

# HEALTH FINANCING OPTIONS FOR SAMOA

## Challenges and Opportunities

Ian Anderson

September 2013





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## Health, Nutrition, and Population (HNP) Discussion Paper

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# Health, Nutrition, and Population (HNP) Discussion Paper

## Health-Financing Options for Samoa: *Challenges and Opportunities*

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**Abstract:** Samoa currently faces two important public policy challenges in the health sector. One is to stem, and then reverse, the rapid rise of noncommunicable diseases (NCDs). The second challenge is to put the country on a health-financing path that is effective, efficient, and financially affordable and sustainable. The two challenges are interconnected. **This discussion paper examines eight options** to address these challenges. The eight options are the following: (1) increasing government expenditure via higher general taxation; (2) increasing government expenditure via deficit financing; (3) increasing the share of government expenditure to health; (4) increasing external and donor financing; (5) increasing specific taxes; (6) mobilizing additional nongovernment resources via insurance (including social health insurance, and community and private insurance); (7) increasing cost-recovery measures; and (8) increasing efficiency. The paper concludes that **the chief opportunity arises from more efficient use of resources already in the health system** that are not presently used to maximum effect. Improving technical and allocative efficiency of the existing system has the potential to make a large difference and is technically feasible.

**Keywords:** Health financing; Samoa; noncommunicable diseases; efficiency.

**Disclaimer:** The findings, interpretations, and conclusions expressed in the paper are entirely those of the author, and do not represent the views of the World Bank, its Executive Directors, or the countries they represent.

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## FOREWORD

The various ways countries finance health care is an important development issue. The mobilization, pooling, and expenditure of financial and other resources have implications for national health outcomes, but also for national budgets and other macroeconomic variables. Many Pacific Island countries are experiencing rapidly rising demands for health financing, driven in particular by the growing incidence of noncommunicable diseases. They are interested in identifying responses to these challenges that are effective, efficient, equitable, and financially sustainable. This discussion paper is based on a series of visits and discussions with senior officials and other stakeholders in Samoa during 2011 and 2012.





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## ABBREVIATIONS

ANC	Antenatal care
DHS	Demographic and Health Survey
MDGs	Millennium Development Goals
MOF	Ministry of Finance
MOH	Ministry of Health
MTEF	Medium-Term Expenditure Framework
NCD	Noncommunicable disease
NHS	National Health Service
OVT	Overseas treatment Scheme
PPP	Purchasing power parity (see footnote 11)
SHI	Social health insurance
STI	Sexually transmitted infection
SWAP	Sectorwide approach
THE	Total health expenditure
TTM	Tupua Tamasese Meaole II Hospital, Apia
WHO	World Health Organization

## CURRENCIES

One Samoan tala (SAT) was the equivalent of approximately US\$0.422 in May 2012.

One US\$ was the equivalent of approximately SAT 2.36 in May 2012.

“The spread of noncommunicable diseases (NCDs) presents a global crisis; in almost all countries and in all income groups, men, women, and children are at risk of these diseases. Worldwide, substantial gains have been achieved in economic growth, health, and living standards in the past century. This progress is now threatened by crises of our own creation — climate change, finance, and food insecurities, and the crisis in NCDs, principally heart disease, stroke, diabetes, cancers, and chronic respiratory disease” (Beaglehole et al. 2011).

## PREFACE

**Samoa is currently facing two important public policy challenges in the health sector.** One is to stem, and then reverse, the rapid rise of noncommunicable diseases (NCDs). The second challenge is to put the country on a health-financing path that is effective, efficient, and financially affordable and sustainable. The two challenges are interconnected. This paper therefore analyzes options for reducing Samoa's burden of disease (especially otherwise preventable NCDs) in a way that is financially sustainable for both government and individual households.

**Section 1 of the paper provides background and context.** It is noted that Samoa has achieved some important health outcomes over time, especially compared to other similar countries. Section 1 also notes that Samoa, like many other countries, is facing an epidemic of NCDs that can impose heavy health burdens on individuals and families, and heavy economic costs on households and government. The challenge of NCDs should not eclipse the ongoing and important challenges with respect to communicable diseases and family planning in Samoa (paragraphs 1.1–1.14).

**Section 2 of the paper briefly summarizes the current structure of the health system,** emphasizing that public financing — and public provision — dominates the health system. Development partners are also active supporters of the health-reform agenda (paragraphs 2.1 – 2.5).

**Section 3 of the paper analyzes the current health-financing system in Samoa.** This section shows some distinctive features of health financing. For example, health expenditure, including by government, is relatively high in Samoa in absolute and relative terms, and in comparison to other lower-middle-income countries. Conversely, private expenditure, including out-of-pocket expenditure, is relatively low, with negligible “catastrophic” health expenditures. But there are also important policy challenges in health financing. Long-term financial sustainability of health expenditure is ultimately in doubt. There is negligible cost recovery — just 0.08 percent of government expenditure on health in 2011/12. Some programs have high, and rapidly rising, costs, but would appear to have very limited health outcomes, with 31 percent of patients under one relatively high-cost program dying in less than one year. Importantly, resources are still focused on inpatient curative care rather than primary and secondary prevention: per capita expenditure on total inpatient curative care, including overseas treatment, was recently over one hundred times more than per capita expenditure on prevention of NCDs, and almost eighty times what was spent per capita on maternal and child health and family planning. Even per capita expenditure on traditional health care was more than seven times what was spent on prevention of NCDs (paragraphs 3.1–3.25).

**Section 4 of the paper examines eight options for addressing health financing in Samoa, given the challenges of population growth, ageing, and the rise of expensive-to-treat NCDs.** This section comprises the bulk of the paper. It starts by suggesting some principles to screen the eight options in the best interests of Samoa. It then canvasses the strengths and weaknesses of the eight options in the context of Samoa. The eight options

assessed are the following: (1) increasing government expenditure via higher general taxation; (2) increasing government expenditure via deficit financing; (3) increasing the share of government expenditure to health; (4) increasing external and donor financing; (5) increasing specific taxes; (6) mobilizing additional nongovernment resources via insurance (including social health insurance, and community and private insurance); (7) increasing cost-recovery measures; and (8) increasing efficiency (paragraphs 4.1–4.59).

**Section 5 draws some conclusions and makes recommendations for government.** It concludes that Samoa already has many of the building blocks in place to make some substantive improvements to health outcomes and financial sustainability of the health system. In particular, the paper states there are some potentially “low hanging fruit” that could be harvested to achieve better health outcomes at reduced financial cost to Samoa (paragraphs 5.1–5.8).

The paper concludes that **the chief opportunity for health financing comes from making better use of resources already in the health system that have not been used to maximum effect. Improving technical and allocative efficiency of the existing system has the potential to make a large difference** and is technically feasible. Specific recommendations include significantly reorienting public expenditure from curative to primary and secondary prevention; increasing investments in maintenance; proactively reducing future recurrent costs from large infrastructure projects; exploring contracting out and private/public partnerships; leveraging the power of public expenditure to drive incentives on the demand side and supply side of health care; understanding better the true cost of services and underlying cost drivers; and investing in operational research to build up the evidence base for policy making.

The paper further **concludes that Samoa has some other opportunities to mobilize additional revenue.** Increasing taxation on tobacco and maintaining its value in real terms against inflation is an option, given the inevitable rise of (preventable) tobacco-related NCDs and the simultaneous need to generate revenue in Samoa. Some potential exists to generate more investment from the supportive group of external development partners over the longer term via the sectorwide approach existing in Samoa, but this is limited and should not be assumed. It is also likely that development partners will be more favorably inclined if Samoa continues to take additional reform and resource-mobilization efforts. There is arguably some potential for cost recovery, which at 0.08 percent of expenditure is currently quite low. However, this should only be considered if there is sound evidence that cost sharing will lead to significant revenues without detrimental impacts on access, equity, and financial protection.

The paper **also concludes that social health insurance (SHI), and other forms of formal insurance, are useful options for the longer term, but their implementation is premature at this stage,** given the formidable technical and managerial challenges of introducing such schemes in Samoa at present. Additionally, there are arguably higher, quicker, and more feasible gains to be made by improving efficiencies with the resources already in the health system.

The paper also concludes there is only **limited capacity to see additional financing directly from government over the longer term**, given that health is now the second-largest item in the government's budget and is expected to absorb 16 percent of government expenditure in 2011/12. The paper argues strongly against deficit financing at the national level to raise additional financing for the health sector.

Section 6 suggests **possible next steps**, including government's consideration of options with key stakeholders, including the private sector and development partners.

## SECTION 1: BACKGROUND AND CONTEXT

1.1 **Samoa has achieved some solid economic results, but remains vulnerable to external economic shocks.** The July 2010 IMF Article IV consultation notes:

Real per-capita income growth since the mid-1990s has been significantly higher than for most comparator countries. Prudent fiscal and monetary policies and structural reforms underpinned this performance.... Samoa's external position remained comfortable ... as remittances and tourism receipts, Samoa's main foreign exchange earners, continued to grow. Official reserves remained stable, well above the central bank's target ... Samoa has low risk of debt distress (IMF 2010).

1.2 The IMF Article IV consultation further finds that real GDP growth was projected to return to 3 percent in 2010/11, and continue to the period 2016–30, after falling from a high of 7 percent in 2004/05 to -4.9 percent in 2008/09 as a result of the September 2009 tsunami. The IMF Article IV consultations estimated GDP per capita at US\$2,967 in 2009/10. This is similar to the World Bank estimate of US\$ 2,980 for 2010 (World Bank 2012a).

1.3 However, the consultations note that Samoa is vulnerable to external shocks. The September 2009 tsunami caused physical damage estimated at 10 percent of GDP, led to a fiscal deficit of 10 percent in 2009/10, and is projected to continue at 7 percent for the following three years before returning to less than 3 percent of GDP thereafter. Samoa also remains vulnerable to global economic downturns, including reductions in tourism numbers.

1.4 The latest budget outlook confirms the prospects for modest growth and vulnerability to external shocks. The 2012/13 Budget Address by the Minister for Finance in Samoa in May 2012 notes that after two consecutive years of contraction, GDP grew by 2.0 percent in 2010/11, largely the result of fiscal stimulus and monetary easing as well as post-tsunami reconstruction. GDP growth however, slowed considerably in the last quarter of 2011 and is expected to remain subdued until the second quarter of 2012. It is forecasted that GDP will grow by about 1 percent in 2011/12. In summary, “The continued uncertainty and possible slowdown expected in the medium term, provides a challenging situation for the government in its efforts to achieve its longer-term macroeconomic targets stated in the 2012–16 Samoa Development Strategy” (Government of Samoa 2012).

1.5 **Samoa has also already achieved some substantial health outcomes.** Life expectancy at birth was 71.5 years for males, and 74 for females (latest figures available) (Samoa Bureau of Statistics 2012). The December 2010 Health Forum concluded that Samoa is on track, or has already achieved, internationally agreed targets for infant and under-five mortality (Millennium Development Goal [MDG] 4), maternal mortality and skilled birth attendance (MDG 5), and HIV prevalence and TB treatment (MDG 6).<sup>1</sup> The

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1. Details about the Millennium Development Goals are available at <http://www.un.org/millenniumgoals/>.



government states that the infant mortality rate has fallen from 37 per 1,000 live births in 1981 to 25 in 1991 and 17 in 2001; that the under-five mortality rate was 13.7 per 1000 live births in 2002; and that the maternal mortality ratio was 19.6 per 100,000 live births in 2002 (Government of Samoa, Ministry of Finance 2008). The Ministry of Health advises there is virtually no difference<sup>2</sup> in the infant mortality rate between males and females (Government of Samoa, Ministry of Health, *Annual Report 2006/7*).

**1.6 Samoa has also achieved some substantial health outputs and service coverage levels that are known to be important for sound public health.** The 2009 Demographic and Health Survey (DHS) found that over 90 percent of women in Samoa had at least one antenatal care (ANC) visit, and 60 percent had all four recommended ANC visits. (However, it is of some concern that only 13 percent of those seeking ANC do so in the important first trimester). Additionally, over 80 percent of women delivered their babies in a health facility. Initial vaccination rates for infants are relatively good: over three-quarters of infants received BCG injections and their first injection against polio and DPT. Only 15 percent of infants had no immunization at all. (However, rates of follow-up vaccinations are less encouraging: only about one-third of children completed the courses for measles, polio, and DPT, and only 25 percent of children — one in four — were fully immunized) (Government of Samoa, Ministry of Health 2010a).

