on disease burden, population, and poverty. In 2010, an estimated 97 percent of government funding for health was channeled through the central government. Some 30–50 percent of all

MOHCC allocation to government service providers goes to five major hospitals, the rest to the provinces. Public funds are disbursed to provinces along budget lines, leaving little discretion for front-line service providers.

xv. Except for the HIV/AIDS program for which funding is channeled through the National Aids Council (NAC), major public health programs receive minimal financial disbursements from domestic funds. The NAC accounted for 9.5 percent of government health expenditures in 2013. The AIDS levy on individuals, companies, and trusts, introduced in 2000, has become its main source of financing—reflecting the country’s ability to mobilize domestic financing for health priorities and to generate a cushion for fluctuations in donor funding. The levy amounted to US\$35 million in 2013, one of the largest sources of funding for HIV/AIDS.

xvi. While external financing is larger than government domestic health financing, there is no institutionalized mechanism to coordinate the two systems. Although donor health spending per capita in Zimbabwe is smaller than in several neighboring countries, its share in total health spending has jumped since 2001, albeit fitfully. In 2012, total disbursements of official development assistance for health were around 50 percent higher than MOHCC spending. External funding focuses largely on the MDGs and public health programs, although there has been a recent shift from disease-specific funding to broader health-system support, such as the Global Fund to Fight AIDS, Tuberculosis and Malaria and the Health Transition Fund, as well as a focus on results as spearheaded by the RBF program.

xvii. Although OOP spending is large relative to other sources of health financing, the Poverty, Income, Consumption and Expenditure Survey (PICES) of 2011/12 reveals that incidence of catastrophic expenditure is low and that regressivity is not necessarily an issue. However, these findings need to be interpreted with caution in light of potential data quality, small sample size, utilization patterns, and service quality issues. The analysis likely underestimates OOP spending due to the simplicity of the PICES questionnaire. OOP expenditures are also conditional on utilization: given low rates of health facilities in case of illness across all wealth quintiles and the fact that affordability is most often given as the main reason not to seek care (in all quintiles), it appears that many Zimbabwean choose to forgo health care rather than become impoverished. Also, the poor may have lower OOP spending but also receive lower service quality, given the type of facilities they most often visit.

xviii. Direct user fees remain an important source of funding for district, mission, central, and local government facilities, and some provinces with high incidence of poverty bear a disproportionately large burden of user fees. Rural health centers rely on user fees for close to 15 percent of their income. As some of these health centers do not collect user fees as part of the RBF program, such reliance must be quite steep in non-RBF facilities. This points to the low capacity of poor provinces to raise revenue from other sources.

xix. Private funding of health other than OOP comes mostly from private insurance companies, in a highly inequitable system covering a very small share of the population. For example, expenditure of the second-largest insurance scheme in 2013 amounted to more than one-third of the entire MOHCC budget.

Resource mobilization—more needed, alongside more efficient spending

xx. Given limited resources, not only is more money needed for health service delivery but also for better quality of expenditures. In preparation for donors phasing out financing of high-impact health interventions (such as the Prevention of Mother to Child Transmission of HIV/AIDS intervention, the bulk of whose funding by development partners is committed only up to December 2015), the MOFED and MOHCC need to prioritize cofinancing investments such that, over time, donor

financing decreases and government financing increases. This requires careful economic and fiscal analysis to ensure that the proposed model does not prematurely overburden the MOFED's limited resources in the short term.

xxi. While external partners' financing continues to play a key role in the health sector, it is important for the government to prioritize expenditures in health, especially primary care, medicines, and supplies, while reducing the weight of salaries (overall and in health).

xxii. Large savings can be made by improving the efficiency and avoiding overlapping of external funding, evidenced in the large amount of off-budget support and the low ability to track, monitor, and coordinate external funding by the MOHCC and MOFED. Improvements in these areas requires better collaboration, transparency, and trust between development partners and the government. The multiple implementation channels, which include nongovernmental organizations and the private sector, cause a fragmented health sector and potentially high overheads.

Recommendations

xxiii. The PER makes the following recommendations:

Resource Planning, Mobilization, and Coordination

- The government should consider increasing its own allocation to health so as to reduce reliance on donors and OOP spending. Target areas for domestic resource mobilization could include "sin taxes" on tobacco use of mechanisms such as the AIDS levy for emerging health priorities.
- The MOHCC and MOFED should be more active in coordinating donor support and harmonizing health funding, by institutionalizing resource planning, mapping, and tracking mechanisms. Together they should work with the Health Development Partners Forum.
- The MOHCC and development partners need to develop sustainability plans to prepare for donors phasing out high-impact health interventions. Such planning requires empirical analysis of the performance of the national budget, health sector expenditures, and costing of health interventions.
- The potential to engage and mobilize private sector partnerships and funding exists, based on examples of private sector companies in the mining and mobile telecommunications sector investing in health and other human development initiatives, as well as a rather large and active private health insurance sector. There is a need for research to build robust evidence on these opportunities in the short and medium term.

Allocative and Expenditure Efficiency

- Zimbabwe should improve the allocative efficiency of government expenditures and place higher priority on health prevention, linking payment to results so as to secure greater technical and allocative efficiency (as seen in the RBF program). The MOFED and MOHCC should also explore rolling out performance-based mechanisms to improve health worker productivity, especially at primary and secondary levels where the majority of the population accesses health care.
- The government needs to increase domestic funding for procuring and allocating medicines and supplies, as well as retaining health personnel. Performance-linked staff incentives should be adopted, so as to not further raise the already huge share of wages in government health expenditures.

- Development partners and the MOHCC need to harmonize the multiple parallel financing mechanisms supported by multiple implementing entities, and to improve transparency in reporting.

Geographic and Poverty Targeting/Addressing Regressive Expenditures

- Supported by development partners, the government should lower the cost of accessing care at point of care—especially by low-income households—while improving coverage, quality, and distribution. The myriad challenges tied to user fees should be addressed through introducing and scaling up supply- and demand-side mechanisms, like RBF, as well as voucher schemes (financing a package of predefined services for poor households), and possibly via expanded insurance.
- Inequities in human resources for health distribution narrow the range and undermine the quality of services accessible to all areas of the country and segments of the population. These inequities exacerbate inequalities in outcomes, particularly between rural and urban areas. In the short term it is important that deployment and retention schemes be implemented (or revised) so that skilled health workers be encouraged to serve rural regions. Donor-funded retention programs can complement government funding on the supply side. It is important that such incentive programs be integrated in the government’s human resources for health management policies.
- On the demand side, removing user fees at point of care is one urgent priority in light of high household OOP spending. Removal of user fees should be embedded within mechanisms like the RBF or scaling up insurance programs to prevent any compromise on quality of services due to the immediate financing gap. Policy makers should therefore develop a medium-term vision for RBF that lays out the benefits package, the cost of implementing it, governance and management of the RBF mechanism, and—most importantly—how to finance it all.
- Given the highly centralized budget planning and expenditure execution process, the MOFED needs to decentralize the public financial management system to district level. This would enable the MOHCC to maintain disaggregated on-budget (and possibly off-budget) health financing and expenditure data. It would also greatly help the two ministries to become transparent in allocating and tracking financial resources. The MOHCC needs support to improve its data collection on health expenditures, especially in revamping districts’ public financial management systems (by decentralizing some of the budget execution functions from provincial to district level) and in institutionalizing reliable NHA exercises (so, for example, the World Health Organization can incorporate government health expenditure data into its internationally comparable database).

1. Background and Scope of the Public Expenditure Review

1.1 Background

1. This Public Expenditure Review (PER) is an analytical report building on the Health Sector Policy Note coauthored by the World Bank Health, Nutrition and Population Task Team and the senior management of Zimbabwe's Ministry of Health and Child Care (MOHCC) in August 2013. A key recommendation from that note—given Zimbabwe's multiple sources of financing for health care; its multiple provider-payment mechanisms; and the various methods of allocating funds by government, development partners, and the private sector—was that stakeholders build evidence on public health financing to inform health sector planning. The key questions framing this analysis were developed with input from the government and health sector partners. They include considerations of composition of financing for health, allocation of resources geographically, burden of disease, poverty incidence, and equity.

2. A PER presents an opportunity for an objective review of how effectively a country's health sector budget translates stated policy priorities into actual choices and interventions, and how the health sector budget and expenditures align with national health priorities. This PER therefore aims to inform the allocation of resources for equitable and efficient health care provision and to highlight important questions on the performance of the health sector that need to be answered by key stakeholders. This PER is intended to serve as a diagnostic tool for: the Ministry of Finance and Economic Development (MOFED), which is the national entity mandated with budget development, allocation, and tracking; the MOHCC; and the National AIDS Council (NAC). In view of Zimbabwe's significant off-budget contributions from development partner and private-for-profit sector investments in health, this work seeks to inform opportunities to strengthen complementarity—and in some cases joint resource allocation and use—in high-impact biomedical and behavioral interventions to address the country's priorities in disease prevention and health-systems strengthening.

3. It reviews the situation relative to health outcomes and risks, utilization, and service delivery in Section 2; health expenditures in Section 3; prospects for resources to finance the health sector in Section 4; and offers some conclusions and recommendations in Section 5.

1.2 Scope

4. The analysis was guided by the following questions:

- What are the health priorities on which spending should focus?
- What are the needs of the public sector relative to health inputs and outputs?
- What are the major sources of health financing in Zimbabwe?
- What are the total level, composition, and distributional aspects of spending in health?
- Do government expenditures contribute to enhancing efficiency and equity in the sector?
- Given limited public spending levels, what sources of additional financing are possible? What mechanisms/reforms could be put in place to mobilize such financing?

5. The underlying assumption of this review is that the investments and expenditure in Zimbabweans' health are premised on the need to improve equity of access to health services, quality of health service provision, and ultimately the health and wellbeing of the population. Thus it

has been arranged to reflect key findings on the nation's health status, coverage and gaps in the current response, and specific findings directly answering the above questions. The public budget is one of the most important policy analysis instruments to determine whether a country's stated policies are aligned with its spending and spending priorities, which is why budgetary and expenditure data from the MOFED and MOHCC are referenced throughout the report.

6. Before 2009, Zimbabwe's health system had been severely weakened by the protracted effects of HIV/AIDS, out-migration of skilled personnel, and a lengthy economic crisis. There was, in particular, a sharp decline in key indicators such as coverage of primary health care interventions and health outcomes. The increasing burden of treatment, care, and support arising from both communicable and noncommunicable diseases (NCDs) weighed heavily on the public health system and communities in general. The country's health system has, though, begun to show signs of recovery through the efforts of the MOHCC and its partners. Zimbabwe has made progress against HIV: based on the previous World Health Organization (WHO) guidelines for antiretroviral therapy initiation of CD4 <350, at least 85 percent of adult Zimbabweans who were tested and were eligible for HIV treatment were receiving it in 2012 (although only 47 percent of men and only 54 percent of women had ever been tested for HIV). It has also made strides in immunization coverage, with at least 83 percent of children under one year being immunized in 2014, up from 76 percent in 2009.²

7. Major stakeholders fully understand the need to accelerate progress, and prevent and manage HIV/AIDS, tuberculosis, malaria, and NCDs. Sustainable mechanisms for mobilizing resources and using them efficiently, coupled with sound coordination, are vital to make responses and strategies more effective.

8. In answering the guiding questions, the review goes beyond public sector financing to identify vulnerabilities and strengths of the system. In particular, it reflects on institutional arrangements that support the budgeting process and implementation performance management.

9. The PER methodology was based on a standard framework adopted from the PER Health Guide.³ Data collection methods included an extensive review of existing literature and analysis of secondary data. The main source documents and data repositories included:

- Zimbabwe National Health Profile and Health Management Information System (HMIS) data
- National budget allocation reports and MOHCC expenditure reports
- Multiple Indicator Monitoring Survey (MIMS) 2009
- Poverty, Income, Consumption and Expenditure Survey (PICES) 2011/12, reports and data (household data)
- National Integrated Health Facility Assessment (NIHFA) 2012 data and report (data obtained through a survey at facility and household level)
- Health Development Partners—Activity and Resource Tracking Summaries Report
- World Development Indicators (WDI), Health Nutrition and Population (HNP), Organisation for Economic Co-operation and Development (OECD), and WHO data repositories
- Health facility and household surveys of 2014 for the midline impact evaluation of the Results-Based Financing (RBF) program⁴
- Multiple Indicator Cluster Survey (MICS) 2014

10. The PER was complemented by interviews with key stakeholders and by primary data collection from major development partners and domestic health funders, although the scope of the analysis was substantially limited by a lack of disaggregated expenditure data at subnational level.

11. This PER seeks to provide an empirical basis for health sector financing reform in Zimbabwe. More specifically, it is hoped that its findings will enable the government, particularly the MOFED and MOHCC, to make informed decisions on financing the health sector in order to optimize sector-specific outcomes.

2. Overview of Health Outcomes and Needs

Key Messages—Section 2

1. Prioritizing Preventive Programs

Zimbabwe has made some progress in improving health status yet faces continued challenges of communicable diseases and a fast-rising burden of NCDs. Similarly, patterns of health service utilization differ markedly among the poor and the better off. The country therefore needs urgently to invest more in more equitable preventive and public health programs, scaling up investments in child nutrition, and in health promotion and education, all via a multisectoral approach.

2. Improving Quality

It is crucial to move from vertical, disease-focused approaches to quality improvement and toward integrated standards of care. The government and partners should pilot innovative quality improvement interventions and scale them up based on rigorous evidence.

In view of workload concerns at the service delivery level, it is important that the MOHCC and MOFED initiate a strategic staffing exercise to better use the country's human resources and to identify the health workforce needs that match the disease burden and population trends.

The government needs to engage more with tertiary institutions in developing health workers' clinical skills and in disseminating sound, emerging practices.

The vital training and retention support of the Health Transition Fund (HTF) needs to continue, at least in the short term, given the government's limited capacity to absorb high expenditure volumes.

3. Addressing Equity

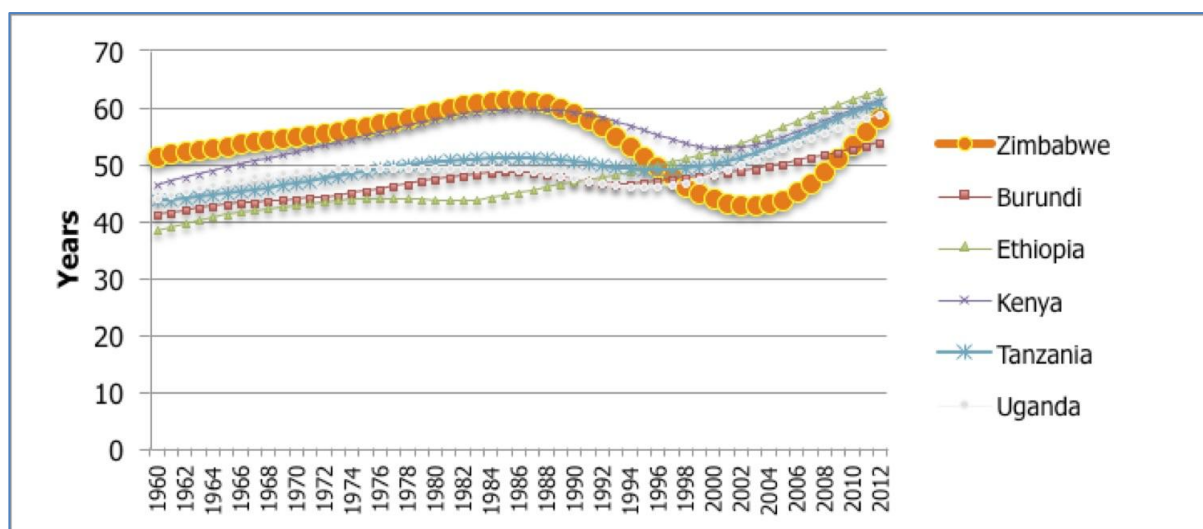
Zimbabweans are reluctant users of health care services when they are ill, in all quintiles. As affordability is a major reason, the MOHCC should design and roll out (and then evaluate) interventions that minimize payment at point of care. They could include prepayment mechanisms such as health insurance or demand- and supply-side results-based financing.

The central government budget should give more weight to poorer provinces and districts.

2.1 Health Status and Health Risks

Key Health Indicators

12. Zimbabwe's population is estimated at 13,061,231,⁵ with a life expectancy at birth of 53.9 years (males 53.8 years, females 53.9 years) in 2012. Since 2003, life expectancy at birth has been increasing toward values previously seen during the pre-HIV era and is now aligned with those of other Sub-Saharan countries (Figure 1).

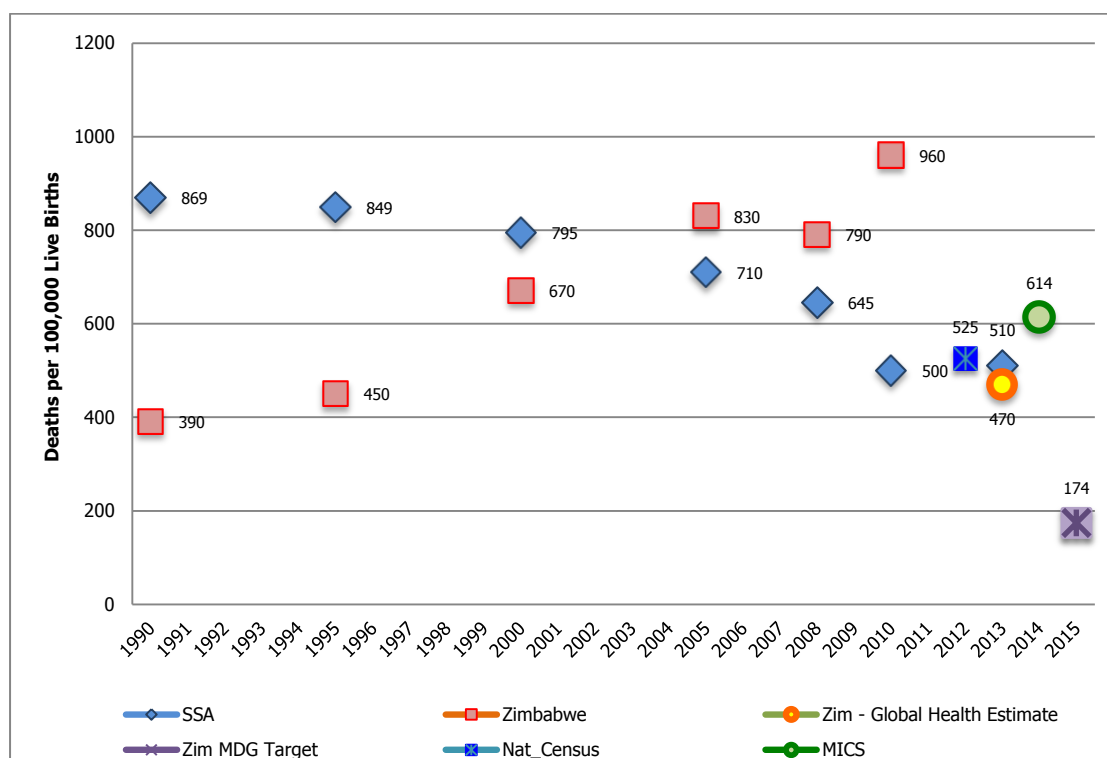
Figure 1 Life Expectancy at Birth, Total Population, 1960–2012 (years)

Source: WDI 2014.

13. Nearly two-thirds (61.1 percent) of the country's population is younger than 25 years.⁶ The total fertility rate is 4.1 children per woman. In 2012, 16 percent and 38 percent of women aged 15–19 years and 20–24 years, respectively, had one child ever born.⁷

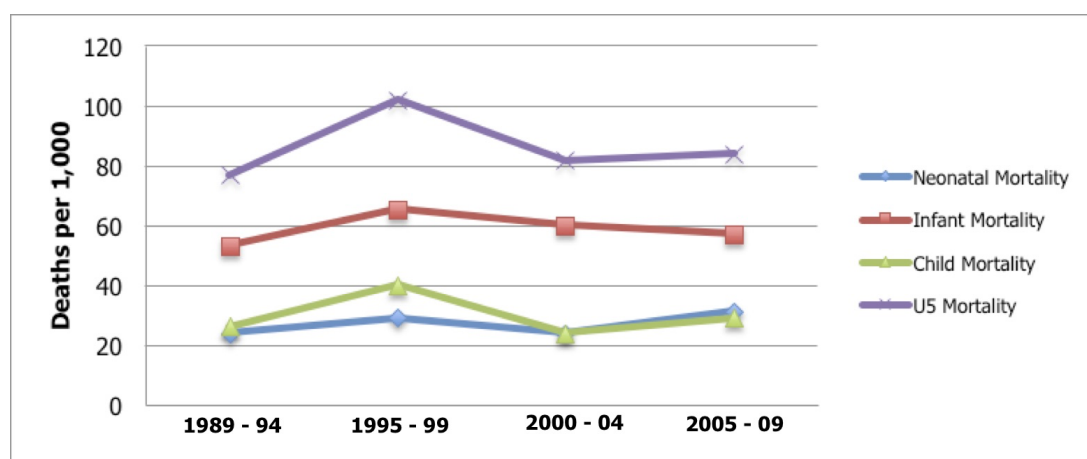
14. According to the WHO 2010 country burden of disease profile,⁸ at least 70 percent of the annual deaths in the country are attributable to communicable, maternal, perinatal, and nutritional illness. More specifically, acute respiratory infections, tuberculosis, other viral diseases, HIV-related illness, and malaria are the leading causes of deaths. The 2012 WDI estimate for NCDs' share of the country's total deaths was 31 percent.⁹

15. A major area of concern has been the high maternal mortality ratio (MMR), which reached 960 deaths per 100,000 live births in 2010–11 (Figure 2), a sharp increase from the 612 in 2005–06, which was already markedly higher than the Sub-Saharan average. The estimates provided by the National Census of 2012 point to a decline in the MMR to 525. While the results of the 2014 MICS further points to this decline with an MMR of 614, progress is not fast enough to achieve the Millennium Development Goal (MDG) minimum of 174 deaths per 100,000 live births.

Figure 2 MMR Trends in Zimbabwe and SSA, 1990–c.2014

Sources: WDI and Population Census 2012; MICS 2014; GHED 2013.

16. The under-five mortality rate dropped from 102 per 1,000 live births in 1999 (based on 1995–99 deaths) to 84 in 2010/11 (2005–09 deaths) and further to 75 in 2014 (2010–14 deaths).¹⁰ The infant mortality rate decreased from 65 deaths per 1,000 live births in 1999 to 57 in 2010/11 and further to 55 in 2014.¹¹ Here, too, Zimbabwe is unlikely to achieve its MDG target by 2015. Figure 3 shows the trend based on Zimbabwe Demographic and Health Survey (ZDHS) data. In addition, one-third of children under-five are stunted, with little improvement in these figures over the last decade.

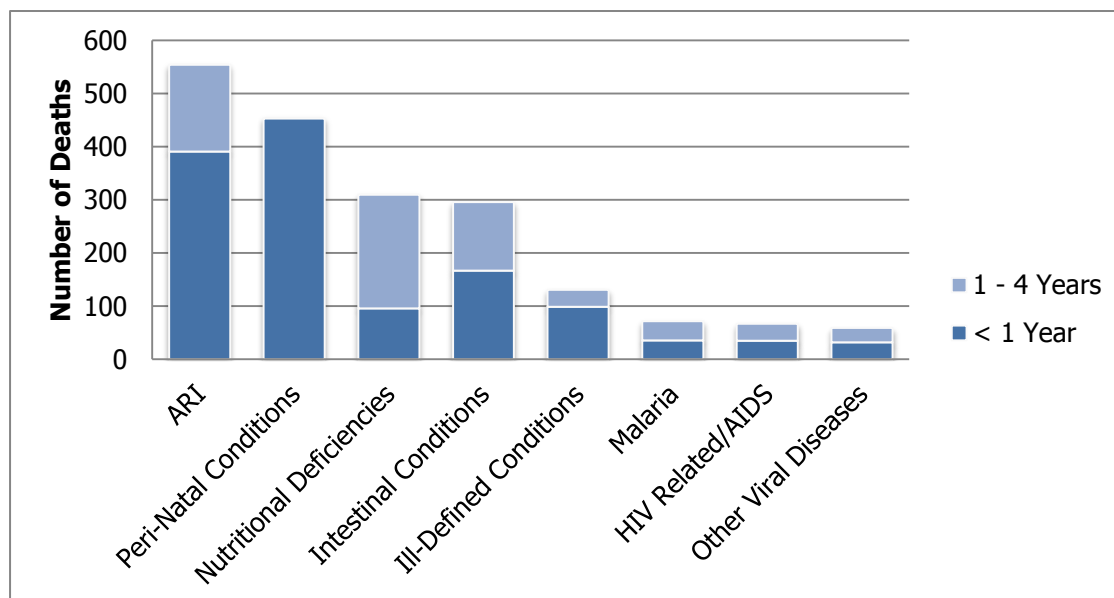
Figure 3 Trends in Child Mortality Indicators, Zimbabwe, 1989–94 to 2005–09

Source: Authors using ZDHS, Zimbabwe National Statistics Agency (ZIMSTAT), 1995/6 to 2010/11.

Note: Neonatal mortality: the probability of dying within the first month of life; infant mortality: the probability of dying between birth and the first birthday; child mortality: the probability of dying between exact age 1 and the fifth birthday; under-five mortality: the probability of dying between birth and the fifth birthday. Five-year periods preceding ZDHS surveys.

17. The major causes of death among children under one year are respiratory and perinatal conditions; for those between one and four years it is mainly nutritional deficiencies, followed by respiratory conditions. Intestinal conditions are also a major cause of death, ranking third for both age groups (Figure 4).

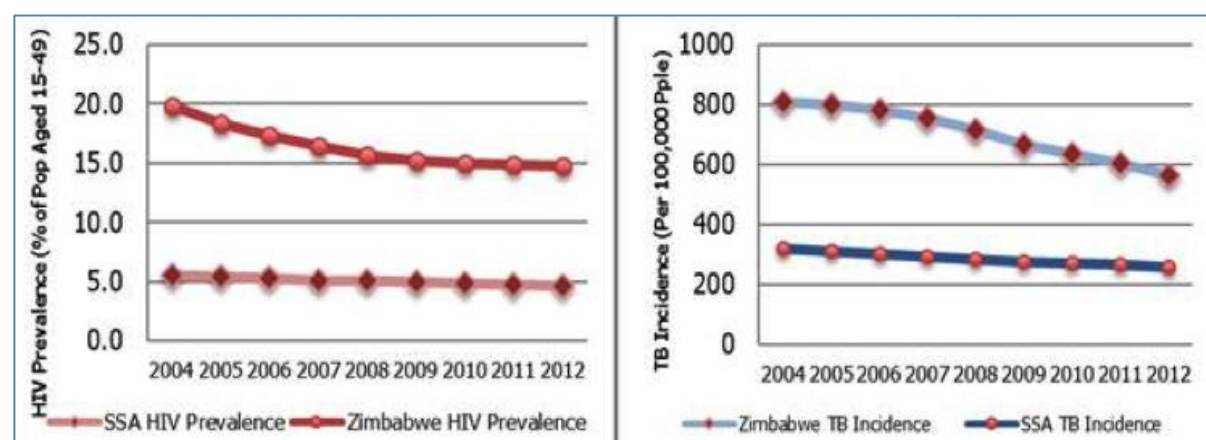
Figure 4 Causes of Mortality Among Children Under Five Years Old, 2011



Source: Authors using 2011 National Health Profile draft report.

18. Although the percentage of HIV-infected persons is declining in Zimbabwe, HIV-related deaths are among the top causes of mortality for all age groups, followed by malaria, tuberculosis, and NCDs. According to the ZDHS 2010–11, more than 20 percent of maternal deaths were HIV related. It is estimated that 15 percent of adults aged 15–49 years were infected with HIV in 2011, down from 18 percent in 2007. Despite the decline, the country continues to have far higher rates of prevalence and new infections than regional peers (Figure 5).

Figure 5 Trends in HIV Prevalence among Adults (15–49 Years) and in Tuberculosis Prevalence and Incidence, SSA and Zimbabwe, 2004–12



Source: WDI 2012.

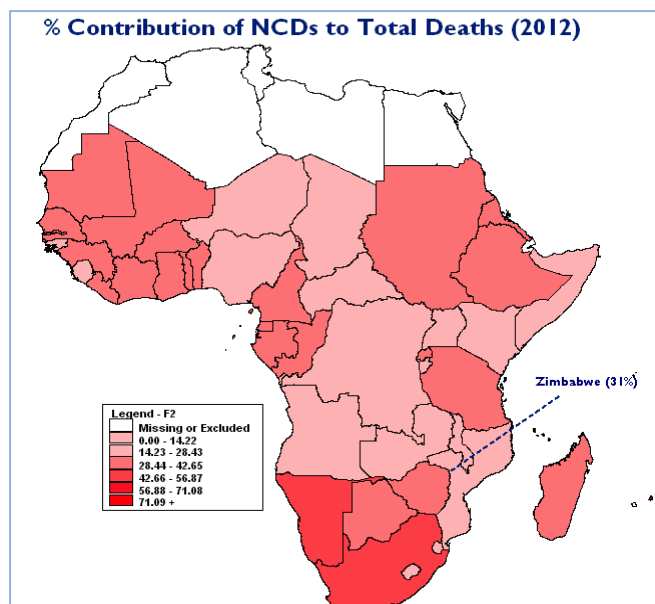
19. Tuberculosis incidence decreased from 782 per 100,000 people in 2007 to 633 in 2010, declining further after that (see Figure 5). A 2010 report on a regional workshop on tuberculosis

surveillance and impact monitoring noted that Zimbabwe had a tuberculosis case detection rate of 51 percent, which was notably lower than other countries in the region.

20. While malaria is among the top five causes of death in the country, current incidence marks a 64 percent decline from levels in 2000.¹² According to the 2011 Roll Back Malaria/WHO Malaria Program Review, malaria incidence decreased from 1.8 million to 600,000 cases over 2006–10. Despite the low number of new cases of cholera since the 2008–09 cholera outbreak, which resulted in 4,288 cumulative deaths between August 2008 and mid-July 2009,¹³ outbreaks of typhoid and other waterborne diseases remain a major public health concern. Poor water and sanitation, particularly in urban areas, are intricately linked to the disease burden.

21. The burden of NCDs is increasing sharply. Around 31 percent of total deaths were caused by NCDs in 2012, placing Zimbabwe around the median of SSA countries (Figure 6). NCDs recently had a bigger share in causes of death than HIV/AIDS. Zimbabwean women had among the highest age-standardized rates of cervical cancer in the world (47 per 100,000) but screening coverage was less than 5 percent.¹⁴ Diabetes prevalence, estimated at 9.7 percent in 2012, is far higher than among regional peers, which have rates of about 4–5 percent.¹⁵

Figure 6 NCD Contribution to Mortality in SSA, 2012



Source: WDI 2012.

Lifestyle and Risky Health Behaviors

22. Youth under the age of 25 years, who make up more than half the population, are at high risk for HIV transmission. The number of sexually active adolescents before age 18 is high (40 percent in 2012), but the use of contraceptives does not reflect that rate. Only half of adolescents have adequate knowledge of how to prevent HIV infection,¹⁶ and even those who do, do not always practice safer sex.¹⁷ Analysis of the ZDHS showed a correlation between HIV prevalence and age of first sexual contact, with higher prevalence (23 percent) among women with first sexual contact before 16.¹⁸

23. Alcohol consumption and smoking rates are high, particularly among poor and less educated men. Although nearly all women reported to be nonsmokers, at least one in every five men reported

to be smokers during the ZDHS 2010–11 and MICS 2014. This points to higher exposure to NCD risk factors among the poor.

