

VANUATU

HEALTH FINANCING SYSTEM ASSESSMENT

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May 2018



VANUATU
HEALTH FINANCING SYSTEM ASSESSMENT

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Vanuatu has achieved improvements in some reported health outcomes but is falling behind Pacific neighbors in other important areas. There are practical actions that can be taken now to improve health sector performance. Particular attention is needed on the effective management of the sector's limited resources, including an increased focus on efficiency and the quality of frontline service delivery.

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Executive Summary

This report identifies critical opportunities and constraints faced by the Vanuatu health system as it makes progress toward Universal Health Coverage (UHC). Protecting the achievements that have been made over recent years, while continuing to improve a broader range of health outcomes, requires effective management of changes in financial and other institutional arrangements in the health sector.

[How are health outcomes tracking?](#)

Vanuatu has made good progress with some population health outcomes over recent decades. Life expectancy increased from 68 to 72 years between 2000 and 2014 (World Bank 2016). The Millennium Development Goal (MDG) 6 was met, with impressive reductions in deaths from malaria from 1.6 per 100,000 in 1990 to 0 in 2014, and in deaths from tuberculosis (TB) from 17 per 100,000 in 2000 to 6.4 per 100,000 in 2015.¹ Childhood immunization coverage is improving, but remains volatile, with coverage of Diphtheria, Pertussis, and Tetanus (DPT) third dose at 81 percent in 2016, up from 55 percent in 2013 (Ministry of Health – MoH 2016a; MoH et al. 2014). This is a marked improvement but is short of the target of 90 percent.

In other key areas, reported health outcomes have plateaued: a child under five years of age dies every two days in Vanuatu, mostly from preventable causes, and neither the MDG 4 of reduced child mortality, nor the MDG 5 of reduced maternal mortality were met. The infant mortality rate (IMR) was 23 per 1,000 live births in 2015 – down by only one from 24 per 1,000 live births in 2000. The equivalent figures for the under-five mortality rate were 28 and 29, again a reduction of just one (World Bank, 2016). Furthermore, despite the improvements in malaria mortality, there are recent concerns that the malaria Annual Parasite Incidence (API) is rising after many years of consecutive falls.

Noncommunicable diseases (NCDs) have grown from an estimated 47 percent of the disease burden to 66 percent between 1999 and 2015, reflecting global trends (Institute of Health Metrics and Evaluation, 2016). Vanuatu is suffering the classic “double burden of disease” – like most other countries in the region. While there remain many challenges for reproductive, maternal and child health (MCH) and communicable diseases, there are high and increasing rates of such risks factors as smoking, alcohol consumption, poor nutrition, and physical inactivity.

[What resources are currently invested in health?](#)

In principle, the population of Vanuatu has low-cost access to some form of basic health care, delivered predominantly by the Ministry of Health (MoH) through a network of six hospitals, 151 lower level facilities (health centres and dispensaries) and 243 aid posts. Closure of health facilities, inadequate numbers and distribution of staff, and reported absenteeism are key constraints to improving health-sector performance. While there is no discrimination in access to care through policy mechanisms, there are disparities due to a population spread over difficult terrain. The time to reach a health facility can be as high as twelve hours although most are within four hours travel time. Further constraints come from the under provision of basic medical equipment (and, in rarer cases, pharmaceuticals and medical supplies) and the poor state of health facilities (including lack of running water). Outpatient visits to health facilities, including aid posts, averaged 1.8 per person in 2016 (compared to 2.1 in Solomon Islands and 4.9 in Kiribati).

Total health expenditure (THE) per capita was US\$158 (VT 17,310) in 2014 (World Bank 2016), comparable to other countries with similar levels of income.²³ Global data show slight increases in nominal total and public

¹ Life expectancy statistics (World Bank 2016); malaria statistics (WHO 2015); TB statistics (WHO 2016).

² 2014 is the latest year for which data are available.

³ The exchange rate used in the report is VT 109.558 to US\$1 - the 2006-2016 average (World Bank 2017).

expenditure on health per capita in the decade to 2014. However, according to national data, real public expenditure on health per capita fell by 9 percent between 2010 and 2016, as the increase in nominal public expenditure on health was offset by the increase in population and inflation (GoV 2017).⁴ Nevertheless, domestic expenditure on health averaged 10.6 percent of national expenditure over the 2010-16 period, and the health sector is routinely the second largest after the education sector in terms of level of domestic resources appropriated (GoV 2017).

There is evidence that the current provision of health services in Vanuatu is not equitable, particularly for those people who face the greatest hardship with low income, restricted access to services, and poor health. Of its six provinces, the two that have the main urban centers of Port Vila and Luganville have access to the best-funded health services; yet they also have high rates of poverty. There is evidence of a relative under provision of services in the rural areas where the majority of the population lives.

[Who is paying for health and what is the money used for?](#)

Like other Pacific countries, health expenditure in Vanuatu is predominantly funded by government (public), from both domestic and external (Development Partners – DPs) funding sources. In 2014, reported public expenditure on health was 90 percent of THE, 6 percent was out-of-pocket (OOP) with the remaining 4 percent being a mixture of private health insurance and expenditure by NGOs (World Bank 2016). Domestic expenditure is dominated by hospitals, followed by Community Health Services (CHSs) and then medical supplies. The focus of external expenditure is on public health programs, largely on malaria but also immunization, TB and HIV. While formal OOP are low, and below the Pacific regional average, indirect costs such as travel and time lost can be a significant personal expense – particularly for those living in remote areas. This health financing landscape is very particular to Pacific Island Countries (PICs) and is very different to other countries with similar levels of income outside of the Pacific.

MoH's largest domestic expense is on payroll and staff benefits. In 2016, payroll and staff benefits accounted for 62 percent of domestic expenditure on health. In terms of administrative classification, hospitals assumed a 51 percent share of domestic expenditure on health followed by CHSs at 17 percent. Central support services and medical supplies came next, both with a 13 percent share of domestic expenditure on health. Only 2 percent of domestic expenditures on health were on public health programs, reflecting the substitution effect brought by DP preferences for funding public-health programs. Domestic expenditure on frontline health services has remained static, while increases in hospital expenditure have resulted in reduced community health expenditure. There are high levels of variability in resourcing and expenditure between hospitals and community health facilities across the country. Some CHS facilities are almost completely dependent on fees and contributions from patients for operational resources (drugs and vaccines are still provided centrally).

[What role does external financing play in the health sector, and what changes are expected?](#)

The health sector is highly dependent on external funding, with DPs providing one out of every five vatu spent on health on average between 2010-16 (GoV 2017). While there have been efforts by DPs to get their funding on-plan and on-budget (meaning that their support is identified within the annual planning and budget cycle), improving coordination and getting clear budget and expenditure data for some DP contributions remain a challenge. There has been limited success in getting DPs on-system (meaning that their support is channeled through the government's bank account and financial management system). Much of the Australian Department of Foreign Affairs (DFAT) funding, the largest share of support, is channeled through separate bank accounts – except for the Direct Funding Agreement, which is on-plan, on-budget and on-system. The Global Fund to Fight Aids Malaria and Tuberculosis (GF) operational support to malaria, TB and HIV, on the other hand, is largely on-system, but is not always on-plan and requires separate and not straightforward reporting.

⁴ Global data (World Bank 2016) recorded external financing as a share of THE to average 32 percent between 2010 and 2014.

The level of DP budgets and expenditures has been very volatile, making it difficult for MoH to efficiently manage and track resources allocated to, and used by, the health sector. External support from more traditional DPs in targeted public health programs, such as the GF support to malaria, TB and HIV, has started decreasing, whereas other DPs such as the Asian Development Bank (ADB) with its new vaccines project are entering the health sector. In the areas where DP support is falling, it is unlikely that MoH will be able to maintain previous levels of financing, so more effective approaches to integrated service delivery need to be identified and implemented. Transition activity, including integration of systems and increasing MoH management of public health programs, has been ongoing for several years and needs to continue.

What can MoH do now to strengthen health services?

As highlighted in its Health Sector Strategy (HSS) 2017-20, MoH is committed to increasingly focus on improving the efficiency of resource allocation and use. A modest macroeconomic growth forecast, the already large share of the national budget allocated to health, volatile and decreasing support from traditional donors, and limited options for earmarked financing are limiting opportunities to increase financing for the health sector. Ongoing health challenges and more complex, expensive chronic illness management, longer-life expectancy, health security risks and climate events continue to put pressure on the health sector.

Stronger commitment from MoH and DPs to improving the quality of resource allocation and use would free up resources for frontline health services through improving efficiency and increasing focus on equity. This includes allocating funding to high return-for-investment areas, such as frontline service delivery, prevention and primary health care. Focusing on rural health facilities, around where most of the population and vulnerable groups live, will also improve equity. This recommendation also includes improving work practice, such as integrating outreach activities, or focusing on high expenditure areas, such as payroll, procurement, pharmaceuticals or hospitals.

In this resource constrained environment, it is increasingly important for MoH to have a clear understanding of all resources available to the sector and to conduct regular performance monitoring and evaluation. This includes MoH and DPs increasing efforts to work together on more integrated approaches for resource management and expenditure. This requires better coordination and alignment of DP processes and systems and better reporting of off-system expenditure. Although there have been improvements in areas such as establishment of Business Plans and Health Information Systems (HIS) reporting, there is little oversight of the health sector with little or no reporting of health service outputs, financial information and Business Plan activities. As a result, the understanding of how resources are being utilized is extremely limited. Despite growing pressures for information from the Prime Minister's Office (PMO) and the Ministry of Finance and Economic Management (MFEM), reporting remains limited.

Policy Recommendation Summary

Two priority actions have been identified below as issues within MoH's control that can be implemented to achieve immediate and ongoing substantial improvements to health service delivery:

Priority Action One: Strengthen management and accountability arrangements at all levels of the health sector, as a clear prerequisite to improving the efficiency, quality, and equity of service delivery.

1. Policy Recommendation One: MoH to clarify and then implement required management and accountability arrangements. There is no systematic review of health sector performance throughout the year. Clarifying and implementing these arrangements would provide opportunity for more effective monitoring of results from sector investments. Arrangements include, but are not limited to, regular meetings of the executive stewardship team, core MoH committees and the health sector Joint Partner Working Group (JPWG).

Priority Action Two: Increase efficiency of health expenditure, as the most likely and important source of additional fiscal space for health in the near to medium term.

2. Policy Recommendation Two: MoH to conduct efficiency analysis on allocation and use of resources, implement change where needed, and then monitor progress regularly. In the context of projected limited

increases in health financing, MoH would strongly benefit from focusing on making every Vatu go further. This includes focusing on high return-for-investment areas or key high expenditure areas, such as payroll, hospitals and pharmaceuticals.

Abbreviations

ACT	Artemisin-based Combination Therapy
ADB	Asian Development Bank
AFC	Audit & Finance Committee
AIDS	Acquired Immune Deficiency Syndrome
ANC	Antenatal Care
API	Annual Parasite Index
ARV	Antiretroviral
CDR	Case Detection Rate
CHS	Community Health Service
DALYs	Disability-adjusted Life Years
DFAT	Department of Foreign Affairs and Trade (Australia)
DHS	Demographic & Health Survey
DP	Development Partner
DPT	Diphtheria Pertussis Tetanus
EPI	Expanded Program on Immunization
FMIS	Financial Management Information System
GDP	Gross Domestic Product
GF	The Global Fund to Fight AIDS, Tuberculosis and Malaria
GHED	Global Health Expenditure Database
GNI	Gross National Income
HDI	Human Development Index
HFSA	Health Financing System Assessment
HIS	Health Information System
HIV	Human Immunodeficiency Virus
HPV	Human Papillomavirus
HSS	Health Sector Strategy
IMF	International Monetary Fund
IMR	Infant Mortality Rate
IPV	Inactivated Polio Vaccine
ISV	Integrated Supervisory Visit
JPWG	Joint Partner Working Group
LLIN	Long-lasting Insecticidal Net
LMIC	Lower-middle-income Country
MAP	Malaria Action Plan
MCH	Maternal and Child Health
MDGs	Millennium Development Goals
MDR	Multi-Drug Resistant
MFEM	Ministry of Finance and Economic Management
MoH	Ministry of Health
NCD	Noncommunicable Disease
NPH	Northern Provincial Hospital
NSDP	National Sustainable Development Plan
OOP	Out-of-pocket
PCV	Pneumococcal Conjugate Vaccine
PIC	Pacific Island Country
PMO	Prime Minister's Office
PNG	Papua New Guinea
PR	Principal Recipient
PrHE	Private Health Expenditure
PSC	Public Service Commission

RDP	Role Delineation Policy
SPC	Secretariat of the Pacific Community
STI	Sexually Transmitted Infection
TB	Tuberculosis
THE	Total Health Expenditure
U5MR	Under 5 mortality Rate
UHC	Universal Health Coverage
VAT	Value-added Tax
VCH	Vila Central Hospital
VHW	Village Health Worker
VT	Vatu
WHO	World Health Organization

Section One: Introduction

Vanuatu:	Population (2016) 270,312	Lower-Middle- Income Status	Gross National Income (GNI) per capita (2014)⁵ US\$3,170
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1. The Republic of Vanuatu is an archipelago consisting of some 83 relatively small islands, 65 of which are inhabited, in the South Pacific Ocean. The population of 270,312 is young and predominantly rural, with more than one-half under 24 years of age and three-quarters living in rural areas (World Bank 2015). Administratively the country has six provinces, and delivering basic health services to a largely rural population spread across a large group of small islands is a significant challenge for government. The region is subject to a range of natural threats, including not infrequent tropical cyclones, earthquakes and volcanic eruptions. This is reflected in the country's number one ranking on the World Risk Index (Integrated Research on Disaster Risk – IRDR 2017). The most recent significant natural disaster was in March 2015 when Tropical Cyclone Pam struck Vanuatu and caused 16 deaths and substantial damage. Several months after Cyclone Pam, El Niño caused drought and food shortages in parts of the country. This El Niño ended for the Pacific in May 2016, but not before several deaths occurred due to malnourishment.

2. There has been a slow decline in Gross Domestic Product (GDP) growth over recent years and this was exacerbated by Cyclone Pam in 2015. The frequency and scale of natural disasters impacts economic progress and demands broad resilience. Furthermore, this inherent vulnerability implies that consideration of additional fiscal space as a 'buffer' needs to be a consideration for the Ministry of Finance and Economic Management (MFEM). There is now a strong focus on recovery supported by significant resources from Development Partners (DPs) and scheduled major infrastructure development that was delayed by the cyclone are now back on track. Economic growth has picked up – GDP expansion in 2016 was 3.5 percent and growth of 4.0 percent was expected in 2017.

3. There is significant pressure on the national recurrent budget, including the health budget. Adding to this, some DP resources that have come to play an important role in supporting health in Vanuatu remain significant but have started declining. An example is support from the Global Fund to Fight AIDS, Tuberculosis and Malaria (GF) for malaria, which saw a large reduction in funding levels from the beginning of 2015. In this context of increasing constraint, the challenge for government is to ensure that its limited health resources are allocated to priority areas in an efficient manner to meet the health needs of a largely rural population serviced by a network of rural facilities. Encouragingly, there is a belief that efficiencies can be found and that future budgets can be realigned to meet the ongoing challenge. There are some examples of efficiency gains such as energy audits, solar panel installation and broadening of malaria supervision to include other diseases. However, as yet there is no systematic drive to improve efficiency.

4. To achieve the country's target improvements in coverage, access and reach of health services, it is important to continue the process of linking health budgets and expenditures with the priority activities and outputs that will effectively promote Universal Health Coverage (UHC). This Health Financing System Assessment (HFSA) seeks to help create these linkages and to identify critical opportunities and constraints faced by the Vanuatu health system to help the Ministry of Health (MoH) progress towards UHC. In addition, the HFSA aims to provide advice on managing the transition from donor-financed programs in the country, while protecting health outcomes from these financial and institutional transitions. The HFSA will not only look at the overall health system, but also look deeper at selected priority programs at the national level as well as facility performance.

⁵ 2014 is latest year available.

5. This HFSA provides context and emphasizes key issues and messages aimed at providing MoH and partners with a platform to help with this transition. It builds upon other work that has been done in recent years on health in Vanuatu. The assessment begins with an overview of the prevailing economic and fiscal context and key health outcomes. It then overviews the country's health system—through its human, physical and financial dimensions. Finally, it reviews health financing in some detail to identify trends across time; against regional benchmarks; and at both national and subnational/facility levels. The assessment concludes with a summary of policy options.

Section Two: Background

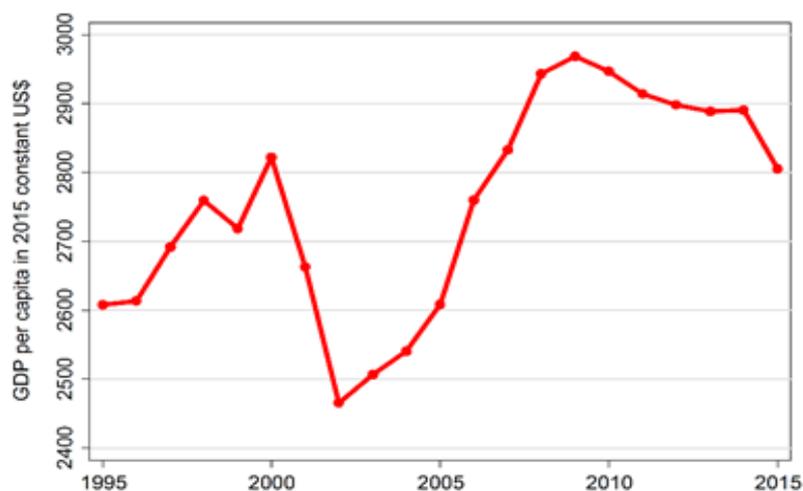
Summary

- Vanuatu's economy was significantly hit by Cyclone Pam in 2015 but an increase in GDP of 3.5 percent in 2016 indicates that the country is recovering well (GoV 2018a). GDP growth for 2017 was projected to be stronger at 4.0 percent (GoV 2018b).
- National revenue is projected to grow slowly over the next three years. With a challenging debt repayment profile, the amount of fiscal space is likely to be very restricted.
- Funding from DPs may decline in the short to medium term. This would place increasing pressure on government to fund key programs such as malaria and immunization that are currently heavily supported by external financing.

2.1 Economic Growth, Poverty and Shared Prosperity

6. Vanuatu is classified as a lower-middle-income country (LMIC) with real (inflation-adjusted) GNI per capita estimated to be US\$3,170 (VT 347,298) in 2014 (World Bank 2016). This sits below that same year average GNI per capita for selected Pacific Island Countries (PICs)⁶ which is US\$3,061 (VT 335,357) but above the average of US\$2,074 (VT 227,223) for LMICs (World Bank 2016).

Figure 2-1: Real GDP per Capita (1995-2015)⁷



Source: World Bank 2016.

7. After a period of significant growth between 2002 and 2009, real GDP per capita experienced a slow decline between 2009 and 2015 as growth in the economy was outpaced by the growth in population (Figure 2-1). Indeed, Vanuatu displays the second highest population growth rate in the region at 2.2 percent per year (World Bank 2016). Furthermore, real GDP per capita is now lower than it was ten years earlier. The social impact of Cyclone Pam in 2015 was significant, with 65,000 people (around one-quarter of the population) displaced and 17,000 buildings damaged or destroyed (GoV 2015). The impact in terms of the economic component was also significant, with production losses estimated at 24.2 percent of GDP in 2015 and the livelihoods of an estimated 80 percent of the country's rural population negatively affected (GoV 2015). The economy relies heavily on agriculture, tourism, offshore financial services, and cattle; with significant exports including beef,

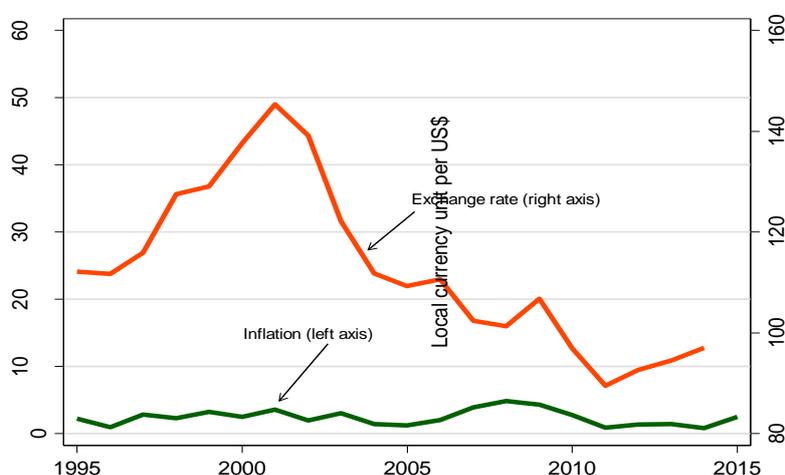
⁶ Vanuatu, Solomon Islands, Kiribati, Papuan New Guinea (PNG), Tonga, Samoa and Fiji.

⁷ Gross Domestic Product (GDP) is equal to GNI minus the net value of income received from abroad.

cocoa, copra, kava, and timber, while external financing continues to play an important role in the local economy. Cyclone Pam and El Niño had a devastating effect on root crops; kava, coffee and cocoa.

8. The economy has bounced back strongly, underpinned by expansion in the industry sector because of the Cyclone Pam reconstruction and major infrastructure projects getting underway. GDP growth in 2016 reached 3.5 percent. A large contributing factor has been a sharp growth in construction. GDP growth is anticipated to have reached 4.0 percent in 2017, driven by further growth of the industry sector and by services (including tourism). Inflation has remained low and stable over the years but rose slightly in 2015 due to cyclone-related shortages, reconstruction activity, and infrastructure projects (Figure 2-2). Inflationary pressures moderated in 2016 and inflation of between 2.0 percent and 3.0 percent is expected for 2017; sequencing of Cyclone Pam reconstruction projects is expected to mitigate risks to inflation exceeding its target (GoV 2017a). In terms of the exchange rate, over the period September 2015 to September 2016 the vatu appreciated against the US\$ and Euro while depreciating against the Australian and New Zealand dollars. The Reserve Bank of Vanuatu targets the exchange rate, managing the vatu's value against a currency basket, with the objective of stabilizing the vatu's value.