**1.7 Samoa's health outcome and health output levels are generally good compared to other lower-middle-income countries.** Comparisons between Samoa — a unique Pacific Island country with a population of 184,000 in 2010 — and other lower-middle-income countries, many of which are in Africa, can be misleading. However, some very broad benchmarking against its peers places Samoa's achievements in some context. Using a somewhat different data set from government of Samoa statistics,<sup>3</sup> but one that is still generally comparable across countries, The World Health Organization (WHO) estimates show that Samoa has achieved higher health outcomes and outputs than other lower-middle-income countries on a range of indicators, especially infant, child, and maternal mortality, births attended by skilled health personnel, and access to sanitation. This is summarized in table 1.1 below. It is evident that Samoa is closer to, or performing less well than, its peers on other criteria, including physicians per population and the total fertility rate.

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2. Reported as 19.5/1,000 live births for males and 19/1,000 for females.

3. For example, the latest government of Samoa statistics estimate the life expectancy at birth in Samoa is 71.5 years for males and 74 years for females (Government of Samoa, Ministry of Health Annual Report 2009/10) However the latest statistics from WHO estimate the life expectancy at birth was 68 years for males and 72 years for females in 2009.

**Table 1.1 Selected Health Outcome and Output Indicators**

Indicator	Samoa	Other Lower-middle-income countries
<b><i>Selected health outcomes</i></b>		
Life expectancy at birth (2009, both sexes)	70 years	68 years
Infant mortality rate (both sexes) in 2009	21/1,000	42/1,000
Under-five mortality rate (both sexes) in 2009	25/1,000	57/1,000
Maternal mortality ratio	58/100,000 live births in 2012	180/100,000 (94–300/100,000 range; WHO interagency estimates)
Total fertility rate (per woman, 2009)	3.9	2.5
<b><i>Selected health-service coverage and factors conducive to good public health</i></b>		
Births attended by skilled health personnel (% , 2000–10)	81	64
Population using improved sanitation (% , 2009)	100	49
Physicians (per 10,000 population, 2000–10)	2.7 <sup>4</sup>	10.0
Nursing and midwifery personnel (per 10,000 population, 2000–10)	9.4	14.0
Adult literacy rate (% , 2000–10)	99	81
Female net primary school enrolment rate (% , 2000–10)	93	83

Source: WHO, *World Health Statistics* 2011.

4. Government of Samoa, Ministry of Health advised in May 2012 that it had 87 registered doctors in Samoa in 2012, 60 of whom worked in the public sector and 27 in the private sector. With a total population of 184,000 in Samoa, 87 registered doctors implies 4.7 doctors per 10,000.

1.8 Other indicators would suggest that the **health system in Samoa is performing relatively well in terms of other, broader criteria.** The low level of out-of-pocket expenditure implies that financial protection for health expenditure is generally satisfactory. There is some evidence to suggest that capacity utilization of the main hospitals in Apia is also generally satisfactory: occupancy rates range from 72 percent for postnatal care to 95 percent for other acute cases, although utilization rates at rural health facilities in Upolu and Savaii are much lower<sup>5</sup> (Government of Samoa 2009). Average length of stay at the main hospital in Apia ranges from 1.6 days for postnatal to 7.8 days for the high-dependency ward. The evidence on the quality of services provided, responsiveness to need, and infection control is harder to obtain.

1.9 **However Samoa also faces some important health challenges, including the rise of noncommunicable diseases.** To its credit, the government of Samoa explicitly recognizes this challenge in its own overarching, *Strategy for the Development of Samoa*. That high-level, forward-looking strategic vision states:

Noncommunicable diseases (NCDs) are increasing causes of ill health and leading causes of death, with injuries and wounds. Over the past two decades there have been almost epidemic rises in coronary heart disease, stroke, high blood pressure, and maturity onset diabetes, along with gallstones, digestive disorders, and joint problems. This is linked to changing diets, increased use of tobacco and alcohol, and limited public understanding of associated health risks. The prevalence of diabetes increased from 9.8 percent in 1987 to 23.0 percent in 2001. Obesity rates have grown dramatically from 25.5 percent in 1978 to 50.3 percent in 1991 and 67.5 percent in 2001, among the highest rates in the world. Among adolescents there is a high suicide rate; a low but rising number of teenage pregnancies; and growing use of marijuana, tobacco, and alcohol (Government of Samoa, Ministry of Finance 2008).

1.10 The WHO comes to a strikingly similar conclusion. In its country health information profile, it confirms that NCDs “including obesity, diabetes, heart disease, high blood pressure, stroke, and cancer are a top health priority, with high and increasing prevalence rates: the obesity rate is currently 57.0 percent, the diabetes rate is 23.1 percent, and high blood pressure rate is 21.4 percent .... The four main risk factors are smoking (tobacco), poor nutrition, excessive alcohol consumption, and physical inactivity (SNAP)” (WHO *Country Health Information Profile for Samoa 2009*).

1.11 **Samoa is not alone in confronting a pronounced rise in NCDs.** In a major new report (WHO 2011b), WHO concludes that NCDs are the leading cause of death globally, killing more people each year than all other causes combined. Almost two-thirds of global deaths in 2008 (latest year then available) were due to NCDs, especially cardiovascular diseases, cancers, diabetes, and chronic lung diseases. WHO makes the important point that “the combined burden of these diseases is rising fastest among

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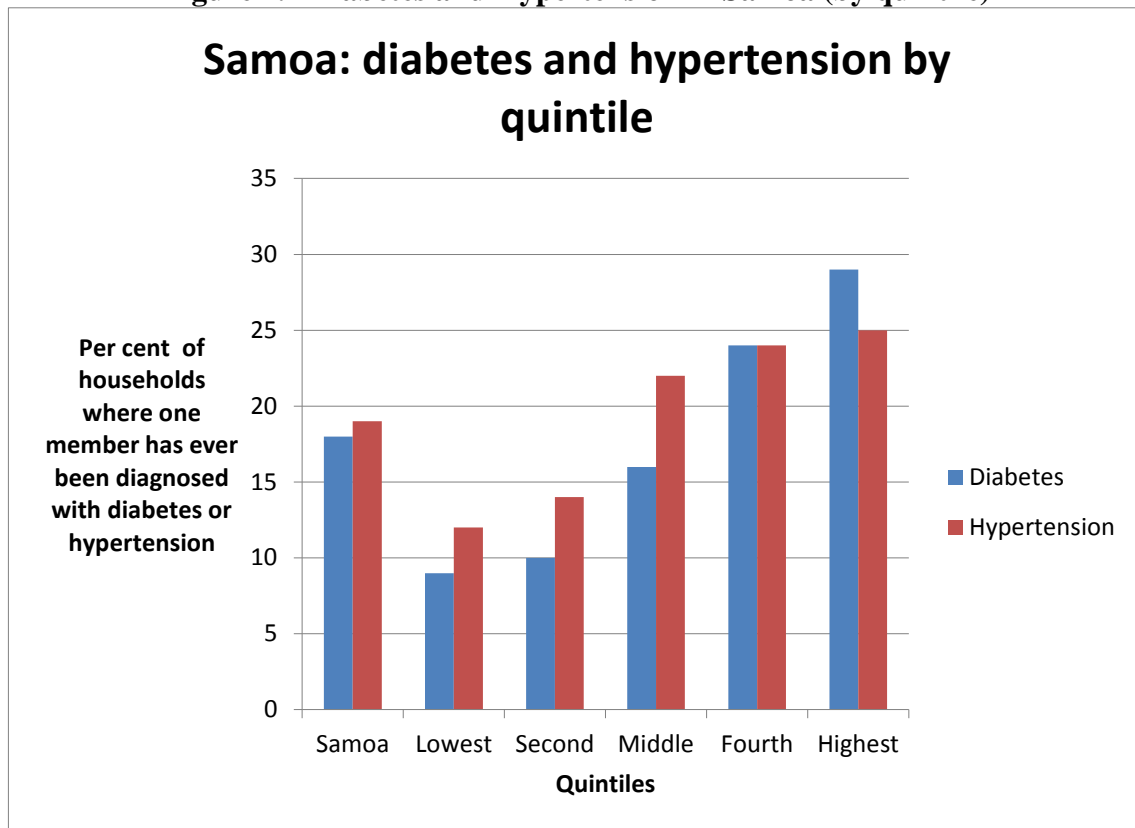
5. Table 7.1 from NHS for 2007/08 (latest year available). Upolu Rural Health Facility has occupancy rates ranging from 1 to 33 percent. Savaii Island has occupancy rates ranging from 213 percent in Maleitua Tanumafili II Hospital to 30 percent for other hospitals.

lower-income countries, populations, and communities, where they impose large, avoidable costs in human, social, and economic terms.... Contrary to popular opinion, available data demonstrate that nearly 80 percent of NCD deaths occur in low- and middle-income countries” (2011b).

**1.12 NCDs impose important economic costs on households and society.** In addition to their impact on health, NCDs undermine economic growth. A recent report in *The Lancet* notes that “for every 10 percent rise in mortality from NCDs, the yearly economic growth is estimated to be reduced by 0.5 percent. On the basis of this evidence, the World Economic Forum now ranks NCDs as one of the top global threats to economic development” (Beaglehole et al. 2011). WHO notes that people with diabetes require at least two to three times as many health care resources as people who do not have diabetes, and diabetes care may account for up to 15 percent of national health care budgets. In addition, people with diabetes have a 2-3 times higher risk of tuberculosis compared to people without diabetes (WHO 2011). In a separate study reported in *The Lancet*, researchers found that the cost of diabetes care per patient in Cameroon was US\$489 per year in 2002, exceeding the annual per-head income by 1.5 times, and exceeding the per-head governmental health spending by about 50 times (Allotey et al. 2011).

**1.13 Some prevalent and important NCDs appear to have a pronounced socioeconomic gradient in Samoa, disproportionately affecting the wealthier.** As shown in figure 1.1 below, the reported level of diabetes among the richest quintile in Samoa is, according to the DHS 2009 (Government of Samoa 2010), just over three times that found in the poorest quintile: 29 percent compared to 9 percent. The reported level of hypertension in the richest quintile is also just over twice that of the poorest quintile: 25 percent compared to 12 percent. It is not clear whether this apparent dominance among wealthier Samoans reflects true underlying behavior and lifestyle factors, or whether poorer Samoans simply remain undiagnosed and are therefore underrepresented in the statistics. This is, in itself an important area for future study. What is clear, however, is that this pronounced socioeconomic gradient of diagnosed NCDs has some important implications for public financing in Samoa, and not just in public health. More specifically, to the extent that wealthier quintiles in Samoa with these diagnosed NCDs use “free” public health services treating NCDs, public expenditure becomes pro-rich rather than pro-poor. This is an important point of public policy in Samoa where, at the national level, the richest 10 percent of households earned 31 percent of total income, while the poorest 10 percent earned 1.8 percent of income (Government of Samoa, Ministry of Finance 2008).

**Figure 1.1 Diabetes and Hypertension in Samoa (by quintile)**



Source: Samoa DHS 2009.

**1.14 The challenges of NCDs should not eclipse the ongoing and important issues with respect to communicable diseases and family planning in Samoa.** As noted in paragraphs 1.5 and 1.6 above, Samoa has a good overall record with respect to primary-level care, but there are some important gaps that need to be addressed. Approximately only 25 percent of children are fully immunized, and only 13 percent of women obtaining ANC do so in the important first trimester. Furthermore, almost half (46 percent) of currently married Samoan women have an unmet need for family planning (Government of Samoa, Ministry of Health 2010a). Some reports suggest high rates of sexually transmitted infections (STIs): possibly 40.7 percent of 300 antenatal women under age 25 had chlamydia (Enoka 2011). The December 2010 Annual Health Forum found insufficient progress with respect to the proportion of one-year olds immunized against measles (MDG 4). The Annual Health Forum also found that contraceptive prevalence rate is low; there are unmet needs for family planning; and adolescent birthrates have increased since 1990 (MDG 5). There is also a high prevalence of STIs, and condom use at last high-risk sex is relatively low (MDG 6).