24. Other lifestyle-related risk factors such as poor dietary intake and lack of physical activity are gaining the attention of policy makers. They are concerned that the expanding middle class in urban areas has increased its intake of fast foods, tobacco, and alcohol, but lack exercise, reflecting better access to modern transport and intense and lengthy work schedules, thus predisposing them to the risks of NCDs. (WHO and the MOHCC are preparing a new survey of NCDs to provide more accurate data.)

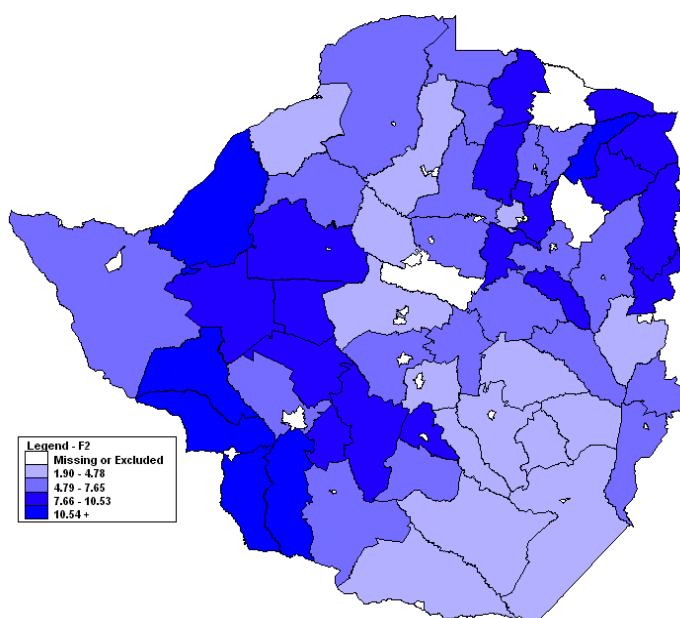
Distribution of Health Status

25. Zimbabwe, like other countries, faces disparities in health outcomes based on socioeconomic status, the urban–rural divide, and gender. The poorest quintile has 55 deaths per 1,000 live births versus 48 in the richest.¹⁹ The difference is more pronounced for under-five mortality: 85 per 1,000 live births against 58.

26. Inequities in health are also marked by a sharp urban–rural divide. Child mortality and malnutrition are significantly higher in rural areas. Prevalence of stunting, wasting, and underweight, for example, is higher in rural areas, estimated at 33.4 percent, 3.2 percent, and 10.2 percent, than in urban areas, put at 27.5 percent, 2.1 percent, and 8.1 percent, respectively.²⁰

27. Estimates for underweight prevalence among children are higher in rural and remote parts of the country (Figure 7). Poor dietary intake and lack of access to improved water and sanitation are key determinants of malnutrition.²¹ There is also growing evidence of a significant share of the urban poor population having poor health status and limited access to care.²²

Figure 7 Distribution of Underweight Prevalence among Children



Source: HNP 2012.

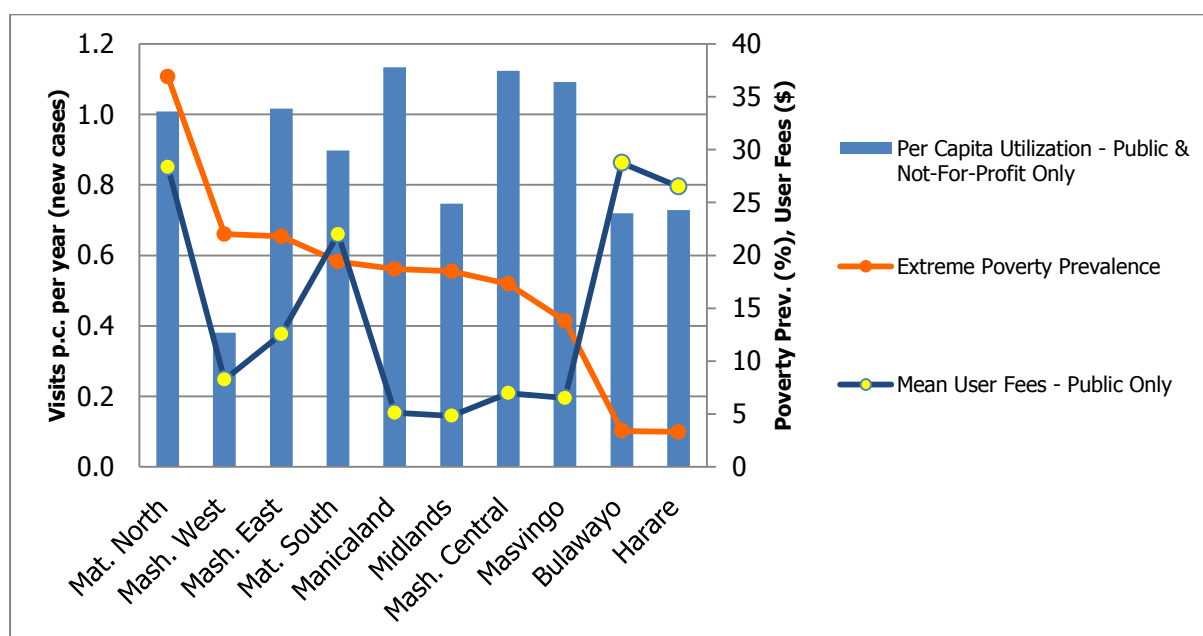
28. The HIV prevalence of women in 2010, according to the ZDHS 2010–11, was 18 percent but 12 percent for men. The difference was even more pronounced in the 15–24-year age group with a prevalence of 7.8 percent for females and 3.6 percent for males. The ZDHS 2010–11 also reports that people with better education and socioeconomic status have lower HIV prevalence.

2.2 Service Utilization and Health-Seeking Behavior

29. This subsection looks at service utilization at all levels focusing on its distribution across provinces (and the probable impact of user fees), socioeconomic quintiles, gender, and the urban–rural split. The health system uses the primary care approach in line with the Alma Ata declaration, aiming to ensure equitable access to basic primary health care, supported by robust referrals across levels of care from community and primary to tertiary.

30. The total volume of outpatient attendance at all levels of care in public and not-for-profit facilities was 14,374,720 (11,432,760 new cases and 2,941,960 repeat cases) in 2012.²³ This broadly translates to a utilization rate of 0.9 new cases per capita and an attendance rate of 1.1 visits per capita per year. Although the national initial utilization rate is close to the WHO-recommended rate of 1 new case per person per year, there are wide differences by province, from 0.4 in Mashonaland West to 1.1 in Manicaland (Figure 8).

Figure 8 Per Capita Utilization of Public and Not-for-Profit Health Facilities, Poverty, and User Fees, 2012



Sources: Data from National Health Profile 2012 (utilization—HMIS-reported OPD data for 2012); PICES 2011/12 (poverty); NIHFA 2012 (user fees).

31. While there is no clear relationship between the utilization rate and poverty prevalence across provinces, there appears to be some association between utilization and average reported user fees charged at public facilities. Excluding Mashonaland West, where both user fees and utilization are low, and Matabeleland North, where both are high, most provinces with low mean user fees—Manicaland, Mashonaland Central, Masvingo, and Mashonaland East—had higher utilization rates than most provinces with high mean user fees—Matabeleland South, Harare, and Bulawayo.

32. Still, these results need to be interpreted in light of regional differences in prevalence of endemic diseases, such as malaria in Manicaland; geographic constraints affecting access, including some parts of Mashonaland West in the Zambezi valley; and differences in coverage/availability of private for-profit health service providers in the provinces, particularly for the metropolitan provinces of Harare and Bulawayo, the two richest provinces.

33. The percentage of people seeking care for their children when they had a cough or diarrhea in a private facility shows a large difference between provinces (Figure A1.1 in Annex 1). A much larger proportion went to private facilities in Harare (30 percent) and Bulawayo (20 percent) than provinces like Matabeleland South (0 percent), Masvingo (3 percent), and Matabeleland North (5 percent).

34. Socioeconomic groups display wide inequalities in maternal and child health (MCH) services utilization. People in the poorest quintile use MCH services significantly less than those in the richest (Table 1). The difference is particularly marked for institutional deliveries and postnatal care checks.

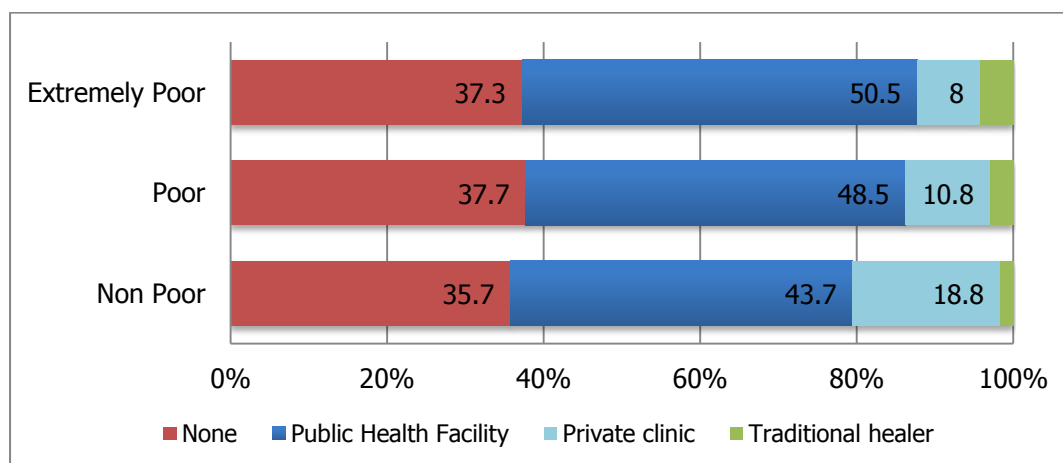
Table 1 Socioeconomic Inequalities in MCH Services Utilization by Women, 15–19 Years (%)

	Poorest Quintile	Richest Quintile
Service Utilization		
At least one antenatal check-up (%)	88.4	94.6
Institutional delivery (%)	46.2	89.9
Cesarean section (%)	2.5	9.2
Postnatal checkup within first 2 days after birth (%)	15.7	46.6
Children 12–23 months reported receiving all basic vaccines (%)	54.6	72.8
Children with diarrhea who received no treatment (%)	25.3	11.8
Health Outcomes		
Infant mortality (per 1,000 live births)	55	48
Under-five mortality (per 1,000 live births)	85	58

Source: ZDHS 2010–11.

35. Although per capita outpatient visits per year are close to expectations, the evidence consistently points to low utilization of formal health care services in cases of illness and this appears to be the case across all socioeconomic categories in both rural and urban areas. The 2011/12 PICES reveals that more than one-third of the population does not seek care when they are ill, whether in the formal public or private sector or with traditional healers (Figure 9). Although the shares are slightly higher among the poor and extremely poor, the difference is unlikely to be statistically significant. The shares are also slightly higher in urban areas, with 38.5 percent of the nonpoor, 44.4 percent of the poor, and 45.8 percent of the extremely poor not seeking care.

Figure 9 Health-Seeking Behavior: Method of Treatment of Illness by Poverty Status, Evidence from 2011/12 PICES



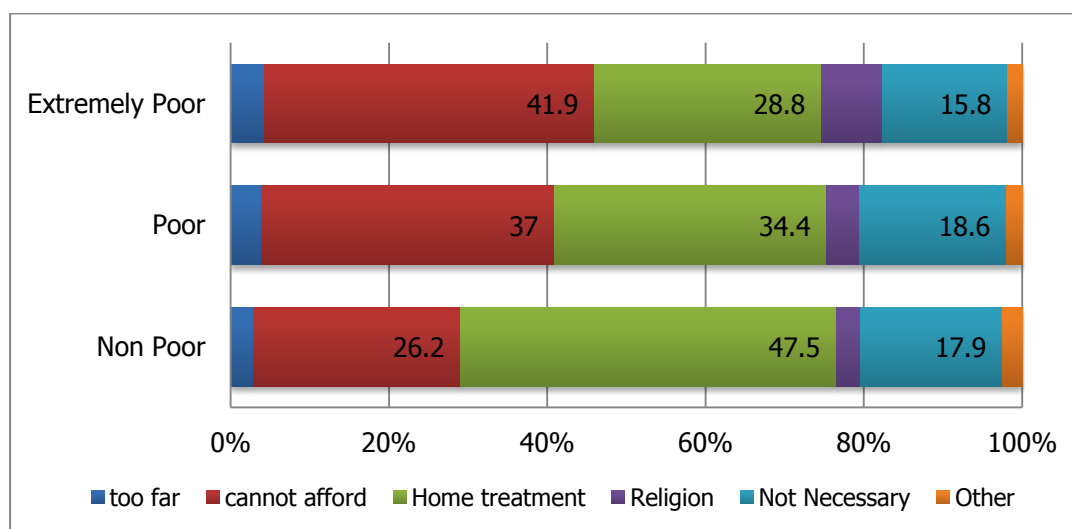
Source: PICES 2011/12.

36. Additional evidence from the ZDHS 2010–11 corroborates these findings, showing that about one-half of women did not seek care for their last-born child who had cough or diarrhea, with relatively little variation across most quintiles. Women from the lowest quintile in fact had a higher rate (49.3 percent) than those in all other quintiles save the richest (55.7 percent).²⁴

37. Results from the 2011 Labour Force Survey are also consistent with these in magnitude but point to a larger difference between urban and rural areas: 41 percent of people in urban areas did not seek care in a health facility or with a traditional healer, against 31 percent in rural areas; in addition they find that more females than males visited the health facilities when ill.²⁵

38. The reason for not seeking treatment when ill (in the four weeks preceding the 2011/12 PICES) is largely financial for the poor and particularly so for the extremely poor, with over 40 percent of this group indicating unaffordability as the major reason (Figure 10). Although reliance on home treatment is the dominant reason for not seeking care among the nonpoor, unaffordability is still indicated as the primary reason by more than one-quarter of nonpoor respondents.

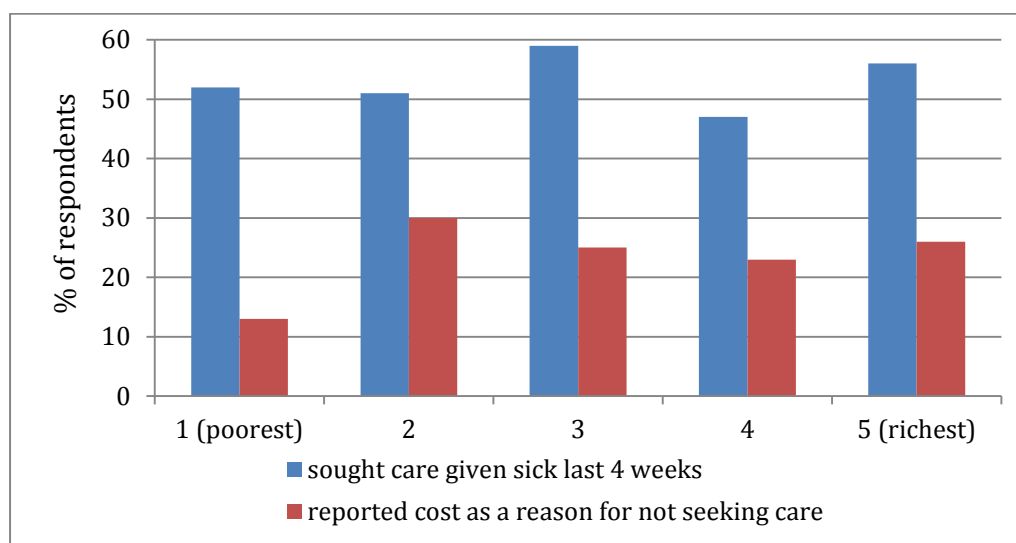
Figure 10 Reasons for Not Seeking Medical Treatment among those who Fell Ill



Source: PICES 2011/12.

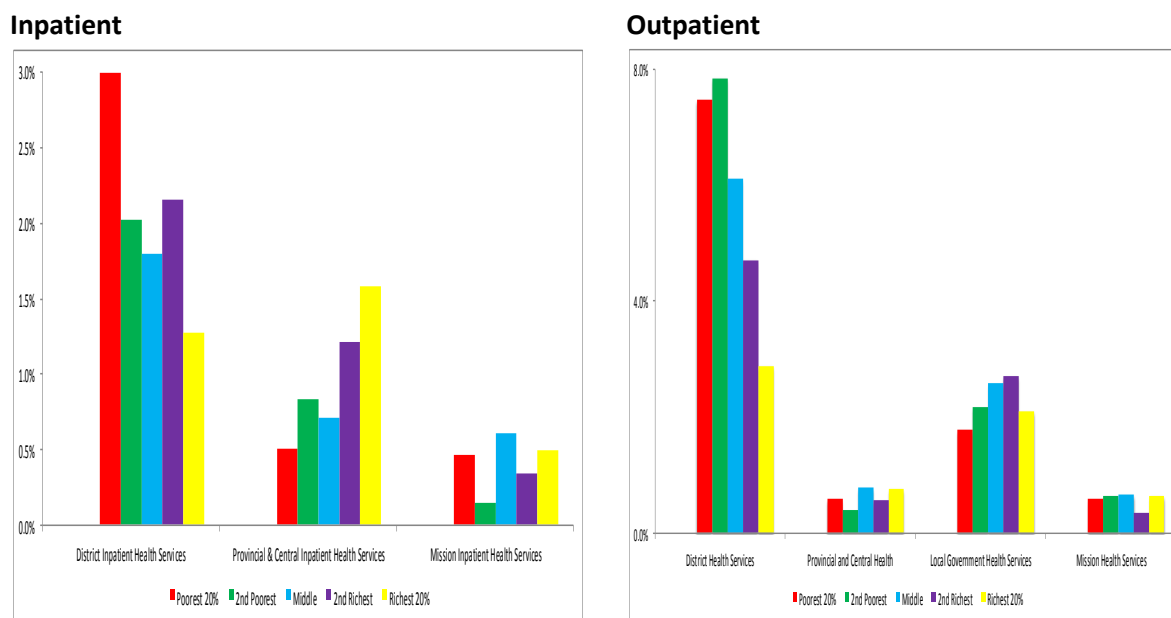
39. The rural sample in the 2011/12 PICES does not reveal major differences in reasons for not seeking care. The proportion of respondents who gave distance as the primary reason is expectedly higher than for the urban sample, but remains below 6 percent in all categories.

40. More recent evidence from rural areas in the 2014 midline household survey (conducted as part of the RBF program impact evaluation—Box 4 below) of 32 districts in eight rural provinces is consistent with the evidence presented above: 40–50 percent of respondents did not seek formal care when ill (Figure 11). Cost was the main reason for about one-fourth of them, with no significant differences across quintiles (except in the poorest quintile where affordability was given as the main reason by 13 percent of respondents). By construction, about half the households in the RBF impact evaluation survey lived in districts where user fees were supposed to have been removed for services in the RBF benefit package, likely explaining why affordability was less of an issue than in the PICES result.²⁶ In addition, the fact that the poorest people did not indicate cost as a main reason may be because they are more likely to go to facilities that do not charge user fees (below).

Figure 11 Health-Seeking Behavior Across Quintiles: Evidence from Rural Areas, 2014

Source: Authors' analysis of 2014 RBF impact evaluation household survey data.

41. It is, in fact, when looking at the type of facilities used by the different socioeconomic groups that inequalities stand out more: the patterns of health service utilization differ among the poor and the better off. Based on the household survey carried out for the NHA 2010, the poor constitute a larger proportion of inpatient service users at district level than the rich, while the opposite is true for provincial and central inpatient services (Figure 12).

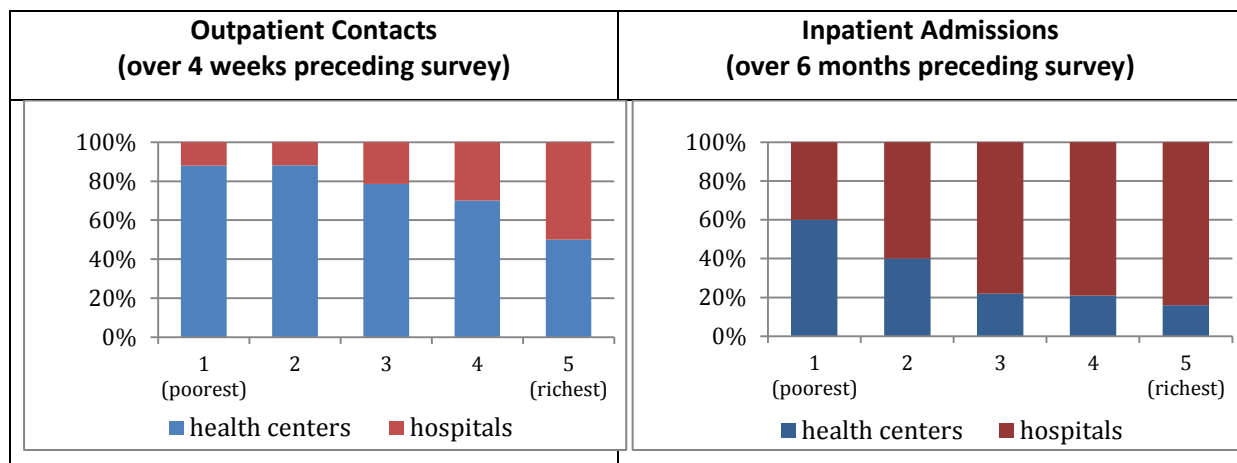
Figure 12 Inpatient and Outpatient Service Utilization by Wealth Quintile, 2010

Source: Authors' analysis of household survey data collected for NHA 2010.

42. Additional evidence of inequality in utilization patterns can be found in the 2014 RBF midline survey of rural areas. Figure 13 shows a strong income gradient in the service utilization pattern, with the poor relying heavily on rural health centers for both inpatient and outpatient services, while the better off are more likely to use hospital services. The pattern suggests that the issue of income

inequality in health is strongly associated with physical and financial access to high-quality services, particularly secondary levels of care.

Figure 13 Utilization of Hospitals versus Health Centers for Inpatient and Outpatient care in Rural Areas, 2014



Source: Authors' analysis of 2014 RBF impact evaluation household survey data.

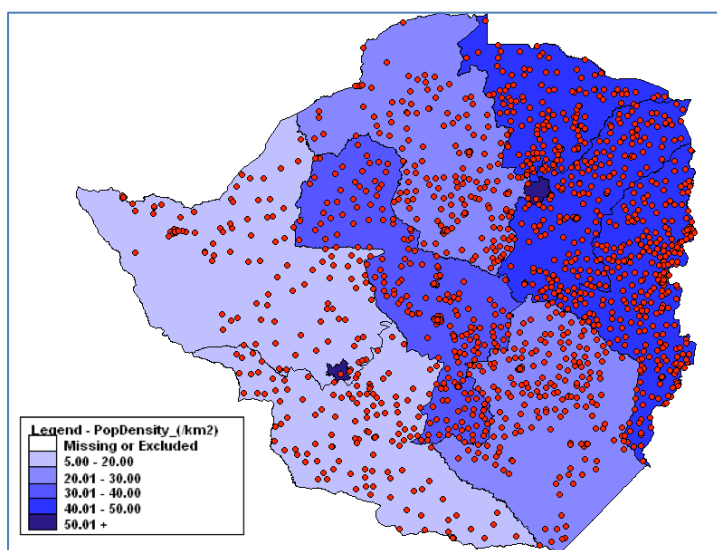
2.3 Health Inputs

Distribution of Inputs to Service Delivery

43. The availability of resources—including the human resources, pharmaceuticals, equipment and infrastructure essential to enable the provision of services—has improved since 2008–09, when the health system reached a point of near collapse.

44. According to the MOHCC database, Zimbabwe has 1,339 primary health care facilities and 200 referral-level institutions. Of the primary facilities, over 90 percent offer essential medical services such as outpatient treatment, and reproductive and child health services.²⁷ The country's facilities are distributed across the country to reflect population density (Figure 14).

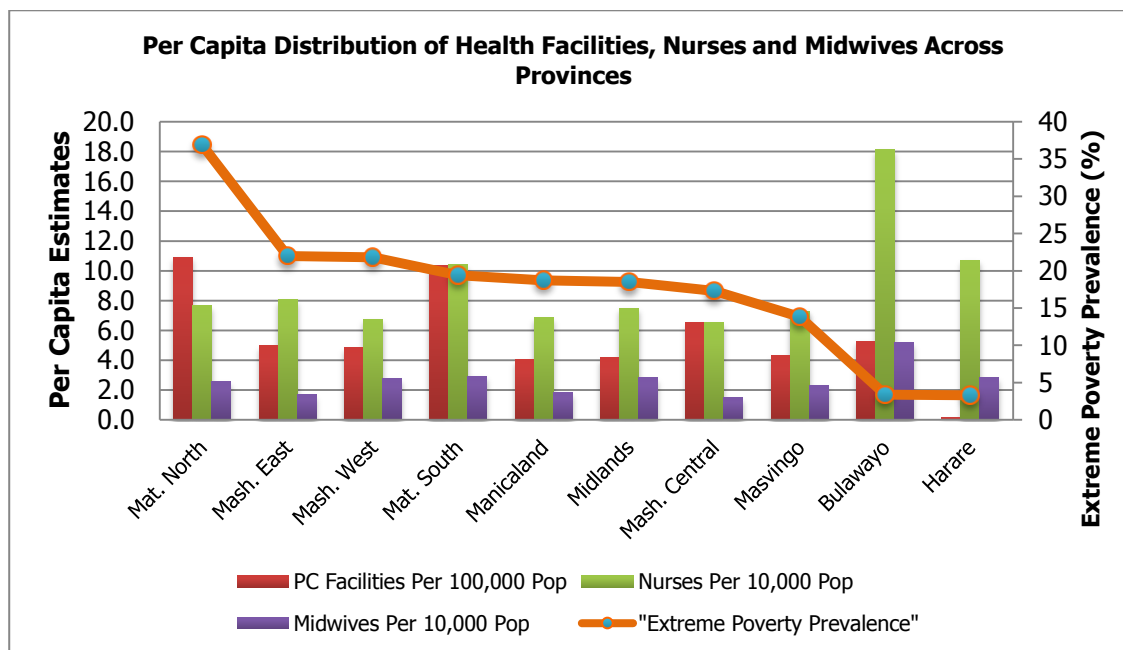
Figure 14 Distribution of Health Facilities, by Province and Population Density



Source: Authors using facility GIS data (MOHCC) and National Health Profile data.

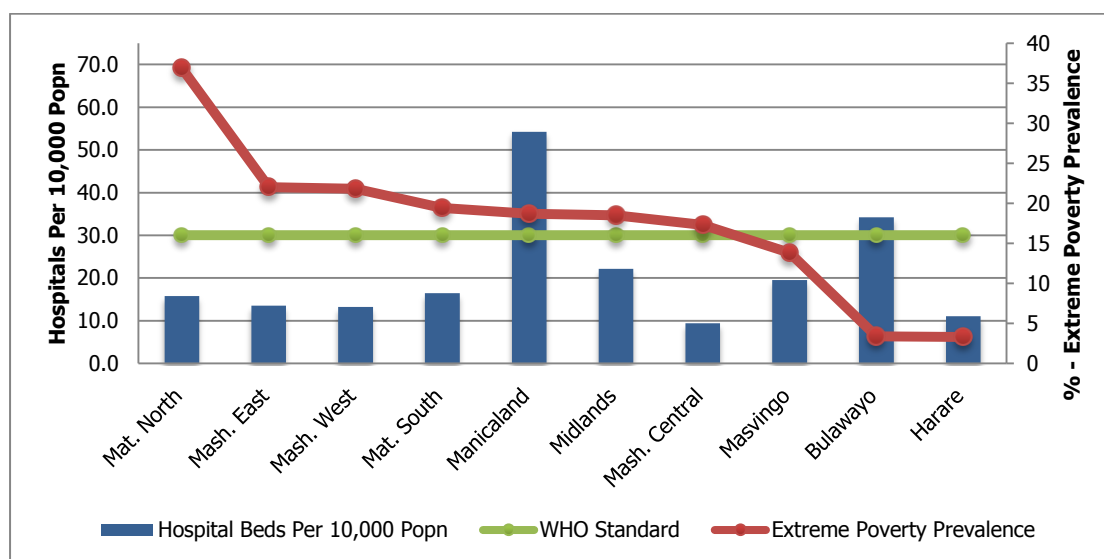
45. Although distance still presents a barrier to access—nearly one-fifth of the population lives more than 10 kilometers from the nearest facility—such inequities are not associated with poverty prevalence. Matabeleland North for example, with the highest poverty prevalence of 82 percent, also has the highest number of primary health care facilities per 100,000 population.²⁸ The sparse population in this province also implies that the facilities generally serve a smaller population, though the picture is somewhat different for nurses and midwives as their per capita coverage is notably high relative to the poverty status of the province. Also notable is Matabeleland South, which shows a high poverty status but very low coverage of facilities and health workers (Figure 15).

Figure 15 Provincial Distribution of Facilities, Nurses and Midwives, 2012



Source: MOHCC, National Health Profile 2012.

46. The population-to-bed ratio is an important public health measure used to reflect the availability of hospital services in a location. Provinces show wide differences on this ratio, from 9.4 to 54.2 per 10,000 population, but with eight of the 10 provinces falling below the WHO-recommended 30 beds (Figure 16). The bed occupancy rates of the hospitals within the provinces (excluding central hospitals) are also very low, with a national estimate of 6 percent.²⁹

Figure 16 Distribution of Hospital Beds by Province, 2012

Source: MOHCC, National Health Profile 2012.

Staffing

47. Vacancy rates for critical health workers including doctors, nurses and midwives, but not pharmacists, generally fell during 2008–14. In 2012 the nurse: population ratio was 1 per 1,136 people (with a far lower vacancy rate than in 2008). Similarly the midwife: population ratio was 1 per 988 women of reproductive age, and the doctor: population ratio was 1 per 15,473 people (their vacancy rates declining after 2008). Vacancy rates in 2014 are in Table 2.

Table 2 Staffing Levels for Select Critical Cadres, December 2014

Cadre	Authorized establishment	In-post	Vacant	In-post (%)	Vacant (%)
Junior resident medical officer	250	219	31	88	12
RGN/SCN/Sr/principal	9,870	9,651	219	98	2
Primary care nurse	1,277	1,231	46	96	4
Environmental health technician senior/principal	1,483	986	497	66	34
Pharmacist senior/principal	125	58	67	46	54
Pharmacy technician senior/principal	186	163	23	88	12

Source: Ministry of Health and Child Care Human Resources for Health Directorate, Staff Return, January–December 2014.

48. The decline in vacancy rates is mainly related to the training and retention policy under the HTF (discussed in Section 3). The number of staff benefiting from the retention allowances edged up from 18,409 in December 2012 to 18,732 in November 2013, due to the unfreezing of posts within MOHCC.^{30,31} As at end-December 2014, 141 doctors were supported by the HTF, up from 127 a year earlier; all district hospitals have at least two doctors while the number of practicing midwives increased from 1,511 (2012) to 3,991 as at end-2014.³² There is however a shortfall of some 5,000 practicing midwives as the national target is to have 60 percent of Registered General Nurses trained as midwives—9,685 out of a total complement of 16,142 for government, missions, and councils.