Figure 2-2: Inflation and Exchange Rate (1995-2015)

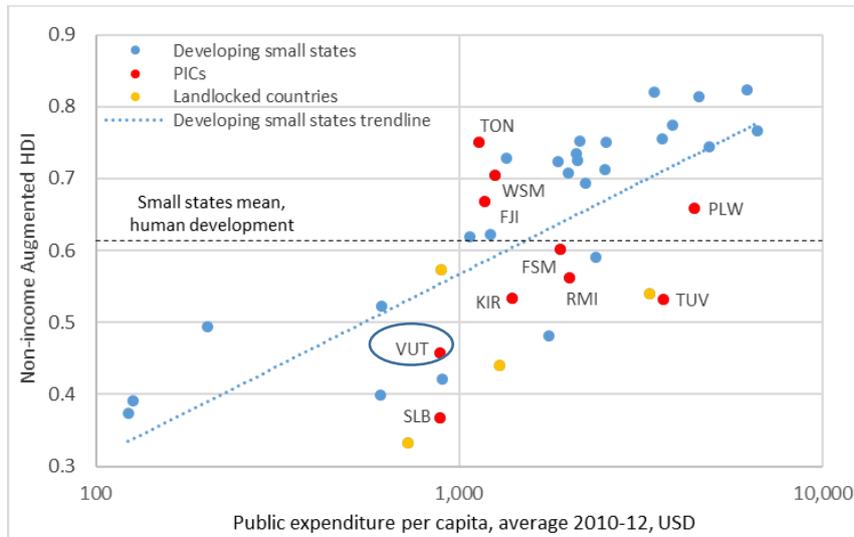


Source: World Bank 2016 database.

9. Vanuatu has slowly increased on the United Nations Development Programme's (UNDP) Human Development Index (HDI) – moving from 0.591 to 0.597 between 2010 and 2016, but performance over the 2010-15 period has been below the Small Island Developing States average and the country has slipped one place in the rankings (UNDP 2016). Vanuatu ranks 134 on the United Nations (UN) Human Development composite measure.⁸ Emerging analysis looking at the level of human development in health and education (titled 'Non-Income Augmented Human Development Index') suggests that Vanuatu could be achieving much stronger results (Figure 2-3).

⁸ Other Pacific rankings include: Fiji 91, Samoa 104, and the Solomon Islands 156.

Figure 2-3: Relationship Between Human Development and Public Expenditure per capita in Small States



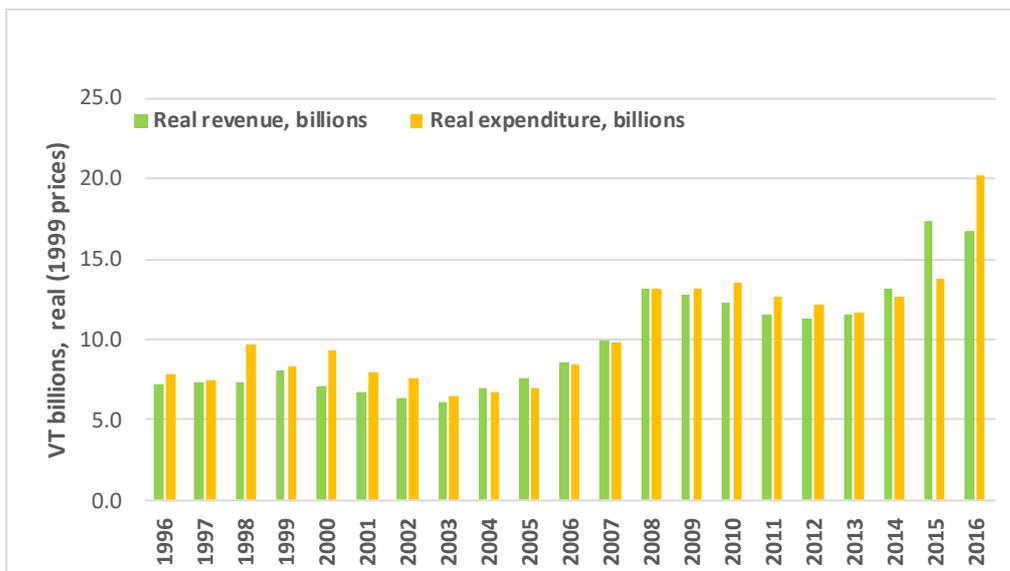
Source: World Bank 2016a.

Note: Pacific Island Countries (PICs), Solomon Islands (SLB), Vanuatu (VUT), Kiribati (KIR), Tuvalu (TUV), Republic of Marshall Islands (RMI), Federated States of Micronesia (FSM), Tonga (TON), Palau (PLW), Fiji (FJI), Samoa (WSM- as per the ISO country code).

2.2 Macro fiscal Context

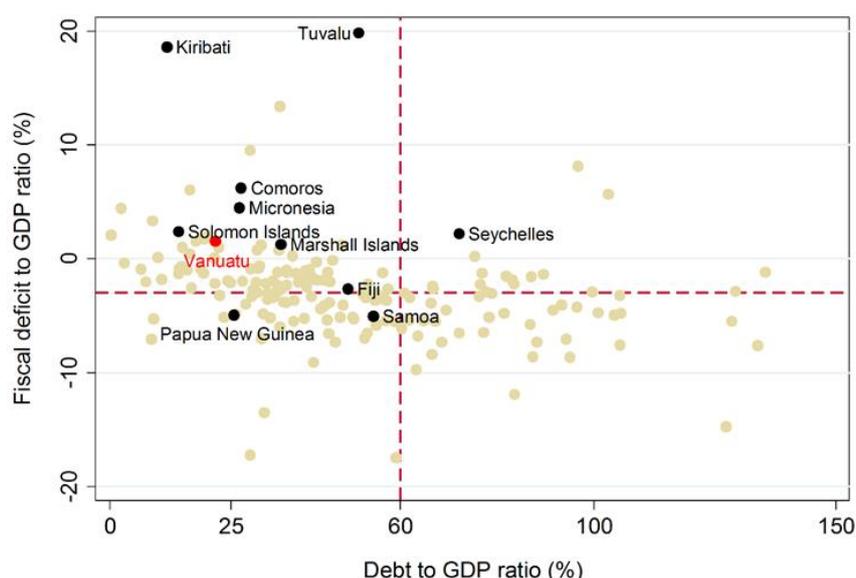
10. Real government revenues (which include external financing) increased steadily from 2003 to a peak in 2008, before falling for several years (2009-12) and rising through 2013 and 2014 to a record peak in 2015 following receipt of cyclone recovery funds (Figure 2-4). In 2015, real revenues reached their highest level over the period measured, reflecting large inflows of support following Cyclone Pam. The debt-to-GDP ratio is low, at under 25 percent (Figure 2-5). This ratio is increasing, however, due to infrastructure borrowing and was expected to reach 33 percent in 2017 (GoV 2017a). With the ratio forecast to rise further, there is concern about the ability of the government to meet its debt commitments while strengthening service delivery.

Figure 2-4: Real Government Revenue and Expenditure (1996-2016)



Source: International Monetary Fund (IMF) World Economic Outlook database (2017)

Figure 2-5: Fiscal Deficit and Debt Ratio (2015)



Source: IMF World Economic Outlook database (2017).

11. In October 2017, the government approved a report of the Revenue Review Committee, endorsing an increase in value-added tax from 12.5 percent to 15 percent from the beginning of 2018 (Vanuatu Daily Post 2017). At the same time, the government also approved the introduction of personal and corporate income taxes, with the proposed introduction dates for these taxes not specified. With no direct taxes, indirect taxes are consistently the largest source of revenue for Vanuatu (Value added-tax, other goods and services tax, tax on international trade and transactions, excise tax). Between 2009 and 2014, taxes contributed an average 77 percent of domestic revenue. Over this same period, external financing grants contributed an average of 9 percent and other revenues 14 percent. Looking forward, the IMF projects that revenue from taxes will grow from 80 percent to 84 percent between 2016 and 2019. Over that same period external financing grants are forecast to decline, and other revenues are projected to stay at the same level.

12. Government expenditure by economic classification has been relatively consistent between 2013 and 2015 but the composition changed in 2016 (Figure 2-6). Changes in 2016 include a large increase in severance payments (located within the social benefits & other category) and increases in grant and interest payments. In 2016, 50 percent of expenditure was made on compensation of employees, 20 percent on goods and services, 14 percent on social benefits and other, 11 percent on grants and subsidies, and 5 percent each on debt and interest.

Figure 2-6: Government Expenditure (2013-16) (%)

Expenditure Category	2013	2014	2015	2016
Compensation of Employees	59	60	61	50
Use of Goods & Services	32	30	29	20
Grants & Subsidies	6	7	6	11
Debt & Interest	2	2	2	5
Social Benefits & Other	1	1	2	14
Total	100	100	100	100

Source: GoV 2016; 2018b.

Note: For 2016, the period covers the months of January to September.

Section Three: Health and UHC Outcomes

Summary

- Vanuatu has achieved a steadily increasing life expectancy, with impressive results in the fight against malaria and tuberculosis (TB). However, infant mortality and under-five mortality rates are not reducing.
 - The reasons as to why there has been no recorded improvement in child health outcomes in Vanuatu in contrast to other countries of similar expenditure levels are not well understood.
 - The country is facing the problem of a ‘double burden’ of disease, with a rising incidence of noncommunicable diseases (NCDs) dominating numbers of premature deaths, while the communicable disease and reproductive health challenges remain significant.
 - Considerable differences in levels of health services exist across the country, suggesting that there is significant scope to improve equity.
 - Beyond the knowledge that some people living in more remote provincial areas have very little access to health services, not much is known or documented about the health status of other vulnerable groups in Vanuatu, and their access to health services.
 - There are gender aspects to equity, where both men and women may not be able to access the health services that they require.
 - The Health Information System (HIS) has potential to provide more information on the health status of the vulnerable but this resource is yet to be used more effectively on a routine basis.
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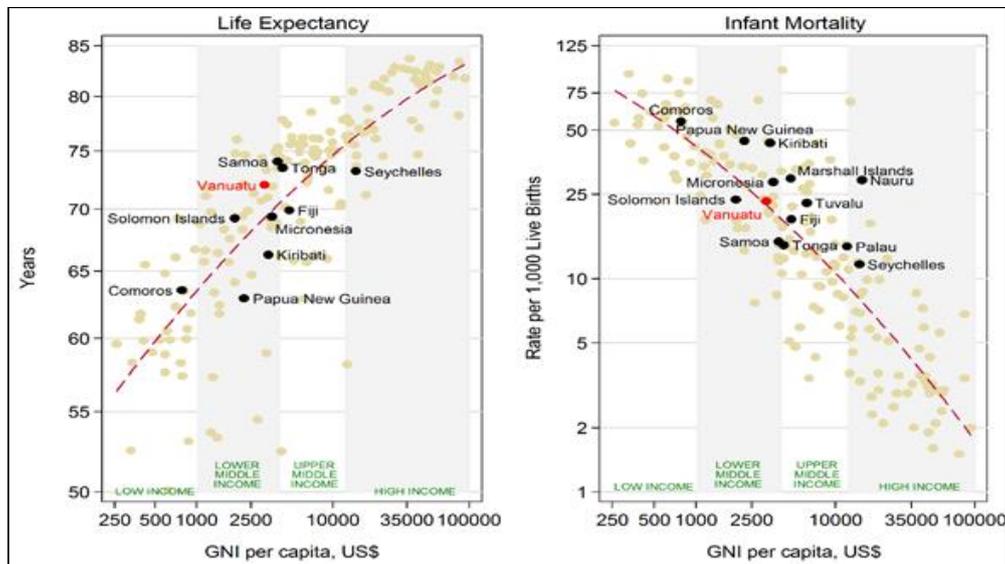
3.1 Demographics and Population Health Outcomes

13. Vanuatu has a population of 270,312, with its annual population growth rate of 2.2 percent being the highest in the Pacific, and higher than the LMIC average of 1.5 percent (United Nations, 2017). Population increased by almost 25 percent over the decade to 2017 (United Nations 2017). A high population growth rate places additional pressure on the Vanuatu economy as it needs to accumulate more human and infrastructure capital to keep up with the needs of an increasing population. It also creates a significant challenge for the country’s health system. This is especially the case with the sustained high birth rate. In 2015, 3.3 babies were born per woman of child-bearing age, down from the rate of 3.8 in 2006 (World Bank 2016). Correspondingly, family planning services have remained very low as in many other Pacific countries, despite reportedly high demand for long-acting contraceptives.

14. Over the period 2009-15 long-term gains in life expectancy have continued. From 67 years in 1999 and 71 years in 2009, life expectancy rose to 72 years in 2015. This is above the world average of 71 years and the LMIC average of 67 years. Life expectancy also compares favorably relative to Vanuatu’s level of income (Figure 3-1). As is typical across the world, the female life expectancy is greater at 74 years compared to 70 years for men (World Bank 2016).

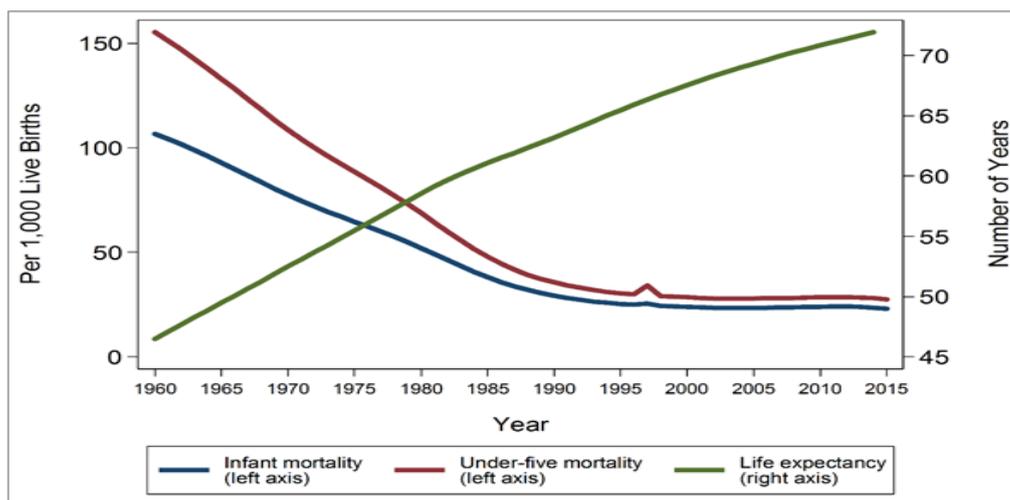
15. Gains in life expectancy are not being seen in the Infant Mortality Rate (IMR) and Under-5 Mortality Rate (U5MR), where rates are not improving; a child under five years of age continues to die every second day in Vanuatu with most deaths being preventable (Figure 3-2). This is a worrying trend that is not typical of the regional and global situations, where reductions in deaths continue to be made. In 2016, the IMR and U5MR were 23 and 28 per 1,000 live births respectively (World Bank 2016), compared with 24 and 29 per 1,000 live births respectively in 1999. These very small improvements contrast with close neighbors Kiribati and the Solomon Islands, and with LMIC and world averages, where there have been significant reductions in IMR and U5MR deaths over the same period. This means the health of children in Vanuatu – unlike in other countries – has improved little over the first 15 years of the 21st century.

Figure 3-1: Life Expectancy and IMR Relative to Income (2015)⁹



Source: World Bank 2016.
 Note: Both X and Y axes are in log scale.

Figure 3-2: Key Population Health Outcomes (1960-2015)



Source: World Bank 2016.

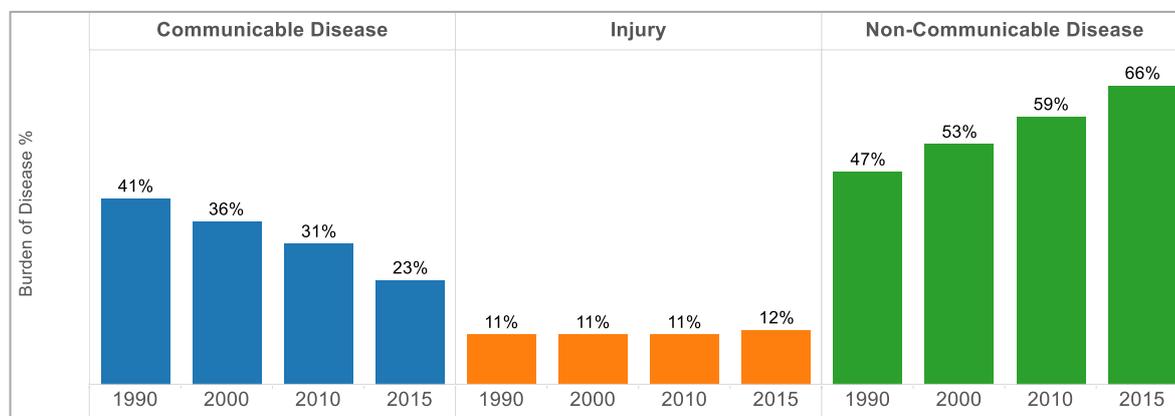
16. Vanuatu now faces a classic “double burden of disease” situation which can also be observed in most other countries in the region. The ongoing challenges with communicable diseases and reproductive, maternal, neonatal, and nutritional health are persisting. These existing challenges are now joined by a sharp rise in NCDs which sees more people living longer and with chronic illness and disability.

17. There has been a significant long-term shift in the burden of disease from infectious diseases to NCDs (Figure 3-3). This is true of the situation across the region where NCDs account for 70 per cent of all deaths and impose large economic costs – in terms of requiring additional health expenditure and reducing patients’ ability to lead productive lives (World Bank 2014). Sustained regional efforts are underway to tackle what is regarded

⁹ Life expectancy data for 2015 are not available for the Marshall Islands, Nauru, Palau and Tuvalu. GNI data are not available for 2015 for PNG and Vanuatu. In each of these cases, 2014 data are used instead.

as an NCD crisis. Priority areas comprise strengthening tobacco control, reducing consumption of unhealthy foods and beverages, improving efficiency of health expenditure, and building the research base on treatment options.

Figure 3-3: Burden of Disease by Cause in Vanuatu (1990-2015)



Source: Institute of Health Metrics and Evaluation database (IHME) 2016.

18. The top ten causes of disease burden – as represented by the share of DALYs lost – further emphasizes the shifting pattern of disease from infectious disease to NCDs (Figure 3-4).¹⁰ The shares of cardiovascular diseases, diabetes, urogenital, blood and endocrine diseases, and other NCDs have all risen over the period 1990 to 2015. In contrast, over this time the burden of infectious disease including diarrhea, have halved (although they remain the third largest cause of the disease burden). Of the top ten risk factors, diet and high systolic blood pressure are the most significant, followed by high body-mass index and high fasting plasma glucose (Figure 3-5).

Figure 3-4: Top Ten Causes of Disease Burden (by Lost DALY Share) (1990-2015)

Rank	Risk Factors	1990	2000	2010	2015	Trend
		DALYs Lost Share				
1	Cardiovascular diseases	18%	19%	20%	21%	
2	Diabetes, urogenital, blood, and endocrine diseases	6%	7%	10%	10%	
3	Diarrhea, lower respiratory, and other common infectious diseases	18%	14%	11%	9%	
4	Neonatal disorders	10%	10%	8%	7%	
5	Other non-communicable diseases	6%	7%	7%	7%	
6	Cancer	5%	5%	6%	6%	
7	Chronic respiratory diseases	7%	6%	6%	6%	
8	Musculoskeletal disorders	3%	4%	4%	5%	
9	Mental and substance use disorders	4%	4%	4%	4%	
10	Neurological disorders	2%	2%	2%	2%	

Source: IHME 2016.

¹⁰ The disability-adjusted life year (DALY) is a measure of the overall disease burden, expressed as the number of years lost due to ill-health, disability or early death. One DALY can be thought of as one lost year of "healthy" life. The sum of these DALYs across the population, or the burden of disease, can be thought of as a measurement of the gap between current health status and an ideal health situation where the entire population lives to an advanced age, free of disease and disability (WHO 2016).

Figure 3-5: Top Ten Risk Factors (by Lost DALY Share) (1990-2015)

Rank	Risk Factors	1990	2000	2010	2015	Trend
DALYs Lost Share						
1	Dietary risks	11%	12%	14%	15%	
2	High systolic blood pressure	11%	12%	14%	15%	
3	High body-mass index	7%	8%	10%	11%	
4	High fasting plasma glucose	6%	7%	10%	11%	
5	Tobacco smoke	9%	8%	8%	8%	
6	Air pollution	8%	8%	8%	7%	
7	High total cholesterol	5%	5%	5%	6%	
8	Child and maternal malnutrition	10%	8%	6%	5%	
9	Low glomerular filtration rate	2%	2%	3%	3%	
10	Occupational risks	2%	2%	2%	3%	

Source: IHME 2016.

19. The top ten causes of premature death are led by NCDs, as is the case in other selected countries in the region. Deaths from cardiovascular disease are highest in Vanuatu and Solomon Islands, however, mortality from diabetes, urogenital, blood and endocrine diseases is lower (Figure 3-6). Furthermore, the social cost of NCDs can be seen in Figure 3-7 which shows that 58 (86 percent) amputations at Vila Central Hospital (VCH) and 28 amputations (64 percent) at Northern Provincial Hospital (NPH) in 2015 related to diabetes.¹¹ Diabetes-related amputations at the country's main referral hospitals increased more than 50 percent between 2014 and 2015 (MoH 2016). The disability that results imposes a significant economic cost on the patient and their family and on the health system with the ongoing cost of care to meet the patient's longer-term health needs.

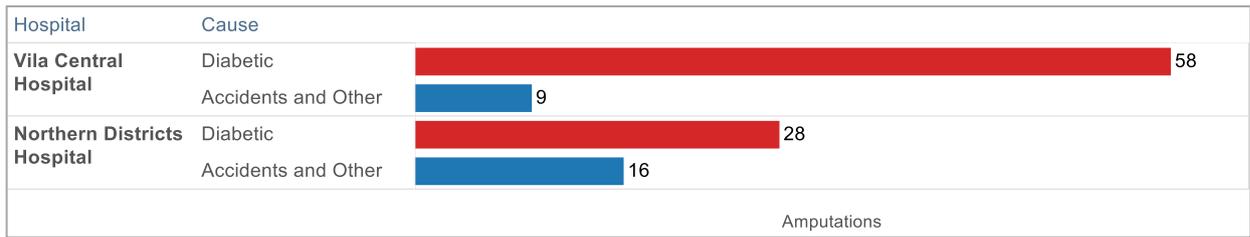
Figure 3-6: Top 10 Causes of Premature Death in Vanuatu and Comparator Countries (2015)

Rank	Causes of premature death	Cohort Average	Vanuatu	Fiji	Kiribati	PNG	Samoa	Solomon Islands	Tonga
TLLs Lost Share									
1	Cardiovascular diseases	30%	34%	31%	29%	25%	32%	34%	23%
2	Diabetes, urogenital, blood, and endocrine diseases	16%	13%	25%	15%	10%	21%	16%	14%
3	Diarrhea, lower respiratory, and other common infectious diseases	8%	9%	9%	11%	15%	7%	8%	9%
4	Cancer	12%	9%	7%	7%	7%	11%	9%	17%
6	Chronic respiratory diseases	6%	6%	5%	6%	14%	5%	7%	5%
5	Neonatal disorders	4%	5%	5%	7%	4%	2%	3%	5%
7	HIV/AIDS and tuberculosis	1%	2%	1%	5%	2%	2%	2%	1%
8	Cirrhosis and other chronic liver diseases	2%	2%	1%	3%	2%	2%	2%	2%
9	Digestive diseases	2%	2%	1%	2%	2%	2%	2%	4%
10	Other non-communicable diseases	2%	2%	3%	1%	2%	2%	2%	3%

Source: IHME 2016.