## SECTION 2: STRUCTURE OF THE HEALTH SYSTEM

2.1 **Publicly funded — and provided — services dominate the health system in Samoa.** The Ministry of Health (MOH) is responsible for regulatory oversight, policy, and priority setting. MOH has recently produced a wide range of policy position papers and facilitated legislation on a range of health-related issues.<sup>6</sup> The Health Sector Plan 2008–2018 provides a well-articulated vision of future directions in health, including a set of six key strategies.<sup>7</sup> The Health Sector Plan has four explicit strategic objectives for health financing.<sup>8</sup> The plan also provides a clear output-focused performance framework that is, along with the involvement of other ministries, now being elevated to a health *outcomes* focus, with key indicators explicitly listed in the nation’s next national plan. (Government of Samoa Ministry of Health 2008)

2.2 The government-owned National Health Service (NHS) is the publicly funded provider of preventive and clinical services. It manages the national referral hospital in the capital, Apia, as well as seven district hospitals and several smaller clinics throughout the two main islands of the country. Of the SAT 54 million provided to the NHS in 2010, SAT 25 million (46 percent) was allocated to personnel costs, including health professionals; SAT 16 million (30 percent) went to operating costs (National Health Services 2010). The main hospital in Samoa (Tupua Tamasese Meaole Hospital, commonly referred to as TTM) absorbed at least SAT 10.7 million (20 percent) of the NHS budget in 2010, excluding costs for the pharmacy and laboratory services provided at the hospital.<sup>9</sup> Influenza and pneumonia are the main cause of hospital admissions. The Overseas Treatment scheme (OVT), whereby eligible patients are treated in New Zealand, is a significant part of the overall health system (discussed in more detail in paragraphs 3.21 to 3.24 below).

2.3 Nurses and midwives make up two-thirds of the Samoan health workforce. Over 90 percent of the 316 registered nurses, midwives, and student nurses work in the public sector. Over half (53 percent) of registered nurses are now age 40 or older, with approximately 20 registered nurses expected to retire in 2010 and each year thereafter. Workforce planning to replace retirees, and some loss of younger nurses to New Zealand and Australia, is therefore a priority issue. Shortage of midwives is a particular workforce challenge (Government of Samoa, Ministry of Health 2010c). There were 87 registered

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6. Recent legislation that came into effect includes the Tobacco Control Act, the Mental Health Act, Nurses and Midwives Act, Health Care Professions Registrations and Standards Act, Pharmacy Act, Dental Practitioners Act, and the Medical Practitioners Act.

7. The six key strategies are to strengthen health promotion and primordial prevention; enhance quality health care–service delivery, including management of infectious diseases; strengthen governance, human resources, and health systems in the sector; partnership commitment; financing health services; and donor harmonization.

8. “Improve equitable allocation of resources; strengthen financial management systems, including procurement; long-term financial health plan; develop financial sector policies.”

9. The NHS financial statements reveal that there were SAT 6.6 million personnel costs for TTM; SAT 3.87 million for operating costs for TTM; and SAT 282,000 for capital costs. However this does not include the “laboratory” or the “pharmacy” line items in the NHS financial statements.

doctors in Samoa in 2012, 60 working in the public sector, and the rest in the small private sector. Most doctors in Samoa have studied in Australia, at the Fiji School of Medicine, or in New Zealand. The relatively new Oceania University of Medicine in Apia now trains doctors.

2.4 There is a small private health sector, with one private hospital (Medcen Hospital), fourteen private medical clinics, and four private pharmacies, mainly concentrated in Apia and focusing on curative interventions. Some modest — and apparently successful — public-private partnerships have produced diabetes clinics in Apia. Private insurance is negligible (see paragraph 3.9 below).

2.5 Samoa has a strong, active, well-resourced network of churches throughout the country, which provide deep and wide outreach and support to families and communities. The Catholic Church supports the Mapuifagalele Old People's Home; the Seventh Day Adventists promote healthy lifestyles; and the church-supported Fiaola Crisis Centre provides counseling for young people, including suicide prevention. However, unlike Papua New Guinea, where churches deliver up to half of the nation's health services, sometimes on a contractual basis with government or development partners; churches play a surprisingly peripheral and marginal role in health care in Samoa. Civic support for health care is also provided by women's committees, especially at the village level.

## SECTION 3: HEALTH FINANCING AND HEALTH SYSTEMS IN SAMOA

3.1 At the outset, it is worth recalling the importance — but also the limitations — of analyzing health financing. On the one hand, health financing is important: how much money is raised for health, by whom, from whom, for whom, and for what are all issues that affect not just health outcomes, but broader economic aspects at the household and macroeconomic levels. On the other hand, health financing is clearly not the only determinant of health outcomes. Other factors outside the health system and health financing per se are also important, including genetics, hygiene practices, lifestyle decisions, culture, food security, girls' education, vulnerability to natural disasters, and environmental factors such as availability of water and sanitation. The quantity and quality of health financing are therefore necessary but not sufficient parts of improving and sustaining good health outcomes.

3.2 Against that background, the following tables and figures show several distinctive aspects of health financing in Samoa. Table 1.2 provides an overall picture of expenditure trends using the currently available National Health Accounts (NHAs), which end in 2009. Table 1.3 uses latest government of Samoa budget documents to highlight the main sources and uses of funds. (Not all items are displayed so the subtotals do not necessarily sum to 100 percent).

**Table 1.2 Selected Health Expenditures (Current Prices) and Ratios for 1995, 2000, and 2004–09 (latest years available using NHAs)**

	1995	2000	2004	2005	2006	2007	2008	2009
Total expenditure on health (THE), SAT millions	25	43	55	65	78	87	85	101
General government expenditure on health, SAT millions	17	30	45	54	67	74	72	88
General government expenditure on health as % of THE	70.4	70.9	81.4	83.3	85.8	85.3	84.7	87.3
Total expenditure on health as % of GDP	5.0	5.6	5.2	5.5	6.2	6.1	5.9	7.0
Total expenditure on health per capita in PPP terms	107	149	186	224	260	277	264	312
General government expenditure on health per capita in PPP terms	75	106	151	187	223	237	224	273

*Source:* Samoa NHAs 2002/3; 2004/5; 2006/7; 2008/9.



**Table 1.3 Main Sources and Direction of Public Expenditure on Health 2008/09 to 2011/12, Nominal**

Item	2011/12 (SAT millions)	2010/11 (SAT millions)	2009/10 (SAT millions)	2008/09 (SAT millions)
Total government resources for health	110.6 <sup>10</sup>	107.8	79.9	81.0
Of which, coming from:				
• Government-appropriated expenditure	69.0	64.8	58.9	70.0
• Donor cash funded/foreign capital project grants	17.8	16.8	19.9	10.5
• Foreign loans	23.7	26.1	1.0	0.5
And then directed to Ministry of Health of which (descending order by amount):	69.06	64.89	58.90	70.06
• Samoa National Health Service	57.6	54.1	48.9	58.4
• Ministry of Health outputs	5.5	5.3	4.6	4.6
• Samoa National Kidney Foundation	4.9	4.5	4.3	5.3

*Source:* Approved estimates of receipts and payments of the government of Samoa for the financial years ending June 30, 2009/10; 2010/11; 2011/12 (Government of Samoa 2011).

3.3 The first distinctive feature shown in table 1.2 is that **total health expenditure (THE) is relatively high in Samoa**. Using Samoa NHA figures, table 1.2 shows THE at SAT 101 million (US\$42.6 million) in 2009 (latest year available). At SAT 205 per capita (US\$86.5 at market exchange rates, or International \$312 per capita in purchasing power parity [PPP]<sup>11</sup> terms), this is much higher than the US\$38 per capita minimum total expenditure estimated by the WHO Commission on Macroeconomics and Health needed to fund essential health interventions in low-income countries in 2015 (WHO Commission on Macroeconomics and Health 2001). It is also higher than the recommended US\$54 per capita to fund a basic package of essential health services in low-income countries, developed recently for the G8 Leaders Summit by the High-Level Taskforce on Innovative Health Financing (Taskforce on Innovative Health Financing for Health Systems 2009). Table 1.2 also shows these relatively high figures have occurred over time and do not simply reflect any lumpy, one-off expenditures. Like many other Pacific Island countries, the relatively high absolute expenditures per capita do, however,

10. If SAT 3.2 million “in kind donor assistance” is included, this rises to SAT 113.9 million.

11. PPP stands for purchasing power parity. In essence, PPP approaches seek to avoid distortions caused by market fluctuations in exchange rates. PPP approaches recognize that actual costs in one country may well be lower than in another, so that the actual purchasing power of local currency may be higher than might otherwise seem to be the case. PPP uses a notional “international dollar” to distinguish it from US\$.

reflect a combination of comparatively small populations, limited opportunities for economies of scale, and relatively high levels of government expenditure on health.

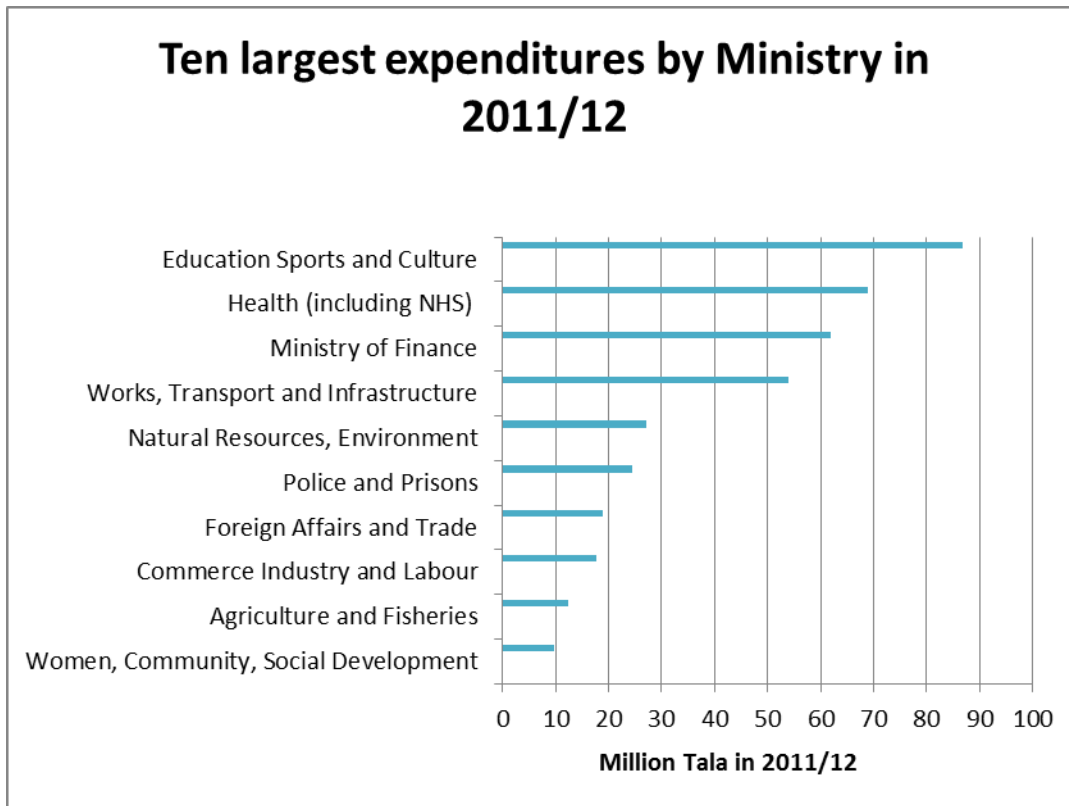
3.4 A second distinctive feature of health financing in Samoa is that **government has clearly given priority to health (and education)**: absolute and relative levels of expenditure on health are quite high compared to other government expenditures. Government's own appropriations for health — and excluding any external loans or grants — were SAT 69,064,202 in 2011/12. This represents 16.02 percent<sup>12</sup> of total government appropriations for the 2011/12 financial year, and is not a one-off aberration. Health received 14 percent of total government expenditure in 2006/07 (latest year for full NHAs) and 15 percent since then, including 17 percent in 2008/09. Sustaining 15 percent or more of total government appropriations to health over many years is noteworthy given that the Abuja Declaration, signed by 53 heads of state in Africa, sets 15 percent as the benchmark government expenditure for health (WHO 2011a).

3.5 The government's clear political commitment to the health (and education) of its people is further illustrated by the overall ranking given to health in the national budget. As shown in figure 1.2 below, the Ministry of Health was the second-largest appropriation item in Samoa in 2011/12, after the Ministry of Education and Culture (Government of Samoa 2011). The health sector is also the third-largest item in the government's *overall development* budget, including external grants and loans to the country after the Ministry of Finance and the Ministry of Education. Total financing to health at SAT 113 million in 2011/12 (SAT 69 million government appropriations plus SAT 44 million loans and grants) is even larger than resources available to the Ministry of Works, Transport and Infrastructure (SAT 109 million).

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12. Actual expenditure, as distinct from approved estimates, gives a figure of 14.8 percent to health as a percentage of total government payments in 2010/11, or SAT 64.88 million going to health out of a total expenditure of SAT 437.8 million (Government of Samoa 2011).

**Figure 1.2 Largest Expenditures by Ministry**



Source: Government of Samoa 2011.