49. Despite reductions in vacancy rates, Zimbabwe's health sector is still faced with critical shortages in staffing. The health worker density in the country falls far short of the WHO

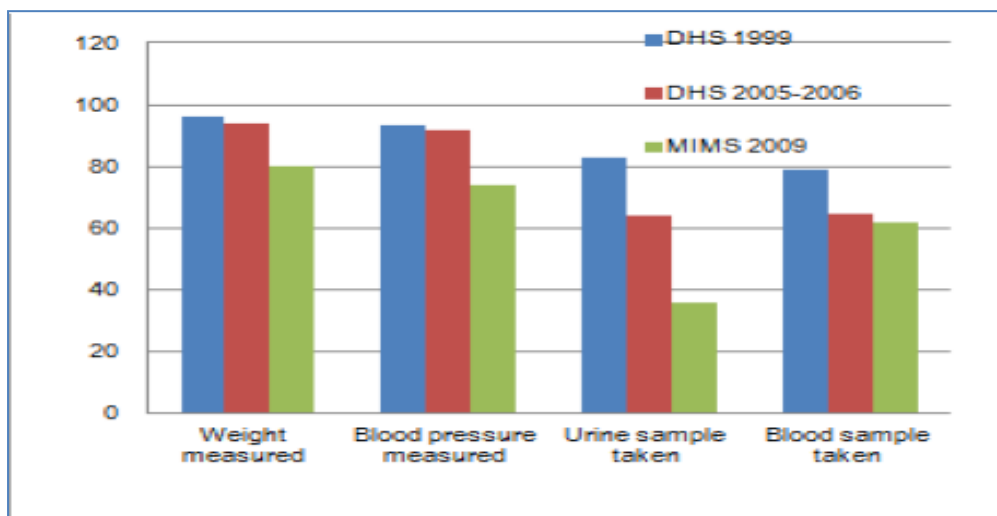
recommendation of 23 health workers (nurses, midwives, and doctors) per 10,000 people. The 2012 per capita coverage for nurses ranged from 1 to 10.9 nurses per 10,000 people across provinces.

Quality of Care

50. Service delivery shows little adherence among practitioners to performance standards, exacerbated by lack of equipment and other supplies, mainly due to poor financial resourcing. The range of health services and their quality are unlikely to improve without an injection of new funds (Box 1 below).

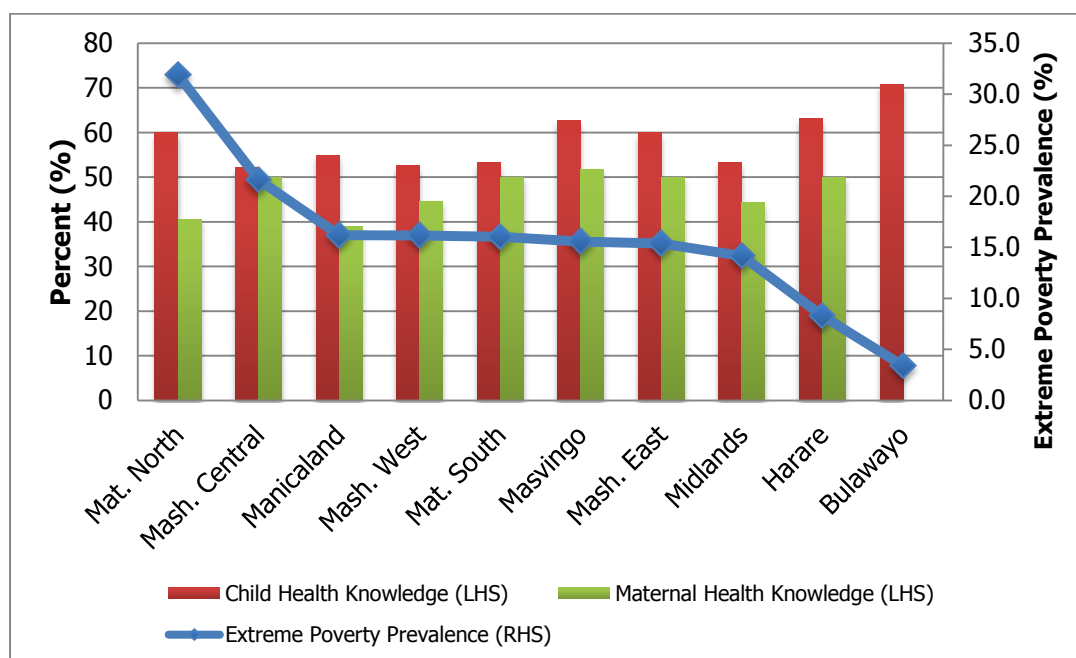
51. The quality of antenatal care decreased over 1999–2009 on four main indicators (Figure 17).³³

Figure 17 Quality Indicators for Antenatal Care Services, 1999–2009



Sources: ZDHS 1999 and 2005/6; MIMS 2009.

52. On average, only 29 percent of health facilities were meeting the criteria for provision of signal functions for basic emergency obstetric and newborn care in 2012.³⁴ Health workers had higher knowledge scores in child health {56.8% (SD=17.9)} than maternal health {47.7% (SD=16.9)}. Some variation of knowledge can be observed across provinces, although statistical association with poverty cannot be established (Figure 18). Average availability of equipment for emergency obstetric care was around 50 percent at facilities in 2012.³⁵

Figure 18 Knowledge Scores for Health Workers across Provinces, 2011

Source: NIHFA 2012.

Box 1 Constraints to Quality of Health Services

The government and development partners acknowledge the need to prioritize quality in order to transform the system and reposition Zimbabwe as a regional leader in providing equitable, quality care. Several household and facility surveys show that MOHCC stakeholders, citizens, and partners widely acknowledge major deficits in the quality of ambulatory and hospital health care services, such as ZDHS 2000 and 2005; 2009; a study by the Maternal and Child Health Integrated Program (MCHIP) 2012; and NIHFA 2012.

Beyond providers being overstretched in understaffed facilities, and often lacking skills and confidence to manage common life-threatening complications, many district and regional administrative supervisors do not have up-to-date clinical knowledge and skills to assess or strengthen provider competence in priority clinical areas. As in many countries, national guidelines do not always include explicit case-management standards tailored to specific levels of the health system, resulting in lack of clarity about when and how to refer patients with life-threatening conditions and poor coordination of care across levels.

In many clinics and hospitals, medical records and registers do not document minimal elements of basic quality care, such as vital signs and physical exam findings. For example, outpatient pediatric and adult registers often include only the patient name, main complaint, diagnosis, and medication prescribed, without any results of vital signs, physical exam, or duration and severity of symptoms. Indeed, providers stagger under the burden of completing as many as 10 or 15 clinical registers to meet reporting requirements, yet there is very little integration of essential data. The health information system contains primarily coverage information on health care services, with infrequent inclusion of clinical-quality measures even for very high-impact clinical interventions.

2.4 Coverage of Important Public Health Programs

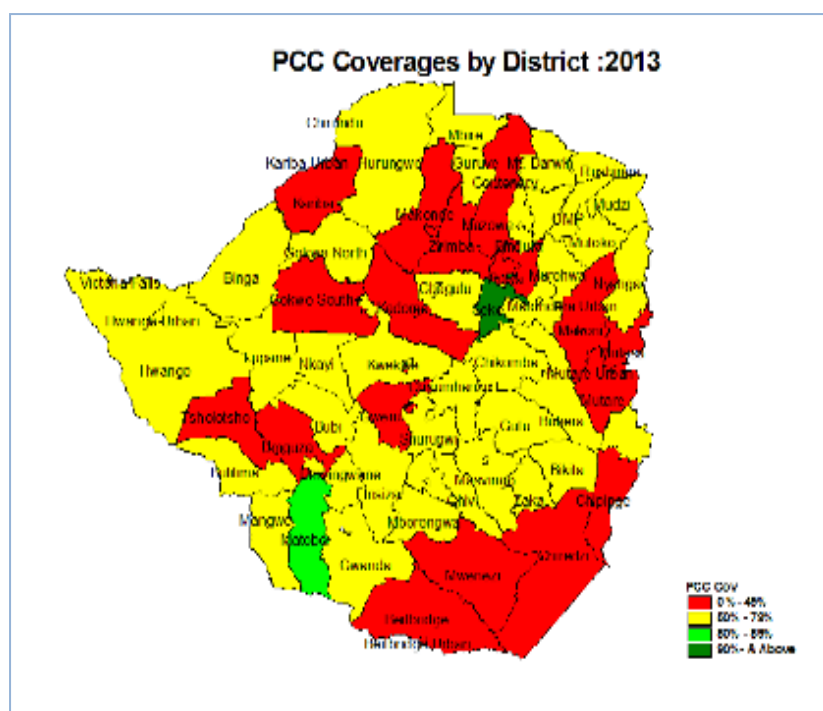
53. Services are supported by a number of programs implemented within the public health service delivery system. Some are disease specific, others are integrated within the system's elements or building blocks.

Immunization

54. Through the national Extended Program on Immunization (EPI), supported primarily by the HTF and the Global Alliance for Vaccines and Immunization, immunization coverage has improved in the past years with at least 83 percent of children under one year being immunized in 2014,³⁶ up from 76 percent in 2009. Good coverage has also been achieved for other antigens in recent years. The trends are, in general, in line with SSA averages. For instance the 2011 and 2012 DPT coverage for Zimbabwe was 89 percent, higher than the 78 percent average in other low-income SSA countries in both years. Similarly, measles coverage was 90 percent in 2011 and in 2012, against 76 percent and 77 percent for the other countries. Concerns have, however, been raised over the accuracy of the denominators used to calculate the immunization data.

55. Some geographic variations are notable, with the South Eastern border districts having the least coverage (Figure 19). Factors influencing uptake include remoteness, education levels, religious practices, and the extent to which certain parts of the country adhere to cultural practices that constrain women and children's use of the modern health care system.

Figure 19 Immunization Coverage (Primary Course Completed)



Source: HTF Annual Report, UNICEF 2012.

Maternal and Reproductive Health

56. Progress has also been observed in the coverage of antenatal care (ANC) services and institutional deliveries. The coverage of pregnant women who attended ANC four times or more increased from 62 percent in 2011 to 70 percent in 2013, the coverage by skilled birth attendants rose from 67 percent in 2012 to 80 percent in 2013, and the share of women who attended postnatal care at least twice climbed from 27 percent in 2011 to 38 percent in 2013.³⁷ The contraceptive prevalence rate in 2014 was 67 percent (with an unmet need of 10.4 percent), a number similar to the 2009 estimate of 65 percent but an increase from the 2013 estimate of 59 percent.³⁸ Despite these gains, the poor performance of outcome indicators such as the MMR points to poor quality of care.

Infectious Diseases

57. Zimbabwe seems to have made steady progress toward universal coverage of treatment to prevent mother-to-child-transmission of HIV: 93 percent of pregnant mothers who test positive receive treatment. Based on the previous WHO guidelines for antiretroviral therapy initiation of CD4 <350, at least 85 percent of adult Zimbabweans who were tested and were eligible for HIV treatment were receiving it in 2012.³⁹ However, only 47 percent of men and only 54 percent of women had ever been tested for HIV.⁴⁰

58. In addition, sustainability of progress is not ensured given that some important development partner programs are ending (a significant amount of funding to prevent mother-to-child-transmission of HIV is committed only up to 2015) and there is limited domestic financing to sustain service delivery.

59. Pediatric antiretroviral therapy coverage has experienced a recent decline—from 42 percent in 2012 to an estimated 40.5 percent in 2013.⁴¹ The sexual reproductive health program targeting youth, one of the groups most highly vulnerable to HIV transmission, is focusing on prevention through behavior change and voluntary medical male circumcision, although the latter is an area quite new to the sector. The coverage of tuberculosis services is at 82 percent of smear-positive tuberculosis patients who completed treatment being cured, against a global target of 85 percent.⁴²

NCDs

60. The coverage of NCD interventions has generally been low. Current efforts include cervical cancer screening in selected districts as part of a national rollout plan. Discussions with key informants, including MOHCC officials, showed recognition of the need to strengthen NCD prevention efforts through awareness raising; increased coverage of early detection, screening and therapy (e.g. cryo-therapy for cancer of the cervix); and establishing health system mechanisms to manage chronic conditions. Among children with life-threatening and life-limiting conditions in South Africa, Zimbabwe, and Kenya less than 5 percent of those in need of palliative care in South Africa and Zimbabwe have access to palliative care, and in Kenya less than 1 percent.⁴³

3. Health Expenditures

Key Messages—Section 3

1. Reversing Downtrends in Public Health Spending

The general trend in developing countries has been to increase government responsibility in health care, but in Zimbabwe, economic crisis prompted the opposite trend and, despite some pickup in 2009–12, per capita spending is still lower than in most regional peers. Moreover, 2013's and 2014's health expenditures decreased in real terms and as a share of general government expenditures; budget allocations to health in 2015 also declined.

2. Reallocating Government Expenditures More Efficiently

Labor outlays are far too high share of public health spending, lowering system efficiency. They are also unsustainable, especially as wages are generally inflexible downward and as Zimbabwe is struggling to retain qualified personnel. Further, too little funding goes to preventive and public health activities. Any new financing from the MOFED should first go to these areas, and to medical supplies and medicines. Current budget classification—largely curative not preventive—does not allow any tracking of level of care, nor of some other public health expenditures. Revising this system should improve accounting for primary care activities and thus resource allocation.

3. Coordinating Donor-funded Spending Better

Donor spending per capita is low in Zimbabwe relative to regional peers, even if the health system relies heavily on it. But more than simply increasing such funding, its efficiency and coordination with government spending plans need to be strengthened for proper prioritization and achieving better value for money.

4. Reducing Household Spending on Health

User fees are still one of the biggest sources for government service providers, deterring many from seeking health care at every income level. While out-of-pocket (OOP) spending is distributed progressively, a strong regressive pattern is found by type of health facilities accessed by different socioeconomic groups. The great majority of the poor use primary health facilities for inpatient care. Health care should be made more affordable. Spending on private and parastatal health insurance for government and large-company workers is appreciable, despite their small memberships. Such options are almost nonexistent for rural dwellers.

5. Better Accounting to Achieve Precrisis Spending Efficiency

Before the crisis Zimbabwe seems to have been one of the most efficient countries for achieving better outcomes for less public money, but it lost this advantage after the crisis. Simply raising public spending will not achieve much unless resource allocation is improved. The government may well wish to consider a disaggregated budget allocation and reporting system that recognizes different geographic areas, levels of care, and facilities, as well as more decentralized budgeting systems, including management of community-responsive funds. Greater clarity on budget appropriation and allocation rules is needed, among which spending priorities need to be determined at the start of the budget process at program level (that is, by function).

A major stumbling block is that, while the district is the lowest administrative unit, data at that level are unavailable. A public financial management system rolled out to districts would enable on-time tracking of expenditures, strengthening the capacity of the Finance and Administration Directorate to monitor budget execution and reporting.

61. This section examines health-system expenditures by financing agent with special attention to efficiency and equity considerations within the limits imposed by data availability. There is no reliable estimate of total health expenditure in Zimbabwe. The latest NHA was conducted in 2010 when the country was emerging from an economic crisis, and the volatility of the pricing and currency at the time made it essentially impossible to consistently come up with expenditure figures, not only from the households, but also from different institutions and donors. The report therefore makes minimal references to NHA 2010 results. Relative magnitudes, however, should carry some meaning. They indicate that households are by far the largest source of funding, while foreign aid is the second largest (before domestic public resources), although large fluctuations in foreign aid (Figure 30 below) likely reverse the order of domestic and external public funds in some years.

62. The MOHCC is working on a plan to institutionalize the NHA in Zimbabwe, which will entail estimating an NHA every year. While such frequency is unlikely to be needed, an attempt to produce NHA estimates regularly is a welcome step. It is important for the MOHCC to work with ZIMSTAT to design a more elaborate health module to be incorporated in the PICES, which will be conducted at regular intervals, possibly every four years. The Bank and other partners can provide technical assistance in finalizing such a module.

63. Although there is no alternative to an NHA for providing a complete picture of health financing and expenditure, important insights can be gained from more recent and reliable data from other sources. They include detailed information from the MOFED on MOHCC expenditures, HIV/AIDS financing and expenditures from the NAC, partial information from donors and the private sector, the 2011/12 PICES, and household and facility surveys conducted in 32 rural districts as part of the 2014 midline impact evaluation of the RBF.⁴⁴

64. Using these sources of data, three main sources of health expenditure are examined: government (including notably the MOHCC and NAC), donors, and the private sector (principally households through OOP spending and private prepayment schemes). The section concludes with an analysis of Zimbabwe's public expenditure performance, making the link between expenditure and health outcomes.

3.1 Government Health Expenditures

Overview

65. In 2013, government health expenditures (GHE) were at least 2.9 percent of GDP, or about US\$29 per capita.⁴⁵ As a share of GDP, this is close to the 2012 SSA and low-income country (LIC) averages respectively at 3.1 percent and 2.7 percent of GDP, and equal to the 2012 average of African LICs. In per capita terms, it is well above the 2012 average of US\$15 in LICs but well below the 2012 average of US\$68 in the World Bank SSA region.

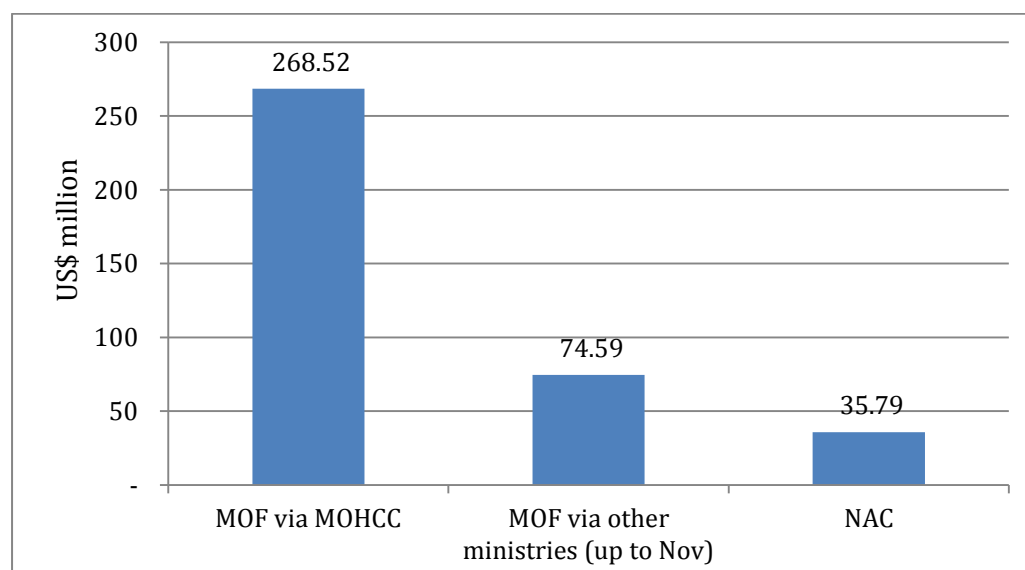
66. International comparisons are complicated by the fact that most African countries' GHE figures include a larger proportion of foreign aid on budget than is the case for Zimbabwe; and GHE data normally include all expenditure from local governments, which is not the case here. The largest difference would stem from the size of foreign aid in GHE: indeed, almost all official development assistance (ODA) for health in Zimbabwe has been channeled off budget in the period considered. In addition, no data could be obtained on local GHE financed by local taxes and fees; the NHA 2010 suggests that the contribution of local governments to GHE decreased sharply over 2001–10 from about 10 percent to less than 3 percent of total GHE. This fall contributes to the downward bias in the GHE figures reported for Zimbabwe, but is small enough not to affect government expenditure analysis overall.

67. Estimated trends suggest that GHE reached a very low point in 2009 but rapidly recovered, before showing signs of weakness in 2013. According to the WHO Government Health Expenditure Database (GHED), per capita GHE were US\$31 in 2000 and US\$25 in 2001. These are the only two years for which data are available in an internationally comparable database for Zimbabwe.⁴⁶ Based on MOHCC expenditure trends and assuming that the share of MOHCC expenditures in GHE remained constant, GHE per capita increased from about US\$8 in 2009 to US\$32 in 2012.⁴⁷ This represent a full recovery relative to the 2000 figure in nominal terms and a threefold increase in real terms over 2009–12. However, 2013 marked the first year when expenditure of the MOHCC decreased since the adoption of a multicurrency regime in 2009 (whether in nominal, per capita, or share of GDP terms), translating into an estimated per capita GHE of US\$29.⁴⁸

68. Within central government, health-related funding is channeled primarily through the MOHCC, but also goes through other government agencies such as ministries (including those responsible for defense, justice, home affairs, and labor) and the Workman's Compensation Fund for injuries at work of the National Social Security Authority. Through the Ministry of Public Service, Labour and Social Welfare, the government allocates funds to a quasi-public medical aid scheme (Premier Services Medical Aid Society). These funds are meant as a coinsurance contribution for public sector workers and their families. Through a social protection assistance program known as the Assisted Medical Treatment Orders, the government also allocates targeted funds for poor and vulnerable people such as the elderly, under-fives, and those earning less than a set threshold of income.⁴⁹ In addition, the NAC constitutes an important source of funding for HIV/AIDS prevention, treatment, care, and support initiatives.

69. Central government expenditure in current US\$ from the three main GHE sources in 2013 was US\$379 million: US\$268.5 million through the MOHCC; US\$74.6 million through MOFED via other government entities including the Premier Services Medical Aid Society; and US\$35.8 million through NAC (Figure 20).⁵⁰ The government health spending channeled through the MOHCC comes to around 70 percent. Health spending of other ministries, although slightly underestimated here, is not significant if we consider that spending on the Premier Services Medical Aid Society alone, which is included in the amount for other ministries, accounted for roughly US\$70 million.⁵¹

Figure 20 Central Government Spending on Health, 2013 (current US\$)



Source: Authors from MOFED and NAC data.

70. Central GHE allocations and trends of the MOHCC and NAC are analyzed below (two sources for which relatively detailed data are available and together accounting for 80 percent of expenditure) with the bulk of the analysis based on MOHCC expenditures.

MOHCC: Health Expenditure Analysis

71. This analysis is based on expenditure data provided by the MOFED and MOHCC. No attempt is made to compare budget appropriations to expenditures due to the high fungibility of appropriations across functions and economic categories. This is partly attributable to the cash-based budgeting system that restricts expenditures to available resources, but also to data quality, including discrepancies between appropriation figures (original and revised) in the different reports received.⁵² Cash budgeting makes long-term planning by the MOHCC extremely difficult, which is one possible reason—alongside delayed disbursements to MOHCC from MOFED—why many major program interventions are financed by development partners.

72. Budgets have consistently focused on broad expenditure categories or economic line items rather than on output- and outcome-related health functions, making it hard to use budget allocations to assess the country's achievements on allocative efficiency and equity. In fact, Zimbabwe has experimented with different allocation methods based on simple incremental budgeting or workload-based resource allocation, but in effect little has changed in the way budgets are allocated.

73. Another issue concerns the way in which budget allocation and expenditure decisions are centralized. Provinces submit annual budget bids based on historical expenditures and needs, but final budget allocations by geographic area remain unclear, with no distinct format or method used in allocating the budget to different provinces. Based on interviews with district, provincial, and national management teams in the MOHCC, for the past 10 years these teams seem to have viewed the planning process as a formality since most of their submissions are not fully honored. There is a perception that budget allocation from MOFED is an “envelope” regardless of MOHCC requirements. As a result, provinces do not engage in budget planning in that they submit similar budget proposals each year. (Annex 2 reviews some features of the current budget allocation and expenditure accounting system.)

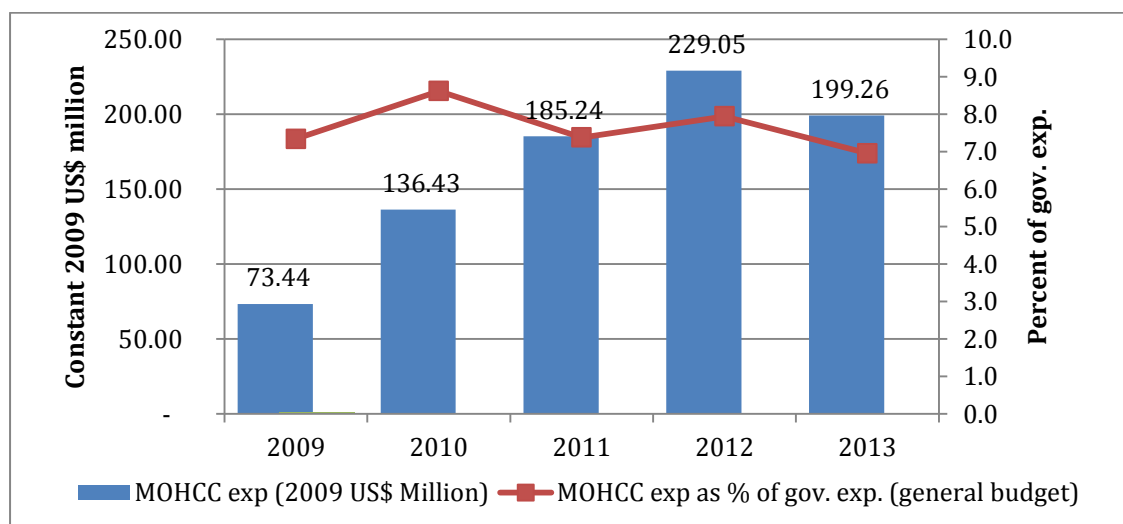
74. As part of its efforts to implement the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (Zim Asset), the government plans to adopt a performance-oriented budget strategy (results-based budgeting) that identifies the input cost of alternative services necessary to reach desired outputs with a link between outputs and outcome objectives. This approach will highlight the choices the government has to make in financing alternative programs and empower the MOHCC to establish well-defined priorities. A periodic health sector PER can help identify relative priorities and make the link between expenditures, outputs, and outcomes in terms of technical and allocative efficiency and equity goals. It can also provide information on funding sources. Other practical approaches can be adopted without a huge drain on human capital resources (Box 2).

Box 2 Practical Moves to Ease the Flow of Finance

The current system of budgeting, interbudgetary transfers, and budget execution at national and subnational levels provides enhancement avenues, including: (i) developing a financial module within the HMIS, building on the successful roll-out of DHIS2 software to subnational levels;⁵³ (ii) rolling out the public financial management system from provincial to district level and further decentralizing the spending authority to enable district planning, spending, and reporting; (iii) adapting the formula for resource allocation by the MOHCC to include considerations of poverty, population, and burden of disease; and (iv) making nonwage health sector disbursements earlier in the financial year, thereby enabling the MOHCC to implement medium-term programs and interventions.

MOHCC Total Expenditure: Size and Trends

75. MOHCC spending increased nearly threefold in constant terms over 2009–12, from roughly US\$73 million to US\$229 million (2009 prices), but remained relatively stable as a share of the general budget.⁵⁴ There was a slight decrease in 2013, however, in nominal terms and in share (Figure 21). More recent data, though based on appropriations rather than actual expenditures, indicate that the commitment to health has been further reduced.

Figure 21 MOHCC Expenditure in Total and as a Share of General Government, 2009–13

Source: Authors using MOFED data.

76. Based on WHO's definition of GHE, which includes government expenditures channeled outside the ministry of health, the share of health in general government expenditures is lower than the Abuja target of 15 percent, but slightly higher than the SSA and LIC averages (Table 3).⁵⁵

Table 3 GHE in General Government Expenditures, 2012

	GHE (% of gen. gov. exp.)
High-income	12.88
Low- and middle-income	10.50
Low-income	9.68
Lower middle-income	10.38
Upper middle-income	11.16
Sub-Saharan Africa	9.71
Zimbabwe (2013)	10.05

Source: Authors' calculations from WHO (GHED) and MOFED.

MOHCC Total Expenditure: Assessing Allocative Efficiency

77. Given the needs of the health system presented in Section 2 and the known properties of different health functions in terms of their public goods characteristics and best value for money, efficiency requires that primary care and prevention/public health activities be given priority (Box 3).

Box 3 Allocative Efficiency Analysis Using Functional Allocations of Health Expenditure

Allocative efficiency analysis generally examines the types and combinations of goods and services produced in relation to demand. The term allocative efficiency is loosely interpreted here in the sense that consumer preferences and demand are not directly measured. Instead, the analysis rests on some general appreciation of needs and on well-known characteristics of the different types of health provision (functions) in terms of their public goods (public health activities) and best value-for-money (primary care and prevention) characteristics.

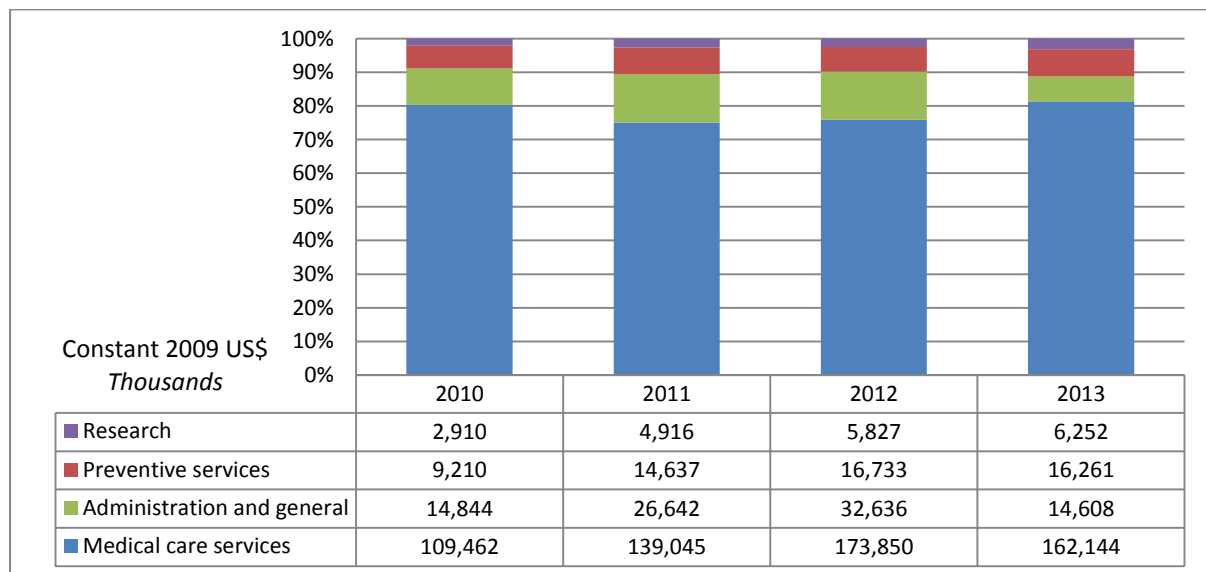
By affecting parameters such as accessibility and quality, the allocation of health expenditures across different types of health service does not just reflect a response to demand pressures or need but can also influence the types of services that will be effectively used by individuals and therefore affect short- and long-run cost-efficiency. Indeed, there is some degree of substitutability between the different kinds of care dispensed at the primary, secondary, or tertiary levels or in different types of facilities in terms of reaching desired outcomes (lower mortality and morbidity). Expenditures on prevention, for example, complement current expenditures on curative care contemporaneously but substitute for future expenditures on curative care and are therefore recommended in a sustainability perspective. Finally, while efficiency and equity often involve a trade-off in other sectors, the two goals tend to be complementary in the health sector. In particular, directing more resources to primary health care and disease prevention is usually recommended both as efficiency and equity enhancing.

In addition to looking at functions in terms of health services and levels, analysis of the distribution of expenditures by health priorities is useful to assess allocative efficiency in responding to needs. The question is whether efforts are placed where they are most needed and where they will have most effect. The need to prioritize some health programs against others in the name of allocative efficiency depends on specific conditions of the country, based on an evaluation of the situation and evolution of major health outcomes, utilization indicators, and demographic changes.