¹¹ The amputation data do not distinguish between amputation of digits (both fingers and toes) and amputation of limbs.

Figure 3-7: Amputation Numbers and Causes (2015)



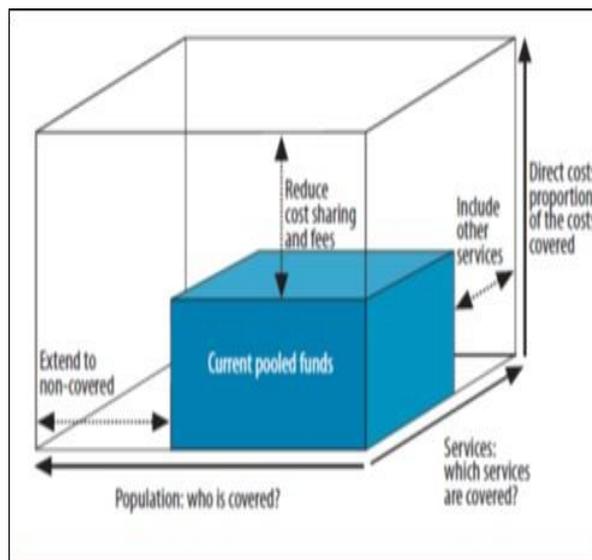
Source: Vanuatu Health Information System, Government of Vanuatu, 2015

20. **There have been gains in the major diseases tackled under MDG 6 – malaria, TB, HIV and AIDS.** The incidence of malaria, a disease endemic to Vanuatu, has fallen by over 75 percent compared to 2000 (WHO 2015) and there have been no deaths from malaria since 2012. In 2015, the southernmost province of Tafea, achieved zero local transmission and Tafea was declared to be malaria free in November 2017. TB incidence rates have halved since 1990, from 127 per 100,000 population to 63 per 100,000 in 2015 (PIFS 2015; MoH 2016). Gains in the HIV and sexually transmitted infections (HIV/STIs) program have been more limited. MoH has identified 10 people living with HIV, of whom four have died. Of the six remaining persons, only five are taking antiretroviral (ARV) drugs. Testing throughout the country is limited and it is believed that the incidence of HIV and AIDS is higher (MoH 2017).

3.2 Universal Health Coverage (UHC)

21. **UHC is concerned with ensuring that people receive the health services that they need when that need arises, while not experiencing financial hardship because of receiving those services.** In any country, health needs are essentially infinite. This means that it is necessary to define need according to a package of services. Government of Vanuatu policy, as articulated in the Health Sector Strategy (HSS) 2017–2020, provides for UHC through general tax-financed health services nationwide. Progress towards UHC has been seriously hampered in recent years, however, by political instability, senior management failures and skill gaps in the workforce. The health service package is determined by the 2004 Role Delineation Policy (RDP). It is acknowledged that the RDP requires updating and a refresh is planned for early 2018.

Figure 3-8: The UHC Cube



Source: WHO 2010.

22. The UHC cube considers three dimensions (Figure 3-8):

- (i) **Who is covered?** Nominally, all are covered in Vanuatu. In practice however, some remote communities may struggle to access health services, a problem compounded by closed health facilities.
- (ii) **Which services are provided?** The service package is defined by the 2004 RDP. There has been pressure to extend the available services, but ultimately expansion is limited given affordability constraints.
- (iii) **How much of the cost is covered?** User fees do exist, but it is considered that they do not act as a barrier to access. In-kind payments are accepted, and managers' report that no one is denied treatment through not being able to pay. However, this assumption requires full testing.

23. A key problem rests with shortfalls in adequately trained staff, despite significant external investment in nurse training with financial support from the Australian Department of Foreign Affairs and Trade (DFAT).

An estimated 4 percent of government-owned health facilities are closed and up to half offer restricted services because of understaffing (for example, the proximate cause of this major issue is a lack of trained staff). In turn, the underlying cause can be attributed to recent significant management issues (see section on Health Care Organization, Delivery and Systems), which have manifested in a failure to calculate staffing requirements and train sufficient numbers of students accordingly (key parts of workforce planning).

24. In addition, it is acknowledged that OOP expenditure plays a supplementing, formal role in providing operational funding at health-facility level.

OOP expenditure arises because of the system of health committees raising revenue at individual facility level. The health committees are legislated for under the Health Committees Act; the Act allows for local communities to levy fees defined by a set fee schedule on health service users. Fees are applied to most services, including outpatient consultations and maternity services although important exemptions exist for groups such as the over-55s and diabetic patients. Financial records are maintained to some extent, although the extent of revenue collected under the Health Committees Act is not currently known. A calculation of health committee revenues, with estimation where there are missing records, could be done; this would represent an updated estimate of OOP expenditure.¹² The Household Income & Expenditure Survey 2010 estimated that the OOP health expenditure incurred by a Vanuatu household as a result of fees was VT 300 per month (\$2.74). Given increases in fees, the OOP expenditure on health in 2016 would be expected to be higher.

25. Informal consultation with health service managers reveals that nobody is denied health services as a result of an inability to pay fees – yet the possibility exists that people are dissuaded from seeking services in the first instance as a result of insufficient funds.

Fees are either waived or in-kind payment (such as a basket of root crops) is accepted. Community fundraisers are used to supplement health committee revenues. Furthermore, the traditional Vanuatu family network serves as an important social security mechanism to meet major expenses. While the finding that no one is denied health services is an important one, the possibility that people do not seek services as a result of feeling shame at having no money to pay cannot be ruled out. Further, dispensaries at the local level can, with the exception of medical drugs and vaccines, be almost completely dependent on health committee revenues to provide operational funds. This is a challenging reality, especially given the UHC imperative to deliver preventive, primary health care at community level – an agenda that the dispensaries need to be at the forefront of.

26. To assess how countries are tracking towards UHC, a joint WHO and World Bank monitoring framework uses what are called 'UHC tracer indicators'.

These combine preventive/promotive and treatment indicators to assess country progress. For each indicator, 80 percent is the minimum target recommended by WHO. Vanuatu has exceeded the UHC tracer indicator target of 80 percent of skilled birth attendance and is nearing the threshold with a level of 76 percent in both antenatal care (ANC) and availability of potable water (Figure 3-9). In other areas – such as family planning (38 percent), sanitation (42 percent), and diabetes treatment

¹² Results collected in the third quarter of 2017 under a DFAT-funded survey (Tupaia MediTrak) include estimates of revenues collected at individual health-facility level for approximately one-half of the country's health centers and dispensaries. These results will be analyzed to build an understanding of the extent of revenues raised at individual facility level.

(19 percent) – much improvement is still required. It is concerning that, in the key area of Maternal and Child Health (MCH), Vanuatu’s UHC performance is well below that of its Pacific neighbors. While Vanuatu scored 76 percent in ANC, the Pacific cohort average was 87 percent; and with the immunization indicator DPT3, Vanuatu scored 64 percent compared to the regional cohort average of 80 percent (although, as noted in the Executive Summary, immunization performance has improved in recent years).¹³ Furthermore, there is still a considerable drop-out rate in immunization – with 94 percent of babies receiving the first DPT vaccination (DPT1) but only 81 percent receiving the third vaccination, DPT3. This means that while some level of vaccination is reaching almost all children, there is a significant problem in following up to ensure full vaccination.

Figure 3-9: Available UHC Tracer Indicators (2005-14)

	Indicator	Cohort Average	Vanuatu	Fiji	Kiribati	Papua New Guinea	Tonga	Samoa	Solomon Islands
Preventive /promotive	Family planning	31%	38%	–	22%	32%	–	29%	35%
	Antenatal Care	87%	76%	98%	88%	66%	99%	93%	91%
	Skilled birth attendance	82%	89%	99%	80%	44%	96%	81%	86%
	DPT3	80%	64%	99%	75%	62%	82%	91%	88%
	Water	76%	76%	91%	59%	35%	99%	93%	80%
	Sanitation	54%	42%	75%	34%	19%	93%	92%	25%
	<i>Average</i>	<i>72%</i>	<i>64%</i>	<i>92%</i>	<i>60%</i>	<i>43%</i>	<i>94%</i>	<i>80%</i>	<i>68%</i>
Treatment	TB	57%	66%	39%	65%	50%	59%	55%	66%
	Diabetes	20%	19%	18%	21%	16%	26%	25%	17%
	<i>Average</i>	<i>39%</i>	<i>43%</i>	<i>29%</i>	<i>43%</i>	<i>33%</i>	<i>43%</i>	<i>40%</i>	<i>42%</i>

Source: World Bank 2016.

Notes: (i) Attainment less than 80 percent highlighted in red; (ii) World Development Indicators data were not available for the following indicators: ARV treatment, ANC, OOP<25 percent consumption, ‘Neither pushed nor further pushed into poverty’, and tobacco non-use, which are all part of the framework indicators; (iii) For diabetes treatment coverage, raised fasting blood glucose (≥ 7.0 mmol/L or on medication) is used.

3.3 Vulnerable Groups and Equity in Health Coverage

27. Another dimension of UHC is the need to identify vulnerable groups within society and to address their health needs in a considered, appropriate and intentional manner. The identity of vulnerable groups will vary and may include: the elderly; children in general, or girls or boys in particular; women or men; people with particular disability; people with specific health needs such as sexually transmitted infections (STIs) or those with NCDs; or it may be whole communities, perhaps in isolated locations with limited or no access to health services. There is very little information available on the status of these groups.

28. The HIS needs to play a critical role in providing information that will assist in identifying vulnerable groups and then in monitoring their progress toward better health access and improved health outcomes. The HIS can provide a wide variety of relevant health information such as location, age, gender, medical condition and facility attendances which will help in identifying and monitoring health services to vulnerable groups. As an example, the incidence of NCDs in Vanuatu is growing rapidly, yet the levels of treatment that are reported across the country in 2015 vary considerably. This may indicate that NCDs are a bigger issue in some provinces than in others, or it may highlight the presence of vulnerable groups that are not receiving the health treatment they require. For instance, Tafea reported 1,067 new cases of NCDs (3 percent of its population) compared to Malampa with 2,941 new cases of NCDs (7 percent of its population) (MoH 2016).

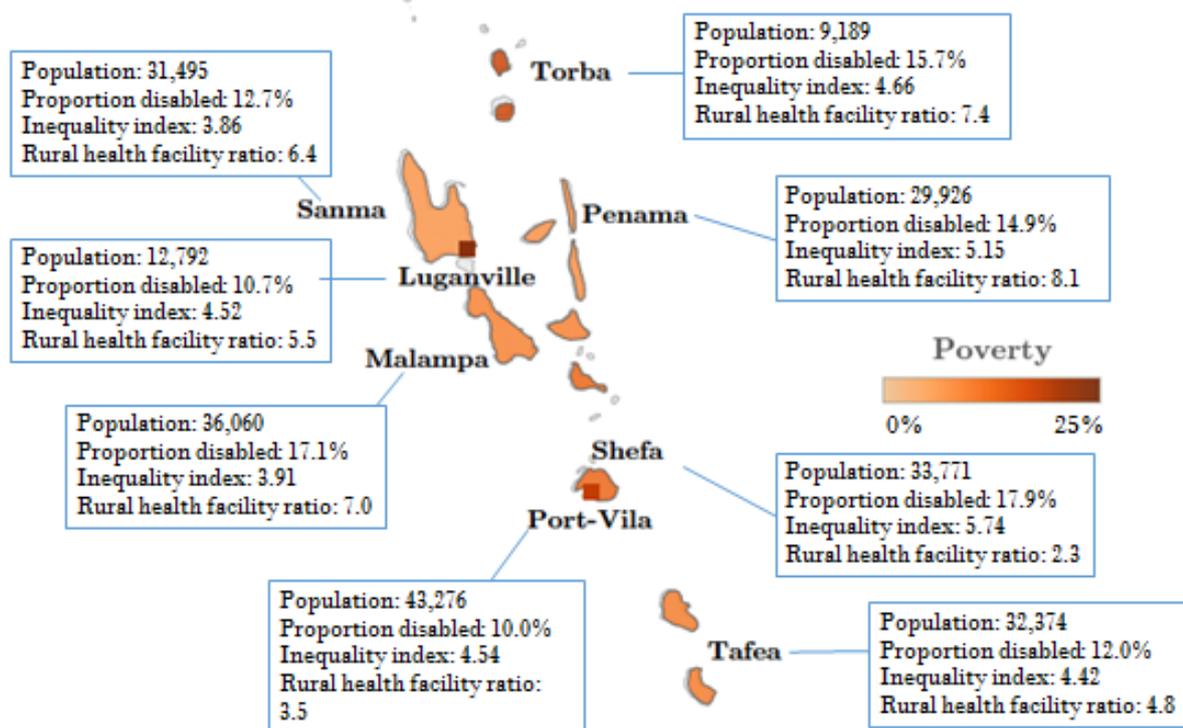
29. There are many ways to view equity, including distribution of facilities, frontline clinical staff numbers, financial resourcing, expenditure, utilization and HR, and gender. For example, in the area of MCH, only 68

¹³ DPT3 assesses immunization against the diseases of diphtheria, pertussis (whooping cough) and tetanus.

percent of expectant mothers receive one antenatal visit and a mere 54 percent receive the recommended four antenatal visits (MoH et al. 2014). Men may also be affected by a lack of services. The prevalence rates for smoking and alcohol use amongst men are much higher than they are for women; 45 percent of men smoke compared to just 4 percent of women, while 17 percent of men drink alcohol compared to only 3 percent of women (NSO 2009). This suggests a potential role for targeted health promotion services, including linkages to relationship counseling given problems of domestic violence.

30. Data exist from the Vanuatu Socio-Economic Atlas (World Bank 2014) and from MoH records that provide some information on equity—with differences observed at provincial level and between the principal cities of Port Vila and Luganville (Figure 3-10). Disability – as measured by self-reporting of a mental or physical disability – is highest in Shefa province (at 17.9 percent) and lowest in Port Vila (at 10.0 percent)¹⁴. The inequality ratio, which considers the gap between expenditure levels of the top 10 percent most affluent households with the bottom 10 percent, is low across the country – meaning that Vanuatu is a relatively equal society. Nevertheless, the disparity is greatest in Shefa province (excluding Port Vila) and lowest in Sanma province (excluding Luganville). Finally, the health facility ratio considers the number of health facilities per 10,000 population. The ratio is greatest in Penama province, at 8.1, and lowest in Shefa province, at 2.3 (noting that the largest facility of VCH is located in Shefa).

Figure 3-10: Vanuatu with Selected Inequality Indicators (2014)



Source: World Bank 2014 and MoH facility statistics.

Notes: Health facility data from 2016; health facilities include health centres and dispensaries (with aid posts excluded)

¹⁴ Port Vila is located in Shefa province but is treated separately within the Vanuatu Socio-Economic Atlas.

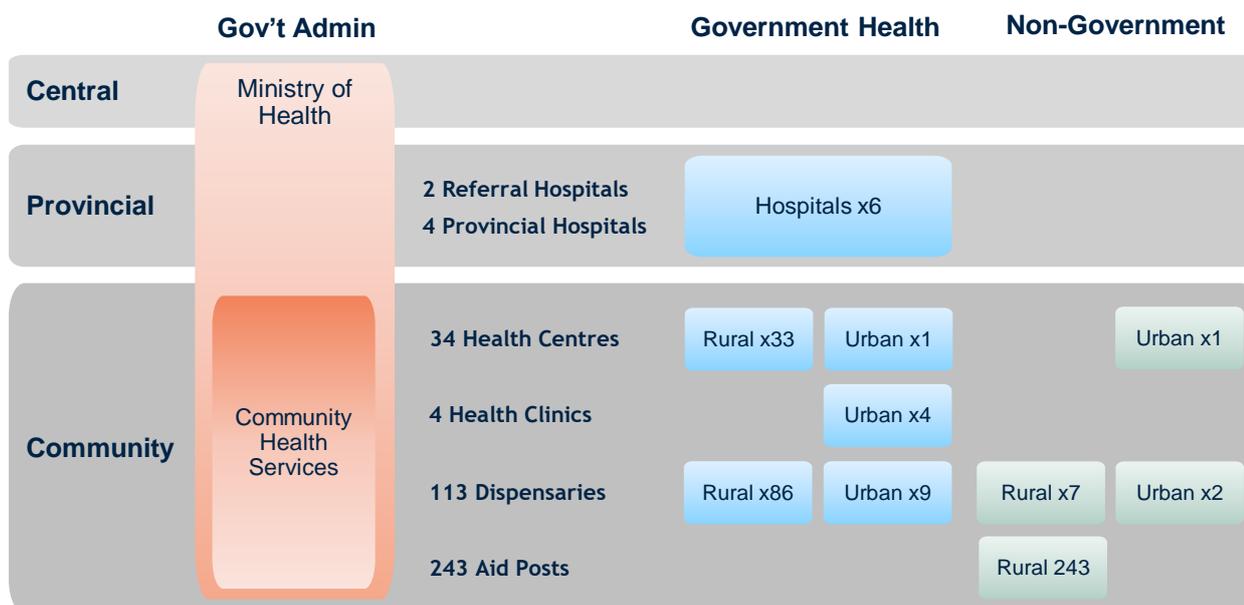
Section Four: Health Care Organization, Delivery and Systems

Summary

- Multiyear vacancies and frequent changes in senior management positions have had a negative impact on health-sector performance and accountability, with one indicator being the very low numbers of qualified, frontline staff.
- There is significant variation in staff numbers across hospitals and Community Health Services (CHSs).
- Focus needs to center on increasing numbers of frontline staff, through reallocation of resources to the key service-delivery positions. Short-term measures such as hiring of overseas nurses would be required to raise the ratio of frontline staff.

31. MoH is the key agent within the health system, being both the principal purchaser and provider of health services. The private sector accounts for a small, albeit growing, share with a few well-established primary health care practices operating in Port Vila and Luganville. Private laboratories also operate in Port Vila. There is no system of social health insurance (SHI) and very few people possess private health insurance. SHI is not a feasible option because the number of insurance contributors would be too small to allow for a sufficient pool of resources from which health care could be drawn.

Figure 4-1: Organization of Vanuatu’s Health System



Source: Health Facility database, Ministry of Health, Government of Vanuatu (2016)

4.1 Physical Resources

32. Government frontline health services in Vanuatu are provided through a network of six hospitals, 38 health centers (and clinics) and 104 dispensaries. Nongovernment partners also provide and fund a health center, nine dispensaries and 243 aid posts (Figure 4-2). The majority of facilities (85 percent) are in rural locations serving the country’s many highly dispersed villages and local communities. Some villages are extremely remote, being many hours’ journey by boat or on foot from the nearest health facility. The different roles of health centers and dispensaries are set out in the 2004 RDP. In management terms, a medical superintendent

has responsibility for each hospital and a provincially based CHS manager is responsible for the provincial network of health centers and dispensaries.

33. A fourth level of the health system is the network of 243 aid posts that are community-owned and operated across the country. The aid posts are staffed by volunteer community health workers, who each receive up to three months training in primary and preventive health care. The community aid posts are managed by the community, with overall management of the Village Health Workers (VHWs) undertaken by MoH since 2017 with almost all funding support from DFAT. This follows many years of the VHW program being run by Save the Children Australia with DFAT funding. Funding for the VHW program includes basic medical drugs (from MoH) and in-service training of VHWs, supervision of VHWs, Community Health Action Grants for projects such as construction of toilets, preservice training, meetings, and personnel emoluments for program staff (all from DFAT). VHWs are not systematically remunerated but exceptions exist, such as in Shefa province, where the provincial government provides stipends. It is the long-term goal of MoH to integrate the aid post structure within its own organizational structure.

34. Faith-based organisations, other NGOs and municipal councils play an important contributing role in health-service delivery, providing a host of services that are governed by 45 active Memoranda of Understanding. These partner-supported services extend from providing primary health care services at a small number of dispensaries/clinics to providing specialized services such as dentistry from mobile clinics. This support is off-system, however, and it is not feasible at this stage to quantify overall financing levels or the results that are being achieved for the investments. Partner-supported services are not funded by MoH except for drugs and vaccines, and occasional contributions to outreach activities. Around 15 per cent of health facilities are non-MoH owned. MoH works with these organizations to ensure integration of health services. Although there is scope for improvement here, the partnership relationship extends to integrated outreach visits and the inclusion of non-MoH owned facilities within the HIS reporting system.

Figure 4-2: Health Facility Numbers (by Level and Province), and Total Facilities per 10,000 Population

Province	Hospital	Health Centre	Dispensary	Aid post	Total	Total facilities per 10,000 population
Torba	1	3	5	24	33	32
Sanma	1	9	31	45	86	16
Penama	1	6	23	48	78	24
Malampa	1	9	20	49	79	19
Shefa	1	7	18	42	68	7
Tafea	1	4	16	35	56	15
Total	6	38	113	243	400	15

Source: Health Facility database, Ministry of Health, Government of Vanuatu (2016)

Note: Health facilities include health centres, dispensaries and aid posts (in contrast to Figure 3.10 where aid posts are excluded).

35. Figure 4-2 reveals a significant variation in the total number of health facilities per 10,000 population. Some differences can be explained – as an example, the small population of Torba at just over 10,000 combined with its rural character mean that a high number of facilities per 10,000 population is expected. A further example is Shefa which has the highest provincial population at just under 100,000 but also has one-half of its population in Port Vila which has the nation’s largest hospital. On the other hand, the lower level in Tafea compared to Penama and Malampa – three provinces where population differences are not significant – is perhaps more difficult to explain.

4.2 Management and Human Resources

36. MoH is led by a Director-General, and the Ministry has three directorates – Public Health, Hospital and Curative Services, and Corporate Services. CHS and hospital services are overseen by the Director of Public Health and Director of Hospital and Curative Services respectively. There are six CHSs and six hospitals, with a CHS and hospital in each of the six provinces (although the hospital in Torba is classified as a ‘mini-hospital’ and is akin to a health center).¹⁵

37. A severe restricting factor for effective management, which dates to early 2013, has been high turnover and extended vacancies in the senior management team of MoH; the outstanding vacancies were filled in early 2018. There were suspensions from mid-2013 of the Public Health and Corporate Services directors. The Director of Public Health returned to his position in the second half of 2016 and a new Director of Corporate Services was appointed in early 2018. Furthermore, from mid-2013 through to the beginning of 2016, the Director-General’s position was filled on an acting basis. Another key gap has been in the HR Unit, where the manager’s position was filled on an acting basis for many years, with a substantive HR Manager only taking up the post in early 2018.