**3.6 Government expenditures on health are also relatively high compared to other lower-middle-income countries.** Latest available figures that enable comparisons with other countries come from *World Health Statistics 2011* and relate to 2008. Table 1.4 below shows that the share of government expenditure on health, as a percentage of THE, was double that of other lower-middle-income countries in 2008. It was also noticeably higher as a share of total government expenditure (14.9 percent in Samoa, compared to 7.8 percent in other lower-middle-income countries) in that year. Per capita government expenditure on health is between 2.5 and 3.3 times higher in Samoa than it is in other lower-middle-income countries, depending upon whether current market exchange rates or PPP<sup>13</sup> approaches are used. However, comparing Samoa's expenditure to other lower-middle-income countries should be approached with some caution: unit costs will be very different in a relatively small Pacific Island country with thin population coverage in outer islands.<sup>14</sup> Further, what really matters is where the money is spent, and how effectively. Nevertheless, these broad indicators do give a broad sense that health expenditure in Samoa is relatively well supported compared to other countries of similar per capita income.

13. See footnote 11 for a definition of PPP.

14. The impact of small, remote, and dispersed economies — typical in the Pacific — on unit costs for health care would be a useful subject for further research and analysis.

**Table 1.4 Selected Health Financing Indicators for Samoa and Other Lower-Middle-Income Countries, 2008**

Indicator	Samoa	Other lower-middle-income countries
Total health expenditure as % of GDP (2008)	5.9	4.3
General government expenditure on health as % of total health expenditure	84.7	45.4
General government expenditure on health as % of total government expenditure	14.9	7.8
External resources for health as % of total expenditure on health	7.1 <sup>15</sup>	1.0
Private expenditure on health as % of total expenditure on health	15.3	54.6
Out-of-pocket expenditure as % of private expenditure on health	62.9	82.7
Per capita total expenditure on health (PPP, \$)	264	197
Per capita government expenditure on health (average exchange rate, US\$)	152	45
Per capita government expenditure on health (PPP, \$)	224	88

Source: WHO 2011b.

3.7 Samoa is also spending comparable amounts on health as other Pacific Island countries. As table 1.5 below shows, Samoa is around the median for other Pacific Island countries in terms of total health expenditure per capita, and for the share of government expenditure going to health.

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15. See paragraph 3.12 for an update.

**Table 1.5 Selected Health Statistics: Samoa and other Pacific Islands**

Country	Total health expenditure per capita (US\$, 2008)	Total health expenditure per capita PPP) <sup>16</sup>	Total health expenditure (as % of GDP, 2008)	Government health expenditure (as % of total government expenditure, 2008)
Cook Islands	442	361	4.4	11.7
Fiji	154	168	3.5	10.2
Kiribati	171	304	12.5	16.8
Marshall Islands	351	251	14.0	14.6
Micronesia (Federated States)	306	408	13.3	18.9
Nauru	653	440	14.0	18.5
Niue	1,348	2,360	13.5	12.6
Palau	961	991	10.8	16.6
Papua New Guinea	39	70	3.2	7.4
Samoa	<b>179</b>	<b>264</b>	<b>5.9</b>	<b>14.9</b>
Solomon Islands	68	139	5.3	14.4
Tonga	140	194	5.0	14.2
Tuvalu	291	266	9.7	8.0
Vanuatu	104	170	3.9	14.3
Median	235	265	7.8	13.1

Source: WHO 2011b.

3.8 Of course, **care should be taken in drawing conclusions from these cross-country comparisons.** What a government “needs” to spend on health is a complex question, and depends primarily on local needs and resources (Savedoff 2007). Comparing Samoa with other lower-middle-income countries, many of which are larger countries in Africa with different health and economic challenges, also has limitations. Furthermore, Pacific Island countries face particular challenges in terms of cost structures that make health services expensive, including transportation costs to remote and thinly populated outer islands. Relatively small economies also mean that “lumpy” expenditures, such as construction of a hospital, can make a noticeable impact on year-by-year expenditures. Nevertheless, to the extent that the international community believes there should be “more money for health,” especially in low- and lower-middle-

16. See footnote 11 for an explanation of PPPs.

income countries, Samoa is spending reasonable amounts on health care. What then becomes important is whether such expenditure is sustainable over time, and if it is achieving intended outputs, outcomes, and impact (see section 4).

3.9 A third distinctive feature of Samoa’s health financing is that **the share of total health expenditure from private expenditure is low**. As shown in table 1.4, an estimated 15 percent of total health expenditure comes from the private sector in Samoa compared to 54.6 percent in the comparator lower-middle-income group. Of the relatively little that is spent privately on health in Samoa, a smaller percentage (62.9 percent) is actually “out-of-pocket” than is the average for other lower-middle-income countries.

3.10 Indeed, it would appear that **generous government subsidies, combined with almost “free” public health care, have protected virtually all citizens from “catastrophic”<sup>17</sup> out-of-pocket health care expenditure**. Some research, however, is required to confirm the underlying situation. While it does appear to be the case that few people, if any, are pushed or kept below the poverty line because of out-of-pocket health expenditures, it is also conceivable that poorer and marginalized people simply refrain from spending money on essential health care, and so die prematurely. For example, some in the lower quintiles may not be able to afford the cost of airfare to New Zealand, withdraw from seeking overseas treatment for NCDs, and die prematurely. There is not sufficient evidence to make an informed judgment. A useful research study would examine levels of self-reported health status, and determine if those who believe they are ill are deterred from seeking care as a result of any significant direct or indirect out-of-pocket expenditure.

3.11 Clearly, a balance must be found here. On the one hand, no individual should be pushed or kept below the poverty line, or made bankrupt, by paying for essential health care, although that is the case in several developing countries of Asia and, arguably, the United States. Financial protection is now widely recognized to be an intrinsic objective of a health system, at par with the objective of improving health outcomes. On the other hand, achieving decent health outcomes, while simultaneously providing financial protection, does have to be affordable within the available fiscal and resource envelope. (See discussion in paragraphs 4.28 to 4.40 below.)

3.12 Conversely, while private expenditure is relatively low, the **share of total health expenditure from external sources — multilateral and bilateral development partners — is high, especially in recent years**. This is a fourth distinctive feature of health financing in Samoa. Table 1.6 and figure 1.3 below show that of the total SAT 110.6 million available to the Ministry of Health in 2011/12, SAT 69 million (62.4 percent) was provided through government of Samoa appropriations, and SAT 41.5 million (37.6 percent) through overseas development partners. External resourcing to the health sector constitutes a higher share than in 2008, as figures in table 1.5 show,

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17. Generally defined as out-of-pocket health expenditure between 5 and 20 percent, but as high as 40 percent, of a household’s capacity to pay. Capacity to pay is, in turn, defined as the effective household income remaining after basic subsistence needs are met (Xu et al. 2003).

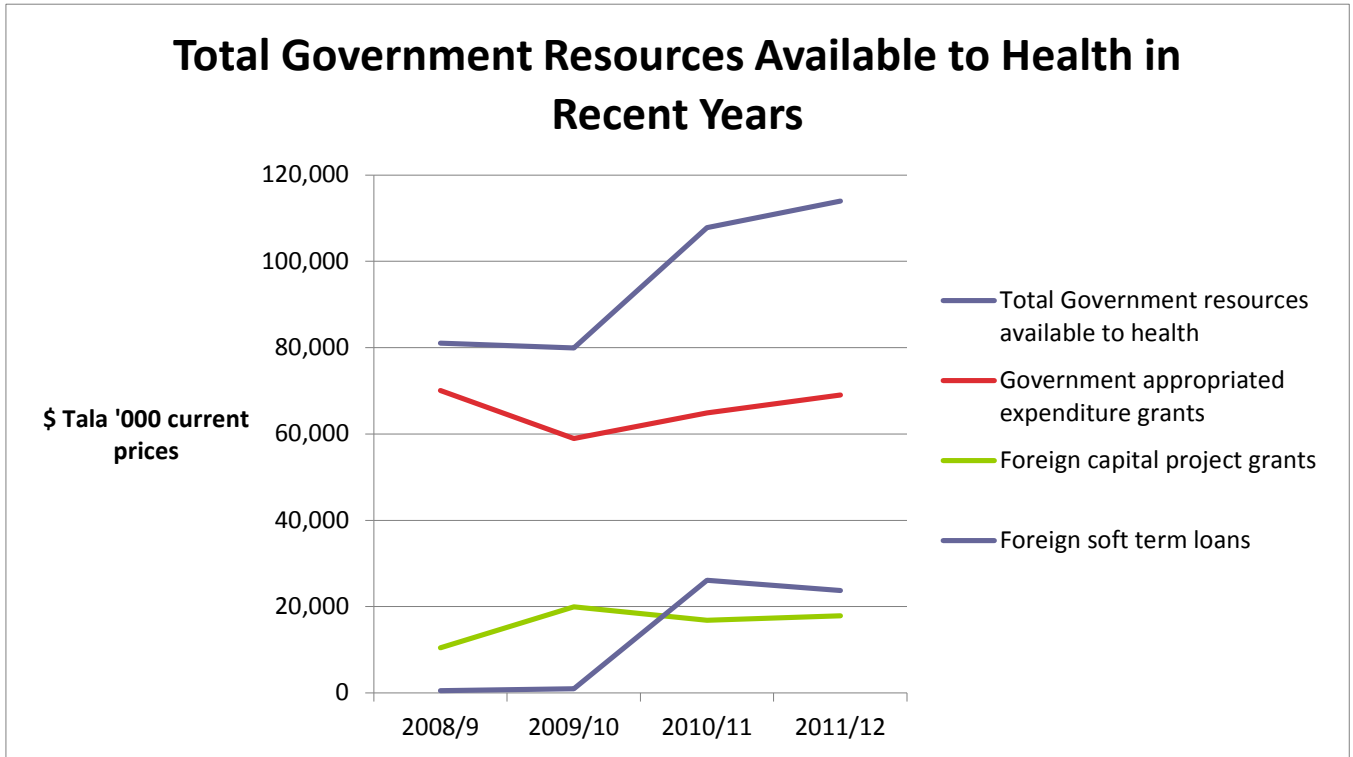
reflecting the more recent increases in external sources. This includes the recent large and “lumpy” loans from China to build the new hospital and MOH headquarters in Apia.

**Table 1.6 Domestic and External Sources of Financing for Health 2011/12**

Item	Total SAT '000	Share of total resources available to health (%)
Government of Samoa appropriation	69,064	62.4
Donor cash funded, of which largest component is SAT 14 million provided to the Health Sector Program by Australia and New Zealand	17,860	16.1
Loan funded, of which largest component is SAT 20.3 million provided to the National Medical Centre and Ministry of Health HQ by government of China, and SAT 3.4 million provided to the Health Sector Program Phase 11 by the World Bank (IDA).	23,760	21.5
Total available to the health sector	110,625	100.0

Source: Government of Samoa 2011.

**Figure 1.3 Total Government Resources Available to Health in Recent Years, Showing Government Appropriations, Bilateral Grant Funding, and Soft Loans**



Source: Government of Samoa 2011.

3.13 Figure 1.3 above suggests that external financing has not strongly substituted for government’s own expenditure efforts on health. Rather, external financing has tended to be supplemental to government resourcing. This is in contrast to the situation in some other Pacific Island, and other, countries where external financing has sometimes substituted for domestic financing effort.<sup>18</sup>

3.14 There are also some **distinctive features about external financing arrangements in Samoa**. Three (Australia, New Zealand, and the World Bank) of Samoa’s main bilateral and multilateral development partners work through, or in close collaboration with, a sectorwide approach<sup>19</sup> and have pooled funding, albeit not through

18. Generally referred to as “fungibility.” Money is “fungible” in the sense that it can be used for many purposes: health, education, agriculture, or even less developmentally worthwhile activities such as subsidies for national airlines, sports stadiums, and prestige projects.

19. SWAPs have many definitions but include concepts such as an agreed multiyear sector plan, ownership of the plan by the government (“government in the driving seat”), which provides leadership for collaborative partnerships with other stakeholders including bilateral and multilateral donors. There is also



government systems. Other stakeholders, including United Nations agencies, the Secretariat of the Pacific Community, and the WHO are “non-pool partners.” All stakeholders — “pool” and “non-pool” — state they work in ways that support Samoa’s own policy and programming reforms over the longer term. They also state they support Samoa’s Second Medium-Term Expenditure Framework (MTEF 2), which covers the period 2009/10 to 2013/14, and involves an estimated SAT 622 million over the five-year period: SAT 345 million (55 percent) for recurrent expenditure and SAT 260 million (41 percent) for development expenditure.<sup>20</sup> Reviews find that, unlike other parts of the Pacific, the government in Samoa was actively involved in the initial SWAP (sector wide approach) process, believing that “traditional projects had high transaction costs and that they had a distorting effect on priority setting and coherence of activities” (Negin 2010). This is important given more recent developments.