78. The distribution of recurrent and capital MOHCC expenditures by function (across all types of economic classifications) over 2010–13 reveals that expenditures on curative services absorbed 75–81 percent of all MOHCC expenditures, effectively driving the increase until 2012 (Figure 22).^{56,57} While the share of curative services dropped slightly or remained stable as total spending increased over 2010–12, it increased as total spending went down in 2013. This may be a signal that the budget is already tight relative to curative needs, and that further reductions in spending would further reduce the space allocated to noncurative functions. It is also possible that some of the

expenditures labeled “curative” in 2013 are in fact related to past rather than current expenditures on curative services. Indeed, hospitals are known to have accumulated large debts to suppliers.⁵⁸

Figure 22 Functional Classification of MOHCC Expenditure in Shares and Levels, 2010–13



Source: Authors using MOFED data.

79. The current budget classification of health care activities into curative versus preventive, however, does not permit the tracking of primary care and some public health expenditures. Along with prevention, these activities are generally recommended on allocative efficiency grounds because they are also cost-effective and include high positive externalities; they also often include a strong prevention component. Unfortunately, given the way the budget is structured, it is not possible to use budget expenditure data to separate the share of MOHCC expenditures that went to finance primary care facilities versus hospitals, nor how much primary care is actually dispensed in hospitals. This information would be very useful to evaluate the allocative efficiency and sustainability of the system. The only trace of efforts toward low-cost, high-impact activities comes from prevention expenditures and from vertical health programs.

80. Relative to the overwhelming share of curative services, preventive services and research appear to have received little attention from the government, representing together about 10 percent of MOHCC expenditures (7–8 percent preventive, 2–3 percent research). If we consider that budget appropriations on preventive services mainly consist of administrative expenditures for the provincial medical director’s offices, the government is in fact not investing at all in health prevention, leaving most preventive health activities to be financed by development partners. Adding all noncurative expenditures on activities and programs of the NAC increases the figure by 1.7 percent.⁵⁹

81. Thus compared with other African countries, spending on preventive services in Zimbabwe is low. For example, NHA data around the years 2009–10 in Kenya, Tanzania, and Uganda showed that these countries spent more than 20 percent of total health expenditure on preventive services.⁶⁰ One positive sign, however—considering that preventive activities increase the long-run efficiency of the system by substituting for future increases in curative expenses—is that absolute amounts devoted to these functions in Zimbabwe have come close to doubling since 2010.

82. While it is undesirable to have vertical silo programs, it is important to devote more funds from the general government budget to important public health issues. This is particularly the case for the central government budget because of the public goods nature of such programs; the private cost of obtaining the service is likely bigger than the private benefit, but positive externalities are large. Table 4 shows that public health programs together seldom accounted for even 1 percent of the MOHCC budget (although this does not include funds going to HIV/AIDS activities and programs through the NAC, which represented 6.4 percent of total MOHCC and NAC expenditures in 2013).

Table 4 MOHCC Spending on Public Health Programs, 2009–13 (US\$ thousand)

	2009	2010	2011	2012	2013
Environmental Health	11	24	130	78	56
EPI		39	58	187	207
Emergency Preparedness and Response	8	14	5	8	11
Health Education		11	40	94	178
HIV/AIDS/STD/Tuberculosis (does not include HIV/AIDS funds through NAC) ^a	9	42	57	119	99
Integrated Management of Childhood Illnesses		15	17	40	60
Mental Health	6	4	29	33	20
National HIS		10	39	17	10
National Malaria Control	699	1,131	907	711	441
National Program of Action for Children		3	38	67	22
NCD		5	125	91	91
Nutrition	4	16	157	254	399
Rehabilitation	16	4	26	49	52
Reproductive Health		2	6	28	3
Village Health Workers		28	33	20	59
Total	754	1,346	1,668	1,796	1,708
% of MOHCC spending	1.03	0.89	0.75	0.62	0.64

Source: MOFED data.

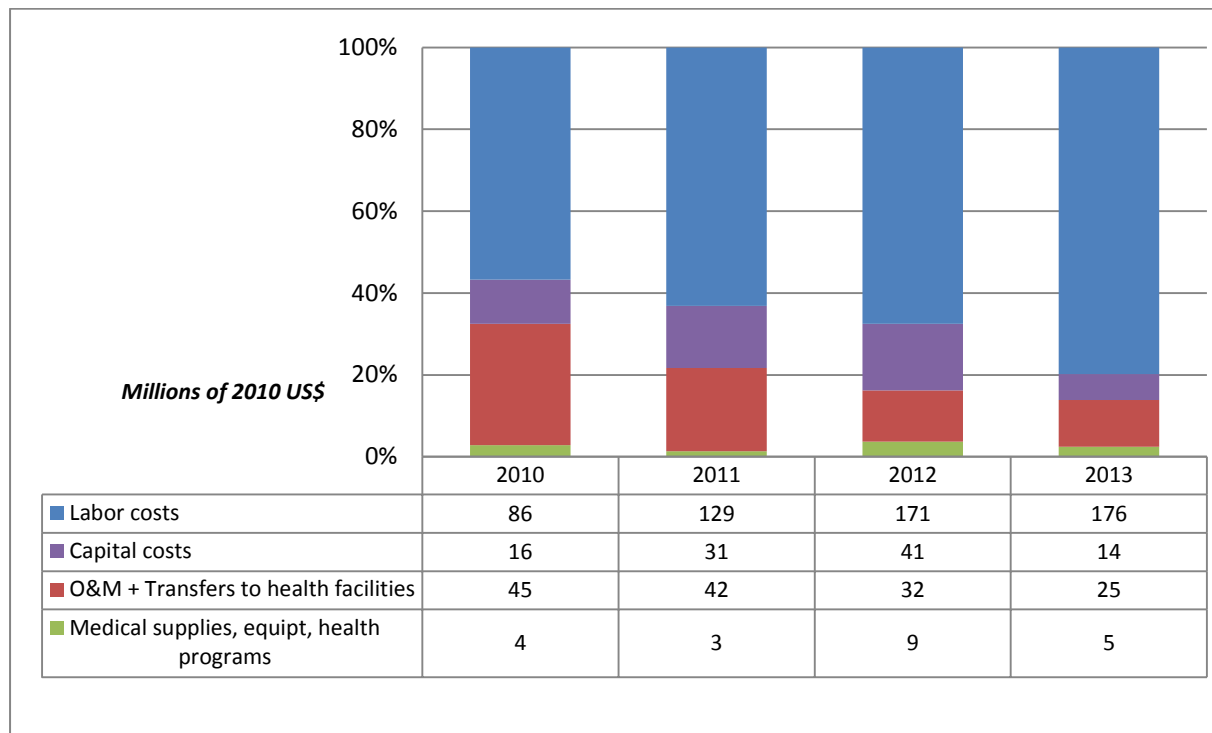
a. Excluding the NAC's HIV/AIDS activities and programs.

83. On the positive side, some diversification is observable: the malaria control program, which alone constituted 92 percent of these program-specific MOHCC funds in 2009, received one-quarter of the funds in 2013. Programs that have received increased attention include notably EPI, Health Education, NCD, and Nutrition. However, many important programs had less than US\$100,000 a year to operate on, which raises the question of what they can achieve.

MOHCC Total Expenditure: Elements to Assess Technical Efficiency

84. Efficiency is also greatly affected by the balance of health system inputs. In particular, long-run technical efficiency and sustainability cannot be ensured if labor expenditures are so high that equipment and medicine cannot be purchased. Similarly, new facilities and equipment do not achieve value for money if the maintenance budget is drained or if there is no adequately qualified staff to run them.

85. Figure 23 shows the breakdown of MOHCC expenditures by economic classification for 2010–13.⁶¹ Labor costs doubled in real terms over 2009–12 and their share in MOHCC expenditures went up by 23 percentage points, significantly crowding out other inputs.^{62,63} As of 2013, 80 percent of all MOHCC expenditures were for salaries and allowances.⁶⁴ While it is obvious that capital spending and operation and maintenance (O&M) outlays, including transfers to health facilities, were crowded out by labor costs, expenditures on medical supplies, equipment, and health programs remained very low during the period.

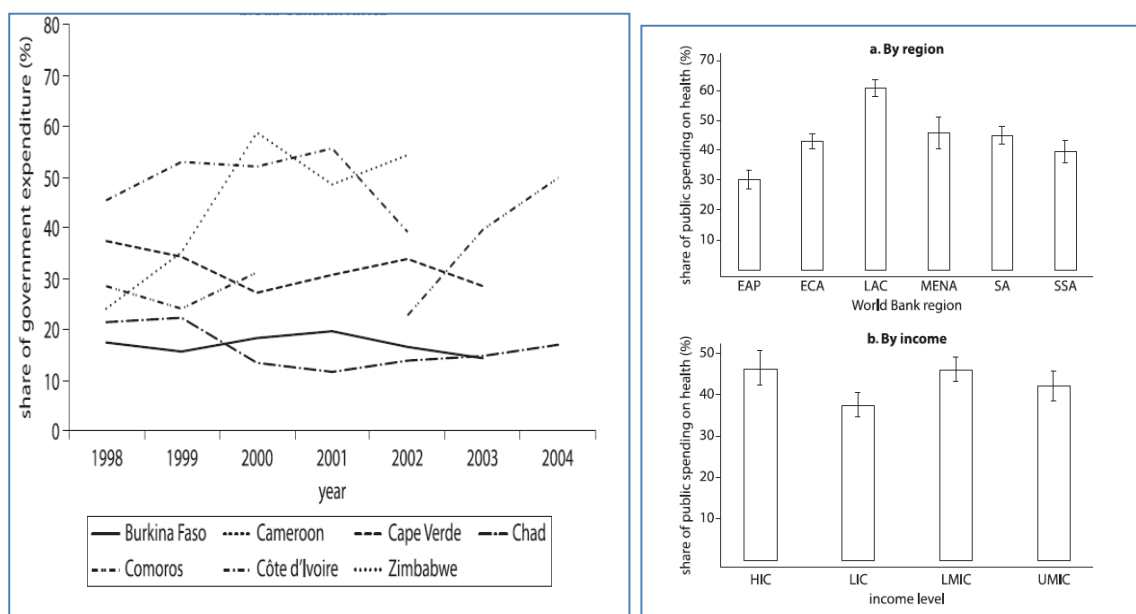
Figure 23 Economic Classification of MOHCC Expenditure, 2010–13

Source: Authors using MOFED data.

Note: The labor costs item includes basic salary in 2010, and from 2011 includes allowances. Health programs include vertical programs and other special programs such as the HTF, Global Fund to Fight AIDS, Tuberculosis and Malaria, and government retention programs. Expenditure for central hospitals and government health providers in the provinces are included in O&M.

86. Few countries have labor shares that high: a study of World Bank PERs released in 2000–11 returned one subnational zone and one country in Sub-Saharan Africa with high labor shares: Zanzibar (2003 PER) with 80–85 percent and Ghana with about 70 percent (2009 PER);⁶⁵ most other PERs for SSA countries reported labor shares around 50 percent.⁶⁶ In general, although there are no specific benchmarks, labor costs over 60 percent are considered too high to be sustainable and incompatible with the provision of quality health care.⁶⁷ Comparative international figures are in Figure 24.

87. Given that wages are largely inflexible downward and that Zimbabwe is still in a tight position on staffing medical facilities and retaining qualified personnel, the situation is unsustainable. Indeed, allocating such a high share of the budget to labor implies reliance on external financing for medical supplies and drugs as well as for O&M and equipment. These pressures create vulnerability for health care delivery as development-partner financing, which covers most complementary inputs, is also vulnerable to external shocks and shifts in these countries' priorities.⁶⁸

Figure 24 International Comparisons and Benchmarks for Share of Wages in GHE

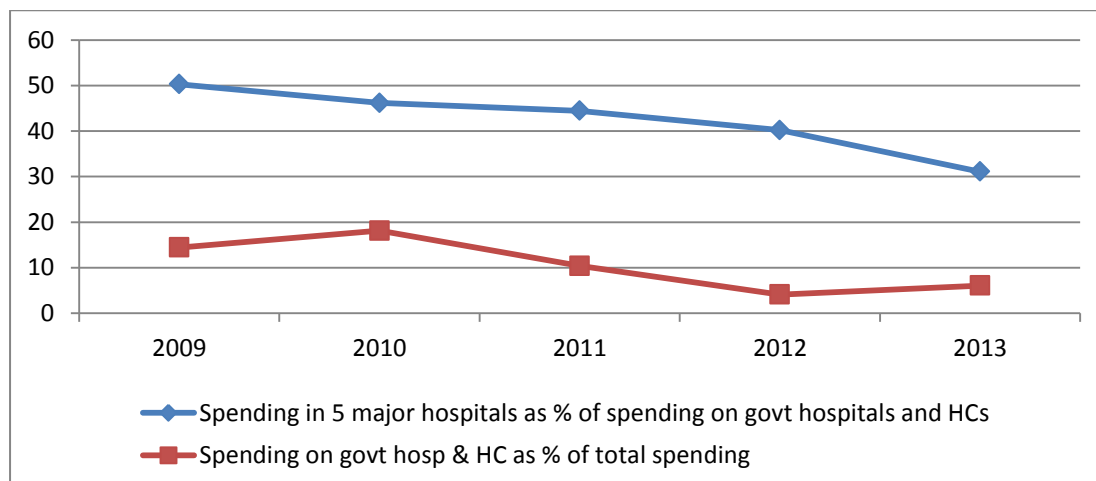
Source: Reproduced from *Working in Health*, World Bank, 2009; original data from WHO.

Note: Comparison with SSA countries based on 1998–2004 data. Benchmarks by region and income based on 2000–04 data.

MOHCC Central Expenditure to Provinces and their Distribution

Concentration

88. MOHCC central expenditures include some direct transfers to hospitals and health centers that are broken down by province.⁶⁹ These transfers represented 18 percent of MOHCC spending in 2010 but only 6 percent in 2013. A large part of these allocations went to only five major hospitals in the country, although the proportion is decreasing (Figure 25).

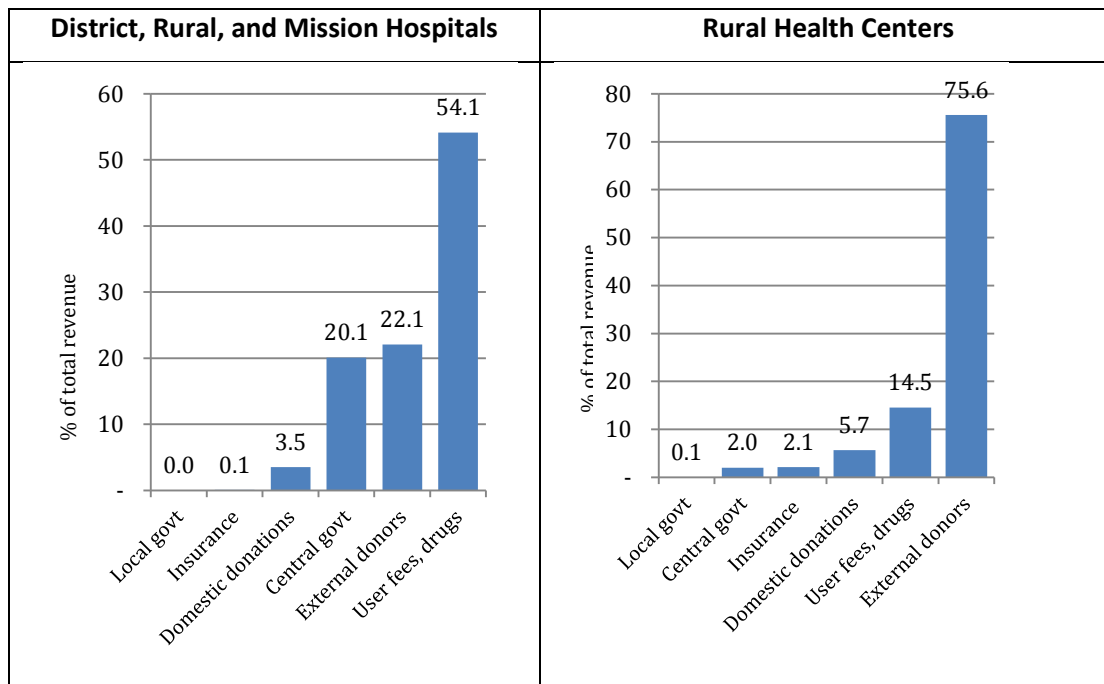
Figure 25 Government Spending on Hospitals and Health Centers, 2009–13

Source: Authors using MOFED data.

Note: Spending does not include employment costs and mission hospitals (which represent a relatively small share). The five major hospitals are Chinhoyi Provincial Hospital, Chitungwiza Central Hospital, Harare Central Hospital, Mpilo Central Hospital, and United Bulawayo Hospital.

89. The 2014 midline facility survey conducted as part of the RBF program impact evaluation reveals that central government spending does not constitute a large source of nonwage recurrent expenditure funding for district and primary level health facilities. Central government spending in 2013 accounted for only 20 percent of all revenue in district-level hospitals (district hospitals and mission hospitals) and 2 percent in rural health centers (Figure 26). For hospitals, the single largest source of funding is user fees and drug sales (54 percent); for health centers, external donors followed by user fees (76 percent and 15 percent, respectively). Contribution from local government and insurance of all types (private, community-based) is close to zero. The revenue and expenditure data collected at facility level does not, however, capture salaries, which are paid out of central government funds.

Figure 26 Share of Sources of Revenue in Hospitals and Health Centers (%)



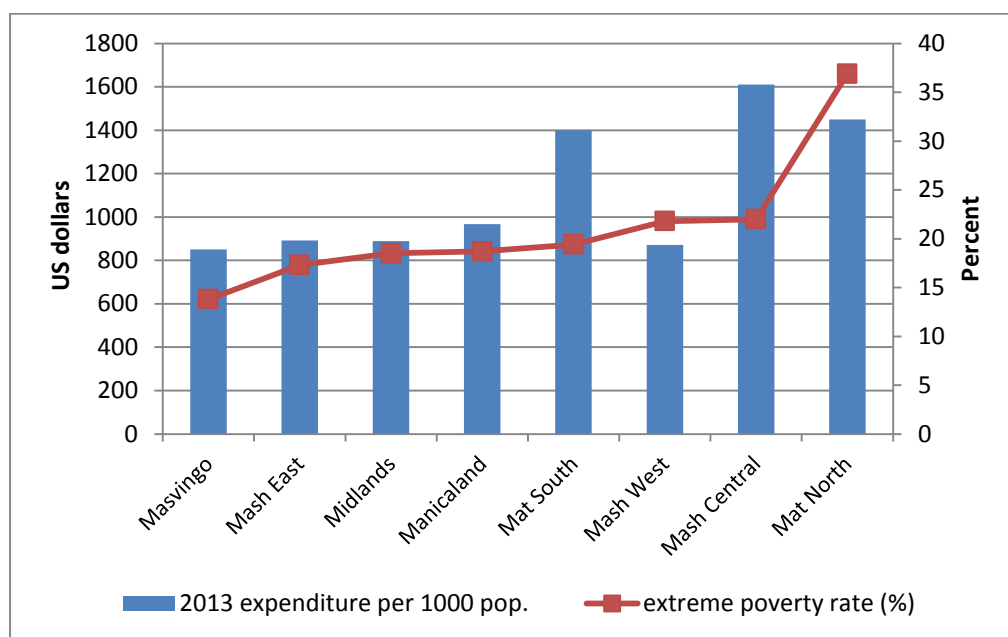
Source: Authors' analysis of 2014 RBF impact evaluation facility survey data.

90. An important implication of these data is that the basic level of health system in Zimbabwe is highly dependent on donor funding and on revenues from private OOP payments, which has negative implications for sustainability and equity. It also confirms the minimal role of local government in funding the health sector and the limited scope of any form of third-party payment in rural health care settings.

Distribution of MOHCC expenditure by province versus poverty

91. Allocations to government hospitals and health centers account for only a small share of total MOHCC spending, but as no other MOHCC expenditures are broken down at provincial level, an analysis of their distribution by province against poverty was made, to judge whether central government expenditure for service provision prioritized poorer areas.

92. Excluding Mashonaland West, per capita spending appears slightly higher in provinces with a higher proportion of extremely poor (Figure 27). The pattern is very similar for other years (data not shown). The differences are, however, too small to establish statistical significance (given the small number of provinces), and no inference can be drawn.

Figure 27 MOHCC per Capita Transfers to Hospitals and Health Centers versus Poverty by Province

Sources of data: MOFED (MOHCC expenditure data), PICES 2011/12 (poverty).

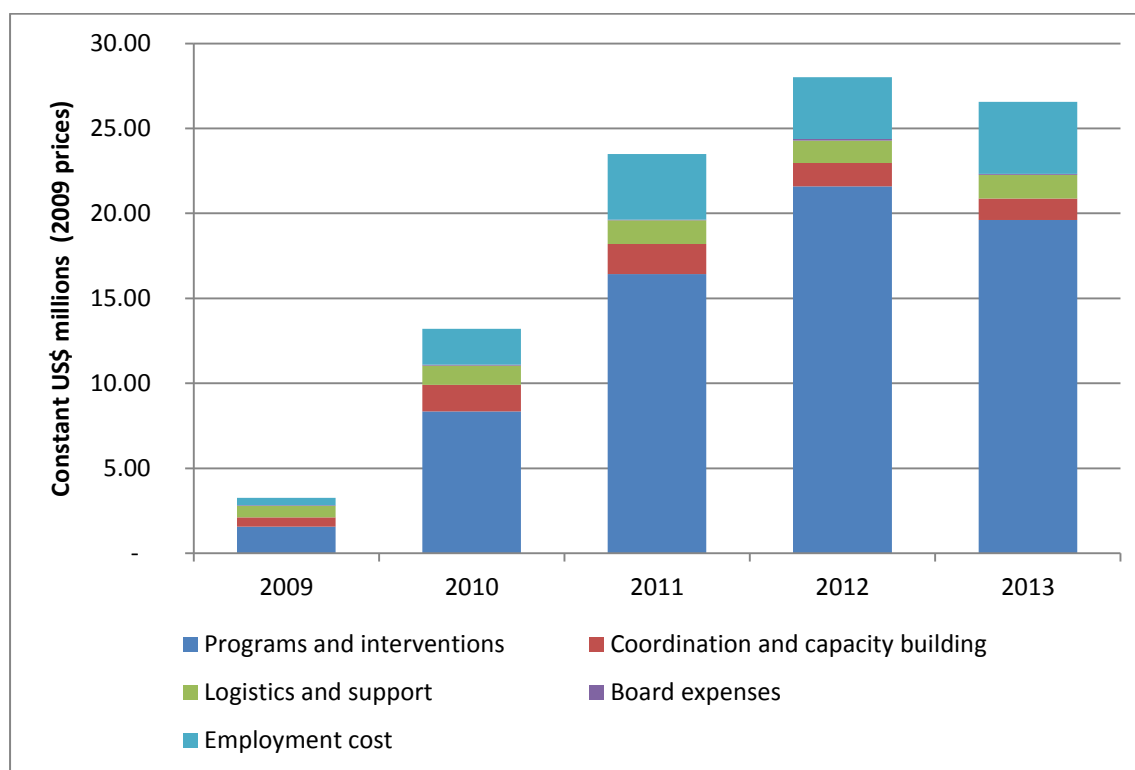
Note: Transfers do not include employment costs. Expenditures of Chinhoyi hospital, which are separate from transfers to the province in the national budget document, are included in the Mashonaland West total.

GHE through the NAC

93. The NAC was established in 2000 by Act of Parliament. The government introduced an AIDS levy of 3 percent (on the amount of assessable income tax) on corporations and individuals to fund NAC activities. The NAC is a major player in the health spending landscape in Zimbabwe owing to the size of the HIV burden.

94. The NAC largely finances HIV/AIDS programs through an off-budget credit line from the MOFED financed primarily through the levy (90–96 percent) and some general revenue grants and investment income. Before 2010 the NAC channeled much foreign aid.⁷⁰ The analysis here for 2009–13 excludes off-budget foreign aid.

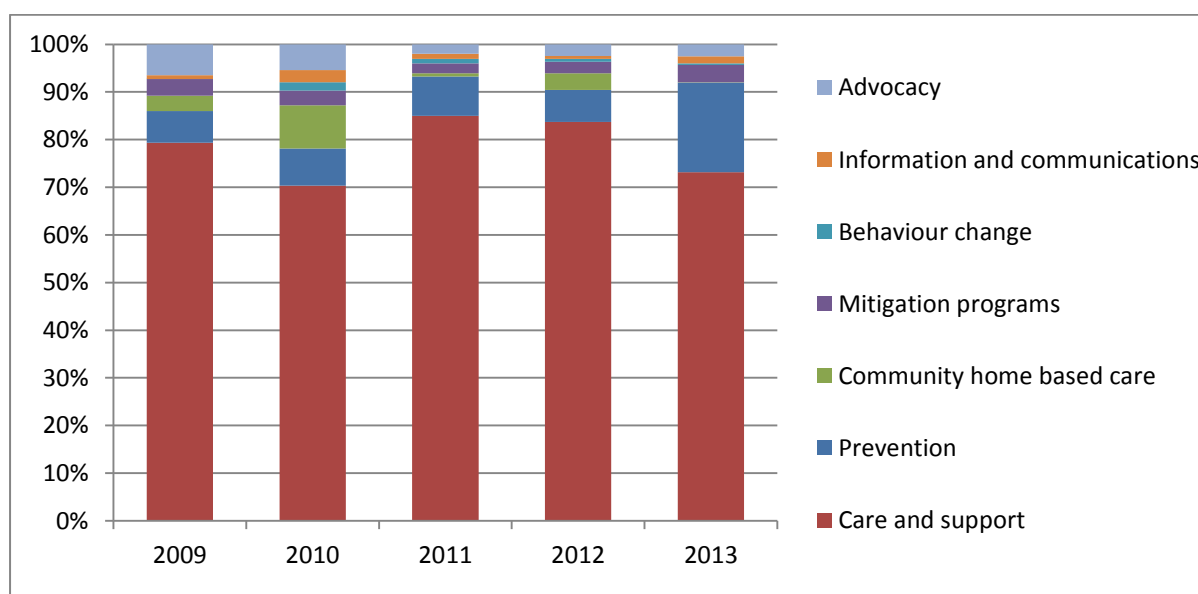
95. The NAC's expenditures increased rapidly after 2009 from less than US\$4 million to over US\$28 million in 2012 (US\$35 million in current US\$), but declined in constant terms in 2013 (Figure 28). In 2013, NAC expenditures were equivalent to 13 percent of MOHCC realized spending. About 75 percent of NAC's expenditures were for the programs and interventions activity area in 2013, 16 percent for employment cost.⁷¹

Figure 28 Total and Composition of NAC Expenditure, 2009–13 (constant US\$ million)

Source: Authors using NAC data.

Note: Employment cost may not include consultancies under programs and interventions.

96. Within programs and interventions, care and support accounted for the largest share, peaking at 85 percent in 2011 and dropping to 73 percent in 2013 (Figure 29). The trend reflected earlier moves to make antiretroviral drugs and related treatment universally available, before a subsequent greater emphasis on preventive activities.

Figure 29 Activity Areas within NAC Programs and Interventions

Source: Authors using NAC expenditure data (MOFED).

97. A key step toward greater value for money in HIV/AIDS will be to review the programs financed by NAC and, where possible, to reprioritize expenditures toward high-impact biomedical and behavioral interventions (given the prevalence of risky behaviors among the population, frequently youth). This will contribute to the long-term sustainability of this important domestic source of financing.

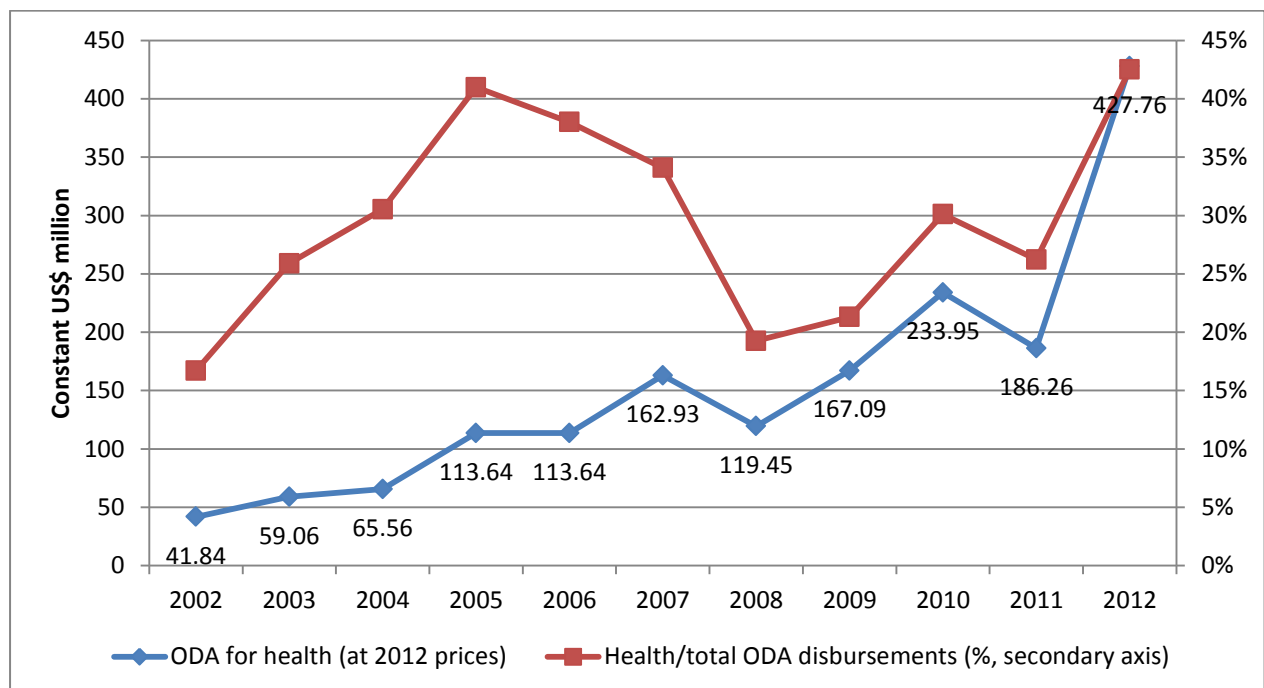
3.2 Donor Financing of Health Expenditure

Trends and International Comparisons

98. Off-budget foreign aid is significant in Zimbabwe's health sector and is a major source of increased health spending. The increase in external funding for health was sustained over the decade. According to the two NHA reports (based on 2001 and 2010 data), donor contributions to health expenditures increased from 4.2 percent of total health expenditure in 2001 to some 19 percent in 2010.

99. In absolute terms, ODA disbursements for health increased by a factor of five between 2002 and 2010 and further doubled in 2012 to reach US\$428 million (Figure 30); this is equivalent to the total amount spent by the government, on budget, that year (estimated at US\$413 million). Sharp decreases in 2008 and 2011 were more than offset each time the year following.⁷² In the first six months of 2014, the health sector received US\$181.5 in foreign aid, representing 49 percent of total ODA.^{73, 74}

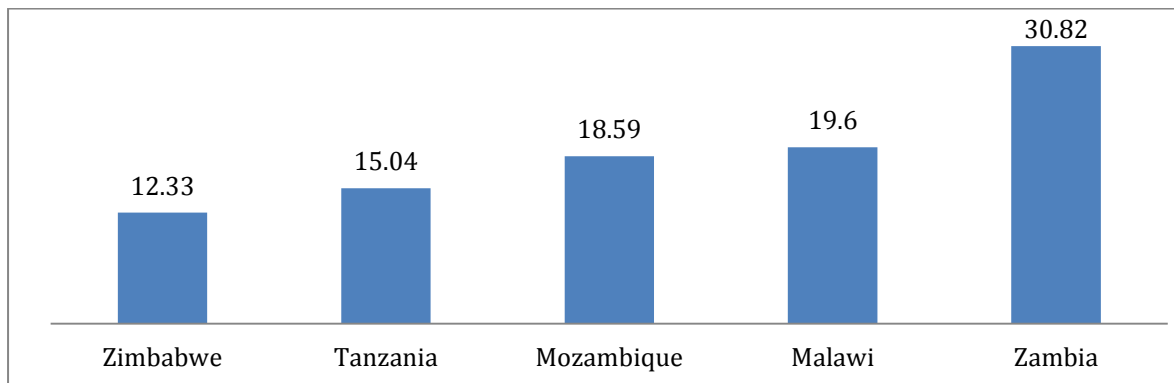
Figure 30 ODA for Health and its Share of Total ODA, 2002–12



Source: WHO Zimbabwe ODA data sheet (based on information extracted on August 26, 2014 from the Creditor Reporting System database maintained by the OECD Statistics Department).