38. The practice of filling positions for long periods on an acting basis is widespread at MoH and is typical across government agencies. Limitations in management practice – such as the lack of routine performance appraisal – may contribute to this problem and hamper permanent recruitment. The government has recently recognized this as a public-sector governance issue that requires redress and attempts have been made to introduce standard performance appraisal.

39. MoH has 972 employees, of whom only 58 percent are employed on a permanent basis (Figure 4-3).¹⁶ Over one-half of all employees are located in the country’s six hospitals (56 percent), slightly over one-quarter are employed by the six CHSs (27 percent), and the remaining 17 percent are split almost equally between Training & Professional Development (8 percent) and ‘other areas’ (which includes the various national-level divisions of the ministry (9 percent)).

Figure 4-3: Human Resourcing, MoH Employees by Area

	Permanent	Contract	Temporary	Expatriate	Unknown	TOTAL	% Total
Numbers of Employees							
Hospital	345	176	6	0	20	547	56%
CHS	169	73	0	0	14	256	26%
Training & Professional Dev.	9	70	0	0	2	81	8%
Other Areas	37	44	1	1	5	88	9%
TOTAL	560	363	7	1	41	972	100%

Source: HR database, Ministry of Health, Government of Vanuatu (2016).

¹⁵ The terms ‘Community Health Services’ and ‘Provincial Health Services’ are sometimes used interchangeably. This can be confusing, as the provincial governments are not included within the MoH structure and do not provide health services.

¹⁶ The total of 972 employees includes positions classified as permanent, contract, temporary and other.

Figure 4-4: Human Resourcing Within Clinical Roles (by Province)

	Shefa	Sanma	Malampa	Tafea	Penama	Torba	TOTAL	Chart
	Referral		Mid-size		Small			
Hospital employees	253	144	54	53	30	13	547	
- doctors, nurses and midwives	138	65	15	29	14	4	265	
	55%	45%	28%	55%	47%	31%	48%	
CHS employees	39	45	65	37	51	19	256	
- doctors, nurses and midwives	19	24	38	13	33	13	140	
	49%	53%	58%	35%	65%	68%	55%	
Hospital & CHS employees	292	189	119	90	81	32	803	
- doctors, nurses and midwives	157	89	53	42	47	17	405	
	54%	47%	45%	47%	58%	53%	50%	

Source: HR database, Ministry of Health, Government of Vanuatu (2016).

40. Whilst a reported 82 percent of MoH employees are located at hospitals and CHS, many of these positions are non-clinical in nature. An average of 48 percent of hospital employees are in core-clinical roles with the equivalent figure for CHS employees being 55 percent. Furthermore, there is a wide variation in the ratio of core-clinical to non-clinical roles across hospitals and CHS between provinces – even across provinces with similar catchment populations. Between the country’s two referral hospitals, we can observe that VCH has assigned significantly more staff to core-clinical roles than NPH (55 percent versus 45 percent; (Figure 4-4).

41. Of the three mid-size hospitals serving similar populations, Norsup (Malampa) and Lenakel (Tafea) have almost the same number of employees but Lenakel has assigned almost double the number to core-clinical roles. Lolowai (Penama) serves a similar population but has significantly fewer employees; this reflects the greater availability of other health facilities in Penama province and the resulting lower patient load on Lolowai. Norsup Hospital (Malampa) appears to be an outlier, with only 28 percent of its hospital employees in core-clinical roles – well below the overall hospital average of 48 percent.

42. An average of 55 percent of CHS employees are assigned to core-clinical roles. There is, however, a wide variation across provinces, ranging from a low of 35 percent in Tafea to a high of 68 percent in Torba. Of the three mid-size provinces with similar populations, Tafea (13) has far fewer core-clinicians compared to Malampa (38) and Penama (33). This indicates problems of CHS service provision in Tafea. Of these three provinces, Penama has the highest proportion, with 65 percent of employees being core clinicians.

43. The numbers of core-clinical hospital staff – doctors, nurses and midwives – also vary across provinces, with much higher concentrations in Shefa and Sanma (the respective locations of VCH and NPH). We can see that a high proportion of clinical staff are based at the two referral hospitals (Figure 4-5). VCH and NPH house almost all of the country’s doctors (98 percent), 74 percent of the nurses, and 70 percent of the midwives. Another interesting observation relates to Norsup, Lolowai and Lenakel Hospitals which each service similar populations, yet Lenakel Hospital has more than twice as many nurses as either Norsup or Lolowai. The high number at Lenakel reflects the scarcity of operating rural health facilities in Tafea, which puts a relatively high workload on the hospital.

Figure 4-5: Frontline Human Resourcing in Hospitals Across Provinces (2015)

Vila Central ^	24	105	10.4	9
Northern Districts^	6	52	9.5	7
Norsup, Malampa	0	12	3.0	3
Lolowai, Penama	0	12	3.5	2
Lenakel, Tafea	1	26	7.4	2
Torba	0	4	3.7	0
	Doctors #	Nurses, Hospital #	Nurses, Hospital per 10,000	Midwives, Hospital #

Source: HR database, Ministry of Health, Government of Vanuatu (2016).

44. The number of rural facilities and of clinical CHS staff, also varies across provinces. Tafea, with 4.8 facilities per 10,000 people, has the lowest ratio of rural facilities to population (aside from Shefa which hosts VCH), the other four provinces are grouped between 6.4 and 8.1 (Figure 4-6). Tafea Province – with a relatively low number of rural facilities – has a much lower ratio of nurses to population. The relationship between human, physical and financial resources and the outputs achieved is discussed in more detail in Section 5.43 (Linking Expenditure, Resourcing and Outputs).

Figure 4-6: Facilities and Human Resourcing in CHSs Across Provinces (2015)

Shefa^	2.3	18	1.8	1
Sanma^	6.4	21	3.8	3
Malampa	7.0	34	8.5	4
Penama	8.1	31	9.0	2
Tafea	4.8	11	3.1	2
Torba	7.4	12	11.1	1
	Rural Facilities per capita	Nurses, CHS #	Nurses, CHS per 10,000	Midwives, CHS #

Source: HR database, Ministry of Health, Government of Vanuatu (2016).

45. Low numbers and an aging staff are key constraints facing Vanuatu's health service. The density of 1.7 nurses and midwives per 1,000 people in Vanuatu is equal to the average for lower and middle-income countries, but this is below the WHO guideline (of 2.1 per 1,000 population) and is also lower than the average of 2.6 in the East Asia & Pacific region. It is also significantly lower than regional neighbors, including the Solomon Islands (2.6) and Kiribati (3.7). There is concern that the situation may worsen, with 12 percent of all MoH staff having already reached or passed the statutory retirement age of 55 years.

46. At times, strategies have been adopted to reduce this staffing gap with limited success. Significant numbers of graduate nurses have been trained over the decade to 2017, but ultimately not employed. Other strategies have included reengagement of retired health workers and recruitment of nurses from the Solomon Islands. Addressing the issue of employing more frontline staff is likely to necessitate one of two financing strategies: (i) MoH will need to either find efficiencies within the existing budget envelope for health and take concerted action on improving the skills mix and distribution of staff; or (ii) secure a higher share of the government budget. A combination of both approaches is likely to be required.

47. Workforce shortages are symptomatic of major, long-standing, governance issues that have held back progress in the health sector. Frequent changes in government, with consequent turnovers of health ministers and directors-general has characterised the period 2011-15. Similar issues can be found with long-standing vacancies in senior management roles such as the Director of Corporate Services (filled in early 2018), Director of Public Health (filled in the second half of 2016) and the HR Manager (filled in early 2018).

48. In terms of differences in clinical resourcing across provinces, the number of combined hospital and CHS nurses is noticeably lower in Tafea than in Malampa and Penama (provinces of similar populations). Midwife numbers are also lower in Penama and Tafea compared to Malampa. The Tafea nursing situation mirrors the smaller number of health facilities in this province. A detailed equity analysis would be required to better understand this situation.

Section Five: Health Financing

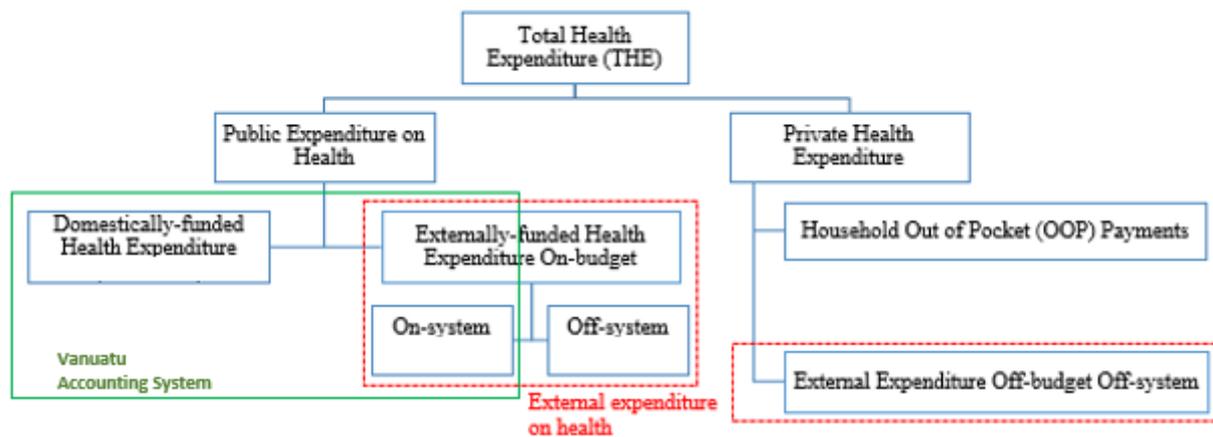
Summary

- THE per capita was US\$158 in 2014, as expected given Vanuatu's income level. THE is largely publicly funded (90 percent of THE), with low reported formal OOP expenditure (less than 6 percent of THE). However, indirect costs such as transport can be substantial for those seeking care.
 - There has been a high historical reliance on support from DPs; however, this has been volatile, particularly the extent of the support going through the government's bank account. DP support continues to be important.
 - Public expenditure on health has been flat over the period 2010-16, with increases in hospital expenditure offset by decreasing CHS expenditure.
 - Combining expenditure and utilization information shows that there is noticeable variation across Vanuatu's six provinces. It is difficult to explain these differences – further analysis including a focus on equity would be required for this. There have been efforts in recent years to better integrate vertical, DP-funded programs within national health programs, for example with supervisory visits under the malaria program transitioning to a more efficient integrated supervisory visit model. However, there remains much scope for further integration.
 - There have been difficulties in implementing agreed activities and budgets under the malaria program, with problems in planning and financial management. Progress in these areas will be critical for further gains. With MoH aiming to take over the Principal Recipient (PR) role for the 2021-23 round, adequate preparations with UNDP (as the current PR) are necessary.
 - The Expanded Program on Immunization (EPI) is heavily reliant on DP funding and leadership – moving against the trend of transitioning DP leadership in other programs. Commencement of the multimillion-dollar Asian Development Bank (ADB) Vaccines project will maintain the reliance on DPs in this critical area. It will be vital that the Vaccines project maximizes the use of government systems and plans for integrated approaches to these core services from the outset, learning from other transition experiences in Vanuatu and elsewhere.
-

5.1 Overview

49. The health financing system in Vanuatu receives funding from a variety of sources. THE includes both public expenditure on health and private health expenditure (PrHE). In Vanuatu, public expenditure on health includes domestic expenditure (with funds being raised through general consolidated revenue collection) and external financing from DPs – both on- and off-system. PrHE includes OOP payments and all other external expenditure (off-budget and off-system). Figure 5-1 sets out a representation of Vanuatu's health-financing system, while its key participants, budget arrangements and funding flows are shown in Figure 5-2.

Figure 5-1: Health Financing system in Vanuatu



Source: Author's compilation.

50. While good progress has been made with bringing DPs on-plan and on-budget there has been less success with getting DPs on-system.

Being on-plan means that all activities implemented by, or involving the resources of, MoH are aligned to MoH's priorities and plans and reflected in MoH's annual business plans. Being on-budget means that any contributions to the health sector, in any shape or form (including technical assistance), are reflected in the MoH budget and within the national budget document. Being on-system means using the government's financial management processes and systems, by channeling funds through the appropriate bank accounts managed by the government and using government procurement rules. Being on-plan and on-budget are crucial to give MoH full information on its sector, to support MoH and MoH staff with their prioritized strategic plans, and to avoid the all-too-frequent mistake of pulling MoH staff away from their core program of work towards DP-driven activities. Being on-system helps to strengthen the government's own processes and systems by identifying, and working to resolve, challenges and bottlenecks.

On-plan: Development partner's activities are integrated within the Ministry of Health's annual Business Plan.

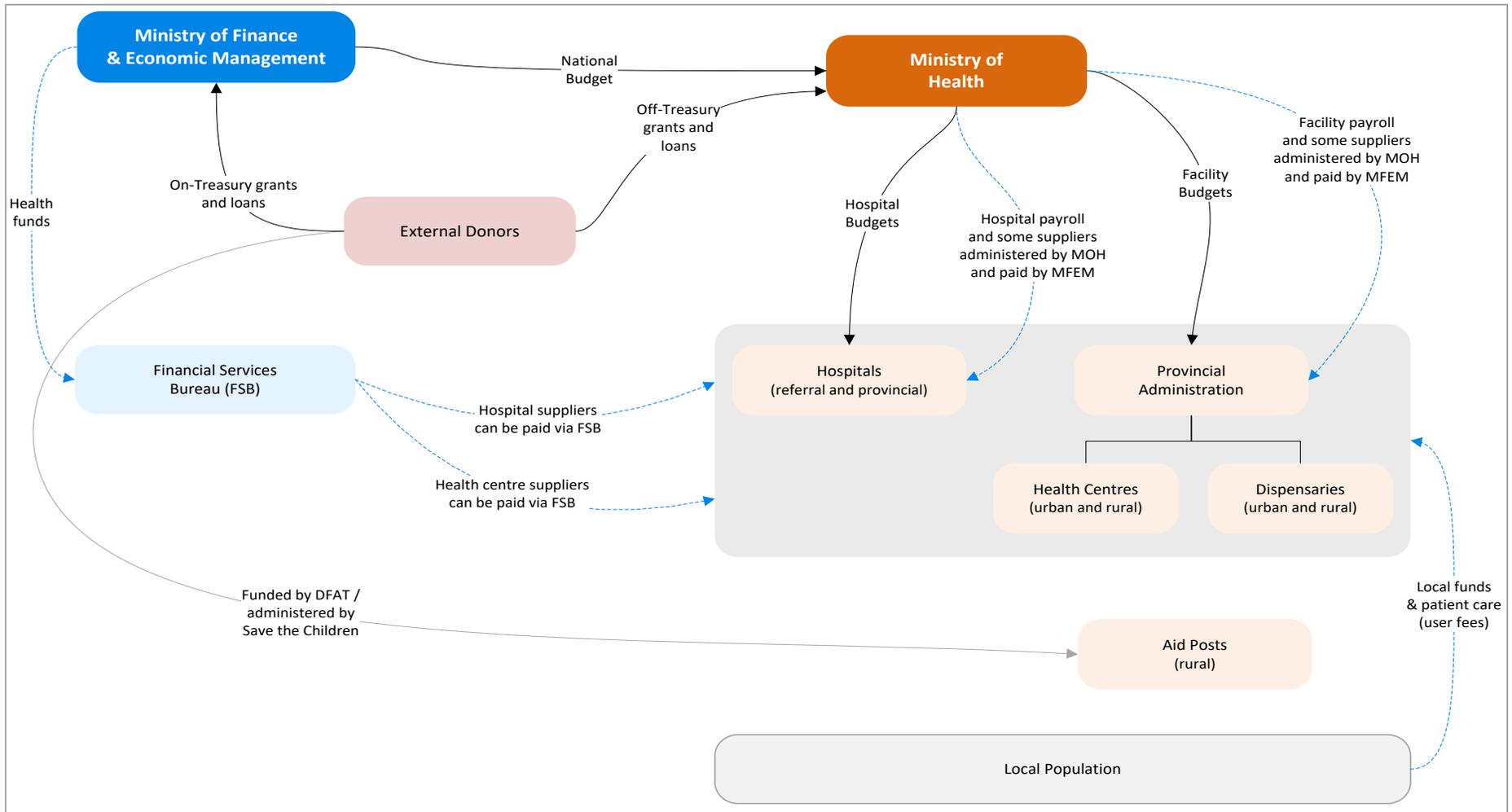
On-budget: Development partner's financial allocations are reflected within the Government of Vanuatu's Budget documentation.

On-system: Development partner's funds are channeled through the Government of Vanuatu's bank account and government's procurement rules are followed.

51. Difficulties with tracking financial data lead to discrepancies between international and country data as reported in the government's Financial Management Information System (FMIS). The main reasons for the discrepancy include the element of expenditure that is 'off-system' and the lack of reliable estimates around the DP figures that are entered as part of the annual budget cycle and which appear in the budget documents. International data in 2014 showed that DP resources represented 48 percent of THE, while the government's FMIS showed that, for the same year, DP resources made up only 11 percent of on-system public expenditure on health. Obtaining realistic DP estimates through better consultation within the budget cycle remains an ongoing challenge in Vanuatu.

52. For the sake of comparison between countries, THE as reported in the WHO Global Health Expenditure Database (GHED) is used throughout this report. Data from the international database has a two-year lag and the latest data available at the time of this report was for 2014. Where government-sourced figures are used for public expenditure on health, these are cited as being from the government's FMIS.

Figure 5-2: Health Financing System and Flows



Source: Author's compilation.

5.2 Total Health Expenditure (THE)

THE is the sum of both public (domestic and external financing) and private health expenditure (including OOP)

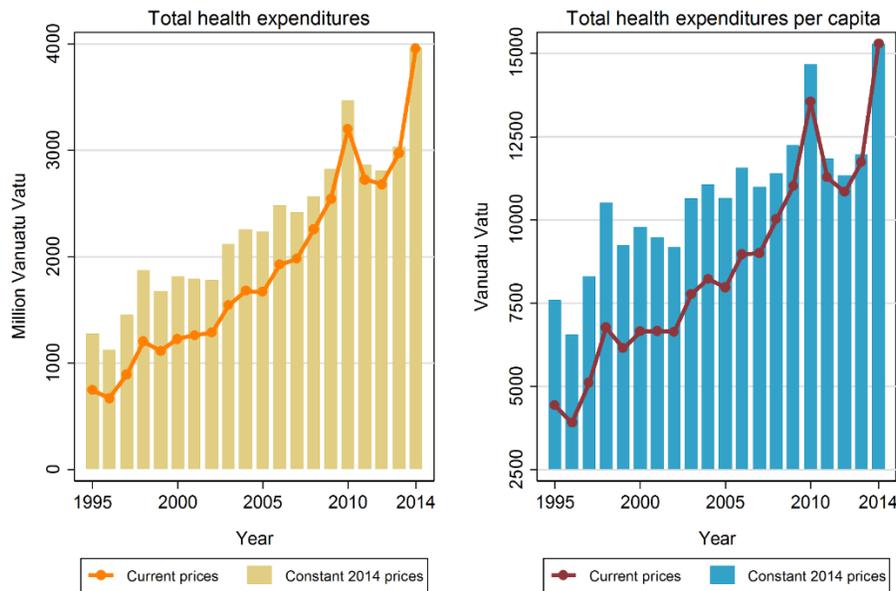
53. According to global data, THE has increased gradually over the two decades to 2014, in nominal, real and per capita terms (Figure 5-3). In 2014, THE was US\$158 (VT 17,310) per capita—in the range with other countries with similar levels of income. Within the gradual increase, there was some volatility with significant expenditure peaks—including in 2010 and 2014.

Nominal: Nominal amounts are unadjusted, and do not reflect the impact of inflation or population growth over time.

Real: Real amounts are adjusted to reflect the impact of inflation (or deflation) over time.

Per capita/Per person: Per capita/ per person amounts divide the expenditure by the total population in the country, so accounting for population changes.

Figure 5-3: THE (Total and per Capita) in Nominal and Real Terms (1995-2014)



Source: WHO GHED 2017.

54. While nominal THE per capita in 2014 in Vanuatu was the median of the selected Pacific cohort (Figure 5-4), real THE per capita in Vanuatu in recent years has been consistently lower than other countries in the region, but about the same as other countries with similar levels of income (Figure 5-5). In other country groupings – such as the Pacific Islands, the Small States, the East Asia region and LMICs – there is an overall upward movement in real THE per capita over the period 1995 to 2014, typically ending with a period of plateauing expenditure levels from the late 2000s. In Vanuatu, in contrast, there is greater volatility – with real expenditure increasing over the period but with peaks in 2010 and 2014 and falls in some years (for example, 2011 and 2012).

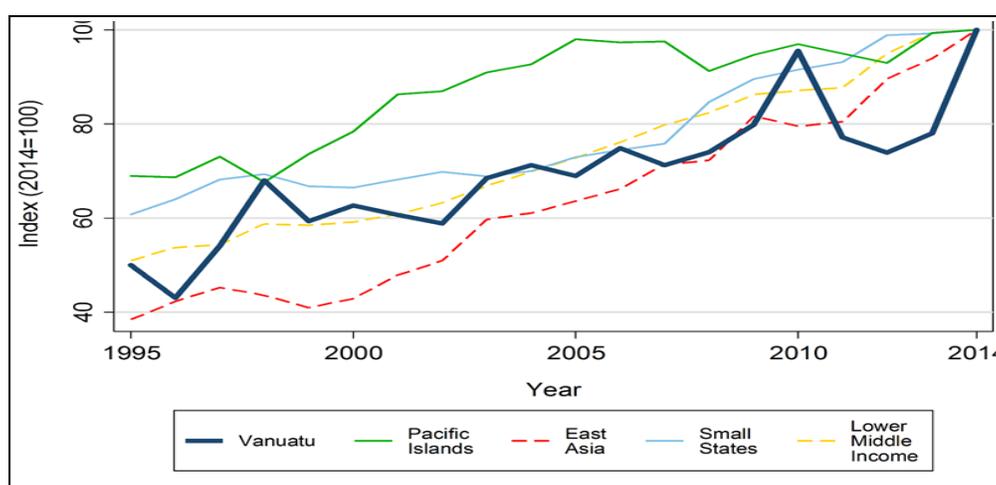
Figure 5-4: Selected Health Expenditure Indicators in the Pacific (2014) and GNI per capita (2016)

Country	Nominal THE per capita (US\$)	THE as % of GDP	As % of THE				Public expenditure on health (as % of Government Expenditure)	The per capita (US\$)
			OOP	Public expenditure on health	PrHE	External financing		
Samoa	301	7.2	5.9	90.6	9.4	23.8	15.08	4,120
Tonga	213	5.2	11.9	82.4	17.6	19.3	13.50	4,060
Fiji	204	4.5	23.0	65.8	34.2	0.0	9.25	4,780
Vanuatu	158	5.0	5.8	89.8	10.2	48.3	17.94	3,170
Kiribati	154	10.2	0.0	81.2	18.8	13.8	5.81	2,270
Solomon Islands	102	5.1	4.6	91.9	8.1	56.6	12.54	1,880
PNG	92	4.3	10.5	81.3	18.7	21.1	9.54	2,680

Source: World Bank 2016.