3.15 The **single most striking feature of current external financing** is that infrastructure financing by one donor — the People’s Republic of China (PRC) — now constitutes just over three-quarters of donor development expenditure. More specifically, PRC is providing SAT 159 million for the MOH headquarters building and the NHS main hospital, which is 76 percent of the total other donor development expenditure (SAT 208 million) over the period of MTEF 2 (Government of Samoa, Ministry of Health 2011). External loan funding for the hospital and MOH headquarters is the equivalent of 29 percent of the government’s total appropriations to health in 2011/12.<sup>21</sup> The creation of these two new buildings in Apia has substantial implications to the extent that development financing now directly addresses national health priorities, for it swings resource allocation toward infrastructure. The extent to which the possibly long tail of recurrent expenditure associated with these two new buildings (electricity, air conditioning, maintenance, and cleaning) has been factored into future budget planning is also unclear.

3.16 Against that background, it is important to assess current and future **health-financing challenges** in Samoa. One obvious challenge is government’s capacity to keep funding increases in health expenditure in a sustainable manner. Several factors are driving this. Government expenditure on health is already relatively high in per capita terms, and as a share of government budgets. As can be seen in figure 1.4 below, absolute levels of government expenditure have been rising. General government expenditure on health (including external financing) rose from SAT 30 million in 2000 to SAT 88 million in 2009 (latest year available under the National Health Accounts) and is estimated to be SAT 110.6 million in 2011/12. Government appropriations to health have more than doubled in nominal terms since the first NHAs were produced nearly ten years

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an expectation of more predictable, hopefully increased, and less volatile external financing, often pooled, and preferably financed “on budget” by the government. The movement to a more programmatic, sectoral approach, in contrast to a project enclave approach, is also expected to be accompanied by greater policy dialogue between government and development partners. Such approaches are designed to be more in keeping with the Paris Declaration on Aid Effectiveness and the Accra Agenda for Action.

20. The balance of SAT 15.4 million (2.4 percent) is a balancing item.

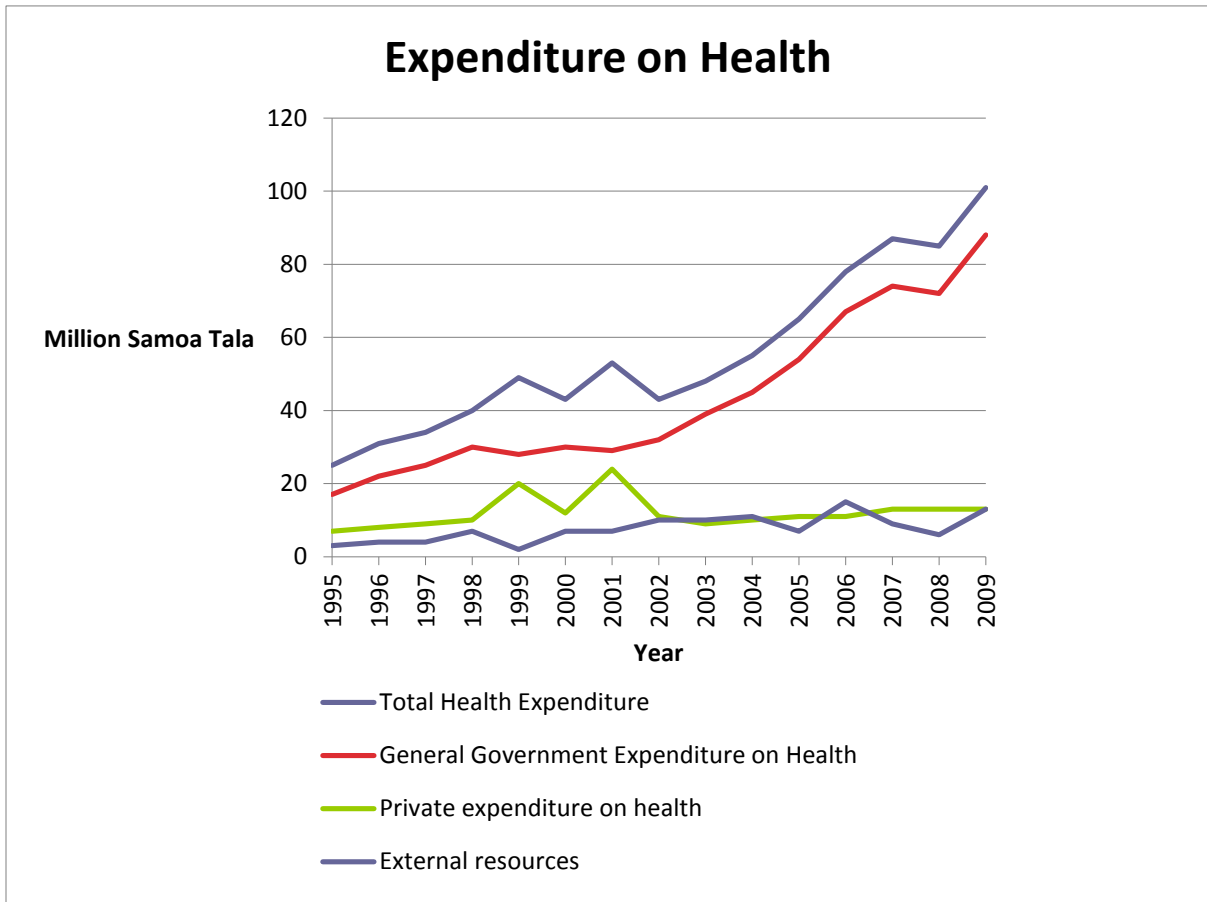
21. Page XIII of the budget statement for 2011/12 states that SAT 20.3 million is being provided for the National Medical Centre and MOH headquarters from the government of China. This is 29 percent of the SAT 69 million in government appropriations for 2011/12.

ago.<sup>22</sup> Long-term financial sustainability under current arrangements must be questionable when government expenditure on health in 2010/11 (SAT 64.8 million) is expected to exceed total Pay As You Earn (PAYE) income tax (SAT 46.8 million) and company income tax (SAT 9.59 million) *combined* by 15 percent (Government of Samoa, “Approved Estimates of Receipts and Payments for the Financial Year Ending 30 June, 2011,”(Government of Samoa 2011) p.vi ). Government expenditure on health is high, and rising, in relative terms too: table 1.2 shows that general government expenditure on health was 70.4 percent of total health expenditure in 1995. This had risen to 87.3 percent by 2009 (latest year available under the NHA).

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22. Government appropriations were SAT 30.5 million in 2002/03 and SAT 69 million in 2011/12.

**Figure 1.4 Expenditure on Health (SAT, millions, current prices)**



Source: Samoa NHAs: 2002/3; 2004/5; 2006/7; 2008/9 (Government of Samoa 2012).

3.17 Second, and related to the preceding point about long-term financial sustainability, **government receives negligible receipts and cost recovery** from the health sector. For reasons discussed in paragraph 4.29 onwards, cost recovery is a complex and sensitive issue. Among other things, it may be a financial barrier to accessing health care, and requires very careful targeting so that it is introduced for those who can afford to pay user fees. However, at this point it is worth noting that total receipts from all sources in the health sector in 2011/12 in Samoa are projected to be just SAT 60,600 (US\$25,000). This represents just 0.08 percent of the total SAT 69,064,202 (US\$28.4 million) government appropriations to the health sector in that year (Government of Samoa 2011). Cost recovery will never solve the challenge of sustainability. However, the government must decide if this small revenue effort — an estimated 0.08 percent of government expenditure — from the health sector is appropriate for a country with a GDP per capita of about US\$2,980.

3.18 Cost recovery from the National Kidney Foundation (NKF) is similarly small. Patient treatment fees totaled SAT 104,320 in the year to June 30, 2011. This represented

2.3 percent of NKF's annual expenditures. To put this in some perspective, the collection of treatment fees from patients covered just 6.0 percent of medical supplies used by NKF and 24.0 percent of the NKF's electricity bill for the year.

3.19 The third health-financing challenge is that **expenditure is still largely focused on inpatient curative care more than primary and secondary preventive care.** Table 1.7 below presents the main items of expenditure by function from the latest available National Health Accounts. It shows that inpatient curative care absorbed over one-quarter (26.4 percent) of total health expenditure in 2006/07 (latest year available). Per capita expenditure on total inpatient curative care, including overseas treatment, was over one hundred times more than per capita expenditure on prevention of NCDs, and almost eighty times what was spent per capita on maternal and child health and family planning. Even allowing that hospitals and clinics provide some health promotion and education, which is captured as inpatient care, it is clear that the focus is on curative care. Furthermore, per capita expenditure on traditional health care was more than seven times the amount spent on prevention of NCDs. And while allocating more resources to promotive and preventive care would appear to be a strategic investment, care should be taken to ensure that it is actually effective. Many countries have found that simply spending money on general advice about nutrition and exercise is ineffective and wasteful: the complex social determinants of health behavior also need to be addressed.

**Table 1.7 Allocation of Total Health Expenditure by Function, Selected Items, 2006/07 (latest year available)**

Function	Amount (SAT)	Total health expenditure (%)	Per capita (SAT)
Total inpatient curative care	20,769,519	26.4	114.91
Of which:			
• Inpatient curative care	13,360,769	17.0	73.92
• Inpatient curative (overseas)	7,408,750	9.4	40.99
General government administration of health	13,480,875	17.1	74.59
Basic outpatient medical and diagnostic services	8,424,424	10.7	46.61
Pharmaceuticals and other medical nondurables	8,061,703	10.2	44.60
Capital formation of health care providers	7,002,458	8.9	38.74
Traditional health care	2,237,664	2.8	12.38
Prevention of communicable diseases	5,400	0.0	0.03
Prevention of noncommunicable diseases	305,204	0.4	1.69
Maternal and child health, family planning, and counseling	260,843	0.3	1.44
All other expenditure items (including education and training of health personnel, research, outpatient dental care)	18,132,718	23.2	
<b>Total</b>	<b>78,680,808</b>	<b>100.0</b>	<b>435.30</b>

Source: Government of Samoa, Ministry of Health, Samoa National Health Accounts FY 2006/7, p. 20.

3.20 In one sense this heavy emphasis on inpatient curative care is certainly understandable. Households may not wish to spend money on prevention but will seek treatment when serious disability occurs. Government has also explicitly recognized (see paragraph 1.4 above) that the country is already in the midst of an epidemic of NCDs, and wishes to help its citizens by treating (although rarely curing) those most seriously affected. The proportion going to treatment is also consistent with levels found in developed countries. However the policy challenge facing the government is whether health resources achieve better health outcomes for more people and lower overall costs for governments, if more resources are shifted toward prevention.