100. Per capita, ODA for health increased from US\$3.3 in 2002 to US\$13.9 in 2011 and reached over US\$31 per capita in 2012. Nevertheless, Zimbabwe receives less donor funding for health per capita than other countries in the region (Figure 31). Data for previous years (not shown) indicate that this is not a new feature.

Figure 31 Development Assistance for Health Per Capita, Selected African Countries (constant 2011 US\$)



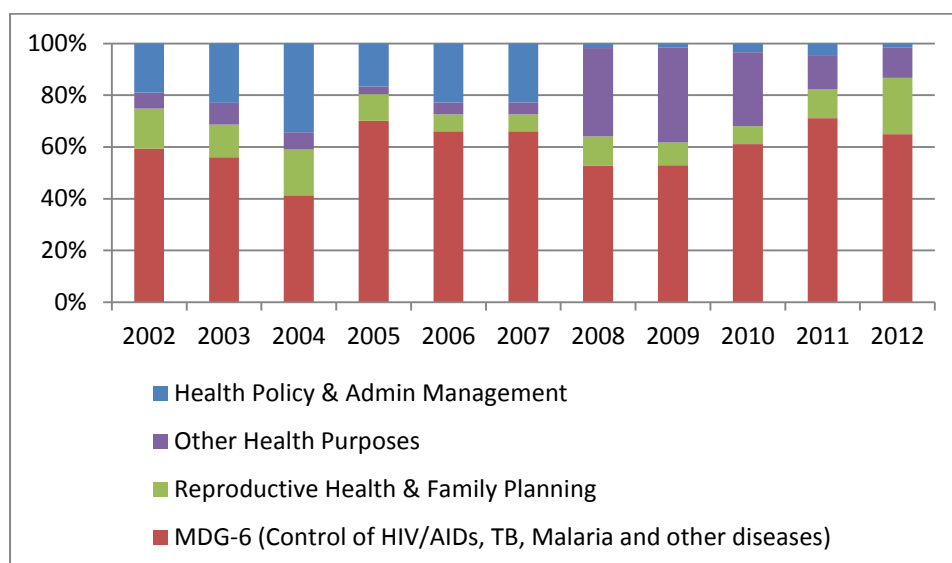
Source of data: IHME, Development Assistance for Health Database 2013.

101. In 2013, the U.S. President's Emergency Plan for AIDS Relief (PEPFAR) spent around US\$64.5 million on health, and the Department for International Development (DFID) about US\$56 million. In 2014, major health contributions came from the Global Fund to Fight AIDS, Tuberculosis and Malaria (the Global Fund) (US\$128.9 million) and the HTF (US\$49.8 million).

102. The National Development Fund (originally a pool of donor development funds managed by the MOFED, before it began to fund activities off budget) has procedures to coordinate donor funding and the MOFED financial system for channeling aid funds but, while the MOFED appears to have taken account of planned donor assistance in allocating funds, donors are still cautious about using the coordination procedures. Furthermore, external support is typically earmarked for certain programs and is nonfungible, leaving little flexibility for the country in pursuing its policy and public health priorities. This is exacerbated by the vertical planning processes within departments of the MOHCC, which do not prioritize public health and health systems investments. While the dialogue on donor budget allocations is shared through the annual Ministry of Health and Development Organizations meeting, this could be better structured to include a review of actual performance of key donor allocations from the previous year, alongside performance of the national government health sector budget.

Programmatic Allocation of Donor-financed Health Expenditure

103. Over 2000–10, most of the external health funding went to HIV/AIDS, tuberculosis, and malaria programs (Figure 32)—65 percent in 2012, for example (Table 5). However, since 2011, donors have become more responsive to funding other areas, particularly MCH, drugs and equipment, and human resources. For example, beyond providing funding for HIV/AIDS, tuberculosis, and malaria, the Global Fund has financed a portion of the MOHCC's human resources commitments.

Figure 32 Shares of ODA Disbursement for Health by Purpose, 2002–12

Source: WHO Zimbabwe ODA data sheet (based on OECD data).

Table 5 Donors' Health Expenditure Shares by Program Area, 2012

	Disbursement (US\$ million)	Share (%)
Health Policy and Administration	7.4	2
HIV/AIDS, Tuberculosis, and Malaria	277.8	65
Reproductive Health and Family Planning	93.0	22
Other Health Purposes	49.6	12
Total	427.8	100

Source: WHO Zimbabwe ODA data sheet (based on OECD data).

104. Donor spending on public health programs is much larger than MOHCC spending for most programs. For example, the Global Fund spent US\$3.4 million on the Village Health Workers program in 2012, versus MOHCC spending of US\$20,000 (see Table 4). An exception is HIV/AIDS, where spending by the NAC has climbed sharply in recent years.

105. Significant donor funding has been spent on human resources for health through a program called Harmonized Health Workers Retention Scheme. It was set up in 2009 by the government and development partners to respond to an emergency situation where health workers emigrated in large number to escape the economic hardship.⁷⁵ The scheme provides a tax-free salary top-up to health workers paid monthly, provided they just show up at work. Total funding to date has been US\$70 million (Global Fund 65 percent, DFID 19 percent, others 16 percent).

106. An evaluation of the scheme documented that the vacancy rate had fallen for all cadres after 2008, and volume of services provided in the public sector went up for some services but went down for others. Yet these patterns cannot be taken as evidence of impact due to the lack of rigorous impact evaluation design and good data. The evaluation also raises a strong point on value for money, through documenting the high administrative costs incurred by different organizations involved in the scheme. For example, the Crown Agents (the initial managers) charged around 5 percent, UNDP some 10 percent, and the Global Fund around 15–18 percent.⁷⁶

Two Donor-Funded Programs

107. The stakeholder interviews for this PER highlighted several donor-funded programs, among which we highlight two: HTF for its capacity to manage general large pooled commitments; and RBF as an example of improving health outputs and quality.⁷⁷

Health Transition Fund: Pooling Resources for MCH

108. The HTF is a multisource funding pool supporting MCH administered by UNICEF for 2011–15. Its major contributors have cumulatively committed about US\$150 million since 2011, made up of the United Kingdom (US\$79.5 million), European Union (US\$39.7 million), Norway (US\$11.6 million), Canada (US\$9 million), Ireland (US\$7.9 million), and Sweden (US\$2.4 million). Since its launch, the HTF has received US\$128.5 million. In 2013, it had an approved budget of US\$64.2 million for programs and US\$4.5 million for direct program costs. The HTF has been one of the largest ODA providers to health care in Zimbabwe since 2000. It combines a focus on MCH with support for key areas of the health system, such as human resources for health development, and retention and procurement of essential medicines. In April–December 2013 nearly half its funds were disbursed on essential medicines and commodities (Table 6).

Table 6 HTF Expenditure, April–December 2013 (US\$ million)

Program	Expenditure
Expenditure on Maternal, Neonatal and Child Health, and Nutrition	42.8
Program interventions	7.3
Essential medicine and commodities	19.5
Human resources (critical personnel)	7.0
Health policy and planning	9.0
Management Support Costs	3.0
Total Expenditure	45.9

Source: HTF Annual Report 2013.

109. Findings of the Mid-Term Review of the HTF by the Liverpool School of Tropical Medicine (November 2014) notes that the fund supported a critical supply side interventions which helped restore the availability and increase coverage of essential services, increase the uptake of the services, and improve mortality outcomes. The review identified the fund's direct effect on output level results such as the numerical adequacy of health personnel, particularly midwives and doctors; and village health workers, functionality of Health Centre Committees and medicine availability in health centers. Although it is acknowledged that results at the outcome and impact level that have recently been witnessed in the sector have resulted from the collective efforts of several actors and interventions, the HTF made a contribution to these gains. The review estimated that at least 8,100 lives of under-fives were saved and at least 3,100 maternal deaths were averted as a result of the intervention.

Results-Based Financing Project: Incentive Pay to Increase Quality in Service Delivery

110. Also with a focus on MCH, the RBF Program, supported by the World Bank⁷⁸ and implemented in partnership with the MOHCC, shows promising signs of contributing to efficiency in financing high-impact behavioral interventions. The program incentivizes health providers based on achieving predefined outputs and quality of health care. It started as a pilot project in 18 rural districts, covering roughly 30 percent of the population; it is now being scaled up nationwide at the primary care level through funding from the HTF. However, even after that, user fees will remain in force at the secondary level in HTF-funded districts due to resource limitations.

111. Initial results of the RBF impact evaluation provide evidence of gains in select health indicators and quality of clinical processes in the RBF districts over and above the general improvements countrywide (as reflected in the MICS). RBF led to significant positive impacts in quantity and quality of care for most of the indicators tested (Table A1 in Annex 1). A higher share of women in 16 RBF districts received a full package of ANC services including tetanus shots, urine tests, and blood tests. As a result of the RBF program, the institutional delivery rate increased by 14 percentage points, and receipt of tetanus vaccine and collection of urine samples during ANC increased respectively by 8 and 15 percentage points (Table 7).

Table 7 Impact of RBF Pilot on Key Maternal Health Care Services

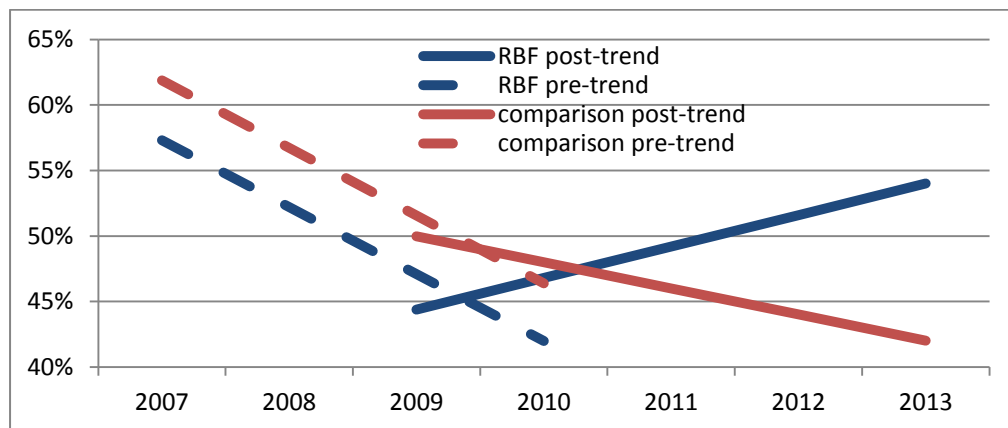
Outcome	Impact (pp)	P-value
Receipt of tetanus vaccine during ANC	8	0.06
Urine sample collected during ANC	15	0.03
Facility delivery	14	0.00
Skilled delivery	15	0.00
Health worker correctly manages a child with cough	37	0.09

Source: RBF Project Impact Evaluation 2014, initial results.

Note: Data pertain to enumeration areas and health facilities from 16 RBF districts and 16 comparison districts selected for impact evaluation. Impact is relative change in services between RBF and comparison districts expressed in percentage points (pp).

112. As an example of impact, yearly percentage changes in urine tests receipts during an ANC visit before and after the implementation of RBF were contrasted between RBF sites and non-RBF sites in the control group. The former declining trend was reversed for RBF sites but only slowed in the non-RBF group (Error! Reference source not found.).

Figure 33 Yearly Differences in Receipt of Urine Test During ANC Care



Source: RBF Project Impact Evaluation 2014, initial results.

113. Based on the emerging evidence on the effectiveness of the RBF approach in Zimbabwe, development partners and the MOHCC should consider: expanding the package of services beyond the core MCH package; developing capacity in the MOHCC and MOFED to execute some of the functions related to purchasing and fund holding with a view to medium-term opportunities to transfer responsibilities to the government without violating core RBF principles of separating functions; moving to a more consolidated pooling system for resources that includes participation of MOFED and creating a virtual purchasing system where development partners commit to a package of services for a defined period of years based on sound costing data; and taking steps to consolidate

some of the technical support and oversight functions to ensure coordination in these areas for the scale-up program by development partners.⁷⁹

3.3 Private Health Expenditure

114. The NHA 2001 and 2010 indicate that private sources account for a large share of total health expenditure in Zimbabwe. Major sources of private health spending include households through direct OOP payment and private prepayment schemes, and contributions from the private sector. The first two of these sources are analyzed within the confines of data constraints.

Household OOP Spending

115. Household OOP spending became a crucial source of health financing in the 1990s when the country started collecting user charges in government health facilities. Over time, OOP spending has climbed steeply, from 10 percent of total health expenditure in the 1980s to 36 percent in 2001 and possibly more in 2010 (NHA).

116. But funding health care OOP is the least desirable of all methods, as it is both inefficient and regressive. Typically, poor households bear a heavier financial burden, relatively, due to their limited resources (although the data do not support the idea that poor people bear a higher burden of OOP spending; but if the cost is beyond their capacity to pay, they forgo necessary services or seek care in lower-level, cheaper services). It is therefore important to get a sense of the size of OOP spending, how they are distributed across socioeconomic categories, and how they are related to health-seeking behavior.

117. Outside NHA, analysis of OOP spending must rely on data from PICES, despite its drawbacks (Box 4).

Box 4 Constraints in the 2011/12 PICES and the 2014 RBF Midline Survey for Calculating OOP Spending

Neither PICES nor the RBF midline survey provides enough information for accurate analysis of OOP spending.

PICES

There is a high chance that OOP estimated from PICES data are severely underestimated. Compared with other standard household surveys, which typically provide data to estimate the OOP spending, the PICES's section on health covers only expenditure associated with illness four weeks before survey for which a treatment was sought from a formal establishment (public, private, mission, and farm/mining facilities). It also has only seven questions, and they are limited. The question on expenditure, for example, does not distinguish among different types of payment (for providers, lab tests, bed fees, etc.), which is particularly useful to refresh the respondents' memory and to ensure they do not miss important aspects of health costs. The question on payment for medicines does not clarify if the payment incurred within or outside the health establishment, and so could miss out the purchase of medicine outside the health facility linked to seeking care at the facility (because the facility did not have the drugs when the treatment was sought).

The 2011/12 PICES missed at least four major items usually needed for OOP spending: illness-related payment incurred in the informal sector (drug sellers, healers, etc.); regular treatment of chronic conditions such as diabetes and hypertension drugs; injury, outpatient care, inpatient care, or child birth that happened before the four-week recall period (most surveys capture inpatient care for 6–12 months because hospitalization and child birth are rare events); and purchase of medical equipment and supplies, such as a blood pressure monitor.

The PER team is not aware of any study that sheds light on the potential correlation between such undercounting of health expenditure and household socioeconomic status. If one thinks that the poor are more likely to rely on informal sources of care, the undercounting problem can systematically be more serious in the lower income quintiles. This could partly contribute to explaining the low incidence of catastrophic expenditure among the poor relative to the rich in Zimbabwe.

RBF Midline Survey

The following limitations prevented the team from relying on midline survey data for OOP analysis in this report.

The midline impact evaluation survey of the RBF program was conducted in 32 rural districts in all eight provinces. It was based on two surveys: one of 224 facilities comprising all hospitals and rural health centers in the 32 districts; and a sampling survey of 1,836 households that had at least one woman who was pregnant or who had a delivery within the previous two years (2,295 women in all).

The sampling strategy of the household survey was due to the need to estimate RBF impact on the key RBF outcomes—MCH. This makes the surveyed households in the evaluation different from samples of standard household surveys. Therefore, even though the health utilization and expenditure section of the questionnaire was asked of all household members, respondents reported an event (an outpatient contact or inpatient hospitalization) more skewed toward women having given birth or small children. These groups may have higher health needs and correspondingly higher health expenditures than the general population.

Conversely, because roughly half the household sample comes from RBF districts, where contracted facilities are not supposed to collect user fee for services already covered in the RBF benefit package, it could be that the OOP information captured in the survey was on the low side relative to what one would get in a national survey. Added to these points is that RBF and control districts are only in rural areas, where a larger share of facilities are financed through foreign aid rather than user fees. Finally, an important complication observed from the initial assessment of the data is that some missing values could be attributed to true nonpaying for services. The Bank's team is working with the survey firm to find out if it is possible to sort true "zero" payments from "missing" in the data.

PICES Findings

118. The mean OOP spending by quintile shows very low OOP spending and a progressive distribution with a higher OOP share in the household budget in higher quintiles (Table 8).

Table 8 Mean OOP Spending by Expenditure Quintile

	Mean Expenditure (US\$)	% of Household Budget
Poorest quintile	0.39 (0.024)	0.48 (0.03)
Second quintile	0.89 (0.047)	0.71 (0.04)
Middle quintile	1.86 (0.087)	1.07 (0.05)
Fourth quintile	4.20 (0.175)	1.64 (0.07)
Highest quintile	20.36 (1.360)	2.82 (0.11)

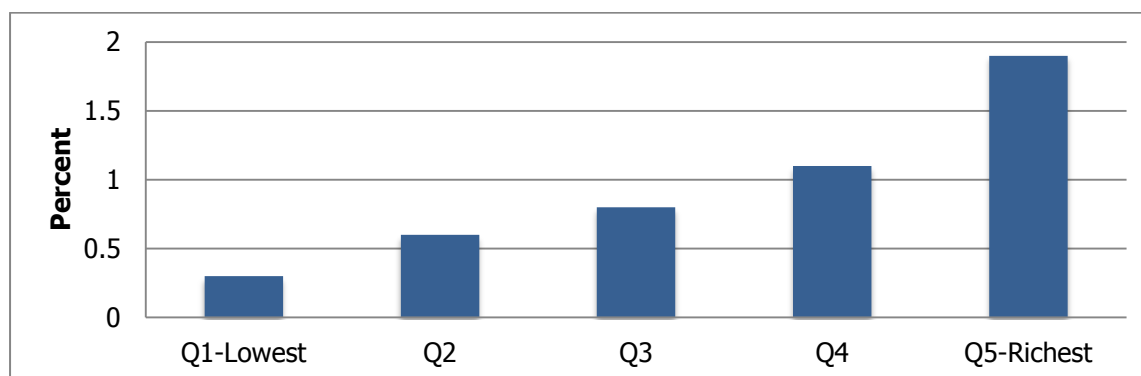
Source: Authors' analysis based on PICES 2011/12 data.

Note: Standard error in parentheses.

119. Of the 29,766 households surveyed, 21,513 (72 percent) had no OOP health payments (either because they were not sick in the preceding four weeks, did not seek care, or sought free care). The median OOP spending was 0, ranging from 0 to US\$3,520. The proportion of households without OOP spending, however, decreases from the lowest to the highest quintile (24.2 percent, 22.2 percent, 20.4 percent, 18.2 percent, and 14.9 percent).

120. Even though OOP spending does not appear to be a problem overall, it could become catastrophic in that individuals may be forced to sell assets or consume below subsistence level to pay health costs when ill. To explore the situation in Zimbabwe, an extended analysis of the PICES data computed the rate of catastrophic health expenditure⁸⁰ across income quintiles (Figure 34). The incidence of catastrophic expenditure turns out to be low in Zimbabwe generally (around 1 percent) and much lower among the poor than the rich.

Figure 34 Incidence of Catastrophic Health Expenditure (nonfood)



Source: Authors' analysis based on PICES 2011/12 data.

121. The analysis also shows that the better off have a greater tendency to experience catastrophic health spending (concentration index = 0.581) than the less well off. The incidence of households impoverished (moving from nonpoor to poor) by catastrophic health spending in this sample was 3.6 percent.

122. Beyond the fact that OOP spending estimated using PICES is likely to be severely understated (see Box 4) and that PICES is also likely to understate the prevalence of catastrophic expenditure, it is also possible that low rates of catastrophic expenditure among the poor could be because they simply forgo health care. Data on health-seeking behavior in Section 2 provide strong evidence that a significant portion of the population in 2011/12 was not seeking formal care when ill in all quintiles, mostly for financial reasons.

123. The apparent progressivity in the system also needs to be put in perspective with Section 2's results on utilization in terms of the type of health facilities that the poor tend to visit and the level of care they seek compared with better-off people. Here again, the evidence consistently indicated that the poor mainly use primary-level district facilities (health centers) for outpatient (and inpatient) care while the nonpoor choose primarily hospitals, preferring provincial and central facilities. Figure 26 showed that the major source of financing for health centers was foreign aid, but for hospitals, user fees and drugs. If health centers provide lower-quality services than hospitals, it would seem that income inequality in health in Zimbabwe is deeper than just OOP spending, involving inequality in physical and financial access to quality services.

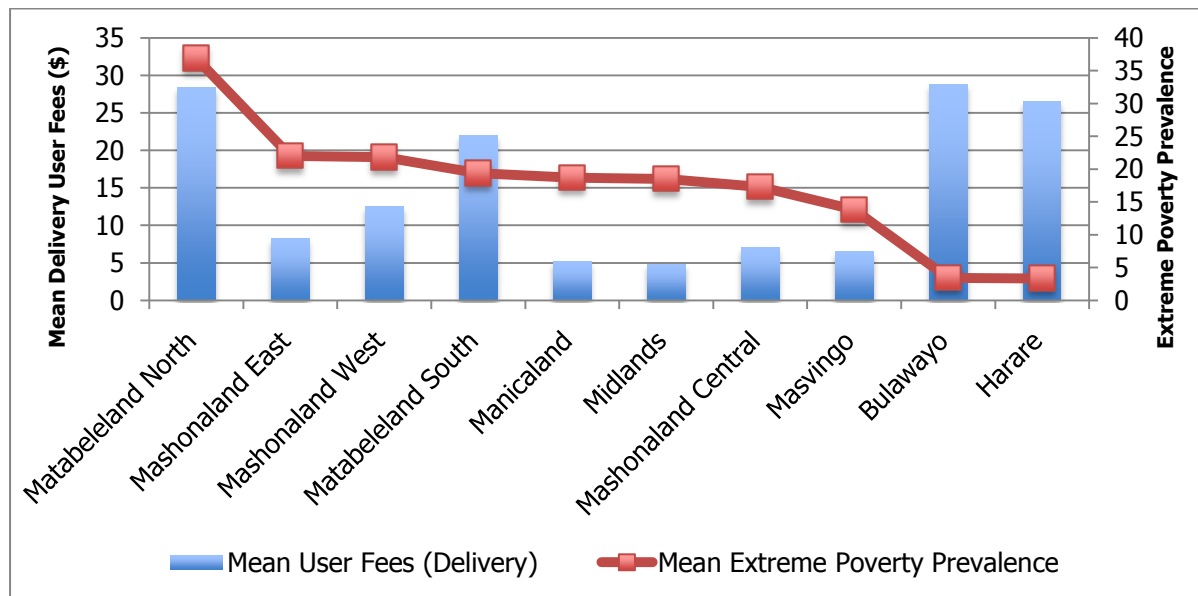
Impact of User Fees by Province

124. Within government facilities, a policy exists to exempt everyone from fees⁸¹ at level-one facilities (rural health centers, church-owned facilities, and rural district council clinics), and to exempt pregnant women, pensioners, tuberculosis patients, and children under five from paying OOP fees in all government institutions. Yet facility surveys—both the NIHFA 2012 and the 2014 midline survey for RBF—revealed that user fees are still one of the most important sources of funding for government hospitals and clinics. Since there is a direct relationship between user fees

and OOP spending, this suggests that a significant amount of household OOP expenditures in fact went to government facilities.

125. In an attempt to assess the distributional aspect of user fees, average fees per delivery were contrasted with the level of poverty by region, by ranking regions from the highest to the lowest extreme poverty rate (Figure 35). The province with the highest incidence of poverty, Matabeleland North, charged some of the highest user fees, but so did the two richest provinces of Bulawayo and Harare. Overall, the level of user fees show no relationship with poverty levels by province.

Figure 35 Average User Fees and Extreme Poverty Prevalence by Province



Source: NIHFA 2012.

Private Prepayment Schemes

126. After OOP payments, a far smaller element in private funding consists of prepayment schemes managed by private insurance companies: according to the latest NHA, about 10–15 percent of the population was covered by health insurance.⁸²

127. While revenues from prepayment schemes decreased over 2000–08 due to the acute economic problems the country was facing, they have since started to rise. For example, since the adoption of a multicurrency regime in 2009 the revenue of CIMAS Medical Aid Society (CIMAS), the second-largest private prepayment scheme by membership, has surged to around US\$110 million (Table 9). This shows there is potential for raising extra revenues if one can pool private insurance in the common pool such as social health insurance, as evidenced by CIMAS' increasing per capita contribution to US\$548.⁸³

Table 9 CIMAS Key Figures, 2010–13 (US\$ thousand)

Item	2010	2011	2012	2013
Revenue	67,417	84,213	98,013	110,365
Expenditure	54,231	68,281	79,001	90,915
Administration costs	9,454	14,237	16,890	16,600
Membership (number)	177,823	176,756	190,512	201,504
Contribution per person (US\$)	379	476	514	548

Source: CIMAS annual reports 2011 and 2013.

128. The CIMAS figures also reveal its financial weight: its expenditure was over one-third of total MOHCC spending in 2013 (US\$268.5 million). However, this budget offered services to only around 1.5 percent of the whole population—a fundamental inequity.

129. There is a need to thoroughly review the current health insurance framework and to examine possible medium-term options to increase use of prepayment mechanisms, based on equity and efficiency considerations.

3.4 Efficiency Analysis: Linking Public Spending to Health Outcomes

130. The objective of an efficiency analysis is to establish a general link between GHE and general health outcomes, so as to gauge the need for additional funding relative to efficiency improvements as well as the potential for new funding to generate results. The methodology is in Annex 3, as are further charts on structural and current efficiency.

Methodology and Terms

131. The methodology here uses similar data to that for data envelopment analysis (DEA), but efficiency is assessed visually in two dimensions (rather than using a summary indicator as DEA does): both dimensions are obtained using deviations from expectations, one from expected health outcomes, the other from expected government expenditures.

132. Structural efficiency relates to the long-term standing of a country on public expenditure performance. It is important to measure it so as to establish some benchmarks for interpreting current efficiency. A measure of structural efficiency can be obtained using all data available and exploiting their panel structure. A random-effects regression separates the residual variance into a part that is common to all countries and a part that is country specific. The country-specific residual variance or “random effect” can be used to measure the structural advantage/disadvantage of the country against expectations.

133. Current efficiency lets one gauge how a country’s position relative to others has changed between two periods. For Zimbabwe, expectations are estimated for each period averaging values over 2000–01 and 2010–13 and running an ordinary least squares regression on the cross-section of countries for which data are available. Residuals are then calculated as the difference between observed and expected values.

134. On the health outcomes dimension, different types of outcome can be considered depending on whether structural or current efficiency is assessed. Infant mortality rates and maternal mortality rates are commonly used indicators in efficiency analyses of the health sector in PERs and are well suited for the current analysis.

135. On the health expenditures dimension, because internationally comparable data on total public expenditures are unavailable for Zimbabwe, the analysis must rely on MOHCC expenditure alone. It is likely that Zimbabwe has lower health ministry expenditures as a share of GDP than other countries because less foreign aid is channeled through the government than in those countries. Although the extent of the bias is unknown, it would overstate Zimbabwe’s efficiency results, with expenditures biased downward for periods when this is the case.

136. Results are plotted on a four-quadrant graph where (0,0) is the point where both health outcome and expenditures are at levels predicted by the model. Deviations from expected health

outcomes are represented vertically (y axis) and from expected expenditure horizontally (x axis). For health outcomes such as mortality, lower is better, so a position in the southwest quadrant is most efficient and a position to the northeast is least efficient. The northwest quadrant includes countries with relatively bad health outcomes that also have relatively low expenditures—underachievers. Those in the southeast quadrant are overachievers.

137. The main caveats are that, to appreciate the overall picture and make policy recommendations on the size of public expenditure, one cannot look at results of the efficiency analysis in isolation of analyses of inequalities of financial burdens and outcomes.

Results

138. Zimbabwe has shown a structural advantage in terms of achieving better or equivalent mortality outcomes with lower expenditure, although possible downward bias on the expenditure side would place Zimbabwe as an overachiever (better than expected expenditure at the price of higher expenditure).⁸⁴ The random-effect analyses based on a panel of 177 countries (154 for MOHCC expenditure) with data over 1995–2012 (unbalanced) place Zimbabwe among the countries that have experienced, on average over the period, lower infant and child mortality with lower MOHCC expenditures, putting the country in the most efficient region. For maternal mortality, however, Zimbabwe's advantage is only due to lower expenditure. But as said, the results depend on the ratio of foreign aid channeled through the government in Zimbabwe versus that in other countries in the panel.

139. Zimbabwe's efficiency advantage in infant, child, and maternal mortality has decreased since 2000–01. The cross-country analyses based on average health outcome for 171–175 countries and average health expenditure for 123–132 countries in 2000–01 and 2010–12 reveal that Zimbabwe has lost ground on efficiency from where it was in the early 2000s and relative to other countries in all indicators considered. Table 10 records Zimbabwe's deviation from expected outcomes and expenditures relative to the standard deviation in the sample.

Table 10 Changes in Zimbabwe's Efficiency Advantage

	2000–01 (a)	2010–12 (a)	Difference (b)
Infant mortality	-2.07	-0.65	1.42
Maternal mortality	-0.45	0.55	1.00
Child mortality	-1.98	-0.37	1.61
MOHCC expenditure/GDP	-0.94	0.12	1.06
MOHCC expenditure per capita	-0.13	-0.10	0.02

Sources: Authors.

(a) Measures Zimbabwe's deviation from expected value of the outcome relative to the standard deviation in the sample. For all dimensions presented here, a negative number indicates an efficiency advantage and the more negative the greater the advantage.

(b) A positive number indicates a reduction of the advantage (or a reversal if the 2010–12 value is positive).