Note: Vanuatu GNI per capita data is 2014, the latest year available.

Figure 5-5: Real THE per Capita (per Country or Region) (1995-2014)



Source: WHO 2017.

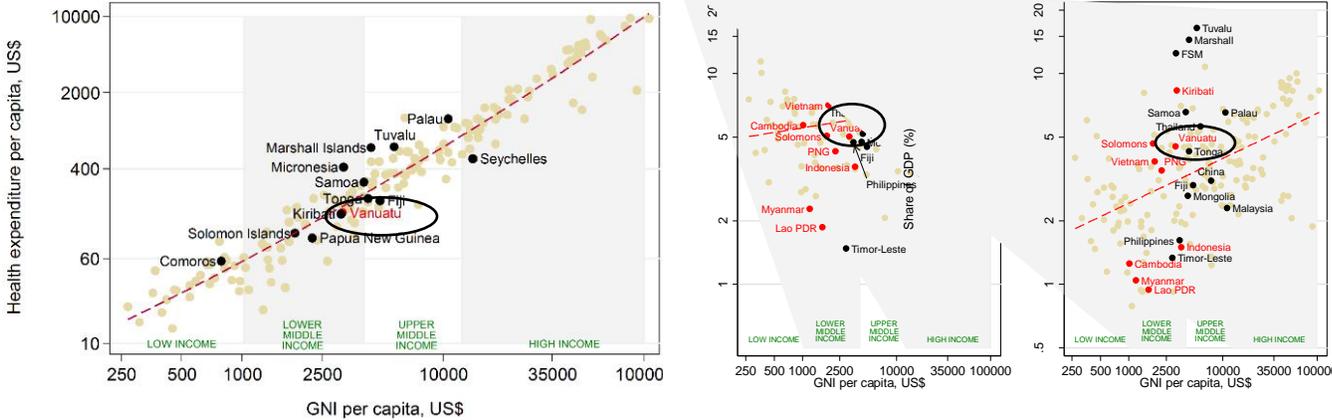
Note: Values are indexed at 2014 constant prices.

55. When compared with other PICs, Vanuatu’s THE per capita and its share of THE as a percentage of GDP is around the average level, given its GNI per capita (Figure 5-6). The closest comparator country in terms of health expenditure given GNI per capita is Kiribati. On percentage of GDP devoted to health, Vanuatu falls below the average (while Kiribati rests much above the average), but is slightly higher than Fiji and much higher than several Asian countries.

56. THE is largely publicly funded, with a high reliance on external financing and low formal OOP payments. In 2014 public expenditure on health, which includes domestic and DP expenditure, accounted for 90 percent of THE in Vanuatu. That same year, the share of external financing was 49 percent of THE, and OOPs were reported at 6 percent.¹⁷ There is no SHI scheme, with the market too small for such a scheme, and private health insurance is also limited. A ‘health-financing transition’ typically sees increases in national income yield increases in THE, with corresponding but lagged decreases in the levels of expenditure from OOP payments and external sources. The composition of health financing in Vanuatu, like other PICs, is notably different, however, through the financing transition, with ongoing relatively high support from external sources and low OOP (Figure 5-7).

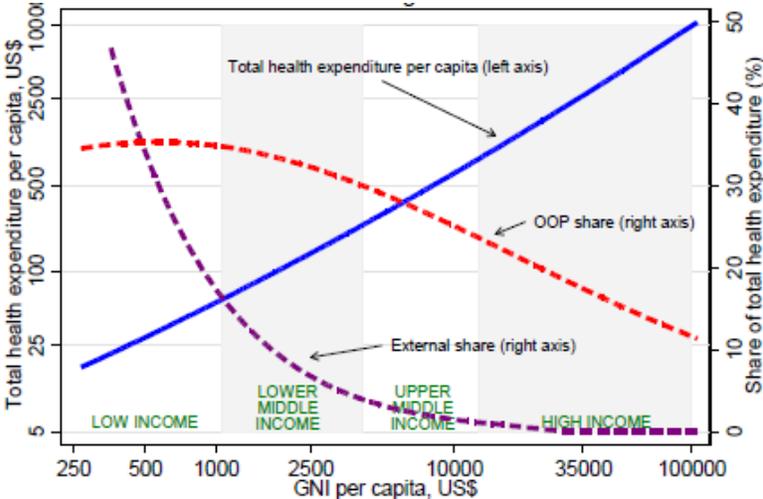
¹⁷ The external financing share was especially high in 2014, due to a high estimate of DP expenditure on the VCH extension. These funds did not flow through government systems, so the estimate is not easily verifiable. A more typical share of external financing in total expenditure is around 20 percent.

Figure 5-6: THE per Capita (left) and THE and public expenditure on health as a Share of GDP (right) (2014)



Source: World Bank 2016.
 Note: Both X and Y axes in log scale.

Figure 5-7: Global Trends in Health Financing Transition



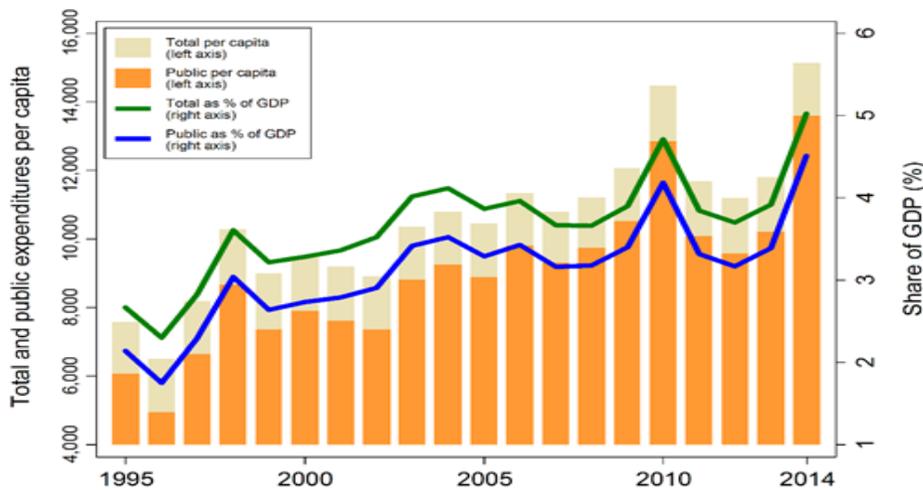
Source: WHO 2017; World Bank 2016.

5.3 Public Expenditure on Health

Public expenditure on health is the sum of domestic (government-sourced) health expenditure and external (DP) on-budget expenditure

57. Some 90 percent of THE in 2014 was publicly funded – a similar share to other Pacific island countries. In that year, in the region, the Solomon Islands recorded the highest level of public expenditure on health to THE – with a 92 percent share – and Fiji the lowest with 66 percent. Over the two decades to 2014 in Vanuatu, both real THE per capita and real public expenditure on health per capita have increased, but there have been significant drops within the period. The same result holds true when THE and public expenditure on health are expressed as percentages of GDP (Figure 5- 8). Measured over this two-decade period, real annual public expenditure on health growth per capita was just over 4 percent, despite a much lower real annual GDP per capita growth of less than 1 percent. Between 2005 and 2014, real annual GDP growth was higher but was still well outpaced by the growth in public expenditure on health (real annual GDP growth averaged around 1.5 percent while real annual growth in public expenditure on health per capita averaged around 6 percent (Figure 5-9).

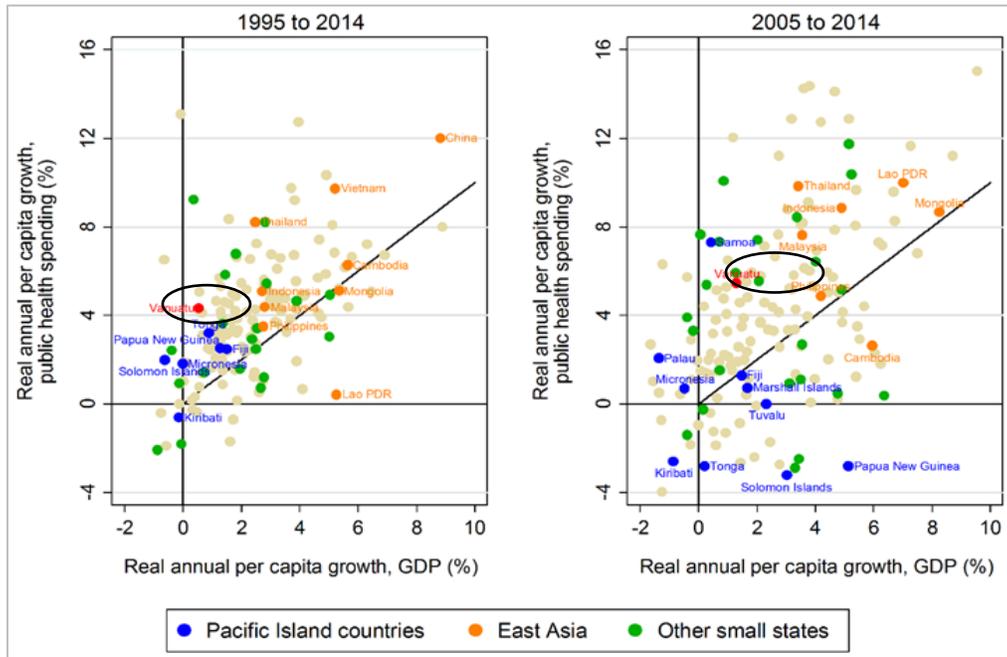
Figure 5-8: Real THE and Real public expenditure on health per Capita (1995-2014)



Source: World Bank 2017; WHO 2017.

Note: Expenditures are in 2014 constant local currency.

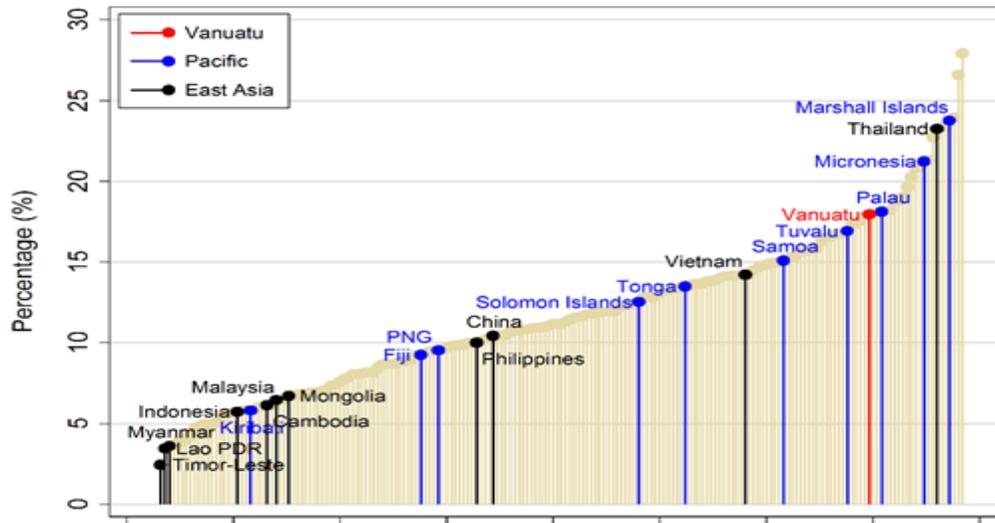
Figure 5-9: Economic Growth versus public expenditure on health Growth (1995-2014 and 2005-14)



Source: WHO 2017; World Bank, 2017

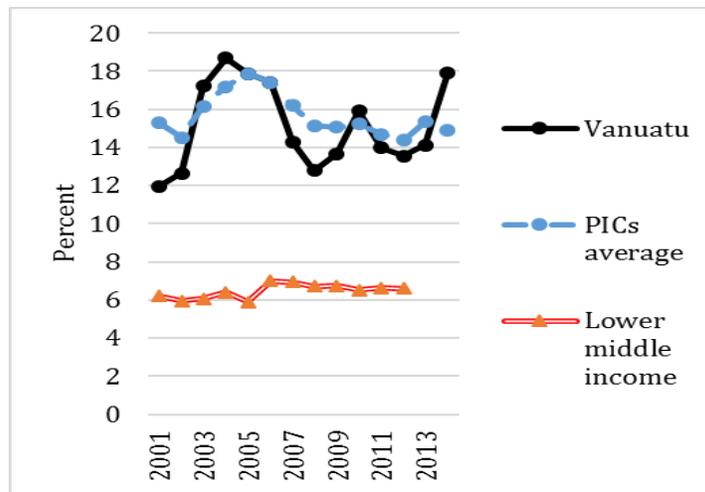
58. According to global data, public expenditure on health in Vanuatu was 18 percent of total national expenditure in 2014 (Figure 5-4; Figure 5-10). Between 2001 and 2014, public expenditure on health averaged 15 percent of total government expenditure. This is much higher than could be expected given Vanuatu’s level of income (the LMIC average in that period is 6.5 percent, noting data are only available to 2012 for the LMIC average (Figure 5-11)). It is similar to other countries in the region, but more volatile. According to national data, however, public expenditure on health was 8.6 percent of all government expenditures in 2014, again highlighting the difficulties with quality reporting of budget and expenditure data on health, mostly likely due to discrepancies in DP contributions. According to national data, public expenditure on health is largely domestically funded. In 2016, VT1.66 billion (80 percent) of the VT2.07 billion worth of public expenditure on health came from GoV domestic sources (Figure 5-12).

Figure 5-10: Public expenditure on health as a Share of National Expenditure (2014)



Source: WHO 2017.

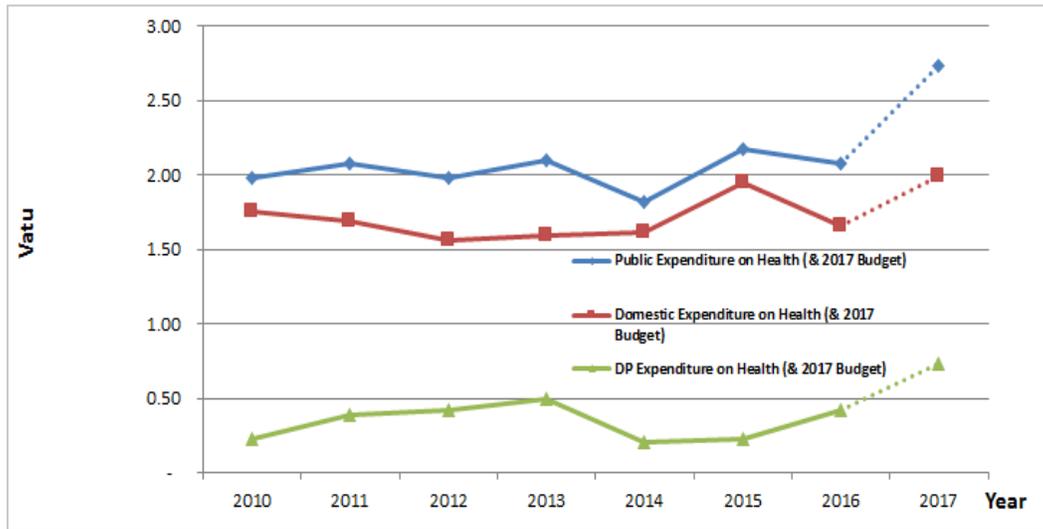
Figure 5-11: Public expenditure on health as a Share of Total Government Expenditure (2001-14)



Source: World Bank 2017.

59. **Public expenditure on health has shown volatility over the 2010-16 period, with notable variances in both domestic and DP expenditure (Figure 5-12).** The expenditure low in 2014 was driven by declining DP expenditure (although domestic expenditure increased by only 1 percent that year compared to 2013). 2014 coincides with the period of instability in MoH that likely affected activity implementation. DP expenditure picked up in 2016, with expenditure doubling compared to the previous year. The peak for overall public expenditure on health was 2015, however, driven by a spike in domestically funded severance payouts for many nurses who have not been fully replaced. The 2017 budget figure for public expenditure on health is significantly higher than 2016 expenditure due to a major increase in payroll resources to accommodate the new MoH establishment structure.

Figure 5-12: Recent Trends in public expenditure on health (2010-16 and 2017 Budget) (Billions of Vatu)



Source: FMIS database, Government of Vanuatu (2017).

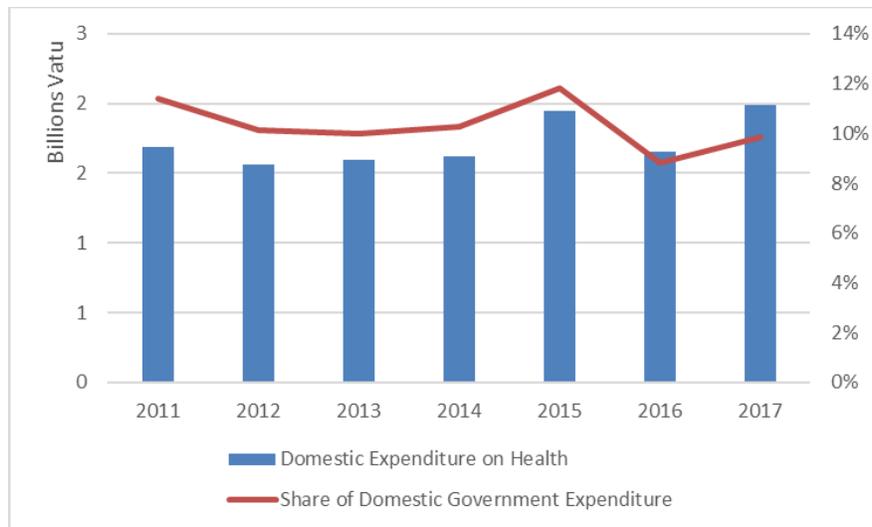
60. Public expenditure on health over the 2010-16 period has, on average been spent slightly more on payroll than on operational expenses (with respective shares of 54 and 46 percent). Almost two-thirds (62 percent) of domestic expenditure was, however, spent on payroll and capital expenditure made up only 1 percent of domestic expenditure. Around one-half of domestic expenditure is accounted for by hospitals. Meanwhile public health activities have overwhelmingly relied on DP funding, especially for operational funding. An average of 80 percent of public health activities over 2014-16 was funded by DPs, while the capital expenditure share of public expenditure on health was 3 percent (capital is included within operations).

5.4 Domestic Expenditure on Health¹⁸

Domestic Expenditure on Health consists of expenditure funded by resources raised through general consolidated revenue collection

61. **Domestic expenditure on health averaged 10.6 percent of domestic government expenditure between 2010 and 2016 (Figure 5-13).** A high of 11.8 percent in 2015 is explained by the high level of one-off severance payments for retiring staff that occurred in that year. In 2017, the share of the domestic health budget was 9.8 percent—lower than the period average (Figure 5-13). This is despite a significant increase in MoH’s domestic budget of almost 15 percent from the 2016 budget—the first such increase in many years.

Figure 5-13: Domestic Expenditure on Health as a Share of Domestic Government Expenditure (2011-16 and 2017 Budget)



Source: FMIS database, Government of Vanuatu (2017).

5.4.1 Domestic Expenditure by Economic Classification

62. **Analyzing expenditure by economic classification, payroll and operational costs shows divergent changes overall, with only a very slight increase in payroll expenditure and a sizeable decrease in operational expenditure between 2010 and 2016; however, there is large variations in both payroll and operations in individual years (Figure 5-14).** In 2016, staff costs accounted for 62 percent of government-funded expenditure—up from 58 percent in 2010. On the other hand, operational costs accounted for 38 percent of government-funded expenditure in 2016, down from 42 percent in 2010. The payroll differences across years are largely explained by volatility in the level of permanent wages (while allowances have been more stable)—with varying numbers of contract workers employed across years. These differences themselves are not well understood but may relate to the consistent problems in HR management that have been experienced in recent years. The operational expenditure peaks of 2010 and 2015 are explained by high levels of severance payments in those years.

¹⁸ This section is based on national Government of Vanuatu data.

Figure 5-14: Recent Trends in Domestic Expenditure on Health by Economic Classification (2010-16) (Millions of Vatu)

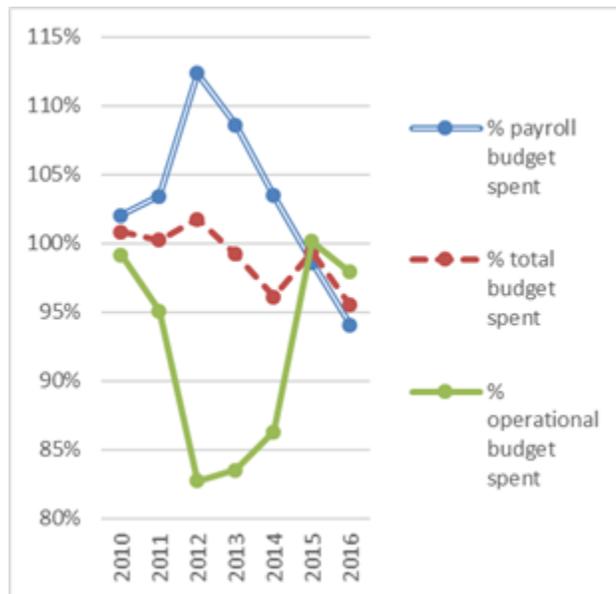
	2010	2011	2012	2013	2014	2015	2016	Share 2016 end	
Payroll	1,014.3	1,072.9	1,107.8	1,093.2	992.4	983.9	1,029.6	62%	
Operational	736.2	615.9	453.8	503.7	624.0	966.5	627.2	38%	
Total domestic expenditure on health	1,750.5	1,688.8	1,561.6	1,596.9	1,616.4	1,950.4	1,656.8	100%	

Source: FMIS database, Government of Vanuatu (2017).

Note: 'Blue' denotes high expenditure; 'red' denotes low expenditure.