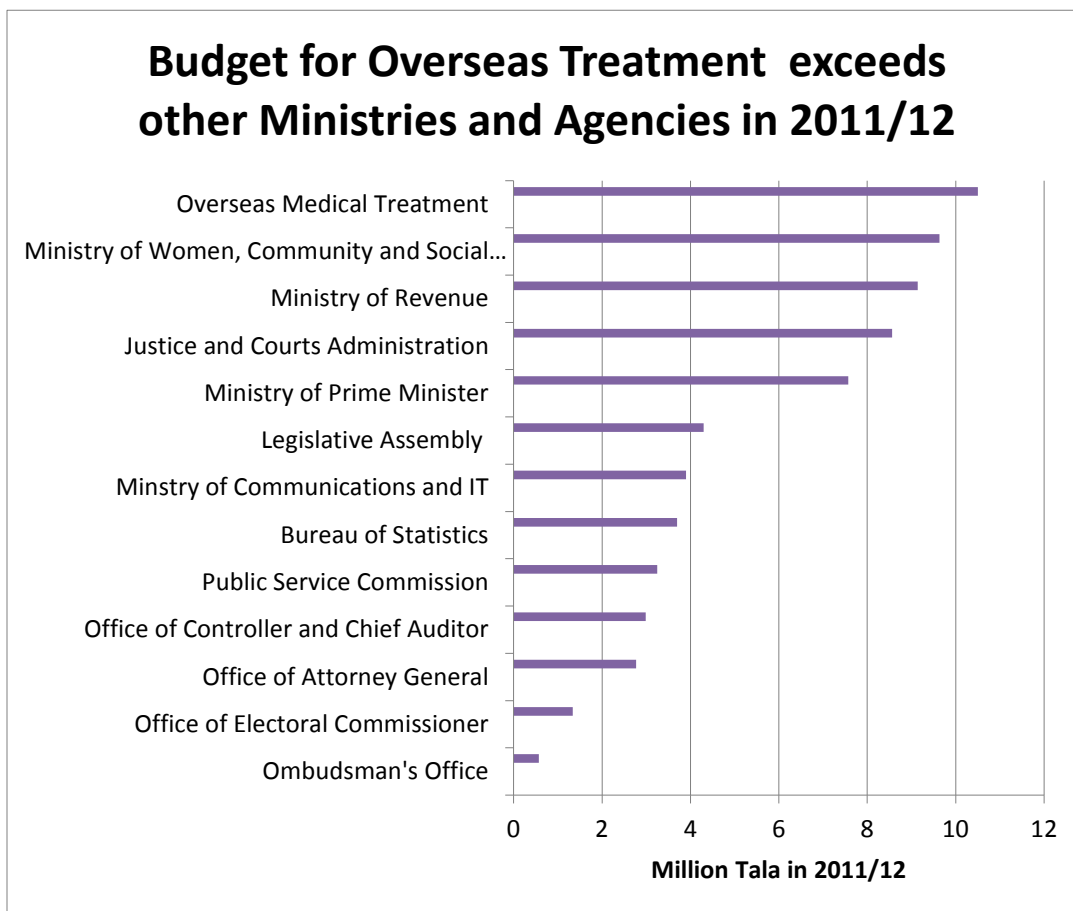
3.21 Another health-financing challenge for Samoa is that **some fast-growing items of public expenditure have questionable health outcomes, and are not pro-poor.** For example, a study by the Ministry of Health noted that the Overseas Treatment (OVT) scheme absorbed 15 percent of total public health expenditure in 2009/10, to the private benefit of less than 0.1 percent of the nation's population. OVT absorbed 11 percent of total public health funding in 2008/09, and this had grown to 15 percent by 2009/10. Expenditure on OVT almost matched the entire public expenditure on outpatient curative care (SAT 6.98 million) in 2006/07 (Government of Samoa, Ministry of Health 2010b). Since that study was undertaken, expenditure on OVT has continued to grow. Total expenditure on OVT has increased 30 percent in nominal terms since 2007/08.<sup>23</sup> Expenditure on the Overseas Treatment scheme is now 30 percent higher than the total personnel costs and associated allied services at the main TTM Hospital in Apia.<sup>24</sup> As figure 1.5 below shows, public expenditure on OVT (SAT 10.5 million in 2011/12) is now also larger than the total budget of at least ten other important government departments or authorities, including the Ministry of Women, Community, and Social Development; the Ministry of Revenue; the Ministry of the Prime Minister; and the Legislative Assembly.

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23. From SAT 8.0 million in 2007/08 to SAT 10.5 million in 2011/12.

24. SAT 10.5 million for OVT compared to SAT 8.0 million for personnel at the TTM hospital in 2011/12.

**Figure 1.5 Overseas Treatment Budget Exceeds Budget of Other Key Ministries and Agencies**



Source: (Government of Samoa Ministry of Health 2011)

3.22 Despite its high cost, it is not clear that OVT is generating strong health outcomes, especially for the poor. The uncertainty surrounding actual health benefits occurs because the medium- to longer-term health outcomes of OVT patients is not collected, let alone systematically analyzed. However, interviews with well-informed Samoan health managers yield some important insights. Their informed view is that those Samoans receiving kidney stone treatment or eye cataract surgery in New Zealand generally have many years of subsequent good health.

3.23 On the other hand, their impression is that cancer patients — constituting about 12 percent of the program — typically have their life extended by two to three years. A simple (unweighted) average cost<sup>25</sup> of OVT treatment at SAT 36,965 per patient, (US\$16,135) is 5.4 times the average GNI per capita of Samoans.<sup>26</sup> Samoa will need to

25. The average cost of treatment for a cancer patient under the OVT is not known. This would be an important figure to know and understand.

26. GNI per capita of US\$2,840 per capita, using the World Bank Atlas Method.  
Reference: <http://siteresources.worldbank.org/DATASTATISTICS/Resources/GNIPC.pdf>.

decide if this is affordable, and the best use of scarce health resources in a lower-middle-income country. Clearly, no one should suffer pain from cancer, and all Samoans should have access to good quality, affordable, compassionate palliative care and pain management. However, OVT does involve a high opportunity cost:<sup>27</sup> the average cost of SAT 36,965 for one patient could be used to provide a wide range of health care for a larger number of Samoans.

3.24 Nor is it clear that the OVT is pro-poor. As noted in figure 1.1 of this paper, some important NCDs in Samoa appear to be disproportionately concentrated among the wealthier quintiles. The copayment of an airfare to New Zealand and accommodation for any person accompanying the patient are important financial barriers in a country where the average per capita income is US\$2,980 per year.

3.25 A similar question about the balance between the public cost and the private benefits of health care arises with the National Kidney Foundation. While much cheaper than sending patients to New Zealand, dialysis at the NKF is still expensive at approximately SAT 99,337 (US\$41,000) per patient per year. However, cost recovery from patient fees covers less than 3 percent of NKF's budgets. Importantly, about one-third of patients die in less than a year after starting treatment, and almost half of all patients have died a year later. As is the case with cancer patients, it is essential that all Samoans with end stage kidney failure are treated compassionately and kindly, with good access to palliative care and pain relief. Whether government can afford expensive dialysis treatment, when health outcomes are measured largely in months, is something that Samoa will need to decide. Certainly, informal musings among some health professionals about the desirability of having a kidney transplant facility in Samoa appears to be technically and economically unjustified at this stage.

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27. Opportunity cost seeks to measure the benefit of the next best alternative use of resources. Opportunity cost has been defined by *The Economist* magazine as follows: "The true cost of something is what you give up to get it. This includes not only the money spent in buying (or doing) the something, but also the economic benefits that you did without because you bought, or did, that particular something and thus can no longer buy, or do, something else" (2000).



## SECTION 4: OPTIONS TO RESPOND

4.1 The **“business as usual” case is, ultimately, not sustainable.** The preceding sections show that while Samoa has many positive health and health-financing features on which to build its future, the country also faces important challenges. Samoa must therefore prepare for even greater demands from NCDs on the public health system in coming years. That is because the existing risk factors for increased levels of chronic and expensive-to-treat NCDs, such as diabetes, are clear: 86 percent of adult Samoans are overweight or obese according to the 2011 Village Health Survey (Government of Samoa Ministry of Health 2011), of these 26 percent are overweight, 46 percent are obese, and 14 percent are morbidly obese. Yet health is already the second-highest recipient of government expenditure and, at 16 percent of total government expenditure, may not have much more room to grow. Fast-growing economies can continue to devote increased absolute, if not relative, levels of resources to health to meet the rising challenge of NCDs. But the government’s own projections are cautious about future economic growth (and therefore revenue) prospects (Government of Samoa 2012).

4.2 **Furthermore, there is no reason to think that the current health-financing system can self-correct and put itself on a more financially sustainable and equitable path. Indeed, a sense of entitlement about “free” health care and rising expectations are likely to put more pressure on government over time.** In the absence of self-correcting mechanisms, government, supported by the Ministry of Health, needs to continue taking proactive policy decisions about public expenditure and resource allocation to put the country on a more affordable, effective, efficient, equitable, and sustainable basis.

4.3 Before considering specific options for health financing in Samoa, it is worth establishing some **higher-order principles and criteria against which options can be judged.** Only government, supported by the MOH, can ultimately decide those principles, because they are at the heart of the sort of health outcomes Samoa wants for its people, and what it can realistically afford. There is certainly a role here for vigorous public debate and discussion about what Samoans at the personal and community level believe should be key public health priorities. Public finance theory and international experience offer some insights into principles that Samoa might find useful in screening various options.

4.4 More specifically, **government in Samoa might decide that any options for health financing should be screened against the following criteria.** Government might decide that options should be demonstrably and substantively *outcomes-oriented*, promoting or restoring health and avoiding *premature* deaths rather than being input- or activity-focused, or extending life for only a few months for the very elderly. Government might also decide that selected options should also be *affordable*, not just for individuals and households, but ultimately for government as well. Selected options should also strike the right *balance between the public and the private sector*: Government should focus on those areas where it has comparative advantage (promoting public goods, responding to market failures, reducing poverty and inequity) and encourage (viable and suitably regulated) private sector participation. Government in

Samoa might also decide that selected options should strike the right balance between *efficiency* and *equity*. Ideally, selected options should also be technically effective, economically efficient, and politically feasible, and should build on the strengths of any existing system.

4.5 While no country has been able to apply all these principles, they are arguably a good starting point for screening options and prioritizing policy responses.

4.6 Against that background, **this section now assesses eight broad health-financing options for Samoa**. The eight options are the following: (1) increasing government expenditure via higher general taxation; (2) increasing government expenditure via deficit financing; (3) increasing the share of government expenditure to health; (4) increasing external and donor financing; (5) increasing specific taxes; (6) mobilizing additional nongovernment resources via insurance (including social health insurance, and community and private insurance); (7) increasing cost-recovery measures; and (8) increasing efficiency. These eight options build on well-established and systematic ways of assessing health financing, especially in developing countries (Tandon and Cashin 2010; World Health Report 2010; Roberts et al. 2008; Gottret and Schieber 2006; WHO Western Pacific Region 2006).

### **Option 1: Increasing general taxation**

4.7 **Increasing the general level of taxation, and then applying some or all of that planned-for increase in revenue to the health sector has some advantages in Samoa.** Raising the taxation level is technically and administratively a relatively simple option compared to other options — such as social health insurance (SHI) — although it may well be politically difficult. To the extent that taxation is raised from income taxes, it is progressive, drawing more from wealthier Samoans than poorer ones (although excise taxes and VAT are regressive, taking proportionately more from lower-income groups). Development partners are likely to welcome government efforts to raise its own resources, and may even be more inclined to support such efforts with their own financing.

4.8 **However there are also important counterarguments.** Tax revenue is an estimated 25.1 percent of GDP,<sup>28</sup> which is already quite high for a lower-middle-income country. Raising taxes can introduce distortions to the economy,<sup>29</sup> and/or raise inflationary pressures if firms have the capacity to pass on increased taxes. If general taxes were to be raised to pay for health, the sequencing of events would need to be taken into account to make the tax increases more politically acceptable. For example, government might need to borrow or rely on external financing to first refurbish and rehabilitate existing health facilities so that the public sees tangible improvements and benefits in the health sector before the tax impost occurs. More fundamentally, however, a “business case” would need to be established for additional financing from general

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28. IMF 2010; table 1.2.

29. Generally known as “deadweight losses,” as the tax drives a wedge between the prices consumers would have otherwise been prepared to pay and suppliers would have otherwise received, in the absence of the tax.

taxation, when the health sector already receives approximately 16 percent of total government expenditure, and was the second-largest call on the government budget in 2011/12.

### **Option 2: Increase the budget for health through broader macroeconomic-level deficit financing**

4.9 In theory, government could increase its fiscal deficit (that is, spend more than it generates through revenues) and/or borrow to pay for increased public expenditure on health.<sup>30</sup> The most recent (July 2010) IMF Article IV consultations note that Samoa has had a prudent approach to fiscal deficits, and had at that time “low risk of debt distress” (IMF 2010). Some might argue this provides room to increase the fiscal deficit to provide more funds for health expenditure.

4.10 However **deficit financing at the macroeconomic level to support increased health expenditure is a very unattractive option in Samoa for several reasons, and is not recommended** for any further study. Prudent deficit financing is appropriate for investments that generate returns greater than the cost of borrowing, or to make up shortfalls in private expenditure; neither of which is the case with respect to recurrent health financing in Samoa. Borrowing should usually be used to finance investment, not running costs. Deficit financing also imposes financial costs on the macroeconomic indicators, and reduces the capacity of government to respond to economic shocks to the system. Fiscal 2009/10 already saw the need for an expansionary budget in Samoa, with a deficit equivalent to 11 percent of GDP in view of the need to stimulate economic activity following the global financial crisis and earlier reconstruction efforts from the tsunami. Government has prudently stated its intention to reduce — not increase — the fiscal deficit to about 3 percent of GDP, which the IMF concludes “would stabilize the net present value of public debt to about 40 percent of GDP a comfortable level, providing room to absorb future shocks” (IMF 2010). What matters from a macroeconomic perspective is the ability of the government to take on any more borrowing without jeopardizing debt sustainability or introducing distortions into the country’s capital markets. Again, a strong business case would be needed to explain why the health sector needs additional financing from broader macroeconomic deficit financing, when it is already the recipient of about 16 percent of total government expenditure, the second-largest of the government budget.