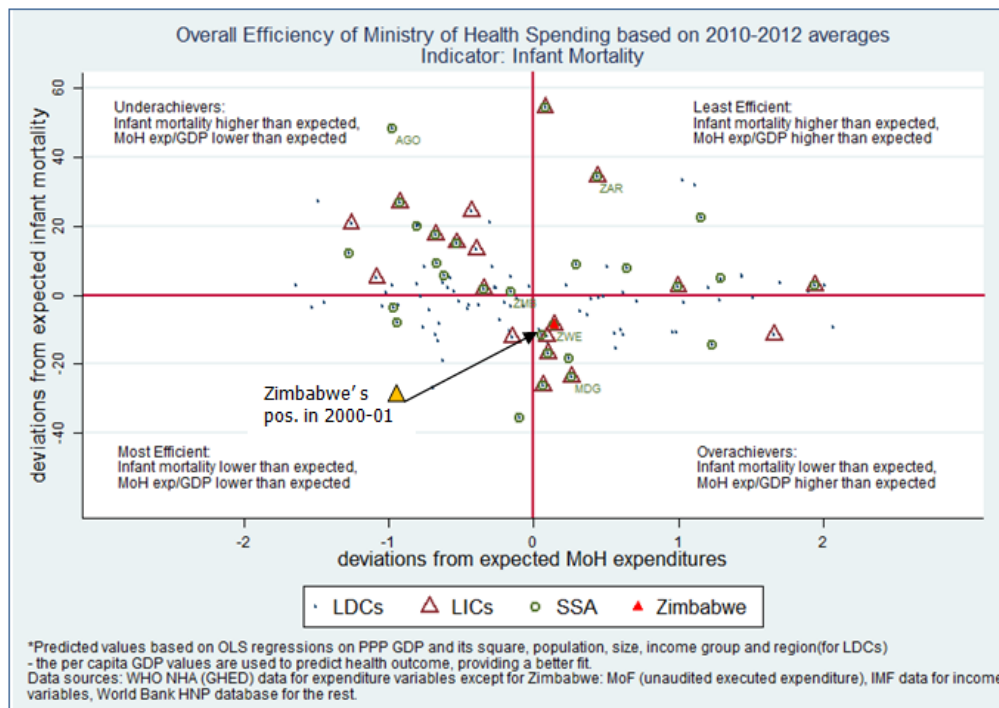
140. The two panels of Figure 36 show the results for infant and maternal mortality for 2010–12.⁸⁵ Zimbabwe's relative positions in 2000–01 are drawn on the graphs to illustrate the direction of change.⁸⁶ In both cases, Zimbabwe moved in the northeastern direction toward less efficiency. From a clear position in the most efficient quadrant, it moved to a weak position in the overachievers quadrant for infant mortality. For maternal mortality, given a weaker starting position than for infant mortality in 2000–01, the 2010–12 averages place Zimbabwe in a weakly inefficient position with slightly higher expenditures and slightly higher maternal mortality than its income, size, and location would predict.

141. The analysis shows that Zimbabwe, which used to be one of the most efficient countries in achieving relatively good outcomes for relatively less public money, fully lost that advantage after the crisis. Average expenditures of the MOHCC in 2010–12 were in fact higher than expected for its level of income (although the 2013 data we have on the totality of government expenditure going to health place Zimbabwe just at the average). Increasing expenditures could place Zimbabwe in an inefficient position if resource allocation is not improved. Recent evidence on the reduction of both infant and maternal mortality rates, however, would more likely signal that an increase in resources would place Zimbabwe as an overachiever (assuming that the gain were higher than average).

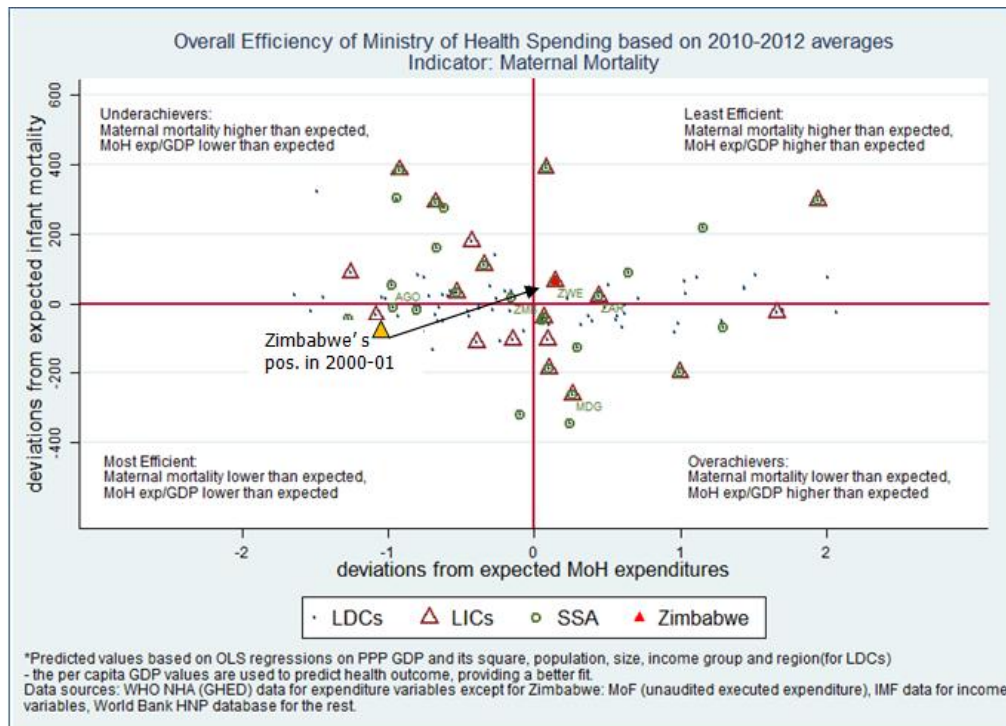
142. More recent and comprehensive data on public expenditures through repeated NHA exercises would be extremely useful to see if the trend has indeed reversed.

Figure 36 Current Efficiency of Government Expenditures on Health, 2010–12 (with comparisons to 2000–01)

Infant Mortality



Maternal Mortality



Source: Authors' analysis using WHO GHED and World Bank HNP databases.

4. Prospects for Additional Financing for Health

Key Messages—Section 4

1. Raising More from Domestic Sources, but Spending Better

Given limited resources, the focus should not be only on more money for health, but on improved quality of expenditures in health. Still, Zimbabwe's strong comparative and competitive advantage in both mineral and agricultural production suggest that the country could consider additional ways of linking the returns in these sectors to improve health services. However, special attention needs to be paid to the overall tax burden imposed on the private sector.

Promising target areas for domestic resource mobilization include public–private partnerships, excise taxes on cigarettes, and use of mechanisms such as the AIDS levy to raise funding for emerging health priorities.

2. Coordinating with Donors, and Getting a Longer View from Them

Subject to reengagement between the government and development partners, the HTF could be used to pilot budget support to the health sector on a small scale. But while donors continue to make important contributions to financing health care in Zimbabwe—and there is room for the government to increase its share in total funding—donor funding is not predictable in the medium term.

For example, in preparation for donors phasing out high-impact health interventions, such as the Prevention of Mother to Child Transmission of HIV/AIDS, the bulk of whose funding by development partners is committed only up to December 2015, the MOFED and MOHCC need to prioritize cofinancing investments such that donor financing decreases and government financing increases over time. However, this requires careful economic and fiscal analysis to ensure that the proposed model does not prematurely overburden MOFED's limited resources in the short term.

3. Ramping Up Efficiency

Some additional funding can be expected from external partners in the short run, but the government should prioritize expenditures, especially primary care, medicines, and supplies, while reducing the weight of salaries (both overall and in the health sector). It should also aim to make savings on overheads and transaction costs in delivering external funds to their intended use.

143. Beyond the efficient resource allocation discussed in the previous section, Zimbabwe must consider prospects for mobilizing funds from all sources—particularly domestic—while ensuring that new funds are used to improve allocative efficiency and increase the shares of nonwage inputs into the system.

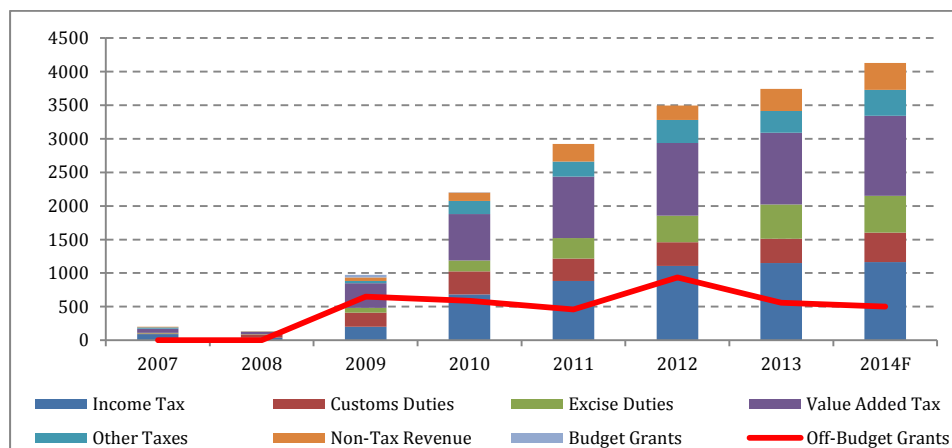
4.1 Fiscal Space for Health?

Macroeconomic Developments and Fiscal Revenues

144. Over the years, economic developments have affected growth of fiscal revenues (total revenue including grants) and the fiscal space for public health in Zimbabwe.⁸⁷ The adoption of the multicurrency regime in 2009 stabilized the economy and provided incentives for economic recovery. Rapid recovery of revenues ensued: total revenue (including grants) shot up from US\$133 million (2.3 percent of GDP) in 2008 to US\$970 million (12 percent of GDP) in 2009 and to

US\$2.9 billion (26.7 percent of GDP) in 2011. This growth was supported by better than expected performance of value-added tax, incomes taxes, and excise duties. Their recovery began to moderate in 2012, when their share stabilized at 28.0 percent of GDP (28.8 percent in 2013). With the economy still weak, revenues contracted by 4.8 percent in the first seven months of 2014 (Figure 37).

Figure 37 Government Revenues, 2007–14 (US\$ million)



Source: MOFED 2014 and IMF staff estimates.

145. Tax revenue contributed 91 percent of total revenue in 2013. Among the tax heads, income tax was the biggest contributor, with 31 percent, value-added tax contributed 29 percent, excise duties 14 percent, and customs duties 10 percent. Nontax revenues, notably from license fees and diamond dividends, also contributed to revenue growth. Nontax revenues amounted to US\$51 million (5 percent of total revenue) in 2009 and increased to US\$327 million (9 percent of total revenue) in 2013. Budget grants of US\$41 million (4 percent of total revenue) were only received in 2009, and thereafter nothing was received, as donors provided grants off budget.

146. With economic growth expected to be sluggish in the short to medium term, total revenue and tax revenue are projected at around recent shares of GDP (Table 11).

Table 11 Fiscal Trends and Projections (% of GDP)

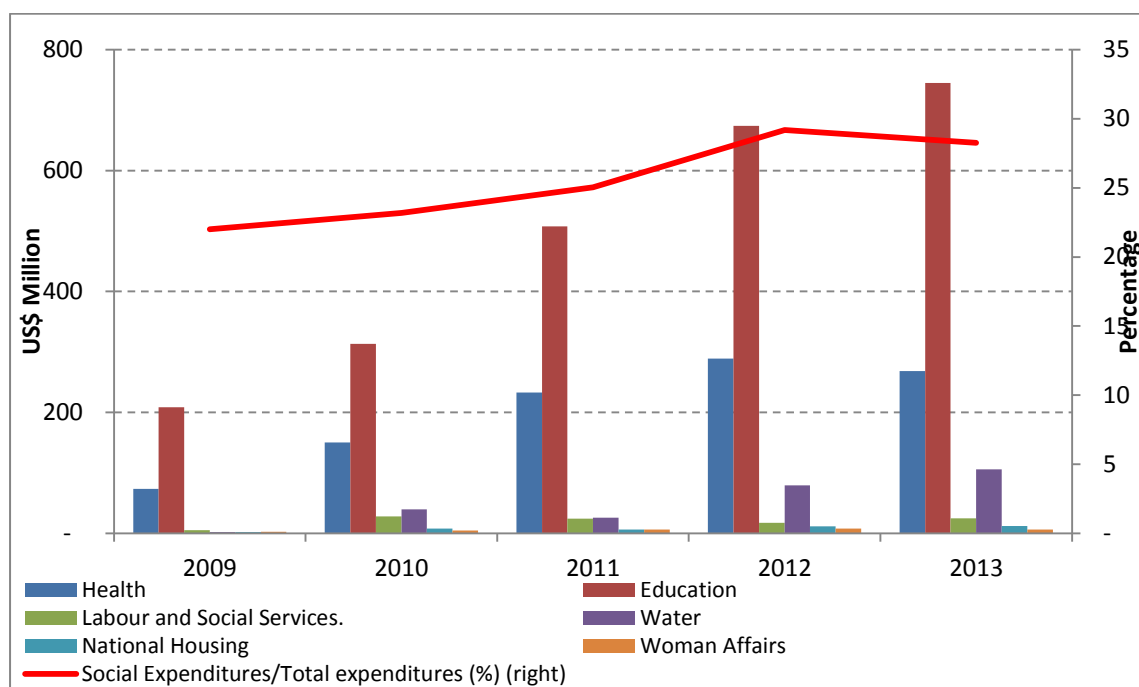
	2009	2010	2011	2012	2013	2014 est.	2015 proj.	2016 proj.
Total revenue incl. grants	12.0	24.7	26.7	28.0	27.7	27.6	27.5	27.4
Tax revenue	10.8	23.4	24.3	26.3	25.3	25.8	25.8	25.8
Nontax revenue	0.6	1.3	2.4	1.7	2.4	1.8	1.7	1.6
Total expenditure	11.4	23.0	27.3	28.7	28.8	29.2	28.8	27.9
Current expenditure	10.8	17.6	23.5	25.6	25.3	26.6	26.7	23.8
Employment costs, including pensions	6.3	11.2	16.7	20.2	20.2	22.4	22.9	19.5
Goods and services	3.3	5.4	5.9	4.6	4.3	3.4	2.5	3.5
Capital expenditure	0.6	5.3	3.8	3.0	3.5	2.5	2.1	4.1
Overall balance (cash basis)	0.6	1.8	-0.6	-0.6	-1.0	-1.6	-1.3	-0.5
Domestic financing (net)	-1.9	-0.8	-0.2	0.1	1.5	1.3	0.0	2.3
Foreign financing (net)	-0.5	-0.3	-0.5	-0.1	-0.6	-1.6	-2.5	-2.1

Sources: Zimbabwean authorities; IMF staff and World Bank estimates and projections.

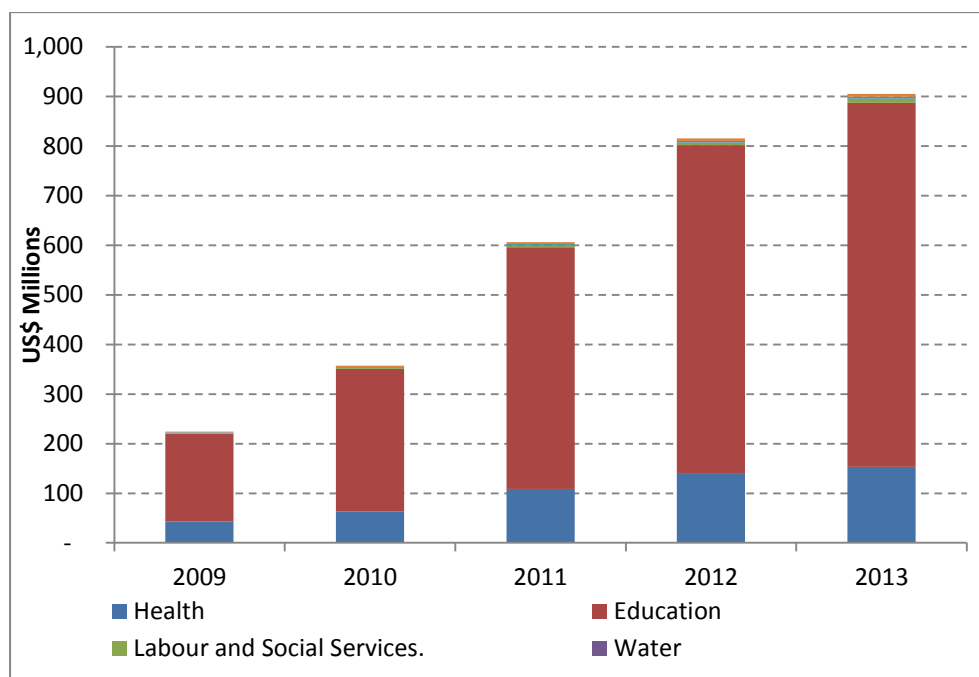
General Trends in Expenditure Allocation

147. As revenue climbed after the multicurrency regime was adopted, the government also lifted its spending, with much absorbed by employment costs (see **Error! Reference source not found.**). They accounted for 6.2 percent of GDP in 2009 but are estimated to have reached 20 percent in 2014. They absorbed 64 percent of total revenue in 2010, and are estimated to have consumed over 75 percent in 2014, putting further pressure on the budget and crowding out capital and social outlays.

148. Expenditure on social sectors increased from 22 to 28 percent of total expenditure from 2009 to 2013 (Figure 38). However, with employment costs the fastest area of growth (Figure 39) and with stagnating fiscal revenue, it becomes even harder to fund some important policy commitments, particularly for health (for example, removing user fees for MCH). This could undermine recent health gains.

Figure 38 Spending on Social Sectors, 2009–13

Source: MOFED consolidated expenditure reports 2009–2013.

Figure 39 Wages in Social Sectors, 2009–13

Source: MOFED consolidated expenditure reports 2009–2013.

149. In March 2013, the International Monetary Fund (IMF) and MOFED signed an agreement for a Staff Monitored Program, which seeks to help the country strengthen its efforts to stabilize the economy, support its reform program and assist in reengaging the country with its donor partners. The program has put in place a mechanism for quantifiable targets for social sector spending by the

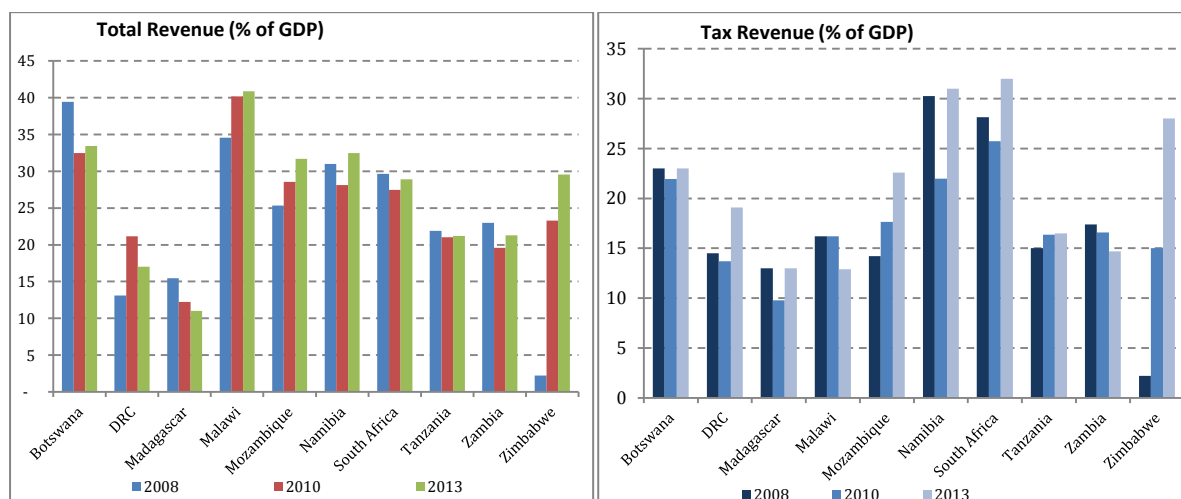
government. Though an excellent step forward, the MOFED and MOHCC should still carefully prioritize and track wage spending within the agreed social sector spending targets.

4.2 Prospects for Domestic Generation of Funds for Health

General Tax Revenue

150. Health is financed largely through general tax revenues, but as the tax burden is now quite high in Zimbabwe relative to its peers (Figure 40), prospects for raising additional general revenues rely on economic growth. There may be scope to widen the tax base (the informal economy is hardly touched by the tax net), but it is likely to be a challenge in the short to medium term given a sluggish economy, company closures, and an increasingly informalized economy. The tax system is also characterized by widespread tax distortions in the form of concessionary rates, exemptions, allowances, and deductions, with the tax burden falling heavily on a few well-established taxpayers. Removing these distortions and improving tax collection efficiency could help expand the fiscal space in general and for health in particular. Strengthening tax administration, streamlining tax exemptions, lowering the number of tariff bands, and simplifying the tax structure (such as customs taxes and payroll tax bands) could possibly help widen the fiscal space.

Figure 40 Total Revenue and Tax Revenue as a Share of GDP, 2008, 2010, and 2013



Sources: World Development Indicators and World Economic Outlook Database.

Earmarked Taxes

151. Earmarked taxes may be another way to expand fiscal space for the health sector. Zimbabwe already has an important earmarked tax in the AIDS levy (discussed below). Such earmarking is, however, sometimes viewed with skepticism because ultimately it prevents the allocation of funds to where they are most needed and best used.

152. Earmarked taxes can take various forms, such as payroll taxes for social health, a higher tax take on large corporations, excise duties (“sin taxes”) on products harmful for health such as cigarettes, taxes on financial transactions, and levies on mobile phones. Increasing excise taxes in developing countries to the world average has the potential to raise about 0.5–1.3 percent of GDP, a target that Zimbabwe should be able to reach.

AIDS Levy

153. This is the only earmarked tax for health in Zimbabwe, charged on individuals, companies, and trusts at a rate of 3 percent of the income tax assessed by the Zimbabwe Revenue Authority. It mainly finances HIV/AIDS programs through an off-budget credit line from the MOFED. Since 2009 when the country moved to a multicurrency regime, revenue from the levy has risen from US\$5.7 million to US\$33.5 million in 2013 (Table 12). Of the levy, 55 percent is earmarked for treatment, care, and support; 11 percent for prevention; 5 percent for monitoring and evaluation; 4 percent for creating an enabling environment; and the remaining 25 percent for program and logistical support. To strengthen this earmark tax, public accountability through better managed parliamentary oversight is important. It is also important to have such funds managed via the Public Finance Management System.

Table 12 NAC Sources of Income, 2009–13 (US\$ thousand)

Source	2009	2010	2011	2012	2013
AIDS levy	5,711	20,522	26,459	32,500	34,236
General revenue grant	1,259	1,248	1,395	428	1,031
Global Fund	14,310	17,432	5,566	na	na
Investment income	10	655	1,114	680	607
Profit on disposal of noncurrent assets	6	14	14	12	0.8
Other	2	14	18	20	28

Sources: NAC 2010 and 2011 audited accounts; MOFED for 2012 and 2013; NAC 2014 progress reports on annual HIV/AIDS estimates and coverage targets.

Note: No information could be obtained on foreign aid to NAC for 2012 and 2013. Given the withdrawal of Global Fund support through NAC and a statement in the NAC 2014 progress report on a major challenge being “Limited funding due to withdrawal of other funders,” it was assumed that the NAC did not directly channel foreign aid after 2011.

na = no data available.

154. The mechanism of the AIDS levy could potentially be expanded, so as to include additional disease control programs. Although strict constraints on the allocation of revenues may not be optimal, some control is necessary to ensure that the new funds are used in a balanced way, in terms of inputs and services, and, as with the AIDS levy, such control can be built into the mechanism. Additional revenue could be used to smooth fluctuations in foreign aid going to specific health programs and ensure a critical level of funding. Further analysis of this possible expansion in the scope of the AIDS levy should be undertaken so that full implications of such a move are carefully reviewed before any final decisions are made. The revenue base of the levy has already been broadened as mining companies are no longer exempt (since January 2015), which should boost revenues. It may be possible to do more, in particular examining the chances of including the informal economy, bearing in mind possible effects on equity and collection efficiency.

Excise Taxes

155. Excise duties on tobacco, cigarettes, and fuel contribute significantly to tax revenues, though they are not earmarked for health. Zimbabwe has some latitude to increase its excise tax on cigarettes and match those of its regional counterparts (Table 13). Though modest, it may even have the effect of reducing cigarette smuggling between Zimbabwe and its neighbors. More important, perhaps, would be the health (and long-term government financial benefit): several studies⁸⁸ have shown potential gains in revenue and health outcomes if cigarette excise is raised, citing India and Vietnam, where such taxes take in the equivalent of 0.3–0.4 percent of GDP.^{89, 90}

Table 13 Cigarette Tax Rates, Zimbabwe and Regional Peers

Country	Cigarette Price per Pack (US\$)	Illicit Share of the Total Cigarette Market (%)	Excise Tax as Share of Retail Price (%)
Zambia	1.83	25.0	30.9
Swaziland	3.47	15.0	32.5
Namibia	2.71	-	33.2
Zimbabwe	1.80	2.3	38.6
Botswana	2.08	-	39.1
South Africa	4.14	9.0	40.7
Mozambique	-	10.4	48.5

Source: Tobaccoatlas.org, accessed February 24, 2015.

Public–Private Partnerships

156. While there is need to gather more evidence on the potential role of private sector financing and partnerships with the public sector, there is potential scope to adopt models that promote public–private funding partnerships in the health sector.⁹¹ There may also be potential to tap the private sector via voluntary contributions. Some private companies such as Econet Wireless may also be willing to finance health care in partnership with the government, development partners, or other private sector entities. More widely, the government may wish to explore examples from other resource-rich countries like Chile where vast mineral wealth has been leveraged to achieve better health outcomes.

157. Public–private partnerships (PPP) in service delivery represent another option that could help in mobilizing resources in the private sector. The Lesotho Hospital PPP offers some experience. Supported by the International Finance Corporation (IFC) and started in 2007, the Partnership is an initiative by the Lesotho government to involve the private sector—Tsepung consortium—to design, build, and operate a 425-bed hospital and associated clinics with the aim of providing high-quality health care services affordably. The private operator has significant local ownership: 40 percent of shares held by Lesotho-owned businesses, increasing to 55 percent during the project term.⁹² While no rigorous evaluation has been conducted, handling a sophisticated PPP requires highly capable government leadership.

4.3 Mobilizing External Funding

158. Development partners could be encouraged to increase the resources for Zimbabwe’s health sector in line with per capita spending in other similar countries and to channel these additional resources through Zimbabwe’s country systems. Currently, country systems are hardly used by development partners, but this may change after the government clears its arrears on external payments and reengages with multilateral and bilateral aid agencies.

159. Dialogue on reengagement between Zimbabwe and development partners could cover commitments in health and, more broadly, social sector spending, as well as in the quality of those expenditures, so that any new resources finance high-impact nonwage expenditures. Greater efficiency and reduced transaction and overhead costs could be obtained by harmonizing donor resources.

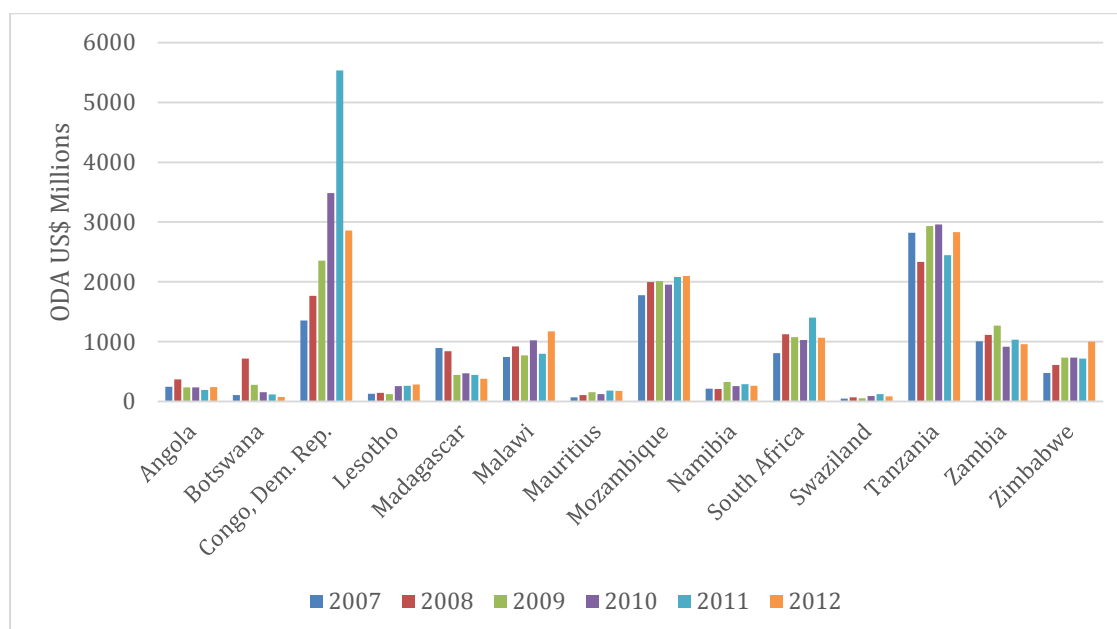
160. In the short to medium term, given the sluggish economic outlook and limited fiscal space, donor financing will remain critical. Additional funding from that source should, however, only be considered as contributing to improving allocation of existing resources and complementary to domestic resource mobilization. The level and allocation of foreign funding are often difficult to

forecast and coordinate, making it hard to integrate in medium-term budget plans. A sustainable health system cannot, therefore, rely on such funding.

161. In 2009 donors provided US\$650 million in development assistance outside the budget, which increased to about US\$934 million in 2012 but fell to US\$559 million in 2013. In the first 6 months of 2014, donors disbursed about US\$370.6 million, of which virtually half (US\$181.5 million) was for health. A total of US\$786.7 million was estimated to have been disbursed in 2014, with a higher share directed to health.

162. Worldwide, Development Assistance for Health (DAH) is relatively small but improving despite the recent global financial crisis and budget cuts and tough measures implemented by donors. In 2013, donors disbursed US\$31.1 billion to low- and middle-income countries,⁹³ growth of 3.9 percent over 2012, but still far short of the more than 10 percent annual growth recorded over 2001–10. Sub-Saharan Africa has been the main focus of DAH, in 2011 receiving 46.5 percent of allocable DAH and in 2013 receiving US\$8.8 billion, a 6.1 percent increase from that in 2010 (Figure 41).⁹⁴

Figure 41 ODA in Sub-Saharan Africa, 2007–12



Source of data: OECD Database 2014.

163. The indicative spending of major donors for selected disease areas over 2014–17 vary as they revise their plans in response to changing country dynamics (Box 5). Some of the funds have already been committed, and they are likely to be entirely disbursed.

Box 5 Donor Spending Plans

Global Fund—HIV/AIDS: US\$311 million for 2014–17.

Global Fund—additional funding: US\$126 million for 2015–16.

Global Fund—tuberculosis proposal: US\$32.9 million for 2015–16.

Global Fund—malaria proposal: US\$34.23 million for 2015.

DFID, SIDA, and Irish Aid—Integrated Support Program: US\$90 million for 2012–15.

PEPFAR—HIV/AIDS: US\$101 million for 2014 plus an expected US\$7 million for a three-year program to prevent mother-to-child-transmission of HIV.

U.S. government—President's Malaria Initiative: US\$15.84 million for 2015.

U.S. government—tuberculosis: US\$5.2 million for 2014–15.

164. It appears that the total amount of foreign aid to the health sector is on the rise (Figure 30 above), suggesting that the international community may be increasing its commitment, but for reasons already given it is inadvisable to include foreign aid projections in budget plans. The impact of foreign aid projects will certainly be greater if existing resource allocation can be improved. Partners and the government could explore ways to minimize silo financing by identifying technically competent implementing agencies that can pool funding for subsectors or technical areas and ensure that resource flows nationally and subnationally are tracked jointly.

5. Conclusions and Recommendations

5.1 Conclusions

165. With donor coordination meetings chaired by the MOHCC and donor plans informed by the MOHCC'S strategic plans and annual plans, collaboration on indicative resource allocations is improving steadily. Still, there is scope to further consolidate some parallel financing mechanisms and administrative overhead arrangements by financial management or implementation agencies, and to strengthen budget expenditure reviews and reporting by the MOHCC and donors. This is increasingly important because development partner financing in total health expenditures shot up to 19 percent in 2010 to become the second-largest source of financing in health after OOP spending; yet almost all of it is off budget, with limited communication or coordination of expenditures with the MOHCC (as the chief accounting officer for the health sector).