63. **Under government regulations, any payroll expenditure in excess of budget reduces operational funding levels.** This control is automatically applied by the FMIS. MoH has not been able to spend its full domestic budget allocation since 2013 (Figure 5-15): MoH spent about 95 percent of its budget in both 2014 and 2016. While the full total budget was spent in previous years, there was significant overspending in the payroll budget, compensated by commensurate underspending of the operational budget. After many years of excessive payroll expenditure, expenditure on staff costs came within budget in 2015 and again in 2016 – as a result, operational expenditure in those years was also much closer to budget.

Figure 5-15: Actual vs. Budgeted Payroll and Operational Expenditure (2011-16) (%)



Source: FMIS database, Government of Vanuatu (2017).

64. **Overall domestic expenditure on personnel has increased very slightly between 2010 and 2016, with slight variations within that period (Figure 5-16).** Management of both permanent wages and allowances requires attention, with high variances in wages and in certain allowances across the timeframe. There is no recent history of budgeting for acting allowances, despite acting allowances being a significant cost pressure. The sharp fall in permanent wages in 2015 is understood to relate to the impact of Cyclone Pam, with some personnel employed on short-term contracts (recorded under other personnel costs). The high severance payments in 2015 combined with delays in replacing staff may also account for low permanent wage expenditure in that year.

Figure 5-16: Domestic Personnel Expenditure (2010-16) (Millions of Vatu)

	2010	2011	2012	2013	2014	2015	2016	Share 2010 v 2016	Trend
Permanent Wages	792.7	846.5	858.1	865.3	808.0	757.7	836.3	78% - 81%	
Other personnel costs	39.9	44.2	84.1	55.2	62.4	118.5	83.0	4% - 8%	
Housing Allowances	75.2	77.9	79.3	86.6	86.4	74.3	72.5	7% - 7%	
Provident Fund	34.7	36.6	37.6	37.3	34.1	32.9	36.4	3% - 4%	
Other & Special Allowances	71.8	67.7	48.8	48.8	1.6	0.4	1.5	7% - 0%	
Total Personnel domestic expenditure on health	1,014.3	1,072.9	1,107.8	1,093.2	992.4	983.9	1,029.6		

Source: FMIS database, Government of Vanuatu (2017).

Note: 'Blue' denotes high expenditure; 'red' denotes low expenditure. Marginal differences (VT 0.1 million) in Total Personnel domestic expenditure on health and the sum of the individual categories are due to rounding.

65. Two of the main issues facing MoH relating to payroll management are: (i) keeping expenditure within budget allocation; and (ii) planning and budgeting for an adequate workforce. The first relates to the ability of the ministry to manage payroll expenditure close to the payroll budget (ensuring that any variance between expenditure and budget is small). The second relates to the more complex issue of assessing the adequacy and distribution of the total health workforce, and then considering any budget implications. Management of these issues requires strong HR management which has not been present in recent years with effectively zero workforce planning.

66. Overall operational domestic expenditure decreased by 15 percent between 2010 and 2016, from VT 736 million to VT 627 million, but with large yearly variations in expenditure (Figure 5-17). Excluding termination payments which are cyclical, expenditure on medicines remains the highest single expenditure category (after the other expenses category). Expenditure on medicines increased by 38 percent between 2010 and 2016 – from VT 121 million to VT 167 million, reaching just over one-quarter of all operational domestic expenditure in 2016. This sustained increase in expenditure on medical supplies, in response to previous frequent stock-outs, has been an important achievement for MoH. While ongoing work to improve the efficiency of expenditure on medicines is required, the Central Medical Stores has tightened up management significantly. Together with the establishment of pharmaceutical contracts through competitive tenders, this has meant that MoH no longer faces systematic national stock-outs of key drugs. Other expenses, while representing a large amount, comprise expenditure on roughly 75-line items; these include items such as maintenance, cleaning, fuel and freight.

Figure 5-17: Recent Trends in Operational Domestic Expenditure on Health by Account Codes (2010-16)
(Millions of Vatu)

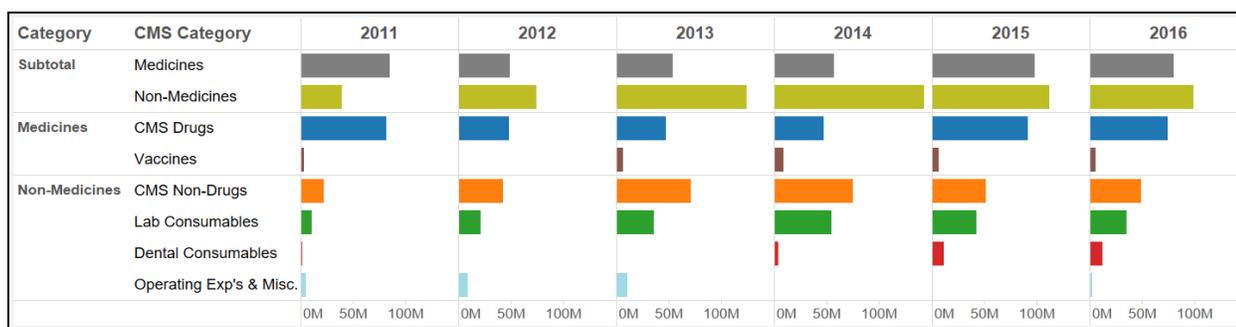
	2010	2011	2012	2013	2014	2015	2016	Share 2010 v 2016	Trend
Medicines	120.9	123.7	112.6	169.1	190.8	189.9	167.4	16% - 27%	
Electricity Utilities	52.0	36.7	34.9	27.8	79.0	68.2	53.4	7% - 9%	
Food Suppliers	20.5	26.7	24.1	27.8	30.5	37.8	38.5	3% - 6%	
Subsistence Allowances	49.6	47.0	33.2	32.2	19.3	34.6	37.6	7% - 6%	
Equipment (all categories)	12.4	12.5	6.3	7.7	6.5	64.7	11.4	2% - 2%	
Termination Payments	188.8	48.7	11.0	13.1	53.5	219.7	0.0	26% - 0%	
Other expenses	292.0	320.6	231.6	226.0	244.4	351.6	318.5	40% - 51%	
Total Operational domestic expenditure on health	736.2	615.9	453.8	503.7	624.0	966.5	626.7		

Source: FMIS database, Government of Vanuatu (2017).

Note: (i) 'Blue' denotes high expenditure; 'red' denotes low expenditure. (ii) Termination payments have been met by MFEM since 2016 and, therefore, explain the absence of any expenditure for this line item for 2016. Marginal differences (VT 0.1 million) in Total Operational domestic expenditure on health and the sum of the individual categories are due to rounding.

67. The medicines account code includes both medicines and non-medicines (such as laboratory supplies and consumables) and, except for 2011, more was spent on non-medicine supplies than on medicines (Figure 5-18). In 2016, non-medicine supplies accounted for almost 60 percent of expenditure of the medicines account code. Within this category, the growing share of laboratory consumables is concerning in light of VCH management reporting high levels of wastage in this area, with spoiled tests meaning that tests need to be repeated and more reagents ordered.

Figure 5-18: Domestic Expenditure on Medicines Account Codes (2011-16) (Millions of Vatu)



Source: FMIS database, Government of Vanuatu (2017).

Note: CMS: Central Medical Stores.

68. Over the period 2010 to 2016, domestic expenditure on subsistence allowances fell by 24 percent. Subsistence allowances are used to travel for a range of purposes, including the conduct of supervisory visits, clinical visits, outreach activities and training. An overall decrease of expenditure on subsistence allowances could, therefore, be an indication of a reduction in these activities as well as, from 2014, capturing a cut in the daily subsistence allowance from VT 10,000 per day to VT 5,000 per day. Expenditure on food for patients, on the other hand, has been steadily increasing – almost doubling between 2010 and 2016 to 6 percent of operational expenditure. MoH is exploring ways to better manage this rising cost by seeking to implement improved procurement practices. Domestic expenditure on electricity steadily declined between 2010 to 2013 before almost tripling in value and hitting a peak in 2014. This reflects a concerted attempt by MoH in 2014 to clear utility arrears and manage this important cost.

5.42 Domestic Expenditure on Health Facilities

69. Around one-half of domestic expenditure on health was consistently spent in hospitals between 2010-16 (Figure 5-19). Using an administrative level of categorization, costs are located at six levels – hospitals, CHS, medical supplies stock, central support services, cabinet, and public health. In 2016, expenditure on hospitals represented 51 percent of total domestic expenditure on health, followed by CHS with a 17 percent share, and central support services and medical supplies both accounting for a 13 percent share. The two smallest categories of cabinet and public health accounted for 4 percent and 2 percent respectively.

70. Overall expenditure on hospitals and medical supplies stock has increased, whereas expenditure in CHS and public health has declined, between 2010 and 2016, but with large yearly variations in expenditure (Figure 5-19). Given the importance of the preventive health care agenda, the downward trend in CHS expenditure is a concern (there is some DP expenditure at CHS level, but this is minor and does not substitute for the falling domestic share). On the other hand, the downward trend in public health is largely due to MoH withdrawing operational funding for public health activities in 2016, with the expectation that DPs would pick up the funding (this practice ceased from 2017, although insufficient domestic operational funding for public health activities continues to be an issue).

Figure 5-19: Domestic Expenditure on Health by Administrative Level (Millions of Vatu) (2011-16)¹⁹

	2010	2011	2012	2013	2014	2015	2016	Share 2016	Trend
Hospital	787.6	806.0	780.7	812.1	820.5	879.2	840.0	51%	
CHS	316.2	340.3	329.4	313.3	296.8	307.1	288.7	17%	
Medical Supplies Stock	124.8	123.5	123.2	178.0	216.1	227.5	219.3	13%	
Central Support Services	411.4	296.4	215.5	184.4	196.3	430.1	218.4	13%	
Cabinet	57.1	60.2	56.9	57.5	48.4	59.2	64.4	4%	
Public Health	53.5	62.4	56.0	51.4	38.4	47.3	25.9	2%	
Total domestic expenditure on health	1,750.5	1,688.8	1,561.6	1,596.9	1,616.4	1,950.4	1,656.8	100%	

Source: FMIS database, Government of Vanuatu (2017).

Note: Blue = high expenditure year, Red = low expenditure year, relative to other years. Share = expenditure by level divided by overall sector expenditure in 2016. Differences (VT 0.2 million) in Domestic expenditure on health by administrative level and the sum of the individual categories are due to rounding.

71. More than one-half of all hospital expenditure is spent in VCH, and over one-quarter is spent in NPH (Figure 5-20). Vanuatu has six hospitals, two of which (VCH and NPH) are referral hospitals and four of which are much smaller hospitals. In 2016, the six government hospitals spent VT 811.7 million, almost triple the VT 288.7 million spent by the 142 rural facilities and their administrative units in the CHS.²⁰ Payroll accounted for more than three-quarters of hospital expenditure, on average, over the 2010-16 period—noting medicines and medical supplies are included in operation costs, expensed centrally and distributed to hospitals.

¹⁹ Cabinet includes personnel and operational costs for the Minister of Health and his staff together with personnel and operational costs for the Director-General and his staff.

²⁰ The hospital expenditure totals in Figure 5-20 do not equal the hospital expenditure totals in Figure 5-19. This is because the hospital total by administrative function (as in Figure 5-19) includes expenditure on domestic referrals, on doctors' visitations and by the Office of the Director of Hospital and Curative Services. The average yearly difference is VT 25 million.

Figure 5-20: Domestic Expenditure on Hospitals (2010-16) (Millions of Vatu)

	2010	2011	2012	2013	2014	2015	2016	Share 2010 v 2016	Trend
Vila Central (Shefa province)	383.4	404.5	370.3	394.3	414.6	429.8	419.3	50% - 52%	
Northern Provincial (Sanma province)	217.4	219.3	221.9	232.9	218.9	228.7	212.0	28% - 26%	
Lenakel (Tafea province)	65.8	62.7	62.2	60.7	60.4	66.6	67.6	9% - 8%	
Norsup (Malampa province)	59.1	57.1	60.9	58.5	57.0	62.2	59.8	8% - 7%	
Lolowai (Penama province)	39.2	36.6	37.1	36.1	35.4	42.0	37.4	5% - 5%	
Torba (Torba province)	3.0	4.1	3.8	6.0	8.4	17.1	15.6	0% - 2%	
Total	767.9	784.2	756.3	788.6	794.7	846.3	811.7		
Payroll	603.0	632.2	647.2	649.3	608.5	592.3	603.3	79% - 74%	
Operations	164.9	152.1	109.1	139.3	186.2	254.0	208.4	21% - 26%	

Source: FMIS database, Government of Vanuatu (2017).

Note: Blue denotes high expenditure; red denotes low expenditure. Marginal differences (VT 0.1 million) in total domestic expenditure on hospitals and the sum of the individual hospitals are due to rounding.

72. Overall domestic expenditure on hospitals has grown modestly between 2010 and 2016, averaging 1 percent per year. There has been volatility within this timeframe, however, with falls in expenditure in 2012 and 2016. During the period, VCH's expenditure has grown by 9 percent, Lenakel's by 3 percent and Norsup's by 1 percent, however, expenditures for Lolowai and NPH fell by 5 percent and 2 percent respectively. The Torba Hospital has received a significant increase in its funding, albeit from a very low base.

73. Domestic expenditure patterns have varied across recent years with most hospitals experiencing fluctuations – with their domestic budgets rising and falling across years. While overall domestic expenditure on hospitals has increased, expenditure on payroll was at almost the same level in 2016 as it was in 2010; this contrasts with operational expenditure, which increased by 26 percent over the period. Not all hospitals experienced the same domestic expenditure movement in payroll. Over the period, the large referral hospitals and Lenakel experienced payroll reductions, while Lolowai, Norsup and Torba enjoyed increases.

74. Accessing hospital services can be difficult for many people in Vanuatu given the challenges of remoteness and prohibitive transport costs (this is particularly the case with boat transportation). Onward costs in the case of a referral are sometimes met either by MoH, the rural facilities' Patient Care Fund, collections from user fees, or community donations. However, the reality – especially in remote areas – is that patients' families bear the referral costs.

75. Total domestic expenditure on CHS facilities has declined by 9 percent between 2010 and 2016 (Figure 5-21). This trend is concerning as CHSs represent the first point of contact for health care for the vast majority of the population. Furthermore, this decline is exacerbated by ongoing population growth and inflation – meaning that the real level of expenditure per person treated is decreasing even more.

Figure 5-21: Domestic Expenditure on CHS Facilities (2010-16) (Millions of Vatu)

	2010	2011	2012	2013	2014	2015	2016	Share 2010 v 2016	Trend
Malampa	72.7	75.9	72.7	69.2	65.9	74.3	74.8	23% - 26%	
Penama	56.5	55.6	57.6	57.2	54.1	58.3	57.3	18% - 20%	
Sanma	60.4	63.6	64.6	59.8	58.6	57.9	52.3	19% - 18%	
Shefa	56.7	63.9	59.4	58.1	51.1	56.1	41.7	18% - 14%	
Tafea	36.0	45.0	42.1	37.3	36.5	37.4	40.4	11% - 14%	
Torba	33.9	34.1	33.0	31.7	30.5	23.4	22.2	11% - 8%	
Total	316.2	338.1	329.4	313.3	296.8	307.3	288.7		
Payroll	259.6	273.0	289.1	288.0	253.2	251.7	237.8	81% - 82%	
Operations	56.6	65.1	40.3	25.4	43.5	55.6	50.9	19% - 18%	

Source: FMIS database, Government of Vanuatu (2017).

Note: Blue' denotes high expenditure; 'red' denotes low expenditure. Marginal differences (VT 0.1 million) in total domestic expenditure on CHS facilities and the sum of the individual CHS facilities are due to rounding.

76. Payroll expenditure in CHS facilities has decreased by 8 percent between 2010 and 2016 while operational expenditure has decreased by 10 percent over the same period. Payroll expenditure in CHSs in four of the six provinces showed a downward trend over the period, with increases only in Malampa and Tafea. The decline in payroll expenditure may merit further attention beyond what is covered in this report. Is the decline due to improved discipline and efficiency? Is it due to a decline in the numbers of frontline health staff employed –possibly due to nurses retiring and not being replaced (as reflected in the 2015 terminations payments)? Or is it due to roles being relocated to hospitals?

77. The level of variability in domestic expenditure across years on both payroll and operational costs seems unusually high. High variability is likely to inhibit frontline managers as they undertake health planning and implementation activities, whereas predictability of funding allows for better planning and provides managers with confidence. For example, Malampa's domestic operational expenditure fell from a level of VT 12.3 million in 2010 and 2011 to VT 4.3 million in 2014 (Figure 5-22). Another example is Tafea, where domestic operational expenditure was recorded as VT 8.2 million in 2010, as high as VT 17.3 million in 2011 and fell to VT 2.6 million in 2013. Lower operational expenditure is linked to excessive payroll expenditure – as earlier outlined, any over expenditure in payroll is compensated by reduced expenditure against the operational budget.

Figure 5-22: Domestic Operational Expenditure in Malampa and Tafea CHSs (2010-16) (Millions of Vatu)

	2010	2011	2012	2013	2014	2015	2016	Trend
Malampa	12.3	12.3	7.8	6.6	4.3	8.4	9.9	
Tafea	8.2	17.3	7.6	2.6	6.8	9.4	10.8	

Source: FMIS database, Government of Vanuatu (2017).

5.43 Linking Expenditure, Resourcing and Outputs

78. In this section, we draw together particular elements of domestic expenditure on health, resourcing and performance at the facility level in 2015.²¹ Health services in Vanuatu are delivered through the country's six hospitals and the large network of rural health facilities, but also through a variety of outreach activities. As discussed previously, between 2010 and 2016 domestic expenditure on payroll has varied across the six hospitals and between years while domestic expenditure on operations has increased for all six hospitals. Payroll expenditure has fallen in the larger referral hospitals but increased in three of the four smaller hospitals (Figure 5-23). Domestic operational expenditure is a critical enabler ensuring facilities can function and are stocked with medicines and consumables, have access to communications, electricity and water, and are well maintained.

79. Vanuatu has far fewer doctors per 10,000 persons than some other countries in the region, with Tonga, Fiji and Samoa having between four and five times as many doctors per 1,000 people as Vanuatu. In 2016, only three hospitals had doctors: the two referral hospitals and Lenakel. For 2015, VCH had 2.37 doctors per 10,000 people (living in Shefa province), NPH had 1.09 per 10,000 (living in Sanma province) and Lenakel 0.28 per 10,000 (living in Tafea province). There were no doctors at Norsup, Lolowai or Torba hospitals. Two batches of intern doctors that have been trained in Cuba and are completing their internships in different stages will see a large increase in the number of doctors in practice in Vanuatu. Coverage will however remain a challenge given the large scarcity of doctors in rural areas and pressures such as growing population and more complex health care needs due to NCDs.

80. Hospitals exist to receive patients, so comparing relative utilization levels is an important way of monitoring the effectiveness of the secondary care system (Figure 5-23). Predictably, the referral hospitals (VCH and NPH) receive more inpatients and outpatients – reflecting their greater capacity and resourcing and their role as referral hospitals. Perhaps more surprising is that Lenakel is not far behind relative to its catchment population. In 2015, NPH received 68 patients per 1,000 people; VCH 66 per 1,000; Lenakel 55 per 1,000; Norsup received 27 per 1,000; Lolowai 18 per 1,000; and Torba 3 per 1,000.²² It is important to note that the role of the referral hospitals goes well beyond formal referral; most 'referrals' are in fact self-referrals and the referral hospitals often administer primary health care that would be typical of the service that would be provided in a health center or dispensary. In 2015, VCH received 852 outpatient visits per 1,000 people, while NPH received 560 per 1,000 people. Lenakel is the other hospital that has high outpatient utilization levels relative to its provincial population: in 2015 it received 520 patients per 1,000 population. Malampa and Torba had similar outpatient utilization rates at 244 and 230 per 1,000 people on an annual basis respectively, and Penama received 136 per 1,000 people.

81. In addition to figures on doctors, information on nurses and midwives reveals differences in resourcing levels across the six hospitals. In 2015, estimated nursing densities were highest at VCH, followed by NPH and Lenakel, with lower densities in the other three hospitals. Meanwhile, based on estimated midwife numbers, coverage of midwives was highest at NPH followed by VCH, Norsup, Lenakel and Lolowai. There were no midwives at Torba hospital.

²¹ It has not been feasible due to time constraints for this HFSA to include figures on 2016 utilization to allow a comparison of the 2015 and 2016 situations. This could be done in future years, thereby strengthening the analysis of the links between expenditure and performance.

²² As reported in the HIS bulletin, in 2015 the average length of stay in days for an inpatient at a referral hospital was 3.7 at VCH and 3.8 at NPH. In other provincial hospitals the average length of stay rates were a little lower – with Lolowai at 3.2 days and Lenakel at 3.0 days. Torba was considerably lower at 1.7 days. No data were available for Norsup.

Figure 5-23: Domestic Expenditure, Utilization and Human Resourcing in Hospitals (2015)²³

Hospital	Spending			Utilization			Human Resourcing		
	Provincial Population	Payroll Trend	Op's Exp Trend	Outpatients /pop'n	Inpatients /pop'n	Visits /staff	Doctors /pop'n	Nurses /pop'n	Midwives number
Vila Central ^		Down	Up	Higher	Higher	High	Higher	High	High
Northern Districts^		Down	Up	High	Higher	Low	High	Medium	Higher
Norsup, Malampa		Up	Up	Low	Medium	Higher	None	Low	Medium
Lenakel, Tafea		Steady	Up	High	High	High	Low	Medium	Low
Lolowai, Penama		Up	Up	Low	Low	Low	None	Low	Low
Torba		Up	Up	Low	Low	Low	None	Low	None

^ Provinces with Referral Hospitals

Source: FMIS database, Government of Vanuatu (2017)

Note: Provinces displayed in order of population size. Results (Higher, High, Medium and Low) are relative to the group.

82. The number of rural facilities (health centers and dispensaries) varies considerably across the provinces of Vanuatu, reflecting a blend of historic, demographic and geographic factors (Figure 5-24). Four provinces are in the range 6.4 to 8.1 rural facilities per 10,000 people. Tafea is lower with 4.8/10,000 and Shefa 2.3/10,000. The Vanuatu Socio-Economic Atlas (World Bank 2014a) – with selected indicators – does not provide conclusions in terms of equity differences, except to reinforce Shefa's status as the province with the most inequity. In Shefa, both the proportion of the population with disability and the inequality ratio are highest, at 17.9 percent and 5.74 respectively.

83. As noted previously, domestic expenditure on the CHS payroll has declined in recent years – with some variation across the six provinces. Of the six, only Malampa enjoyed an upward expenditure trend (Figure 5-24). Another way to view payroll expenditure is to compare it against the number of rural facilities in the province and their 'expected' staffing levels. The results need to be interpreted carefully as there could be a number of explanations including efficiencies and/or staffing gaps.²⁴ Sanma for instance, has low expenditure on payroll relative to what might be expected yet reports higher outpatient utilization rates. In contrast, Shefa has high payroll costs and low outpatient utilization rates.