### **Option 3: Increase the share of government expenditure to health**

4.11 In a growing economy, the health sector will receive an increased level of resources, assuming government tax revenue increases with economic growth, and the health sector’s share of government expenditure stays the same. However, given the increase in government health expenditure over recent years (table 1.2) and recent growth experience (-3.9 percent in 12 months to September 2009, and real GDP growth of 2

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30. In theory, governments also have the option of increased expenditure through inflation by, in effect, printing money. This, however, is a potentially high-risk approach as inflationary expectations and inflation can become embedded in the economy with consequent heavy social and economic costs on society, and is therefore not a recommended option.

percent in year to September 2010), this is not a solid foundation on which to expect increased funding.

4.12 Government could, of course, **increase the *proportion* of funding to the health sector**. This is essentially a political decision, reflecting national priorities, rather than an economic decision. And it could only really be justified if the MOH was able to demonstrate with convincing evidence that public expenditure is generating the public health benefits that government expected. This, of course, is difficult to do in any country, not least because so many factors outside the health sector affect health outcomes, including socioeconomic determinants, genetics, and lifestyle factors.

4.13 However, **this option is not recommended, given Samoa’s circumstances**. Reallocating resources to the health sector is a zero sum event, with any increases being offset by reductions in other sectors. Once again, it is hard to sustain an argument that the health sector is more deserving of an increased share of government resources, when it already absorbs about 16 percent of government expenditure, and is the second-largest recipient of government resources. This is therefore not a strong or compelling option.

#### **Option 4: Increasing the call on external resources**

4.14 **This is a plausible option**. Samoa has already attracted long-term support from bilateral and multilateral development partners. The characteristics that attracted such long-term external support to Samoa’s health sector — modest prospects for economic growth, committed and reforming government, a health ministry prepared to explore more evidenced-based policy making, a desire among development partners to support Samoa’s own response to the rapid growth of NCD’s — are all still present. Accessing additional resources from development partners has the added advantage that it can “buy reform space” among the community while government works on other reforms. For example, it is often politically easier for government to introduce higher taxes or cost-recovery measures in the health sector if the community first sees tangible improvements in facilities. Development partners can help here: they can fund refurbishment and rehabilitation of rural clinics and other facilities, knowing that government will then be better placed to mobilize domestic resources, either through increased taxation or cost recovery linked to the health sector. Unfortunately, experience elsewhere suggests that, far from aid “buying reform space,” the existence of aid actually allows governments to *defer* much-needed reform. Fortunately, the existence of a SWAP in Samoa and of a Medium-Term Expenditure Framework provides a potential framework for government and development partners to engage strategically in a way that uses external financing to support, not defer, reform. The existence of the SWAP and a MTEF actively led by government also offers the opportunity for negotiating longer-term, predictable, financing by development partners.

4.15 **However overreliance on external financing should be avoided**. External financing is already relatively high in Samoa. Development partners provided 37 percent of the total SAT 110.6 million publicly financed allocation to health in Samoa during 2011/12 (Government of Samoa 2012). Even after deducting the large (SAT 26.12

million) “lumpy” externally sourced one-off soft loan for the MOH headquarters and hospital buildings, development partners still account for about 20 percent of total health financing in 2010/11.<sup>31</sup> Government and development partners may be prepared to see a relatively high dependence on external financing to help Samoa advance against the NCD epidemic; invest in primary and secondary prevention; and carry out other reforms that put Samoa on a long-term, sustainable path to better health outcomes for all. However, government, and development partners themselves, will not wish to see Samoa overly dependent on foreign aid, as this raises fundamental questions about long-term sustainability. This is all the more the case as Samoa moves from lower-middle-income to middle-income status over time.

### **Option 5: Raising specific taxes**

**4.16 Increasing taxation on tobacco is a high priority and strongly recommended option for Samoa because it *simultaneously* raises revenue for government while stemming the rise of NCDs.** Samoa faces two large public policy challenges in the health sector: How to stem the rise in NCDs, and how to make the financing of its health system more sustainable. Taxation on tobacco directly — and simultaneously — addresses these two overarching challenges.

**4.17 Like most other developing countries, Samoa now faces a tobacco epidemic.** Almost half (49.4 percent) of males age 30 to 34 smoke; of those that do, 62.4 percent smoke more than ten cigarettes per day. Similarly, almost one in five females age 25 to 35 now smoke; of those that do, about one-third smoke more than ten cigarettes a day (Government of Samoa 2010a). Households now spend, on average, SAT 2.48 on tobacco and alcohol for every SAT 1 they spend on medicines (Samoa Bureau of Statistics 2008). WHO recommends that excise duties alone (that is, before import duties or value-added taxes) should be at least 70 percent of the retail price of cigarettes. Excise duty at that level then becomes an important component in curbing tobacco consumption and uptake, especially among the young (WHO 2010b). Analysis undertaken by Ministry of Finance officials during WHO Workshops on Tobacco Taxation in Auckland, New Zealand, in June 2012, highlighted the benefits of increasing excise rates on tobacco in the Pacific. For example, in the case of Samoa, it was estimated that raising the excise rate on cigarettes by 50 percent would increase cigarette excise revenue by approximately 14 percent per annum. This translates to an extra excise revenue of SAT 3.6 million per annum. Final consumer prices of cigarettes in Samoa would increase by about 30 percent, with the share of excise in the final price rising from 47 to 54 percent. This would also reduce uptake (and addiction) by the young.

**4.18 Reducing tobacco use is now seen as one of the highest and most effective public health interventions available to developing countries.** As noted in a recent article on NCDs in *The Lancet*:

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31. SAT 16.8 million from foreign capital project grants, compared to government-appropriated expenditure for health of SAT 64.88 million in 2010/11 (Government of Samoa (2011) Approved Estimates of Receipts and Payments for the Financial Year Ending 30 June, 2011, p. VIII)

The main risk factors for NCDs for individuals are well known and are similar in all countries. Tobacco use, foods high in saturated and trans fats, salt, and sugar (especially in sweetened drinks), physical inactivity, and the harmful consumption of alcohol cause more than two-thirds of all new cases of NCDs and increase the risk of complications in people with NCDs. Tobacco use alone accounts for one in six of all deaths resulting from NCDs.

*The Lancet* NCD Action Group and the NCD Alliance propose five overarching priority actions for the response to the (NCD) crisis — leadership, prevention, treatment, international cooperation, and monitoring and accountability — and the delivery of five priority interventions — tobacco control, salt reduction, improved diets and physical activity, reduction in hazardous alcohol intake, and essential drugs and technologies. The priority interventions were chosen for their health effects, cost-effectiveness, low costs of implementation, and political and financial feasibility. The most urgent and immediate priority is tobacco control. We propose as a goal for 2040, a world essentially free from tobacco where less than 5 percent of people use tobacco (Beaglehole et al. 2011).

4.19 Raising the price on tobacco to a significant level, and then maintaining it in real terms in relation to inflation, may not decrease consumption among those already addicted, but it does have the demonstrated benefit of **reducing new uptake (and subsequent addiction) by the young in Samoa** (Abedian et al. 1998). Increasing the tax on tobacco, and ensuring it is maintained in real terms in line with inflation, has a high likelihood of increasing government revenue, due to the price inelasticity of the product (Abedian et al. 1998). Such action is administratively easy compared to other ways of raising government revenue. As an island, Samoa will have fewer difficulties with smuggling (although it will inevitably have some) than if it were landlocked with highly porous borders. Earmarking taxation on tobacco as an additional source of income for the health sector also sends an important public message, alerting the community to the adverse links between tobacco and health. Another argument in favor of such earmarked (“hypothecated”) taxes on tobacco is that it may be easier to convince the public if they can see exactly where the tax is being spent and that it is being put to good use.

4.20 **There will be some criticism about raising tobacco taxes and ensuring excise duties are maintained in real terms against inflation, but these can be managed.** One criticism is that tobacco taxation is regressive, taking more of poorer people’s income than that of the rich. That is true, although it can be equally argued that spending by the poor on tobacco is itself a potential cause of impoverishment (money spent on tobacco could have been spent on food, housing, or education) and is an example of market failure (tobacco consumption is addictive) that governments are entitled — indeed obliged — to correct. Another criticism is that hypothecated taxation directed to the health sector violates good public finance policy: taxes should be pooled nationally and allocated to their best use rather than directed to a favored sector. Although this is also true in principle, in the context of Samoa, where NCDs are prominent and health financing must be made more sustainable, there are good reasons for arguing that taxation on tobacco should be raised and added to the health budget. (Whether or not to earmark additional taxes to the health sector is ultimately the decision of ministers and the

Ministry of Finance, bearing in mind the arguments for and against hypothecated taxes). A third criticism is that tobacco taxation can damage a legitimate, legal industry, costing jobs. This tends to be an exaggerated claim (Abedian et al. 1998). It ignores the offsetting costs imposed on the public health system in treating otherwise preventable cancers, heart ailments, and lung disease, and the likelihood that resources freed up from producing or selling tobacco will be reabsorbed elsewhere in the economy.

## **Option 6: Mobilizing revenue through insurance, including social health insurance**

4.21 **Social health insurance<sup>32</sup> (SHI) is a plausible, but longer-term, option for Samoa.**

4.22 **SHI has, at least in principle, several advantages.** In developing countries where the general tax base is small, SHI can mobilize additional financial resources. Premiums may also be easier to collect than general taxes because they can be collected directly by employees. SHI can be a more stable and predictable form of financing, possibly less reliant on overall business cycles than general taxation, and/or yearly negotiations with ministries of finance. SHI can be mildly progressive (wealthier pay proportionately more than poorer) and redistributive (revenue raised from wealthier people in the formal sector can cross-subsidize poorer people). SHI can reflect a country's sense of "social solidarity" and concern to ensure vulnerable people are not excluded from essential care (Gottret and Schieber 2006; WHO 2010c; WHO 2005; Roberts et al. 2008; Normand and Weber 2009).

4.23 However, SHI has some **important weaknesses and involves several challenges that are relevant to Samoa's current situation.** SHI works well when there is a formal sector large enough to mobilize additional revenues and pool risks. It is not clear that this is yet the case in Samoa, where the formal sector employment was just 20, 745, or just 11 percent of the total population of around 184,000 at the end of September 2010/11 (Government of Samoa, Ministry of Finance 2011). Worse, the existence of compulsory SHI premiums, on top of compulsory income taxation, may actually *discourage* individuals from joining the formal sector: the very opposite of government long-term intentions. Compulsory SHI is also a cost to industry, which — depending upon its level of employment intensity and price elasticities of the market — could result in either reduced profits for the firm or increased costs for consumers. SHI is also, in effect, an earmarked (hypothecated) tax on members and employers, which ministries of finance in some countries resist, believing it better to bring all revenues into a central pool.<sup>33</sup>

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32. Social Health Insurance, as noted by Gottret and Schieber (2006, p. 84), is not an easy term to define. However SHI typically involves, or starts, as compulsory payroll deductions in the formal sector. Those deductions are pooled (as are the health risks) to help pay certain defined health expenditures, either directly or through third parties. Governments sometimes extend SHI to those outside the formal sector by, in effect, subsidizing their premiums and contributions.

33. They do so because they believe it is better public policy to bring all revenues into a central pool — not reserve revenue for the sector in which it was first generated — and then reallocate resources according to

4.24 Perhaps most significantly, **SHI involves formidable technical, managerial, actuarial, and administrative demands even — or perhaps especially — in developing countries.** While acknowledging the benefits and importance of SHI, Hsiao et al. (2007) identified fourteen such substantive challenges to introducing SHI in developing countries. Among these is the fact that SHI is complicated, and implementation takes many years; achieving universal population coverage has taken decades in most countries; benefit packages must be explicit and costed carefully; user fees must be in place and must be sufficient to motivate populations to join SHI voluntarily; stakeholders must be convinced of the actuarial soundness of SHI; SHI agencies must be able to negotiate and implement purchasing and provider payment mechanisms that ensure delivery of services and goods at minimal cost (WHO and Republic of Rwanda, Ministry of Health 2008). Even with these conditions in place, SHI premiums may still prove insufficient to cover health care, and so additional general taxation and/or user fees may be required.

4.25 If these set-up and implementation challenges are met, **there is still an additional challenge in the case of Samoa:** the more successful an SHI is in Samoa in breadth and depth of coverage, the more demands will likely be placed on the health system for curative care. SHI schemes rarely cover promotive or preventive care, but do encourage or facilitate people to make use of their contributions by accessing the curative health care system.