166. Improved strategic financial coordination will enable the MOHCC and development partners to identify areas of low performance and coordinate reallocations or increases.

167. The health system's cost structure is skewed: high recurrent government expenditures are the norm, especially employment costs, which are crowding out capital and social spending, while total health expenditure heavily favors curative not preventive care, and although the former includes health facility-based preventive care, there is no disaggregation into subcomponents for preventive versus purely curative care to enable budget tracking.

168. Government health spending is less than it was before the country's economic crisis and needs to increase, but priority should be given to spending existing resources more efficiently. In 2013 Zimbabwe spent 2.9 percent of GDP on health—close to the 2012 SSA average of 3.1 percent—but still under the WHO's lower threshold of 5 percent of the GDP.

169. A too large part of the whole population (20–30 percent) is forgoing care for financial reasons, largely due to high OOP payments, and the poor are forgoing higher-quality care. A major challenge is equitable access to hospital services in rural districts, especially for the two bottom wealth quintiles. Yet (based on a few provinces and no district data) catastrophic expenditures seem not to be widespread.

170. Zimbabwe has been making some progress in health status in recent years, yet there are still wide gaps and a major burden of communicable and noncommunicable disease. The government needs urgently to invest more in preventive and public health programs, including health promotion and education. This effort should focus on rebuilding the primary care system, once an example for Africa, with well-trained and well-equipped community health workers and environmental health technicians.

5.2 Recommendations

171. Most of the following recommendations are for policy makers and technical staff at the MOFED and MOHCC.

Increase Government Spending on Health and Reallocate Expenditures

172. Government health spending is lower than in most regional peers and too low to ensure the right balance between health inputs. Reliance on donor financing is unsustainable, while reliance on user fees at the point of service delivery is highly regressive. The government could consider

measures to enlarge fiscal space for health by exploring other domestic sources of financing such as “sin taxes” and earmarked levies while taking into account the allocative restrictions posed by any earmarking, and by strengthening public–private partnerships. A policy framework with incentives for private-for-profit investment in health would, though, be needed to mobilize domestic resources from the private sector.

173. With strong comparative advantages in key natural resource sectors, Zimbabwe should consider leveraging some of these returns from these sectors toward financing the health sector. The MOFED could explore examples from other resource-rich countries, including Chile.

174. The government’s health budget should prioritize expenditures in health to primary care and prevention (health services) and medicines and supplies (inputs). New expenditures should not be used for salaries, despite their being lower than in regional peers (overall or in the health sector). Such prioritization also requires the MOHCC to keep track of health expenditures by level of care.

Improve Allocative Efficiency

175. Weak harmonization of health sector programming results in duplication of funding, and inefficiencies in provision of services. Parallel financing in Zimbabwe is worsened by lack of cost-effectiveness analysis or robust evaluation of the multiple interventions. Off-budget financing needs to be better coordinated and reported to enable the government to strengthen planning and execution of public sector resources and to build on possible synergies with private financing.

176. Empirical evidence-based models for resource allocation are essential to rebalancing skewed and inefficient resource allocation and should emphasize: coordination of funding sources to avoid spending duplication and asymmetry; regional-specific resource-allocation formulas to cater for areas, levels of care, and individual facilities; decentralized (and coordinated) tracking, budgeting, and management systems for resource generation and community needs;⁹⁵ and preventive rather than curative care.

177. As the MOHCC and MOFED have no mechanism to track financial allocations and expenditures at different levels of administration, such as province and district, the MOHCC should introduce a financing module in the HMIS/DHIS2 at different levels of care. Two linked opportunities arise: use program-based budgeting to clearly prioritize programs financed by the MOFED over a defined period; and under the IMF Staff Monitored Program, track expenditures on high-impact health sector interventions financed by the government, and share that information with development partners.

Harmonize Funding and Strengthen Donor Coordination

178. The MOHCC may be the overall coordinator for policy and spending prioritization but does not allocate resources from external partners. Weak coordination like this creates problems in budget planning and tracking. Given that donors contribute 19 percent and government 18 percent of total health expenditures, a resource planning, mapping, and tracking mechanism needs to be built, jointly coordinated by the MOHCC and MOFED.

179. Partners could share more expenditure information with the MOHCC through a resource-tracking template that can be administered both mid- and end-financial year, working with the MOHCC.

Address Inequities and Expand Effective Coverage

180. Given the large share of household OOP expenditures, it is essential for the MOHCC, supported by development partners, to continue to roll out and evaluate interventions that minimize payment

at point of care. These interventions include provider-payment mechanisms such as RBF that remove user fees and motivate health workers (see just below).

181. To reduce reliance on user fees, especially in disadvantaged provinces, the national health budget should be distributed according to a formula that grants the poorest districts higher allocations, letting them remove user fees and overcoming the additional distance-linked costs of delivering health services. The resource allocation formula should at a minimum include indicators on remoteness, population size, population of under-fives, infant mortality, maternal mortality, and the general disease burden.⁹⁶

182. The MOHCC should undertake equity surveys to capture data on socioeconomic profiles of those using health care services, to reveal whether the poorest quintiles are falling through the cracks by not seeking health care at all, as happens now. Also, because internationally comparable data on total public expenditures are unavailable for Zimbabwe, reliable NHA exercises should be institutionalized so that WHO can incorporate GHE data into its internationally comparable database.

Retain the Best Staff

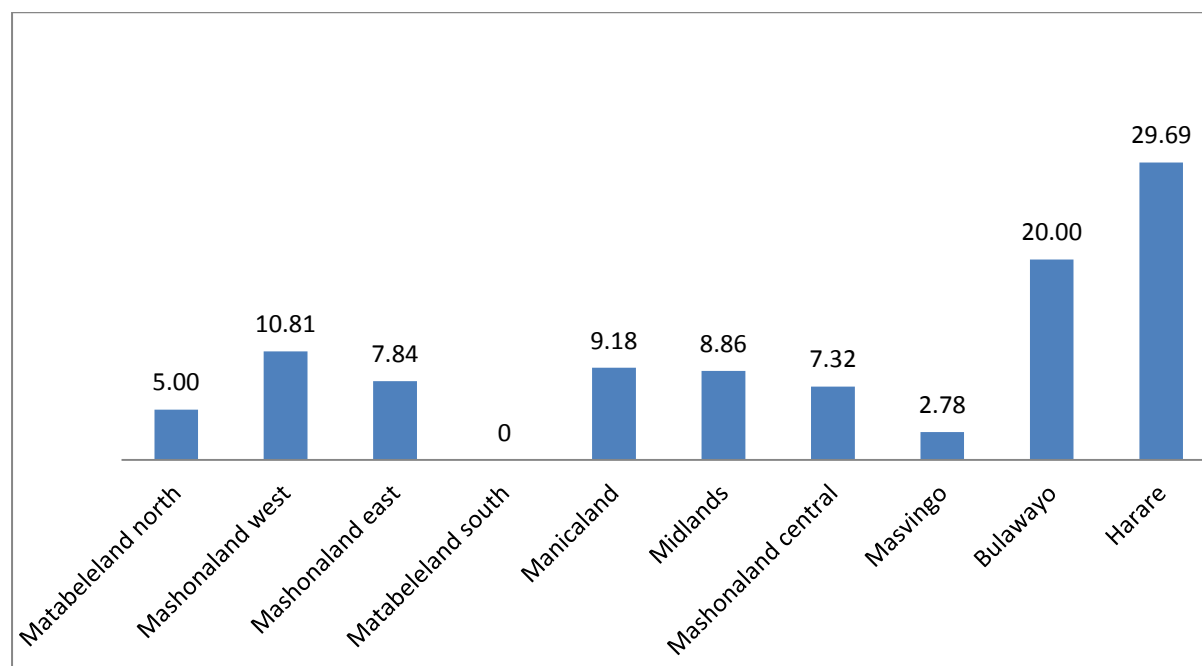
183. The staff-retention schemes financed by the HTF, Global Fund, and MOFED need to be reviewed given the huge share of labor costs in government health spending. Countries like Rwanda and some OECD countries pay variable, not fixed, top-up allowances linked to health worker performance, and these approaches should be considered. The government and partners should also explore using management tools such as RBF, which could be applied to off-budget health worker allowances, starting with rural health centers and their district management teams.

Draft Sustainability Plans

184. The MOHCC needs to develop phase-out plans for interventions that rely on donor financing. The MOHCC's only indicative resource plan for health financing is its annual national budget. While there are national stakeholder consultations on the budget that involve the private sector, external partners, and other potential sources of financing, such meetings rarely explore the MOHCC's resource mobilization and expenditure plans for the future. Sustainability planning should be based on analysis of project costs and financing needs as well as economic returns on government investments.

Annex 1. Additional Tables and Figures

Figure A1.1 Utilization of private facilities across provinces



Source: Authors from ZDHS 2010–11 data.

Note: Percentage seeking care in a private facility (out of all households seeking care for their child with cough or diarrhea).

Table A1.1 Summary of Regression Measures of Impact, RBF Program, 2014

Outcome	Impact	Level of Significance
Facility delivery	0.13	0.00
Skilled delivery	0.14	0.00
Urine sample collected during ANC	0.16	0.02
Postpartum care (PPC) by a skilled provider	0.14	0.02
Receipt of tetanus vaccine during pregnancy	0.08	0.05
Number of tetanus vaccine	0.33	0.05
Receipt of any PPC	0.12	0.05
A PPC within 2 months of delivery	0.12	0.06
Blood sample collected during ANC	0.08	0.14
Number of ANC visits	0.40	0.15
Any modern contraception	0.05	0.21
Time of first ANC	-0.19	0.22

Source: RBF impact evaluation 2014, initial results.

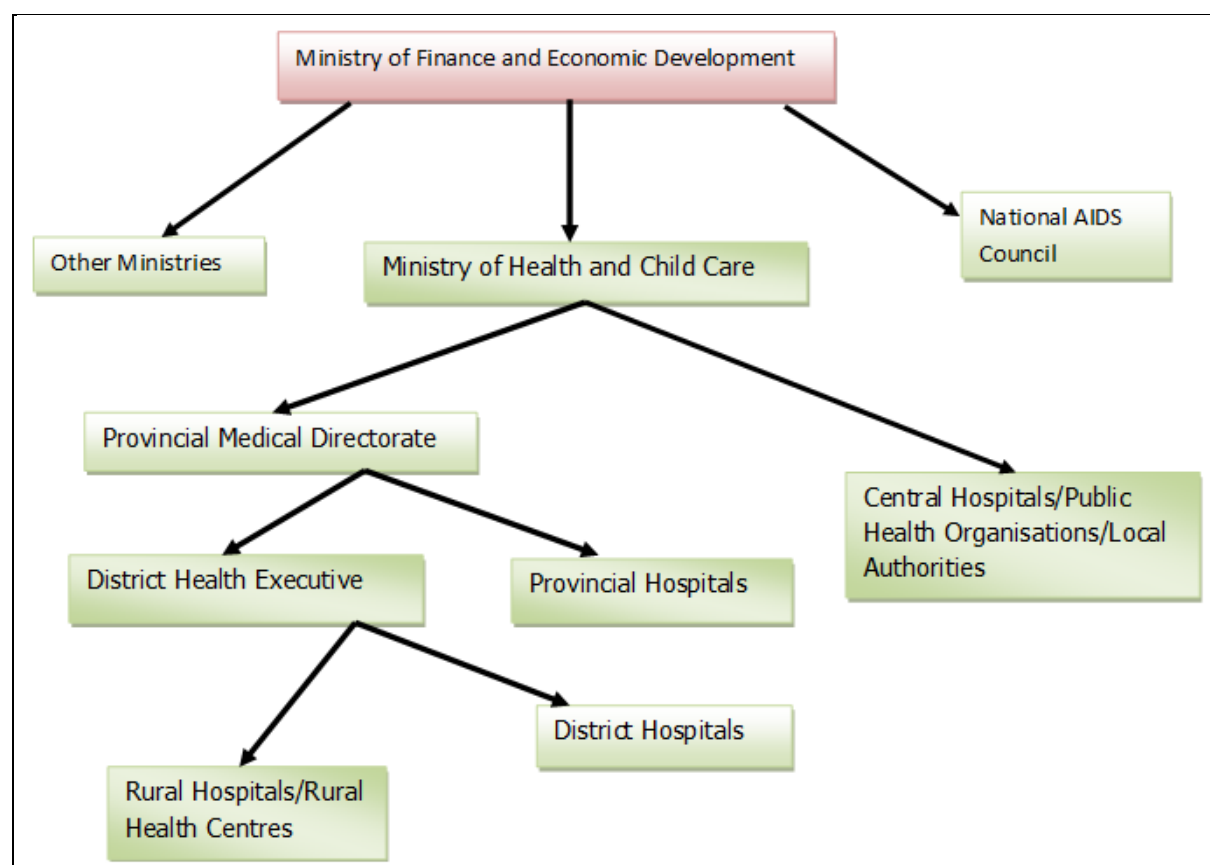
Note: Sorted by level of significance. The activities for which the impact was found statistically significant are in bold. The “impact” is the relative percentage point increase in the service that RBF districts experienced over and above control districts (non-RBF).

Annex 2. Institutional Background and Budget Procedures

Institutional Background

Figure A2.1 depicts the flow of funds from the MOFED to the MOHCC and its structures. Financing is centralized at the MOHCC national level, which controls major line expenditures such as salaries, medications and capital expenditures.⁹⁷

Figure A2.1 Flow of Central Government Funds in the Health Sector⁹⁸



Source: Adapted from John Osika et al. 2010. "Zimbabwe Health Systems Assessment 2010." Bethesda, MD, Health Systems 20/20 Project, Abt Associates Inc.

Overview of Zimbabwe's Current Budget Procedures

Zimbabwe's Reengineered Budget Process

Parliament introduced the reengineered budget concept in 2001. The reengineered budget follows a simple cycle that starts from budget formulation, analysis and then monitoring. A call letter from the MOFED for ministries to present their bids is sent out in February. This is followed by prebudget stakeholder consultative meetings that are called by Portfolio Committees to discuss and propose priority areas that should be included in the national budget. After these prebudget stakeholder consultative meetings the final draft bids are presented to the MOFED, who then forward the estimates to the Cabinet for final allocation and approval. The MOFED then presents the budget to

the House of Assembly within a period of 90 days before the end of the current financial year. When the budget is presented in the House of Assembly, the Parliamentary Portfolio Committees and key stakeholders hold post-budget meetings to analyze the budget and reprioritize where necessary. As systematic as it sounds, due to the ever shrinking fiscal space, the described process is just an exercise with no effective bearing on the actual budget allocation or disbursement.

Centralization

In the central government budget accounting process, the MOHCC has provincial and district/local budget operations classified under heads called “votes” for operational purposes. Each head of operation is then notified of the total amount he/she can spend under each vote allocated. Using a system known as the commitment control, each head keeps a record value of each requisition issued against the budget allocated for each vote, makes requests, and keeps a record of the balance remaining on the allocated budget.

The districts and provinces do not hold any central government monies in cash. Requisitions are made by the district/province to the central level (MOHCC) for approval. Once approved, they are sent to the central payments office from where they are paid. In the event that by the end of the year, there are some unused budget funds, these are not carried forward. If there are unpaid requisitions at the end of the financial year, they can only be honored using the budget for the next financial year, hence are treated as expenditure against that year’s budget.

Fungibility

Switching of funds (virement) across line items is done upon following specific procedures and requires approval from the treasury. Unspent amounts on any line item have often signaled to the treasury that the particular line item’s expenditure should be cut in the following financial year, which forces administrators to spend as much as they can, possibly leading to inefficiencies. Where the treasury has not given approval for over-expenditure or virement, the ministry concerned has to apply for parliamentary approval for supplementary expenditure.

Annex 3. Efficiency Analysis of Public Health Expenditures

General Methodology

Rationale: Efficiency results are often presented comparing efficiency score obtained using data envelopment analysis (DEA) methods. The scores are useful to situate countries relative to the efficiency frontier but do not reveal whether they are driven by relatively low expenditure or relatively good outcomes. It is therefore difficult to interpret DEA efficiency scores for countries with low levels of spending, such as Zimbabwe, because a country can obtain a very high efficiency score despite very poor health outcomes.

General methodology: Here, using similar data as for DEA, efficiency is assessed visually in two dimensions (rather than using a summary indicator as DEA does): both dimensions are obtained using deviations from expectations, one from expected health outcomes, the other from expected government expenditures.⁹⁹ The expected outcomes and expected expenditures take account of the country's income level (including the possibility of a nonlinear effect), its size, and regional and income groupings.¹⁰⁰ The unexplained variation is used to determine relative efficiency. Different methods can be used to estimate expectations depending on whether one is interested in the long-term standing of a country relative to others ("structural efficiency") or in changes over time ("current efficiency").

Structural efficiency: A measure of structural efficiency is obtained by exploiting the panel structure of the data, using all years with data available (data availability is allowed to differ across countries). A random-effects regression separates the residual variance into a part that is common to all countries and a part that is country-specific. The country-specific residual variance or "random effect" can be used to measure the structural advantage/disadvantage of the country relative to expectations (or its typical deviation from expected outcomes). It is useful to evaluate the extent to which current efficiency can change in the short run, especially considering the fact that results depend on characteristics of the country's health system (such as the weight of the private sector).

Current efficiency: Expectations are estimated for each time period averaging values over two or more years (mainly to reduce measurement errors) and running an ordinary least squares regression on the cross-section of countries for which data are available. Residuals are then calculated as the difference between observed and predicted values.

The health outcome dimension: Different types of outcomes can be considered depending on whether efficiency is assessed over a long period (structural efficiency) or using averages calculated over short periods (current efficiency). Outcomes that are most contemporaneously related to current expenditures, sufficiently dependent on the overall health situation in the country, and sufficiently available and comparable across countries are usually best suited to evaluate changes over time. Infant mortality rates and maternal mortality rates are commonly used indicators in efficiency analyses of the health sector in PERs¹⁰¹ and in the economic literature,¹⁰² and are well suited for the current efficiency analysis. Life expectancy and under-five mortality may be used when looking at structural efficiency, although the HIV/AIDS situation in Zimbabwe will be expected to have a significant impact on life expectancy results. Immunization can also be used¹⁰³ but was not retained for this analysis for several reasons: it captures a limited aspect of health provision, it is often highly related to international funding, and it is also difficult to interpret variations once countries have reached a high level of coverage.

The health expenditures dimension: GHE data are widely available in the GHED (WHO) database either in percentage of GDP or in per capita US dollars. The indicator is comparable across countries and requires country clearance to be published. It includes all public expenditures externally or internally financed, on or off budget. This is the indicator that would normally be used for this type of analysis. For Zimbabwe, government expenditure data are not available so the analysis needs to rely solely on expenditure of the health ministry. This is not as good a measure as it does not include expenditures of local government, parastatal, or social security agencies, which can represent a large part of government expenditures in some countries. In addition, some countries channel less foreign aid through the MOH than others (as is the case for Zimbabwe). However, as a second best, the ministry of health (MOH) expenditure data have the merit of being generally reliable and are typically highly correlated with the total level of public expenditure.

The four-quadrant graphical illustrations: Results can be plotted into a four-quadrant graph where (0,0) is the point where both health outcome and expenditures are at levels predicted by the model. Deviations from expected health outcomes are represented vertically (y-axis) and deviations from expected expenditure horizontally (x-axis). For health outcomes such as mortality, lower is better so a position in the southwest quadrant is most efficient and a position to the northeast is least efficient. The northwest quadrant includes countries with relatively bad health outcomes that also have relatively low expenditures. They are called underachievers. Those in the southeast quadrants are overachievers. When the health outcome is vaccination or life expectancy, most efficient countries are placed in the northwest quadrant (low expenditures and high life expectancy) and least efficient in the southeast quadrant.

Use of government expenditure: Government expenditure rather than total health expenditure is used for several reasons. Although outcomes are the combined result of public and private health provision and all health expenditures are expected to have some effect on outcome, looking solely at public expenditure is important to understand the level of public expenditure typically necessary to achieve a certain outcome. There are advantages of looking at efficiency excluding private expenditure. First, private sector expenditure data often rely on survey data with various degrees of representativeness across countries. Second, the outcomes considered depend mostly on primary health care which is provided in good part by the public system. Finally, and importantly, even if comparable data on private expenditure are available, the point here is to evaluate public expenditure needs on efficiency grounds. If a country can obtain better health outcome overall with less public expenditure because the private sector takes care of most of the burden, it is indeed an efficiency improvement in terms of public expenditures.

Efficiency analysis results are useful to get a sense of overall value for money spent. To appreciate the overall picture and make policy recommendations on the size of public expenditure, however, one cannot look at results of the efficiency analysis in isolation of analyses of inequalities of financial burdens and outcomes.

Structural Efficiency Analysis—Methodology and Graphical Results

The analysis relies on the full panel of countries in the WHO database creating a panel of 167 countries for infant mortality and 163 for maternal mortality with data from 1995 to 2012 (yearly for infant mortality and at five-year intervals for maternal mortality). The panel structure of the data is exploited to identify an average “Zimbabwe effect.” The country-specific residuals are obtained from a random-effect generalized least squares (GLS) regression of expenditure as a share of GDP on GDP per capita, year, income group, region, population and size. Although infant and maternal mortality are most appropriate for the analysis (see *General Methodology* above), child mortality and life expectancy outcomes are also tested. Results are robust to using expenditure per capita.

An important caveat to this analysis for Zimbabwe is that only a few years have expenditure data with which to estimate the random effect (two years, 2000–01, and four years, 2010–13) while other countries generally have longer time series. Results are presented in Figures A3.1 to A3.4.

Figure A3.1 Structural Efficiency of Health Expenditure Based on Infant Mortality, 1995–2012

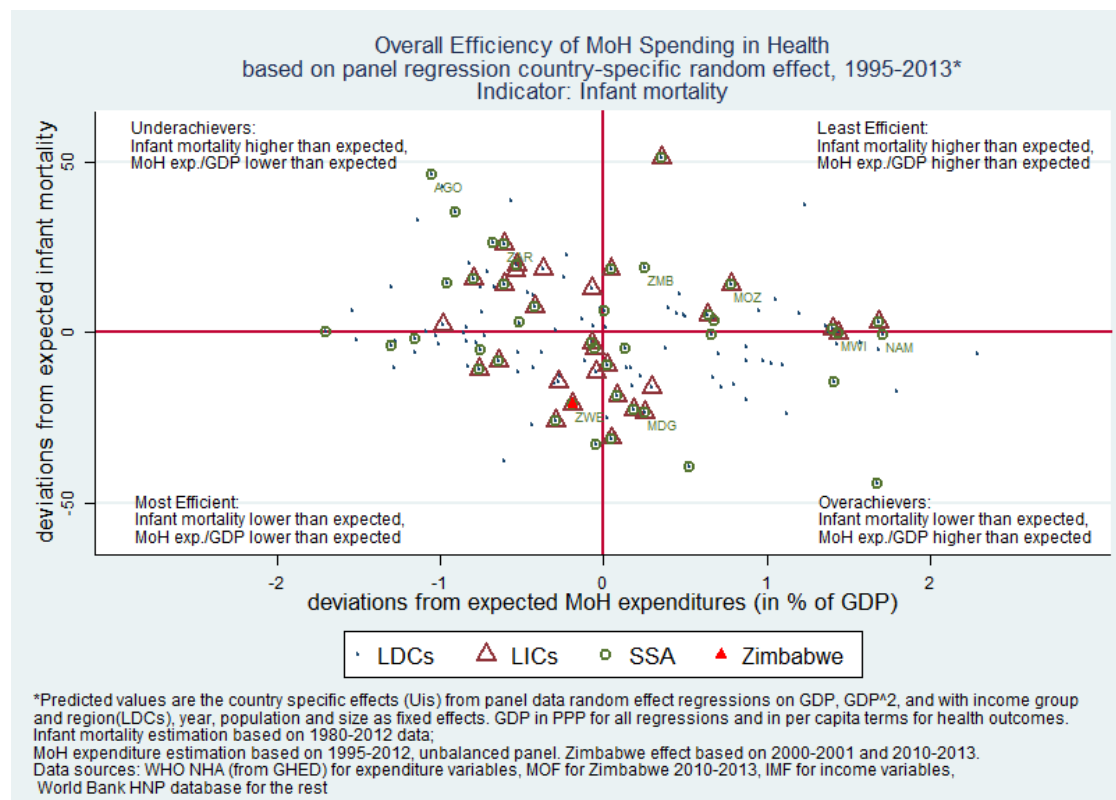


Figure A3.2 Structural Efficiency of Health Expenditure Based on Maternal Mortality, 1995–2012

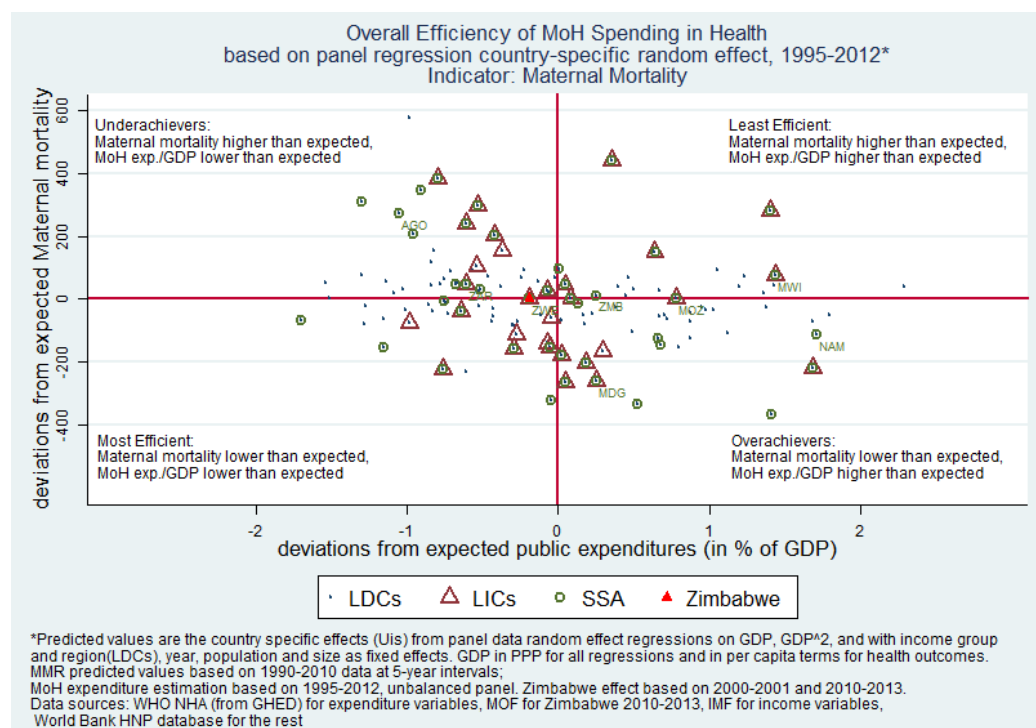


Figure A3.3 Structural Efficiency of Health Expenditure Based on Child Mortality, 1995–2012

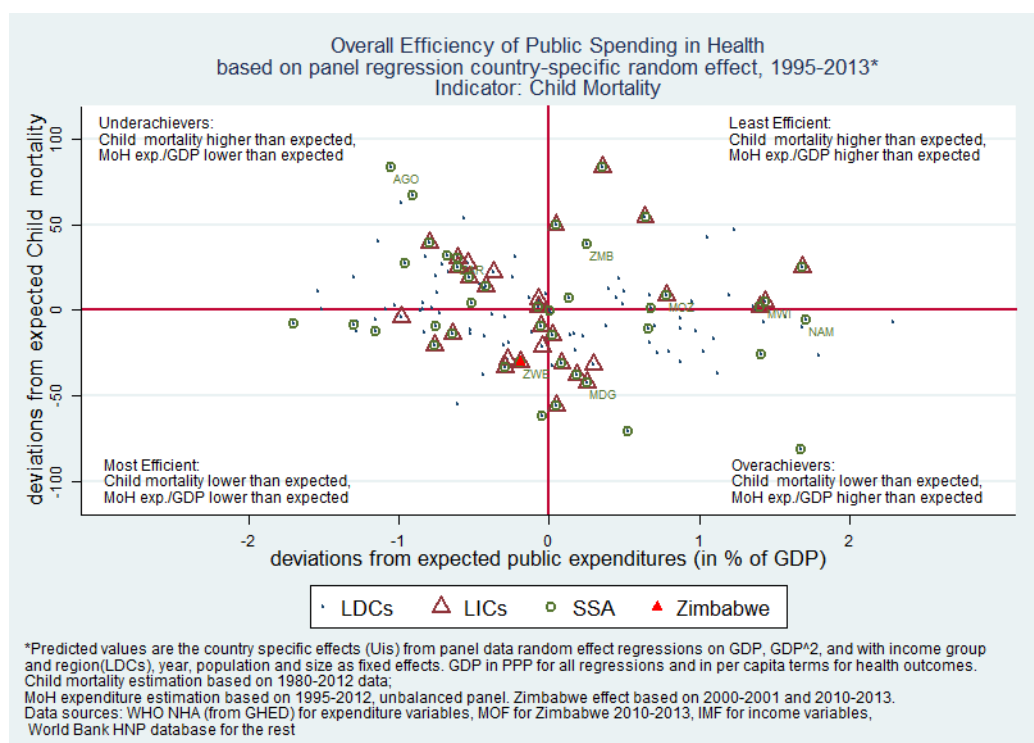
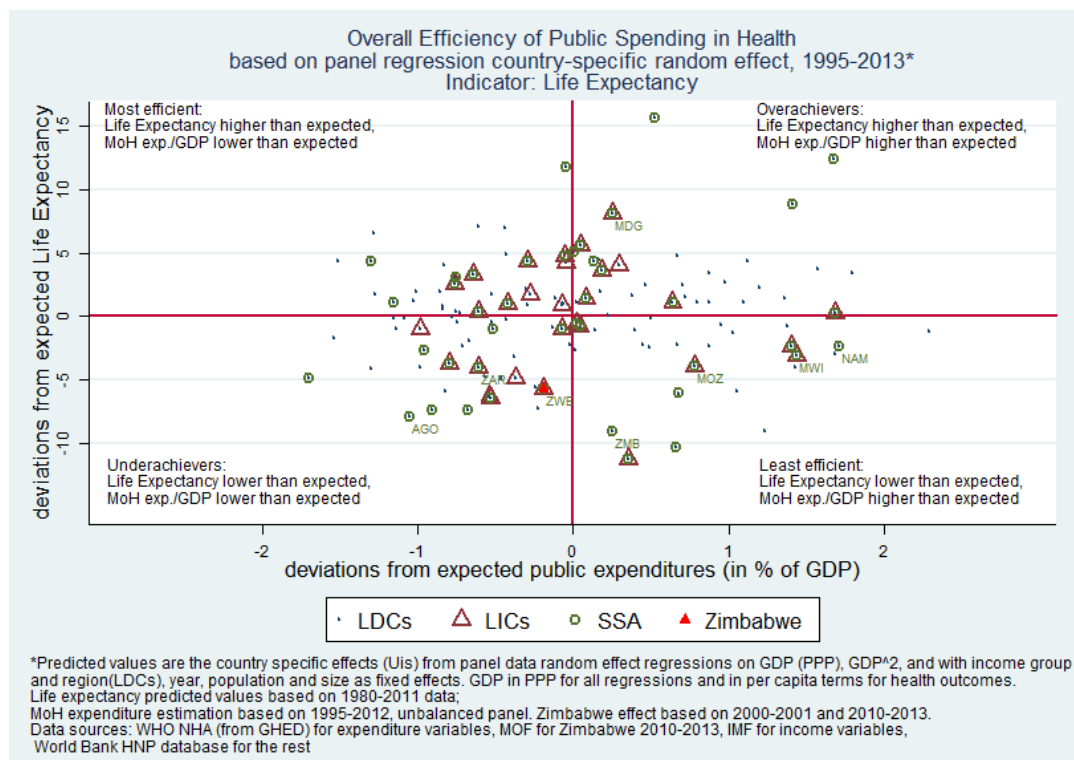