84. The pattern of CHS operational expenditure shows that five of the six provinces display upward expenditure trends while the trend is steady in the sixth province, Malampa. A second measure benchmarks the level of operational expenditure against the number of rural facilities in the province and their 'expected' staffing levels.²⁵ By this measure, operational expenditure is higher relatively in Tafea and Torba, and in Shefa, but lower in Sanma, Malampa and Penama. Adequate expenditure on community health activities is a critical enabler to delivery of services and ultimately to improve health outcomes.

85. Comparing utilization rates of CHS facilities in the provinces reveals differences between Shefa and Sanma, for both outpatient visits and inpatient stays (based on facility counts and populations).²⁶ Interestingly, the outpatient utilization rates of rural facilities in the capital province Shefa are *low* when compared to the population but *high* when compared to the number of rural facilities. This indicates that the rural facilities are well used, but

²³ The methodology behind the metrics in this table and the related discussion can be viewed in Appendix 1.

²⁴ The calculation for *Payroll Expenditure/Facilities* is community health payroll expenditure divided by notional nursing staff.

²⁵ The calculation for *Operational Expenditure/Facilities* is community health operational expenditure divided by notional nursing staff.

²⁶ The provincial population acts as a proxy catchment, allowing us to compare the number of visits a hospital actually receives against the number of people it is seeking to serve. This allows us to carefully compare facilities of differing sizes and capacities. The referral hospitals of VCH and NPH are expected to receive cases from other provinces, and so higher utilization rates in these hospitals are to be expected.

that the province’s large urban population in Port Vila does not use the rural network of facilities (instead, there is a tendency to go directly to VCH). In contrast, Sanma Province also has a large referral hospital yet its outpatient utilization rates at CHS facilities are higher when compared against both population and the number of facilities, emphasizing the importance of the rural facility network in serving the provincial population.

86. Utilization rates in the other four provinces vary, with differences most noticeable between Tafea and Penama. The provinces of Tafea and Penama have very similar populations but Penama has a significantly higher number of rural health facilities. There are 28 rural facilities in Penama and 17 in Tafea, however, despite their similar populations, Penama’s rural facility network receives more than 2.6 times as many outpatients each year and 4.4 times as many inpatients as Tafea. This is reflected in Figure 5-24, where Penama records a *higher* utilization rate and Tafea a *low* utilization rate. Penama also reported much higher numbers of inpatient stays per rural health center when compared to all other provinces. Penama’s rural health centers reported 202 stays per year versus other provinces that ranged from 94 to 41 stays. These statistics indicate the particularly important role of the CHS in Penama province.

Figure 5-24: Domestic Expenditure, Utilization and Human Resourcing in CHSs (2015)

Province	Frontline Spending				Facility Utilization				Human Resourcing			
	Provincial Population	Rural Facilities	Payroll Exp. Trend	Op's Exp. Level	Op's Exp. Trend	Op's Exp. Level	Outpatient Visits /facilities	Outpatient Visits /pop'n	Inpatient Stays /facilities	Inpatient Stays /pop'n	Nurses /facilities	Midwives CHS v Hosp
Shefa [^]		2.3	Down	Higher	Up	High	Higher	Low	High	Low	Medium	1 v 9
Sanma [^]		6.4	Down	High	Up	Low	Higher	Higher	Medium	Low	Low	3 v 7
Malampa		7.0	Up	Medium	Steady	Low	Medium	High	Medium	High	High	4 v 3
Tafea		4.8	Down	Higher	Up	Higher	Low	Low	Medium	Low	Low	2 v 2
Penama		8.1	Steady	Low	Up	Low	High	Higher	Higher	Higher	High	2 v 2
Torba		7.4	Down	Low	Up	Higher	Medium	High	Low	Medium	Higher	1 v 0

[^] Provinces with Referral Hospitals

Source: FMIS database, Government of Vanuatu (2017)

Note: Provinces displayed in order of population size. Results (Higher, High, Medium and Low) are relative to the group. The methodology behind the metrics and related discussion is included in Appendix 1.

5.5 External Financing for Health

External Financing for Health comprises funds or in-kind services that are provided by entities not part of the country in question. Due to data constraints, this section mostly focuses on DP contributions that are on-system.

87. External resources from DPs represent a significant source of financing in the health sector, but one that has shown great variation in levels across years, making planning in MoH difficult. According to national data, DP funding constituted around 17 percent of public expenditure on health over the 2010-16 period. Over the same period, support from DPs has averaged VT 340 million (US\$3.1 million) per year, rising to VT 418 million (US\$3.8 million) in 2016.²⁷ As depicted in Figure 5-12, however, there has been considerable fluctuation over the years in DP expenditure. DP expenditure grew between 2011 and 2013, fell in 2014 and 2015, and then rose again in 2016 (although to a level below the 2013 level). Between 2011 and 2016, DP support has varied between 10 percent and 24 percent of the aggregate health budget (government and DPs). In 2017, DP support was expected to account for 27 percent of public expenditure on health, or VT 737 million (US\$6.7 million), with 75 percent of this amount forecast to be spent under Cyclone Pam recovery plans. While there may be differences in the calculation of external financing as a proportion of THE, it is clear that DPs contribute a higher level of funding as a proportion of THE than in some other Pacific countries (Figure 5-25).

88. The government works with DPs to promote better health outcomes across the country, with coordination of programs conducted at national level. Major DPs supporting the health sector in Vanuatu include Australian DFAT, New Zealand MFAT, UNDP/ GF (with UNDP the PR to GF support), UNFPA, UNICEF, WHO and the World Bank.²⁸ Of these DPs, Australia is the leading DP in terms of monetary contributions to the health sector. In the recent past, JICA has been a major funder of infrastructure with grant financing provided for an upgrade to VCH. Of the development partners listed above, only an element of the DFAT funding (under Australia's Direct Funding Agreement with MoH) is on-system in 2018. Significant areas such as DFAT's tertiary healthcare specialist support are not on-system. UNDP/ GF, UNICEF and WHO are on-system in 2018, while New Zealand MFAT, UNFPA and the World Bank are not on-system. Most development partners are on-plan and on-budget – with the exception of UNFPA and the World Bank which are neither on-plan nor on-budget and UNICEF, which is on-budget but off-plan (as it was not able to provide details of its activities in time for MoH's budget submission).

89. Integration of externally financed health programs has been taking place in recent years but there remains scope for further integration, particularly in ways that achieve efficiencies through better connection between national and provincial levels and across program areas. Traditional vertical programs are expensive and are not always well coordinated with other areas of the health system. Separate systems (for example, financial management and management of health information) that are associated with vertical programs have also acted as blockages to a stronger health system.

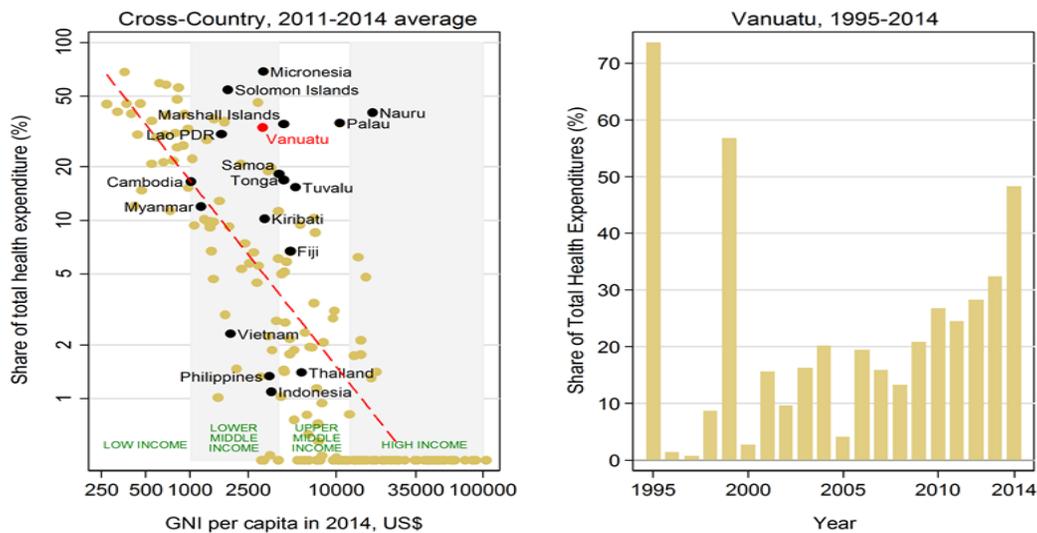
90. A key step to successful transition involves clear communication between DPs providing funds and MoH, with associated commitment to coordination and a phased, orderly transition. DPs moving to, and ultimately being, on-plan, on-budget and on-system is a process that requires strong communication and coordination. Key initiatives that need to be taken include:

²⁷ It is important to note that the DP figures quoted in the text from this point forward refer only to the amounts that are expensed within the Government FMIS – that is, only those funds that pass through Government bank accounts (on-system) are accounted for here.

²⁸ Other DPs including NGOs such as Save the Children and CARE International play a role in supporting specific areas such as HIV/ AIDS (Save the Children) and community and MoH dialogue on health care needs (CARE International).

- Ascertaining all funding sources and associated levels of funding for the transition areas;
- Noting the funding profiles, both for external and domestic sources, including the anticipated timeframe for the phase-out of external financing to be completed;
- Agreeing key activities and associated budget lines that require financing during and after the phase-out of external financing (and what activities and budget lines do not require financing);
- Seeking to identify efficiencies within the activities that could lead to budget savings and/or reallocations to other priority activities; and
- Agreeing which party will fund which activities.

Figure 5-25: External Share of THE (2014)²⁹



Source: World Bank 2017; WHO 2017.
 Note: x- and y- axes logged in the cross-country graph

5.6 Priority Programs in Immunization, Malaria, TB and HIV/STIs

91. This section reviews expenditure by government and DPs across four priority programs: immunization, malaria, TB and HIV/STIs. These programs have been identified for further analysis because of their importance to health outcomes and their reliance on external financing.

Immunization

92. The goal of the EPI is to protect all infants, children and women of child-bearing age from vaccine-preventable diseases, through the deployment of appropriate vaccines. In addition to securing immunization, EPI is responsible for maintaining a national system of cold-chain storage through regular maintenance and training.

93. Progress in immunization over the five years to 2017 has been difficult and characterized by the need for special immunization campaigns to supplement routine immunization, yet significant gains have been made in raising coverage. Overall in recent years, children have not been immunized at the rates required to provide herd immunity. Critically, there have been management issues in the EPI Unit, with the head of unit position being filled

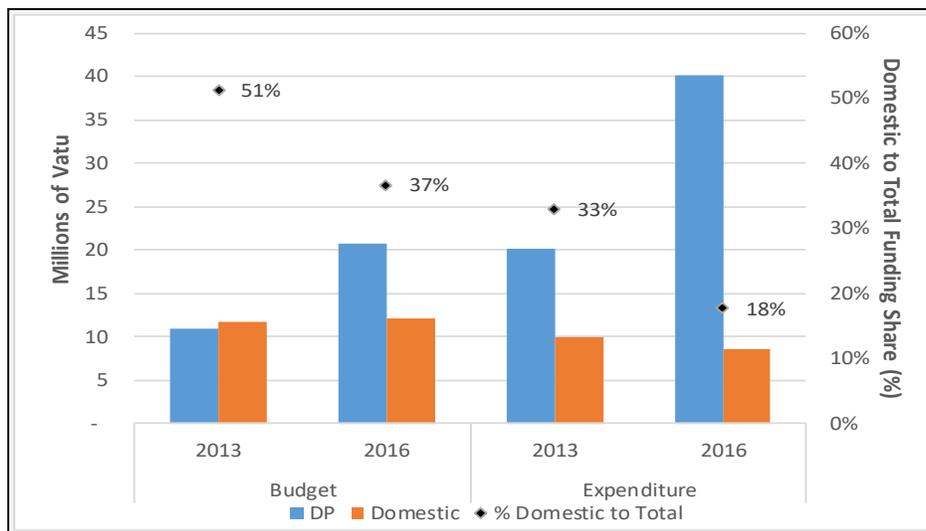
²⁹ There are some variances between the information contained in global databases and country systems. Global data is provided to enable comparison across countries.

on an acting basis in recent years by multiple staff. This has meant that DPs have played a disproportionate role in providing leadership.

94. With financing and technical support from UNICEF, immunization rates have picked up significantly. From a low of 32.7 percent in 2013, there has been a major increase in the level of fully immunized children to 68.5 percent in 2016 (MoH et al. 2014; MoH 2016a). This provides a clear demonstration that improved immunization coverage delivered as a routine part of the health system is achievable. The challenge is to sustain the recent gains given shortages in frontline staff to deliver routine immunization. Key activities in driving improved rates of immunization have been the delivery of well-estimated, simple microplans, reactivation of outreach, and other activities within the WHO Reaching Every District strategy. Immunization has been carried out by facility nurses and CHS-based MCH nurses, with support from UNICEF.

95. The EPI remains heavily reliant on donor financing and technical assistance. From 2013 to 2016, both the budget and expenditure shares accounted for by domestic sources fell, from 51 percent to 37 percent and 33 percent to 18 percent respectively, as DP budget and expenditure ramped up (Figure 5-26). On top of salaries, government funds most of the vaccine costs, the costs of distribution, and the operational needs of the EPI national office. Since the start of 2017, the government has also provided funding for routine immunization in quarters one and three (with UNICEF funding routine immunization in the other quarters). Cold-chain maintenance, training and advertising costs are, however, largely met by DPs – as are the costs of special immunization events. Furthermore, external support (from an agency in Japan) is still provided for the pentavalent vaccine. This support continues but is not backed by a transition arrangement.

Figure 5-26: Budget & Expenditure for Immunization, and Domestic Funding Share (2013 & 2016)



Source: FMIS database, Government of Vanuatu (2017)

96. DPs typically meet the cost of new vaccines in the early years of implementation. This was the case with the Inactivated Polio Vaccine (IPV), which was introduced in late 2015 after discussion with MoH and MFEM. With a price of around US\$1 per dose and an annual birth cohort of around 8,500, DPs met IPV costs in 2016, however, MoH has managed to absorb the costs within its 2017 budget settlement. MoH has also been able to absorb the introduction of the rubella vaccine within the schedule at a per dose price of roughly US\$0.60 (including measles).

97. The introduction of other vaccines for improved child health, including Pneumococcal Conjugate Vaccine (PCV), rotavirus and Human Papillomavirus Vaccine (HPV) is planned under a large-scale ADB intervention worth US\$11.25 million over five years. The government signed an MoU with ADB in September 2017. PCV and

rotavirus vaccines are more expensive with UNICEF estimating that each dose of PCV and rotavirus will cost around US\$18 and US\$9 respectively.³⁰ In the first years of the vaccines intervention, these vaccines will be fully funded by ADB, but the GoV will be expected to fund an increasing share in subsequent years. Although it is expected that prices will fall, current vaccine prices would require sizeable increases in the pharmaceutical and medical supplies cost center budget to be affordable. Furthermore, the introduction of these vaccines would require significant effort on training and social mobilization. These are challenges that are additional to the task of maintaining the recent progress against the existing immunization schedule.

98. The ADB funding means that financing of immunization is more secure, although a question on 2018 external financing remains. The ADB intervention will not be in place until 2019 at the earliest, and UNICEF funding for immunization through DFAT is uncertain. Funding provision for immunization has been made within CHS budgets from the government's own resources but supplementation by UNICEF would boost resources and help expand CHS activity generally.

Malaria

99. Malaria has historically been one of the leading causes of disease but major gains have been made, including the government's announcement in November 2017 of the elimination of malaria in Tafea following three years without a local malaria case. Since 2004, MoH and its DPs have implemented a program to progressively control malaria through: (i) better diagnosis; (ii) stronger case management; (iii) the supply of long-lasting insecticidal bed nets (LLINs); (iv) widespread access to artemisinin-based combination therapy (ACT); (v) indoor residual spraying; and (vi) targeted technical assistance. This has led to the elimination of deaths from malaria (the latest malaria death occurred in 2012) and a sharp decline in the API.

100. Sustained support from the GF supplemented by other DP funds (from Australia and WHO) and, to a lesser degree, the government's domestic resources have been instrumental to the malaria successes. The GF grant is administered through a PR with funds then channeled through government systems to MoH. The Secretariat of the Pacific Community (SPC) served as PR to mid-2016 when the UNDP took over. The PR arrangement is different to that in the Solomon Islands where the Ministry of Health and Medical Services is the PR. The separate PR arrangement has proved to be expensive—with the PR programme management component amounting to 24 percent of the program's budget (UNDP, 2015; accessed 26 April 2018). A further concern has been the difficulty in meeting the PRs' (both SPC and UNDP) standards on acquittal of expenditures; on a number of occasions this has reduced the program's progress as funding has been blocked.

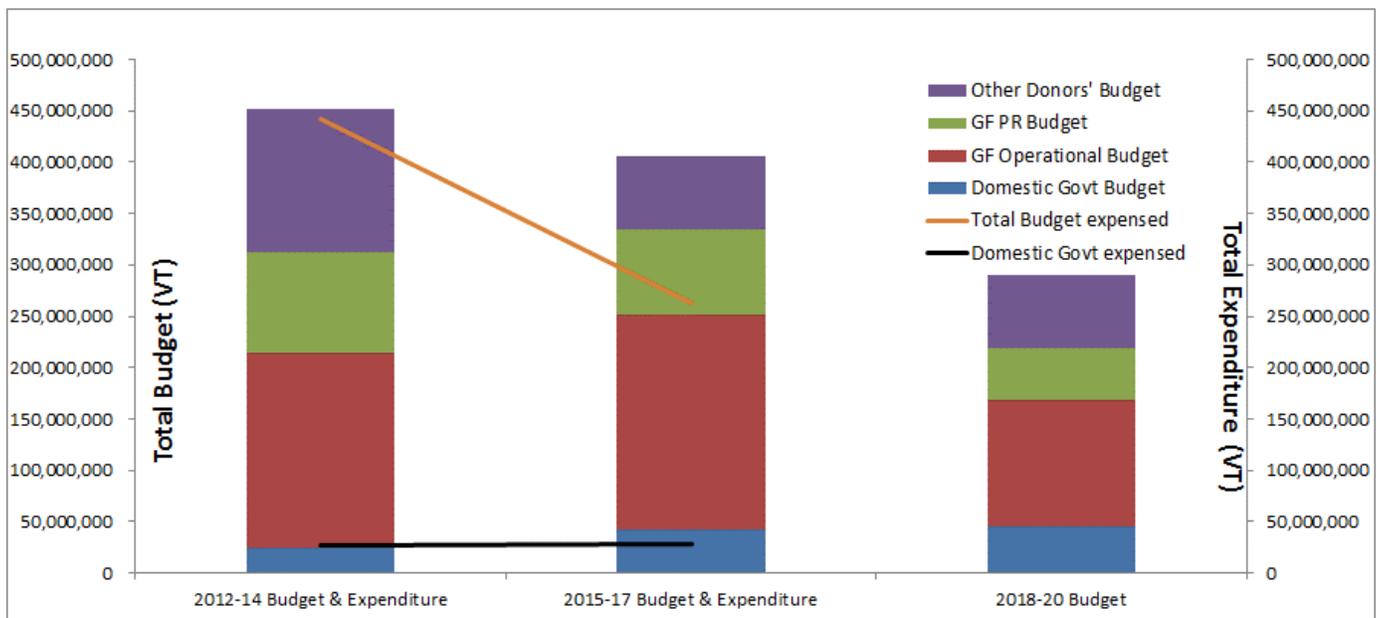
101. While the program has made great gains, there have been disadvantages to the overall health system because of its implementation through a vertical program. A contributing factor to this has been the creation of parallel systems such as health information and financial management, which have acted as stand-alone systems rather than being integrated as a part of the health information and financial management roles at MoH level. At programmatic level, the Malaria Unit has also not been well integrated at either provincial level (lack of vertical integration) or with other public health programs (lack of horizontal integration).

³⁰ Figures have been provided by UNICEF staff in Vanuatu and include the cost of freight and injection devices. The estimates reflect that Vanuatu is not an eligible GAVI (the Vaccine Alliance) country and therefore does not benefit from the GAVI subsidy. Base prices for the pneumococcal (13-val) vaccine in single dose presentation and for the rotavirus vaccine, liquid, single dose presentation are US\$3.30 and US\$3.20 respectively (UNICEF Supply catalogue, https://www.unicef.org/supply/index_57476.html).

102. The absence of vertical and horizontal integration has been a wider problem of the Public Health Directorate within MoH that relates to traditional DP funding of vertical Public Health programs – although there have been some improvements in this area. With malaria resources a significant component of Public Health funding, the Malaria & Other Vector-Borne Diseases Unit under the guidance of the Director of Public Health is well placed to advise on further integration. Over the past two years, increasing attention has been paid to the issue of what potential there is for relatively well-funded malaria activities to support activities under other, relatively poorly funded, programs. One example of success has been the introduction of Integrated Supervisory Visits (ISVs) to replace (solely) malaria supervisory visits. ISVs have broadened the reach of malaria supervisory visits by including a focus on other communicable diseases, on syndromic surveillance and on health-facility management. A further achievement has been the absorption of the budget for malaria medications within the domestic-funded pharmaceutical and medical supplies cost center, as the burden of disease that requires treatment has declined.

103. Since the 2012-14 program period, both the public budget for, and public expenditure on, malaria have been declining (Figure 5-27). On the budget side, this reflects reduced resources from the GF and DPs and, on the expenditure side, weaknesses in planning and financial management. Examples on the expenditure side include: (i) the Malaria Action Plan (MAP) for 2014 not being finalized until halfway through the year; and (ii) disqualified expenditures on imprests leading to MoH being blocked from receiving funds. Furthermore, 2015 activities were also extremely hindered by Cyclone Pam, with the number of malaria tests conducted falling sharply. In turn, this led to a more than 50 percent reduction in the number of cases treated (MoH 2016). Total expenditure fell over the 2015-17 period by 52 percent compared with the 2012-14 round.

Figure 5-27: Malaria Public Budget & Expenditure (2012-17) and Public Budget (2018-20)



Source: FMIS database, Government of Vanuatu (2017); GF PR Budget & Expenditure 2012-17 and all 2018-20 budget provided directly in internal communications by DPs.

104. The GF budget for 2018-20 will fall by 42 percent (from VT 292.4 million to VT 172.8 million) from the 2015-17 round. MoH will not assume the position of PR, meaning that the PR management fee remains payable. The severity of the funding cut means that the existing service-delivery model will not be viable, assuming that the low implementation rate (as shown by Figure 5-27) is addressed by improvements in planning and in financial management. One scenario that MoH is considering in response to this is a move from the model of nationwide LLIN coverage to targeted coverage for vulnerable and high-risk groups and areas.

105. MoH has noted its intention to take over the PR role for the funding round 2021-23. To ensure that MoH is well prepared for assuming the PR role, it will be important that there is a strong focus on transfer of capacities from UNDP to MoH and associated capacity building.

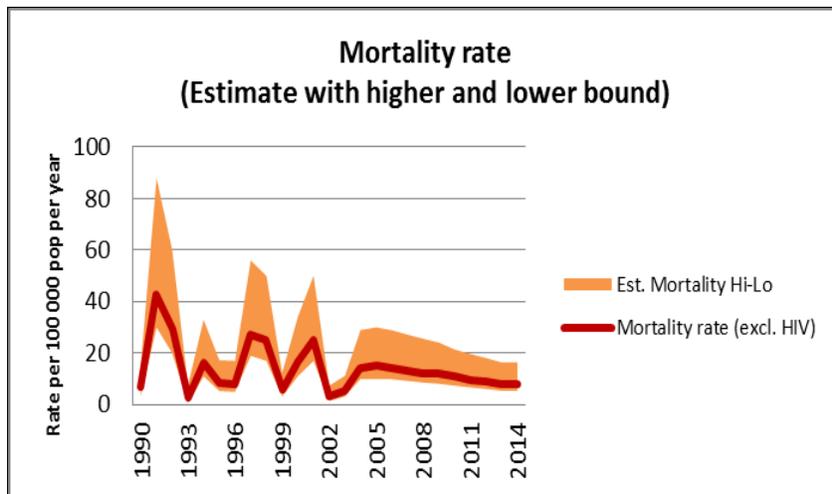
Tuberculosis

106. The national program on TB has four main objectives. These are: (i) improve community health-seeking behavior, leading to better utilization of health services; (ii) reduce mortality, morbidity and transmission of TB infection; (iii) prevent the development of drug-resistant TB; and (iv) maintain leprosy surveillance.

107. TB remains an important health issue in Vanuatu although there has been progress in reducing the burden of disease over the decade to 2017. The prevalence and incidence rates fell from 168 and 110 respectively in 2000 to 90 and 63 respectively in 2015 (PIFS 2015; MoH 2017). Accompanying this, the mortality rate fell from 17.3 per 100,000 population in 2000 to 6.4 per 100,000 population in 2015 (Figure 5-28) (PIFS 2015; MoH 2017a). There has, however, been no significant reduction in the case detection rate (CDR) over the decade. The implication of this is that the impact of TB control efforts is limited. The CDR is also below the WHO recommended standard of 70 percent, with CDRs of 69 percent in both 2014 and 2015 – lower than the levels recorded in 2012 and 2013 (MoH 2017; 2017a). The stagnant CDR comes despite an increase in testing sites.

108. The first case of Multi-Drug Resistant (MDR) TB in Vanuatu was identified in 2017. In response to this latest finding, training in MDR-TB has been provided to provincial TB officers and select clinicians. The infection control guideline was also reviewed and a plan was developed for management of the MDR case.

Figure 5-28: TB Mortality Rate (1990-2015)



Source: MoH 2017a.

109. Domestic (government) expenditure on TB and leprosy has remained relatively steady between 2012 and 2016 but was forecast to fall in 2017 given a reduced budget. In contrast, external financial support from the GF rose in 2015 and again in 2016, with an expected increase in 2017 (Figure 5-29). The TB program does not face the same financial management challenges as with malaria, with expenditure much closer to budget.

Figure 5-29: National TB Program Expenditure (2012-16) and Budget 2017 (Vatu)

Source	2012	2013	2014	2015	2016	2017
Government	3.1M	3.7M	1.7M	2.9M	2.7M	0.8M
Global Fund			2.7M	4.1M	6.7M	9.8M
Other DPs					2.0M	
	0M	0M	0M	0M	0M	0M

Source: FMIS database, Government of Vanuatu (2017).

HIV/ STIs

110. The national program on HIV/STIs has a number of objectives. These include to: (i) improve testing for STIs and HIV; (ii) improve access and services; (iii) improve treatment and reduce mortality; (iv) rationalize and strengthen overall health system; (v) build support network; and (vi) increase knowledge at all levels.

111. Information on HIV and STIs in Vanuatu is extremely limited, although it is believed that there are high levels of STIs and higher numbers of HIV cases than is currently known. Ten people have been confirmed with HIV with four having died. In addition, only five of the six patients are receiving antiretroviral therapy (ART) (MoH 2017). Voluntary counselling and testing exists in all six provinces; testing for HIV and STIs is also carried out routinely for expectant mothers accessing ANC services, however, testing is limited and the HIV/STI Unit estimates that there are a further 15 (undiagnosed) HIV cases in the country (MoH 2017). Furthermore, STI rates reveal a high vulnerability to HIV. Over the 2011-14 period, 21 percent of 14,037 people tested were found to be infected with chlamydia; 5.6 percent of 13,655 people tested were infected with gonorrhoea; and 4.3 percent of 9,831 people tested were infected with syphilis (MoH 2015).

112. Overall expenditure on the HIV/STIs Program has followed a similar pattern to the TB and Leprosy Program. Domestic (government) expenditure on the HIV/STIs Program remained relatively steady between 2012 and 2015, while external financial support from the GF rose in 2015 compared to 2014, before falling again in 2016 (Figure 5-30).

Figure 5-30: National HIV/STIs Program Expenditure (2012-16) and Budget 2017 (Vatu)

Source	2012	2013	2014	2015	2016	2017
Government	1.3M	2.2M	1.7M	1.9M	1.7M	0.8M
Global Fund			4.6M	6.1M	1.9M	6.2M
Other DPs					2.5M	
	0M	0M	0M	0M	0M	0M

Source: FMIS database, Government of Vanuatu (2017).

113. The TB/Leprosy and HIV/STI programs are much smaller programs than malaria and transition plans have yet to be formulated; however, both programs have a heavy reliance on GF grant funding. Many TB operational activities are supported by the GF, including funding of support staff, capacity building, screening of high-risk TB groups and program monitoring. The situation is similar with the HIV/STI program (although the GF does not fund dedicated HIV/STI staff positions). The importance of GF funding to the TB and Leprosy and HIV/STI programs is made clear in the MoH Annual Report 2015: both programs reported that lack of external funding in 2015 hindered activities (MoH 2016). Since the start of 2016, the GF ceased funding for four positions in the HIV/STI program. These positions were not absorbed by the government-sourced budget.

114. For the 2018-20 period, a total of US\$1 million will be available from the GF for continued efforts to reduce the burden of TB, leprosy, HIV and STIs across eight Pacific countries including Vanuatu.³¹ This funding will include continued resources for NGOs.

5.7 Out-of-Pocket (OOP) Payments

115. OOP payments in Vanuatu are reported as 6 percent of THE; this is the third lowest in the region after Kiribati and the Solomon Islands – but other costs not reported in formal OOP can be significant, such as travel to and from health facilities. OOP payments are not regarded as a significant barrier to access in Vanuatu, given the presumption of care, acceptability of payment in-kind (for example, root crops), and the fund-raising abilities of family and broader community networks. It is frequently reported that no one who can access services is denied treatment because of inability to pay. However, this conclusion – which has been developed through discussions with managers at provincial level – needs to be formally tested. In addition, it is known that other non-OOP barriers exist and can be large – principally the travel costs required to be borne to access health facilities. In some cases, these costs can be magnified by the nearest health facility being closed, meaning that onward travel is necessary. In other cases, patients may ‘self-refer’ to seek treatment at VCH or NPH.

³¹ The eight countries are Kiribati, Marshall Islands, Micronesia, Palau, Samoa, Tonga, Tuvalu and Vanuatu. Over the 2015-17 period, Vanuatu had a maximum budget of US\$351,721 available (Multi-Country Western Pacific Global Fund Integrated HIV/ TB Program Country Profile, UNDP). Vanuatu’s share of the US\$1 million available over the 2018-20 period is currently unknown.

Section Six: Policy Recommendations

Summary of policy recommendations:

- MoH to clarify and then implement required management and accountability arrangements
 - MoH to demonstrate that it is using existing allocations efficiently and effectively
-

116. There are practical actions that MoH can take now that would make health financing and service delivery in Vanuatu more accountable, efficient, equitable and sustainable. MoH has recognized the need to make more efficient use of its resources and to stretch resources so that more people, including in underserved rural areas, are reached. It is exploring mechanisms, including existing groups, to determine the best approach for advancing an efficiency agenda. Increased efficiency will be a theme within the new HSS that was finalised in late 2017.

117. There is some pressure from the central agencies of MFEM, PMO and Public Service Commission (PSC) to improve the use of health resources. There has been recent momentum for this given that in its 2017 Budget MoH received a 14.7 percent recurring enhancement to its domestically financed budget – the first ongoing increase of this scale in many years. The bulk of this funding was made up of a VT 200 million New Policy Proposal (NPP) award for enhanced staffing. In turn, this brings an obligation for MoH to account for the additional funding received by: (i) ensuring that the extra resources are spent according to the use spelt out in the NPPs; and (ii) trying to link the additional expenditure to the impact on health services (and even health outcomes). The MFEM and PSC have an expectation that additional funds lead to improved health services.

118. More broadly, the government has recognized the need to achieve efficiencies across all government agencies. An Expenditure Review Group was established in 2017 to analyze where policy, law and administration may be reformed so as to achieve more effectiveness and efficiency in the use of public resources. MoH is represented on this group by the Director of Public Health.

Priority One: Governance and Accountability

Policy Recommendation 1: MoH, with DPs when relevant, to clarify and then implement required management and accountability arrangements.

This includes, but is not limited to, progressing:

- Executive stewardship through routine and regular MoH Senior Management meetings;
 - Corporate stewardship through routine and regular core MoH committee meetings (including the HSS Working Group, Project Control Group, Budget and Finance Committee);
 - Mutual accountability with DPs through routine and regular health sector Joint Partner Working Group (JPWG) meetings; working-level quarterly monitoring of annual Business Plan and Budget, with close attention to financial and health output data analysis within and across provinces.
-

119. Oversight bodies already exist in MoH and include the Executive (comprised of the Director-General and his directors), the Budget & Finance Committee (BFC) and the Project Control Group (the latter two groups have senior-level representation from the central agencies). However, establishing regular meetings with a series of actions to follow up on between meetings has proven very difficult to achieve, given other pressures placed on senior officials. For example, the BFC (or the Audit and Finance Committee, as the BFC was previously known) met only once in 2016, and not at all in 2017, despite having been set up in 2013 and conducting regular meetings in 2014.

120. These governance and management arrangements are important because they provide the oversight that is necessary to improve sector performance, to support staff and to hold them accountable for the services that they provide to the people of Vanuatu. For effective meetings, officials require data such as up-to-date financial and health information reports. Demand for these reports reinforces the roles of the Finance & Accounts Unit and the Health Information Systems (HIS) Unit, in turn helping these units to focus on their core work.

121. DPs have an important role to play in supporting the Government’s governance and management arrangements and need to be more systematic with their assistance. Over recent years DP support has not been coordinated for maximum efficiencies nor aligned well with MoH’s policy and planning cycle. Previously DP support was provided in two forums: (i) regular quarterly JPWG meetings; and (ii) monthly DP meetings. Of these meetings, only the JPWG is currently active – but its meetings are infrequent, being typically only once per year. Given that external funding makes up an estimated one-fifth of total health spending, and that this funding is primarily flexible for use in operational activities, having well-coordinated DPs could make a significant difference to more efficient and quality expenditure in the health sector. More systematic and coordinated engagement is required for this to happen.

122. A more substantial partnership between MoH and DPs is required, including DPs being clear on what their collective ‘offer’ to MoH is and how this will add value for better health services and outcomes. In turn, MoH needs to set out what it will take responsibility for; this is becoming more important given the ongoing transition from DP-funded and led programs. Being clear on what each party does will improve the accountability of each and strengthen the partnership. This could include the development and monitoring of explicit mutual accountability targets.

Priority Two: Alignment and Quality of Expenditure

Policy Recommendation 2: MoH, with DPs when relevant, to demonstrate that it is using existing allocations efficiently and effectively.

There is no regular systematic assessment on what is being achieved for the resources/ investments provided. This includes: (i) promoting quality primary health care, including disease prevention, as the most cost-effective use of resources; (ii) creating a stronger ‘line-of-sight’ between funding allocations and frontline service delivery activities (and ultimately health outcomes) by focusing on the alignment of annual Business Plan and Budget, including DPs’ activities, and regular monitoring; and (iii) implementing a targeted approach to improve efficiency in key high expenditure areas, such as payroll, hospitals and pharmaceuticals.

123. There is currently a mismatch between a headline policy of the government and health expenditure. In terms of policy, the government wishes to see a focus on preventive, primary health care delivered at local level – with services reaching underserved rural populations. Health indicators within the government’s overarching strategic document – the National Sustainable Development Plan (NSDP) 2016-30–include increasing the proportion of people who have access to each level of health facility and boosting the ratio of skilled health professionals to population. However, as noted in the main body of this HFSA, the declining levels of CHS expenditure reflect the mismatch between the way resources are used and this policy.

124. Much work is required to achieve targets, but the NSDP clarifies expectations and provides a framework for action, including priority actions for advancement. These actions include:

- update of the RDP that sets out the service package expectation at each level of health facility. As the RDP dates from 2004, it needs to be updated to provide a basis for the more effective, efficient and equitable targeting of resources;

- finalization of the new MoH staffing structure;
- production of a Workforce Development Plan. There is currently no workforce plan in place and the role of HR Development in recent years has been very limited;
- update of MoH's three-year Corporate Plan;
- production of a costing study for the different levels of health facility; and
- implementation of efficiency studies, focused on high expenditure areas including payroll, hospitals (principally VCH) and pharmaceuticals.

With the exception of the work stream to finalize the staffing structure, which has been completed, all of the above work streams will be supported by DPs. The active participation of the central agencies will be sought in order to provide momentum for the work and to build collective understanding.

125. Concerted effort is required to improve monitoring, to build a clearer 'line-of-sight' between expenditure and health service results. Good monitoring is regular and reasonably comprehensive, covering review of progress against the HSS, the Corporate Plan (when in place), business plans (which have now been reestablished), analysis of financial information, scrutiny of health information and review of other information as it emerges (for example, from surveys or ad hoc reports). Furthermore, the results of monitoring need to be shared widely and discussed – so that a cycle of continuous improvement is possible. If the governance and management arrangements established by the Government are implemented as intended, there is potential within existing resources to provide much stronger oversight and accountability of health services for the people of Vanuatu.

Appendix One: Methodology

The table that follows details the methodology behind the metrics and related discussion in Figure 5-23.

Table 1A-1: Metrics and Notes on Domestic Expenditure, Utilization and Human Resourcing in Hospitals

Metric	Notes
Frontline Expenditure	
Payroll Exp. Trend	Compares 2015 expenditure on hospital payroll to the four-year average 2010-14. Results are displayed as Up, Down or Steady.
Op's Exp. Trend	Compares 2015 expenditure on hospital operations to the four-year average 2010-14. Results are displayed as Up, Down or Steady.
Utilization	
Outpatients Visits /pop'n	Total outpatient visits for each hospital are divided by the provincial population to calculate an average 'outpatient utilization' metric per capita. The results are then compared across provinces and displayed as Higher, High, Medium and Low.
Inpatients Stays /pop'n	Total inpatient stays for each hospital are divided by the provincial population to calculate an average 'inpatient utilization' metric per capita. The results are then compared across provinces and displayed as Higher, High, Medium and Low.
Attendances /staff	Total outpatient visits and inpatient stays for each hospital are divided by the number of clinicians to calculate an average 'clinician attendances' metric. The results are then compared across provinces and displayed as Higher, High, Medium and Low.
Human Resourcing	
Doctors / pop'n	The (actual) numbers of doctors at the hospital are compared against the provincial population. The results are then compared across provinces and displayed as Higher, High, Medium and Low.
Nurses / pop'n	The (actual) numbers of doctors at the hospital are compared against the provincial population. The results are then compared across provinces and displayed as Higher, High, Medium and Low.
Midwives: actual #	The (actual) numbers of midwives based at the hospital. The raw results are displayed.

The table that follows details the methodology behind the metrics and related discussion in Figure 5-24.

Table 1A-1: Metrics and Notes on Domestic Expenditure, Utilization and Human Resourcing in CHSs

Metric	Notes
Frontline Expenditure	
Payroll Exp. Trend	Compares 2015 expenditure on CHS payroll to the four-year average 2010-14. Results are displayed as Up, Down or Steady.
Payroll Exp. Level	2015 expenditure on CHS payroll is divided by the number of nurses and midwives in the Provincial CHS to arrive at a 'cost per clinician' (unitized value). The results are then compared across provinces and displayed as Higher, High, Medium and Low.
Op's Exp. Trend	Compares 2015 expenditure on CHS operations to the four-year average 2010-14. Results are displayed as Up, Down or Steady.
Op's Exp. Level	2015 expenditure on CHS operations is divided by the number of rural facilities (health centers and dispensaries) in the Provincial CHS to arrive at a 'cost per facility' (unitized value). The results are then compared across provinces and displayed as Higher, High, Medium and Low.
Facility Utilization	
Outpatients Visits /facilities	Total outpatient visits for each Provincial CHS are divided by the number of rural facilities (health centers and dispensaries) to calculate an average 'outpatient utilization' metric per facility. The results are then compared across provinces and displayed as Higher, High, Medium and Low.
Outpatients Visits /pop'n	Total outpatient visits for each Provincial CHS are divided by the provincial population to calculate an average 'outpatient utilization' metric per capita. The results are then compared across provinces and displayed as Higher, High, Medium and Low.
Inpatient Stays /facilities	Total inpatient stays for each Provincial CHS are divided by the number of rural facilities (health centers and dispensaries) to calculate an average 'inpatient utilization' metric per facility. The results are then compared across provinces and displayed as Higher, High, Medium and Low.
Inpatients Stays /pop'n	Total inpatient stays for each Provincial CHS are divided by the provincial population to calculate an average 'inpatient utilization' metric per capita. The results are then compared across provinces and displayed as Higher, High, Medium and Low.
Human Resourcing	
Nurses /facilities	The (actual) numbers of nurses in the CHS are compared against the notional standard per facility of 'four nurses per health center' and 'two per dispensary'. The result provides an indication of the adequacy of existing staffing levels given the number of facilities in the province. The results are then compared across provinces and displayed as Higher, High, Medium and Low.
Midwives: CHS v Hospital	The (actual) numbers of midwives in the CHS are compared against the (actual) numbers of midwives at the provincial hospital. The raw results are displayed.

The information analyzed in this HFSA includes that which has been produced in good faith by MoH. It is recognized that coding errors are a feature of data; this is particularly the case where financial information is concerned. Work to improve coding is ongoing.

References

- Government of Vanuatu (GoV). 2015. "Post-Disaster Needs Assessment (PDNA): Tropical Cyclone Pam."
- . 2016. "Budget 2016: Volume 1 Fiscal Strategy Report." https://doft.gov.vu/images/2016/budget_2016.pdf
- . 2017. "Financial Management Information System."
- . 2017a. "Budget 2017: Volume 1 Fiscal Strategy Report." https://doft.gov.vu/images/2017/Vol-1_2-FINAL-ENGLISH.pdf
- . 2018a. "Gross Domestic Product 2016." <https://vnso.gov.vu/index.php/new-releases/annual-news/gross-domestic-product>
- . 2018b. "Budget 2018: Volume 1 Fiscal Strategy Report." <https://doft.gov.vu/images/2018/Vol-1--2-Budget-Book-2018-English.pdf>
- Institute of Health Metrics and Evaluation (IHME). 2016. IHME database. <http://www.healthdata.org>
- Integrated Research on Disaster Risk (IRDR). 2017. "World Risk Index." <http://www.irdrinternational.org/2016/03/01/world-risk-index/>
- International Monetary Fund (IMF). 2017. "World Economic Outlook." <https://www.imf.org/external/pubs/ft/weo/2017/02/weodata/index.aspx>
- Ministry of Health. 2015. "Global AIDS Progress Report Vanuatu." Port Vila: MoH. http://www.unaids.org/sites/default/files/country/documents/VUT_narrative_report_2015.pdf
- . 2016. "Annual Report 2015: Appendix 1 (Health Statistics)." Port Vila: MoH.
- . 2016a. "Vanuatu Vaccination Coverage Survey 2016." Port Vila: MoH.
- . 2017. "Annual Report 2016." Port Vila: MoH.
- . 2017a. "National Strategic Plan for Tuberculosis." Port Vila: MoH.
- Ministry of Health (MoH), National Statistics Office (NSO), and Secretariat of the Pacific Community (SPC). 2014. "Demographic and Health Survey 2013." Port Vila: Ministry of Health.
- National Statistics Office (NSO) (Vanuatu). 2009. "National Population and Housing Census (Analytical Report Volume 2)." <https://vnso.gov.vu/index.php/document-library?view=download&fileId=2009>
- Pacific Islands Forum Secretariat (PIFS). 2015. "2015 Pacific Regional MDGs Tracking Report." Suva: PIFS.
- United Nations (Department of Economic and Social Affairs, Population Division). 2017. "World Population Prospects: The 2017 Revision." <https://esa.un.org/unpd/wpp/>
- United Nations Development Programme (UNDP). 2016. "Human Development Report 2016: Human Development for Everyone." New York: UNDP.

———. 2015. “Multi-country Western Pacific Global Fund Malaria Program Overview.” <http://www.pacific.undp.org/content/dam/fiji/docs/GF-MalariaProgramOverview.pdf>

Vanuatu Daily Post. 2017. “Tax Plan Approved.” Report published on October 11, 2017. http://dailypost.vu/news/tax-plan-approved/article_de02791a-d6fd-5434-9210-623fa1f24739.html

World Bank. 2014. “NCD Roadmap Report.”

———. 2014a. “Vanuatu Socio-Economic Atlas.” Washington, DC: World Bank.

———. 2015. “World Development Indicators 2015.” Washington, DC: World Bank.

———. 2016. “World Development Indicators 2016.” Washington, DC: World Bank.

———. 2016a. “Financing Pacific Governments for Pacific Development.” *Pacific Possible: Background Paper No. 9* [unpublished]. Sydney: World Bank.

———. 2017. “DataBank.” Washington, DC: World Bank.

World Health Organization (WHO). 2010. “World Health Report 2010.” Geneva: World Health Organization.

———. 2015. “World Malaria Report 2015.” Geneva: World Health Organization.

———. 2016. “Global Tuberculosis Report 2016.” Geneva: World Health Organization.

———. 2017. “Global Health Expenditure Database.” <http://apps.who.int/nha/database>