Figure A3.4 Structural Efficiency of Health Expenditure Based on Life Expectancy, 1995–2012

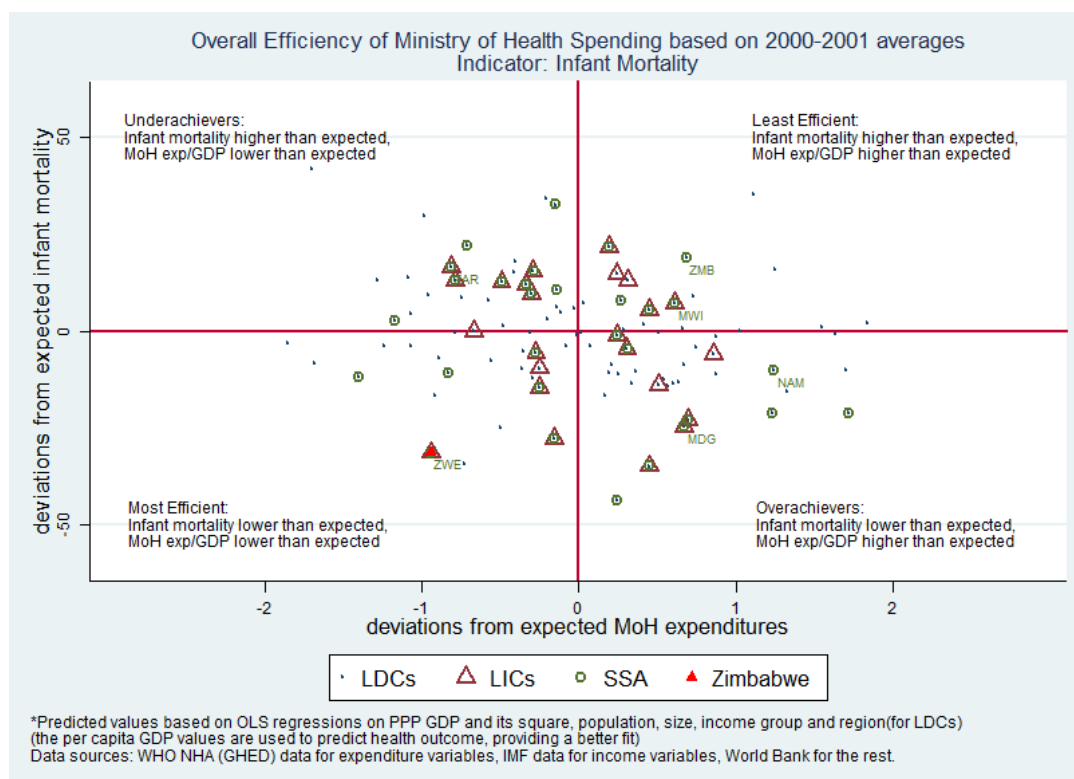


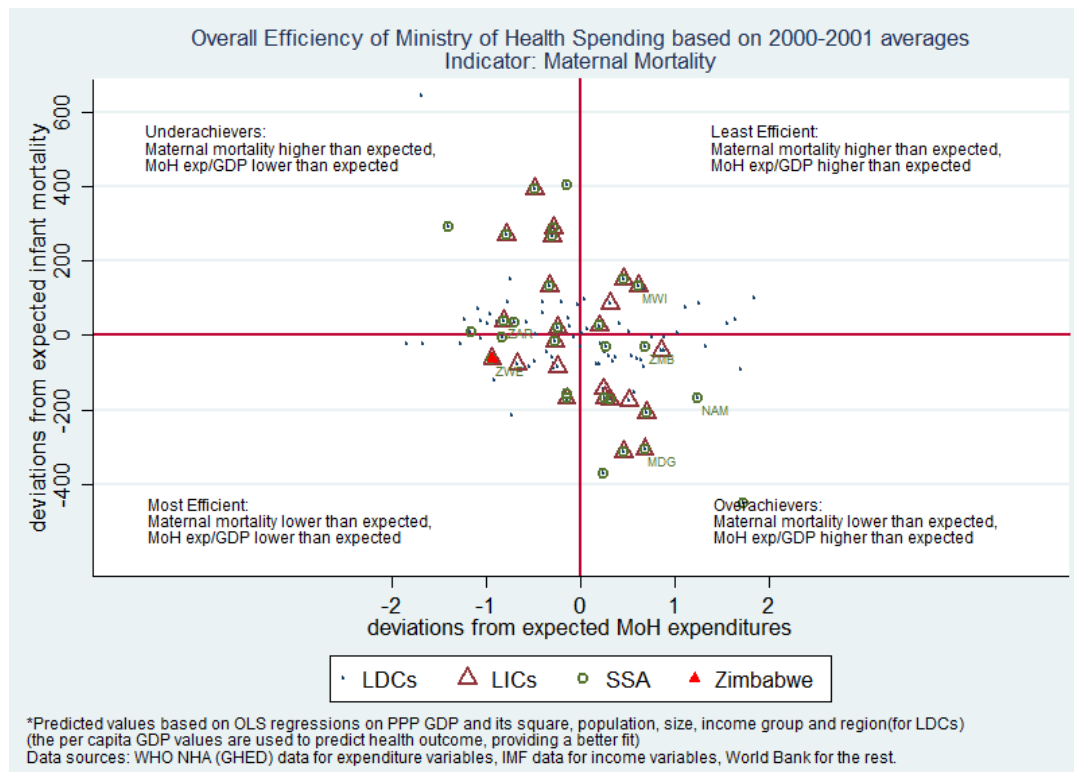
Current Efficiency: 2000–01 versus 2010–12 Expenditure Performance

The analysis is based on methodology presented in the 2006 Djibouti PER although it includes additional variables in the estimation to calculate expectations (as for the structural analysis above). It relies on cross-country regressions on average levels of expenditures and average outcomes for 2000–01 and for 2010–12 to correspond to the two periods for which reliable data are available for Zimbabwe. For each period, average outcomes and average expenditures are calculated for all countries in the sample. The number of countries with available data varies between 123 and 177, depending on the indicator and the time period considered. Deviations from expected values are based on residuals in a simple OLS regression using average per capita GDP and its square in PPP, income group, region (for least-developed countries only), population and size on the right-hand side.

The analysis is presented in the text using infant and maternal mortality as outcomes (Figure 36). Figure A3.5 shows the results for 2000–01. The analysis was also done using under-five child mortality and life expectancy (not shown). The child mortality result is similar to that for infant mortality with a reduction in relative efficiency. For life expectancy, Zimbabwe has a strong disadvantage in 2000–01 but was placed as an underachiever because of lower than expected spending. In 2010–12, life expectancy improved to levels close to expectations, but as expenditures are now higher than predicted, Zimbabwe places in the least efficient region. One needs to interpret these two results (on child mortality and life expectancy) with caution, however, as both outcomes are determined over longer time periods and are therefore less appropriate to evaluate current efficiency than infant and maternal mortality indicators, which are strongly associated with the contemporaneous situation in the health sector. This is especially true for life expectancy.

Figure A3.5 Public Health Expenditure Performance for Infant and Maternal Mortality, 2000–01





Sample Regression Results

Infant Mortality, Structural Regression Results

The variables in the model (GDP/p.c., year, pop, size, income groups and least-developed country regions) explain 58 percent of the within variance and 67 percent of the between variance.

```

. xtreg infant ppppc ppppc2 year pop size SSA ECA SA EAP MENA LAC LIC LMI

Random-effects GLS regression                Number of obs   =       2294
Group variable: cid                         Number of groups  =        177

R-sq:   within  = 0.5848                    Obs per group:   min =        10
         between = 0.6677                      avg   =       13.0
         overall  = 0.6647                      max   =        13

Random effects u_i ~ Gaussian                Wald chi2(13)     =    3336.18
corr(u_i, X)      = 0 (assumed)              Prob > chi2       =     0.0000

```

	infant	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]
ppppc		.0010675	.0000731	14.60	0.000	.0009242 .0012107
ppppc2		-4.46e-09	6.86e-10	-6.50	0.000	-5.80e-09 -3.11e-09
year		-1.471921	.0318489	-46.22	0.000	-1.534343 -1.409498
pop		-2.48e-08	8.43e-09	-2.94	0.003	-4.13e-08 -8.30e-09
size		1.17e-06	6.52e-07	1.79	0.074	-1.11e-07 2.45e-06
SSA		55.36577	4.463318	12.40	0.000	46.61783 64.11372
ECA		22.95411	4.188611	5.48	0.000	14.74459 31.16364
SA		41.05187	6.644402	6.18	0.000	28.02908 54.07466
EAP		24.71399	5.163322	4.79	0.000	14.59406 34.83391
MENA		30.33363	5.23089	5.80	0.000	20.08127 40.58598
LAC		23.76334	3.812832	6.23	0.000	16.29033 31.23635
LIC		41.63284	4.254163	9.79	0.000	33.29484 49.97085
LMI		25.88016	3.336779	7.76	0.000	19.34019 32.42013
_cons		2932.163	62.76018	46.72	0.000	2809.155 3055.171
sigma_u		14.592659				
sigma_e		3.7980861				
rho		.93655546	(fraction of variance due to u_i)			

RE_infant1 (Single value per country) is the value of the country-specific random effect responsible for explaining 94 percent of the unexplained variance in infant mortality. It is -18.77 for Zimbabwe.

Variable	Obs	Mean	Std. Dev.	Min	Max
RE_infant1	177	-2.49e-08	16.74867	-41.50978	86.72588

Infant Mortality, Cross-Country Regression Using 2010–12 Averages

We have data for 2010–13 for Zimbabwe but none of the other countries has 2013 data. We could have taken 2009–12 averages for the other countries and 2010–13 for Zimbabwe, but since this is an average without control for year, it may have placed Zimbabwe at higher spending levels only because of the time trend. Consequently, the average is taken over 2010–12 for all countries.

```
. reg infant ppppc ppppc2 pop size SSA ECA SA EAP MENA LAC LIC LMI
```

Source	SS	df	MS	Number of obs = 177		
Model	81795.2064	12	6816.2672	F(12, 164) = 35.03		
Residual	31911.2258	164	194.580645	Prob > F = 0.0000		
Total	113706.432	176	646.059274	R-squared = 0.7194		
				Adj R-squared = 0.6988		
				Root MSE = 13.949		

infant	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
ppppc	-.0012196	.0004286	-2.85	0.005	-.0020659	-.0003734
ppppc2	1.03e-08	4.21e-09	2.44	0.016	1.95e-09	1.86e-08
pop	7.16e-10	9.07e-09	0.08	0.937	-1.72e-08	1.86e-08
size	6.24e-07	6.39e-07	0.98	0.330	-6.38e-07	1.89e-06
SSA	14.90335	6.623473	2.25	0.026	1.825074	27.98163
ECA	-12.06091	6.184666	-1.95	0.053	-24.27275	.1509251
SA	-3.008406	8.018452	-0.38	0.708	-18.84112	12.82431
EAP	-13.17385	6.932883	-1.90	0.059	-26.86307	.5153658
MENA	-7.62893	7.189641	-1.06	0.290	-21.82513	6.567265
LAC	-8.731827	5.867325	-1.49	0.139	-20.31706	2.85341
LIC	17.65777	5.529409	3.19	0.002	6.739759	28.57578
LMI	10.63449	4.09725	2.60	0.010	2.544327	18.72465
_cons	34.39519	9.694556	3.55	0.001	15.25295	53.53742

RES_Infant1 is deviation from expected outcome (actual minus predicted value). It is -8.72 for Zimbabwe.

Variable	Obs	Mean	Std. Dev.	Min	Max
RES_infant1	177	-7.14e-08	13.46528	-35.49681	64.29528

Health Expenditure xt Regression (using PPP GDP), 1995–2012

```
. xtreg mohexpgdp pppgdp pppgdp2 year pop size SSA ECA SA EAP MENA LAC LIC LMI
```

Random-effects GLS regression	Number of obs	=	2087
Group variable: cid	Number of groups	=	154
R-sq: within = 0.0459	Obs per group: min	=	1
between = 0.1356	avg	=	13.6
overall = 0.1329	max	=	18
Random effects u_i ~ Gaussian	Wald chi2(13)	=	119.23
corr(u_i, X) = 0 (assumed)	Prob > chi2	=	0.0000

mohexpgdp	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
pppgdp	-.0003008	.0001711	-1.76	0.079	-.0006361	.0000345
pppgdp2	9.13e-08	3.54e-08	2.58	0.010	2.18e-08	1.61e-07
year	.0198932	.0022085	9.01	0.000	.0155647	.0242217
pop	-2.14e-09	9.99e-10	-2.14	0.033	-4.09e-09	-1.77e-10
size	-6.64e-08	5.51e-08	-1.20	0.229	-1.74e-07	4.17e-08
SSA	.1953404	.3436424	0.57	0.570	-.4781863	.8688671
ECA	-.8765076	.3337577	-2.63	0.009	-1.530661	-.2223545
SA	.0619223	.5048852	0.12	0.902	-.9276345	1.051479
EAP	.1076644	.402788	0.27	0.789	-.6817856	.8971144
MENA	.1248887	.4063979	0.31	0.759	-.6716366	.921414
LAC	.0669424	.2938018	0.23	0.820	-.5088985	.6427833
LIC	-.576673	.3167519	-1.82	0.069	-1.197495	.0441494
LMI	-.1650281	.2510189	-0.66	0.511	-.6570161	.3269599
_cons	-38.04011	4.415392	-8.62	0.000	-46.69411	-29.3861
sigma_u	1.067503					
sigma_e	.40408047					
rho	.87467336	(fraction of variance due to u_i)				

RE_mohe2 is the value of the country-specific random effect responsible for explaining 88 percent of the unexplained variance in MOH expenditure. Its value for Zimbabwe is -0.23.

Variable	Obs	Mean	Std. Dev.	Min	Max
RE_mohe2	154	-3.48e-09	1.169705	-1.685508	4.670011

Ministry of Health Expenditure as a Share of GDP, 2010–12 (PPP GDP)

. reg mohexpgdp pppgdp pppgdp2 pop size SSA ECA SA EAP MENA LAC LIC LMI UMI						
Source	SS	df	MS	Number of obs = 132		
Model	75.9046265	12	6.32538554	F(12, 119) = 3.93		
Residual	191.410979	119	1.60849562	Prob > F = 0.0000		
Total	267.315605	131	2.04057714	R-squared = 0.2840		
				Adj R-squared = 0.2117		
				Root MSE = 1.2683		
mohexpgdp	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
pppgdp	-.0012464	.0005501	-2.27	0.025	-.0023356	-.0001572
pppgdp2	1.16e-06	2.30e-07	5.05	0.000	7.06e-07	1.61e-06
pop	-1.50e-08	3.07e-09	-4.88	0.000	-2.10e-08	-8.90e-09
size	-1.38e-07	8.23e-08	-1.68	0.096	-3.01e-07	2.49e-08
SSA	-.1956665	.5170993	-0.38	0.706	-1.219575	.8282417
ECA	-1.380028	.5288967	-2.61	0.010	-2.427297	-.3327601
SA	-.3908363	.6772387	-0.58	0.565	-1.731837	.950164
EAP	.0276269	.554686	0.05	0.960	-1.070707	1.12596
MENA	(dropped)					
LAC	-.1807629	.4919682	-0.37	0.714	-1.154909	.7933832
LIC	.2135432	.6348925	0.34	0.737	-1.043607	1.470694
LMI	.4182057	.540847	0.77	0.441	-.6527254	1.489137
UMI	.4061045	.5180683	0.78	0.435	-.6197224	1.431931
_cons	2.07801	.2742229	7.58	0.000	1.535021	2.620998

RES_mohe2 is deviation from expected outcome. It is 0.14 for Zimbabwe.

Variable	Obs	Mean	Std. Dev.	Min	Max
RES_mohe2	132	-3.84e-09	1.208781	-1.892794	5.600727

Endnotes

- ¹ Starting on a pilot basis in two rural districts in July 2011, it was rolled out to 16 more rural districts in March 2012.
- ² Zimbabwe National Statistics Agency (ZIMSTAT). 2014. Multiple Indicator Cluster Survey 2014, Key Findings. Harare.
- ³ Preparing PERs for Human Development - Specific Guidance for Health, World Bank, 2004.
- ⁴ The RBF program started on a pilot basis in two front-runner rural districts in July 2011, and was rolled out to 16 additional rural districts in March 2012.
- ⁵ Zimbabwe Population Census 2012, National Report. ZIMSTAT 2012.
- ⁶ Zimbabwe Population Census 2012, National Report. ZIMSTAT 2012.
- ⁷ Zimbabwe Demographic and Health Survey (ZDHS). ZIMSTAT 2012.
- ⁸ WHO Country Profile: http://www.who.int/nmh/countries/zwe_en.pdf?ua=1.
- ⁹ WDI. 2012.
- ¹⁰ ZIMSTAT. 2014. *Multiple Indicator Cluster Survey 2014, Key Findings*. Harare.
- ¹¹ Ministry of Economic Planning and Investment Promotion and United Nations Development Programme. 2013. *Zimbabwe Millennium Development Goals Progress Report 2012*. Harare.
- ¹² 2011 Roll Back Malaria/WHO Malaria Program Review, 2012 President's Malaria Initiative (PMI) Operational Plan—PEPFAR.
- ¹³ UNOCHA. 2009. Zimbabwe Cholera Update, Situation Report No. 22, July.
- ¹⁴ WHO/ICO HPV Information Centre. 2010. Human Papillomavirus and Related Cancers. Third Edition. Zimbabwe Summary Report Update. September 15, 2010.
- ¹⁵ WDI. 2012.
- ¹⁶ The 2014 MICS Preliminary Results indicate that only 52 percent and 56 percent of men and women aged 15–24 years respectively correctly identified ways of preventing the sexual transmission of HIV.
- ¹⁷ Of females and males aged 15–24 years, 29 percent and 12 percent respectively reported having sex with a non-marital, non-cohabiting partner in the last 12 months before the 2014 MICS interview. Only 58 percent of the females and 75 percent of the males reported using a condom during the last sexual intercourse with such a partner. In addition, nearly 18 percent of women aged 15–24 years reported having had sex in the last 12 months with a partner who was 10 or more years older (one of the drivers of new HIV infections).
- ¹⁸ T. Chinhengo. 2014. "Adolescent Sexual and reproductive Health Analysis of 2010-23 DHS." UNFPA Harare.
- ¹⁹ ZDHS 2010-11.
- ²⁰ ZDHS 2010-11.
- ²¹ Zimbabwe National Nutrition Survey 2010, MOHCC/FNC.
- ²² TARSC and MOHCC, 2011. "Assessing progress towards equity in health in Zimbabwe." Equinet, Harare.
- ²³ National Health Profile Report, 2012. The data cover all health facilities except private for-profit facilities.
- ²⁴ The other three, from second poorest to second richest, were 42.9 percent, 48.8 percent, and 47.2 percent.
- ²⁵ ZIMSTAT 2011 *Labour Force Survey* (May 2012). The report also reveals an increase in the proportion of people who did not seek care when ill since 1999 to levels roughly equal to those in 1994.
- ²⁶ The RBF benefit package includes 16 services in the rural health center, 21 in hybrid hospitals, and 6 in district hospitals. The services are largely maternal and child health, family planning, HIV/AIDS, with one indicator for the general population (new outpatient visits). Services related to NCDs, if not new outpatient visits, are not covered.
- ²⁷ MOHCC. 2012. NIHFA, MOHCC. October 2012.
- ²⁸ Poverty, Income, Consumption and Expenditure Survey (PICES), ZIMSTAT 2011/12.
- ²⁹ Authors' calculation using National Health Profile 2012 - Total Inpatient Days (496,789), Available Beds (Excluding Central Hospitals - 22,639) Over One Year (365 Days)
- ³⁰ 2013 HTF Annual Report, March 2014, UNICEF.

- ³¹ The HTF has provision to support a maximum of three doctors per district.
- ³² MOHCC, HRH Directorate HTF Update, February 2015.
- ³³ MICS 2014 could likely be used to evaluate recent developments but, unfortunately, the authors could not get access to the data.
- ³⁴ NIHFA 2012.
- ³⁵ NIHFA 2012.
- ³⁶ Zimbabwe National Statistics Agency (ZIMSTAT). 2014. *Multiple Indicator Cluster Survey 2014, Key Findings*. Harare, Zimbabwe: ZIMSTAT.
- ³⁷ 2010/11 ZDHS and MOHCC Reproductive Health Unit 2013 Annual Report. Figures reported in UNICEF, *Health Transition Fund, Annual Report 2013*, UNICEF, March 2014, Harare.
- ³⁸ 2009 and 2013 estimates from WDI. 2014 estimate from UNICEF, HTF, *ibid.*; 2014 estimate from MICS 2014.
- ³⁹ The WHO 2013 guidelines for eligibility (ART Initiation at CD4<500) would translate into a decline in adult ART coverage to below 70 percent (Scaling Up Treatment in Zimbabwe: The Path to High Coverage, MOHCC AIDS and Tuberculosis Unit, http://apps.who.int/hiv/events/2013/2_apollo_scaling_up_zim_ias_v_3_2.pdf)
- ⁴⁰ MICS 2014.
- ⁴¹ National AIDS Council Report, 2014.
- ⁴² WHO. Global Tuberculosis Report 2014.
- ⁴³ Three Country Assessment of the Need for Palliative Care Amongst Children, UNICEF, 2013.
- ⁴⁴ This was conducted in 32 rural districts in all eight rural provinces. The midline survey round consisted of a survey of 224 facilities comprising of all hospitals and rural health centers in the 32 districts; and a sampling survey of 1,836 households that had at least one woman who was pregnant or who had a delivery within the last two years (2,295 women in total).
- ⁴⁵ The estimate includes all realized expenditures of the MOHCC, other ministries, and the NAC (data provided by MOFED); and uses the 2013 estimated population, IMF.
- ⁴⁶ Results from NHA 2010 were not incorporated in the WHO database. Future PERs or other expenditure analysis of health expenditure would greatly benefit from NHA exercises that could be made comparable to other countries and included in the WHO database.
- ⁴⁷ The per capita GHE figures are based on MOHCC expenditures (MOFED data) and IMF (population). The per capita figure is then inflated to account for the fact that MOHCC makes up 70 percent of GHE (data just below).
- ⁴⁸ In the multi-currency system the US dollar, the British Pound, euro, South African Rand and the Botswana Pula became legal tender.
- ⁴⁹ Impact Research International Zimbabwe(2013): Review of the Assisted Medical Treatment Order (AMTO) in Zimbabwe: A Health Assistance Scheme for Poor and Vulnerable Members of Society.
- ⁵⁰ The NAC budget figures from MOFED do not include foreign aid. Foreign aid heavily funded NAC in previous years but this ceased to be the case in 2011.
- ⁵¹ The underestimation is because the data for MOFED transfers to other government entities for this report are only up to end-November 2013, hence the figure does not give the full picture of central government spending for the year. Percentages given in the text do consider this, however, albeit arbitrarily, by inflating the figure by 1/12.
- ⁵² Appropriation also appears to be assigned in round numbers at the disaggregated level (by functions and economic categories), indicating that the basis for allocation decisions within programs is weak.
- ⁵³ DHIS2 was rolled out in September 2013 to all 63 districts countrywide, 4 cities and 8 provincial and national health information systems. It was funded by the US government through PEPFAR/Centers for Disease Control and Prevention. The Global Fund and the Health Transition Fund collaborated on it. It should improve tracking of on-budget MOFED financing and off-budget development partner financing, and improve flows of funding directly to programs at district level.
- ⁵⁴ These expenditures exclude off-budget funds from donors and other partners.
- ⁵⁵ Health expenditure outside the MOHCC that could be included in the total represent about 3 percent of the total executed budget (so MOHCC spending is about 7 percent of the general executed budget). The WHO definition of GHE includes all health expenditures of the government, including local governments funds,

parastatals, and social security funds but these sources are small in Zimbabwe. As noted earlier, however, it is the fact that foreign aid is not channeled through the government budget that tends to understate Zimbabwe's position relative to other countries.

⁵⁶ Data for 2009 could not be used for this exercise, as the bulk of salaries were included in "administrative and general", effectively attributing 66 percent of expenditures to the administrative function.

⁵⁷ Interestingly, the decrease in expenditure observed in 2013 is in most part driven by a reduction in expenses classified as "administrative and general," although it is difficult to tell whether this could be due to the reclassification of administrative expenses into the curative function.

⁵⁸ The facility survey conducted by the World Bank in 32 rural districts documented that roughly 23 percent of surveyed facilities reported outstanding debts to suppliers (authors' analysis of survey data collected for the RBF program evaluation from all health facilities in 32 districts, i.e. 32 district hospitals and 192 rural health centers).

⁵⁹ NAC expenditures are examined in the next section.

⁶⁰ Ministry of Health and Social Welfare Tanzania 2012, Ministry of Health Uganda 2013, Ministry of Health Services and Ministry of Public Health and Sanitation Kenya 2010.

⁶¹ Figures for 2009 are excluded due to incomparability of classification in the MOFED data file: allocations for hospitals and health centers were included in programs and institutions in 2009 while from 2010 they were included in operation and maintenance.

⁶² There was already a large increase in the wage bill for health prior to 2002 (40 percentage points in four years) but it had subsequently slowed, as shown in Figure 24.

⁶³ The increase in wage expenditures in Zimbabwe could be partially due to the increase in unfrozen posts in the government system, effectively enlarging the size of personnel in the government payroll.

⁶⁴ The increase in wage expenditures is partially due to the hiring of approximately 2,000 health workers by the government following a decision by the MOFED to unfreeze hiring.

⁶⁵ Ghana was also cited as a case of labor costs crowding out other inputs in *Working in Health*, World Bank, 2009. Including additional duty hour allowance, it was calculated that the wage bill contributed 90 percent of expenditures as donor funding went solely to nonwage expenditure.

⁶⁶ The figures for Zimbabwe include employment costs paid out of transfers, which is not always the case in other least-developed countries. The separation of transfers into employment and non-employment operational costs is very useful, and should serve as an example for other countries.

⁶⁷ S. Gaudin and A. Yazbeck. 2013. "Health Sector Policy Challenges in Low and Middle Income Countries: Learning from Public Expenditure Reviews." Background paper for the health and economy program.

⁶⁸ An evaluation by Royal Tropical Institute for DFID noted the positive effect of retention schemes on bringing health workers to work, but could not conclude whether that same retention improved their productivity.

⁶⁹ There is no systematic breakdown of MOHCC expenditures by province. Looking at transfers to hospitals and health centers is the only way to assess regional differences and concentration issues given current budget accounting procedures.

⁷⁰ The largest contributor to the NAC until 2010 was the Global Fund, which curtailed channeling its HIV/AIDS support through the NAC in 2011 (see table 12). Instead it used United Nations Development Fund as the principal recipient. NAC still received funds, however, including for its behavior change program.

⁷¹ Employment costs may not include consultancies under expenditure on programs and interventions.

⁷² The 2008 decrease might be an artifact because donors' emergency response to the cholera outbreak was mainly channeled through NGOs.

⁷³ MOFED. 2014. Midterm Fiscal Policy Review Statement, September.

⁷⁴ MOFED. 2014. Midterm Fiscal Policy Review Statement, September.

⁷⁵ Dieleman, M., M. Watson, and C. Sisimayi. 2012. "Impact Assessment of the Zimbabwe Health Worker Retention Scheme. Final Report." February. Harare.

⁷⁶ Dieleman, M., M. Watson, and C. Sisimayi. 2012. "Impact Assessment of the Zimbabwe Health Worker Retention Scheme. Final Report." February. Harare.

⁷⁷ The choice was limited by the scope of the study conducted; there are indeed many other development partners on the ground making important contributions to Zimbabwe's health sector.

⁷⁸ The RBF is funded by the governments of Norway and the United Kingdom through a multidonor trust fund administered by the World Bank.

⁷⁹ This might entail development partners (i) jointly assigning one of the technical or funding agencies to provide technical support and supervision oversight of the national RBF program reporting to development partners in the funding pool and (ii) providing technical assistance to the MOHCC and MOFED to execute relevant RBF functions.

⁸⁰ Defined as accounting for at least 40 percent of the household's nonfood consumption expenditure.

⁸¹ The definition and application of user fees is not consistently applied on the ground. For example, while facilities do not charge consultation fees for maternity, they may charge for X-rays.

⁸² "A total of 978,000 persons, representing about 8 percent of the population, indicated that they were members of a medical aid scheme. Thirty-nine percent of paid employees were benefiting from medical insurance." ZIMSTAT 2011 Labour Force Survey, pp. xxi, May 2012.

⁸³ Most private prepaid schemes are not funded entirely by individuals, at least directly, as a portion of the premiums is borne by the employer.

⁸⁴ The position of Zimbabwe relative to expenditures is limited to data for 2000-2001 and 2010-2013 due to data constraints (Annex 3).

⁸⁵ Results for child mortality are very similar to those for infant mortality.

⁸⁶ Graphical results for the structural analysis and the 2000-2001 current analysis are in Annex 3.

⁸⁷ Fiscal space for health is the capacity of the government to provide additional budgetary resources for health without prejudicing the sustainability of its financial position.

⁸⁸ For example: IMF. 2011. *Revenue Mobilization in Developing Countries*.

⁸⁹ H. Ross and F. Chaloupka. 2000. *The Effect of Cigarette Prices on Youth Smoking*.

⁹⁰ For example, Ross and Chaloupka (2011) found that higher cigarette prices reduced smoking among youth.

⁹¹ Jointly funded by the International Finance Corporation, World Bank, and government of Lesotho.

⁹² IFC (International Finance Corporation). 2009. "Breaking New Ground: Lesotho Hospital Public-Private Partnership – A Model for Integrated Health Services Delivery." *IFC Smart Lessons*. July. Washington, DC.

⁹³ Institute for Health Metrics and Evaluation. *Financial Global Health 2013: Transition in Age of Austerity*.

⁹⁴ Ibid.

⁹⁵ The World Bank-funded TA for public financial management systems strengthening is one possible option that the MOFED could explore.

⁹⁶ EQUINET. 2002. Resource Allocation and Deprivation Issues for Health Equity; Report of a Research Meeting, Johannesburg 2002.

⁹⁷ Unfortunately, due to the lack of disaggregated data, it is not possible to show what percentage of total funding is allocated to the different administrative levels shown in the diagram.

⁹⁸ Due to lack of disaggregated data at the sub-national level, authors could not calculate exact amounts flowing to each level of the health system.

⁹⁹ It extends on work presented in the World Bank's Djibouti 2006 PER, report 34624.

¹⁰⁰ Income is measured in purchasing power parity. High-income countries are not separated into regional groupings.

¹⁰¹ S. Gaudin and A. Yazbeck. 2013. "Health Sector Policy Challenges in Low and Middle Income Countries: Learning from Public Expenditure Reviews." Background paper for the health and economy program.

¹⁰² E. Baldacci, S. Gupta, B. Clements, and Q. Cui. 2008. "Social Spending, Human Capital and Growth in Developing Countries," *World Development*. Vol. 36(8), pp. 1317–1341.

¹⁰³ As in Santiago Herrera and Gaobo Pang. 2005. "Efficiency of Public Spending in Developing Countries: An Efficiency Frontier Approach." *Policy Research Working Paper Series 3645*, World Bank.