4.26 Samoa passed legislation that allows it to introduce SHI at some time in the future. This is a useful long-term goal. Government may wish to keep the option of introducing SHI under active review, while concentrating on policy interventions that are administratively easier and yield quicker results than SHI.

4.27 For similar reasons — including management and technical complexity — **community-based insurance, medisave accounts, and private health insurance are more medium- to longer-term options goals** in Samoa. They are useful options to keep under active review by the MOH, but are unlikely to yield significant new and additional resources or improved health outcomes in the coming years, so are not considered further in this paper.

### **Option 7: Increasing levels of cost recovery**

4.28 **Increasing the level of cost recovery is a plausible — but complex — option for Samoa.** Should government choose to pursue that option, it must be managed carefully.

4.29 **Increasing the level of cost recovery, particularly through user fees, has long and rightly been viewed with scepticism by health-financing professionals** (Gottret and Schieber 2006; Creese 1991; Gilson 1997; McPake 1993). That is because user fees impose an additional cost that disproportionately affects the poor, unless carefully targeted exemption mechanisms are put in place. Even then, experience suggests that

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overall national priorities. For the same reason, ministries of finance in some countries resist the idea of hypothecated taxes on tobacco or alcohol, where the revenue is retained in the health sector.



exemptions are very hard to target properly or enforce, particularly if those applying the exemptions then lose earnings, or are in a position to extract bribes. User fees may create an additional barrier to health care access for the poor, on top of existing barriers (for example, indirect costs such as transport costs from outlying rural villages, income foregone). There is good evidence in the US context that even small copayments for drugs to treat chronic diseases lower patients' adherence and compliance to treatment (Choudry 2009). Flat user fees tend to be regressive, taking proportionately more from the poorer than the richer members of society. Collecting user fees also produces administrative costs. User fees have political costs as people are required to pay for them but see no ostensible improvement over time in the quality of facilities or services. This suggests that user fees, if they are to occur, be retained at the point of collection, added to existing revenue, and be used to improve facilities in ways that customers can see and appreciate. However, once again, this involves a form of hypothecated tax, which ministries of finance are usually reluctant to endorse (see footnote 33). User fees, once established, are also politically hard to maintain in real terms; with inflation, their resource-mobilizing benefits erode over time.

4.30 However, **it could be argued that there is a case for considering some level of cost recovery — for those who can afford it — in Samoa, where user fees are currently negligible.** As noted previously, total receipts from all sources in the health sector in 2011/12 are projected at just SAT 60,600 (US\$25,000). This represents 0.08 percent of the total SAT 69,064,202 (US\$28.4 million) government has appropriated to the health sector in that year (Government of Samoa 2011).

4.31 Cost recovery from the National Kidney Foundation (NKF) is similarly small. Patient treatment fees totaled SAT 104,320 in the year to June 30, 2011. This represented 2.3 percent of expenditures for the year by the NKF. As noted previously, and to put this into context, the collection of treatment fees from patients covered just 6 percent of medical supplies used by NKF and 24 percent of the NKF's electricity bill for the year.

4.32 Roberts et al. (2008) put the issue of user fees, especially out-of-pocket user fees, into perspective. On the one hand, they note:

From both risk protection and equity perspectives, out-of-pocket payment is the worst possible system for health financing. Those who are both sick and poor face the risk of either untreated disease or impoverishment — or some combination thereof. From the viewpoint of vertical equity, direct payments are highly regressive, especially given the correlation of poor health and low income. They are even worse than private insurance, which at least offers some risk-pooling possibility when there is group purchasing or when rates are regulated (p. 174).

4.33 On the other hand, the same authors make this point:

Providing financial risk protection, however, does not allow the population to avoid all the costs of health care. In fact, that cannot be done. Foreign aid aside, all health-care costs in a country are ultimately paid for by its citizens — directly or indirectly. It is simply not possible to protect those in the middle of a country's income distribution against the costs of routine medical care. If they don't pay

those costs directly, they will do so indirectly via various taxes. What is relevant for achieving risk protection is helping people avoid the large and unpredictable costs of a serious illness — that is, to provide a risk-spreading or insurance, where revenues from citizens are pooled and used to pay for care for those who do get seriously ill (p. 97).

4.34 The **balance between financial protection for its citizens and citizens' eventual responsibility for their own health care, ultimately is a policy point for the government of Samoa and MOH to decide.** As Roberts et al. (2008) note above, user fees, especially out-of-pocket, should clearly not act as a barrier to essential care. Nor should they further impoverish poor people, increase inequity, or encourage self-medication. On the other hand, some would argue that neither should a government lean so much in the other direction that virtually *all* services are provided “free” or at notional cost to citizens. This might be especially so for relatively minor and inexpensive, curative treatments, when the individual could be expected to share some responsibility for payments. User fees will never make a health system simultaneously financially self-sufficient *and* accessible to all those in need. But as countries develop, there comes a point where notionally “free” services to everyone, including the wealthier members of society for virtually all services, need to be managed and brought into some sort of relationship with rising GDP per capita.

4.35 The government of Samoa and the MOH might therefore need, at some stage, to consider options for raising user fees above the current level of 0.08 of health expenditure for certain targeted groups and nonessential services. However, the overarching guiding principle should then be that cost sharing should only be considered if there is good evidence it will lead to significant revenues *without* detrimental impact on access, equity, and financial protection. Furthermore, some items should definitely be free at the point of delivery for most if not all Samoans: ANC, immunizations, family planning advice, infectious disease control, and screening for NCDs among high-risk groups. Indeed, there is a case for paying poorer people, through conditional cash transfers (CCTs), to fully immunize their children, attend ANC visits earlier in pregnancy, and adopt targeted preventive measures against NCDs and other high cost diseases.

4.36 If government did at some stage decide to trial user fees, it would also be important to ensure that both equity and efficiency aspects of the health system were *simultaneously* strengthened, and not traded off against each other. For example, it is possible to envisage a system whereby wealthier people (those known to be in paid employment, with a health card government could issue), who bypass lower-level facilities and present at the outpatient department of TTM for nonurgent care, pay a user fee.

4.37 It is worth noting that user fees are not, in themselves, necessarily a problem or constraint for Samoans, including those in rural and poorer areas. National Health Account figures show, for example, that Samoans paid SAT 1.63 million to traditional healers in Upolo island, at an average of SAT 22 per visit for the top five illnesses in 2006 (Government of Samoa, Ministry of Health, *Samoa National Health Accounts 2006/7*). While much of this was “in kind” payments, it does demonstrate a willingness to pay, even for services that may or may not have been effective.

4.38 In summary, user fees may need to be considered at some stage in Samoa, given pressures on the health budget and the current low level of cost recovery. However as noted above, the overarching guiding principle should be that cost sharing will only be considered if there is good evidence it will lead to significant revenues *without* detrimental impact on access, equity, and financial protection. Furthermore, some items — particularly those with a public good characteristic, like immunization — should definitely be free at the point of delivery for most if not all Samoans.

### **Option 8: Increased efficiency**

4.39 Virtually all countries, including those in the OECD, could achieve more effective — and equitable — health outcomes by improving the efficiency of resource use in the health system. Indeed the World Health Organization recently estimated that between **20 to 40 percent of all health spending globally is currently wasted through inefficiency and waste**. The report identifies ten leading sources of inefficiency in health. These include purchasing practices for medicines (underuse of generics, use of substandard or counterfeit medicines, irrational prescribing policies); misaligned incentives (fee-for-service payments); management practices (medical errors, costly staffing mixes); and poor investment decisions (hospital size, technology choices) (WHO 2010c).

4.40 Improving efficiency is **potentially the greatest source of increased resources and improved health outcomes for Samoa**. It relies on the relatively simple but powerful argument that Samoa could do more with the valuable resources — financial, human, and management — that it already has, and that services, drugs, and equipment currently being used are not costless. In improving technical and allocative efficiency,<sup>34</sup> Samoa will not necessarily have to raise extra taxes or provide more resources to the health system. Rather, it will generate increased — and possibly more equitable — outcomes from existing resources. In doing so, it will relieve pressure on the government's overall budget and help make health financing more sustainable. It will have the added benefit that development partners — seeing government make best use of its own resources — will be more willing to support government efforts.

4.41 Initial analysis suggests there are seven substantive areas where Samoa could reap large technical and efficiency gains. These are discussed below in order of priority (most important first).

4.42 First, Samoa could consider **sharply reallocating resources toward primary and secondary prevention**. Table 1.7 shows that inpatient curative care absorbed over one-quarter (26.4 percent) of total health expenditure in 2006/07 (latest year available). Per capita expenditure on total inpatient curative care, including overseas treatment, was over one hundred times more than per capita expenditure on prevention of NCDs, and

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34. A simple but appealing explanation of the difference between these two concepts is that technical efficiency is doing things right, allocative efficiency is doing the right things. That is, technical efficiency seeks to get the maximum possible given output — number of hip replacements for example — for a given mix of doctors, nurses, and equipment. Allocative efficiency, on the other hand, seeks to drive a higher level of health outcomes by reallocating scarce resources to where they are likely to have the biggest (or most equitable) impact. See Liu (2003) for further details.

almost eighty times what was spent per capita on maternal and child health and family planning. Even per capita expenditure on traditional health care was more than seven times what was spent on NCD prevention.

4.43 **Samoa will not be able to stem, let alone reverse, the NCD epidemic unless it urgently and substantively shifts the balance in favor of primary and secondary prevention.** Good, effective, affordable, and cost-effective options exist for primary and secondary prevention (WHO and World Economic Forum 2011; WHO 2010a). As noted in the WHO landmark report on NCDs:

Currently, the main focus of health care for NCDs in many low- and middle-income countries is hospital-centred acute care. NCD patients present at hospitals when cardiovascular disease, cancer, diabetes and chronic respiratory disease have reached the point of acute events or long-term complications. This is a very expensive approach that will not contribute to a significant reduction of the NCD burden. It also denies people the health benefits of taking care of their conditions at an early stage....

At least three interventions for prevention and management of diabetes are shown to reduce costs while improving health. Blood pressure and glycaemic control, and foot care are feasible and cost-effective interventions for people with diabetes, including in low- and middle-income countries ....

Participation in 150 minutes of moderate physical activity each week (or equivalent) is estimated to reduce the risk of ischaemic heart disease by approximately 30 percent, the risk of diabetes by 27 percent, and the risk of breast and colon cancer by 21 to 25 percent. Additionally, physical activity lowers the risk of stroke, hypertension, and depression. It is a key determinant of energy expenditure and thus fundamental to energy balance and weight control (WHO 2011b).

4.44 Other studies confirm the **costs of curative care versus the benefits of primary and secondary prevention.** For example, Allotey et al. (2011) find that the cost of diabetes care per patient in Cameroon was US\$489 per year in 2002. This cost exceeds the annual per head income by 1.5 times, and exceeds the per-head governmental health spending by approximately 50 times.

4.45 On the other hand, others find **good results from use of relatively simple interventions, such as aspirin.** One study, for example, found that in the primary prevention trials, aspirin allocation yielded a 12 percent proportional reduction in serious vascular events (0.51 percent aspirin *versus* 0.57 percent control per year,  $p = 0.0001$ ), due mainly to a reduction of about a fifth in nonfatal myocardial infarction (0.18 percent *versus* 0.23 percent per year,  $p < 0.0001$ ) (ATT Collaboration 2009).

4.46 Another recent study demonstrates the **costs and benefits of using a multidrug regime to combat cardiovascular disease.** That study is worth quoting in some detail:

We aimed to estimate the number of deaths that could be averted and the financial cost of scaling up, above current coverage levels, a multidrug regimen for prevention of cardiovascular disease (a statin, aspirin, and two blood-pressure-lowering medicines) in 23 such countries. Identification of individuals was limited to those already accessing health services, and treatment eligibility was based on the presence of existing cardiovascular disease or absolute risk of cardiovascular disease by use of easily measurable risk factors. Over a ten-year period, scaling up this multidrug regimen could avert 17.9 million deaths from cardiovascular disease (95 percent uncertainty interval, 7.4 million to 25.7 million). 56 percent of deaths averted would be in those younger than 70 years, with more deaths averted in women than in men owing to larger absolute numbers of women at older ages. The ten-year financial cost would be US\$47 billion (US\$33 billion to US\$61 billion) or an average yearly cost per head of US\$1.08 (US\$0.75 to US\$1.40), ranging from US\$0.43 to US\$0.90 across low-income countries and from US\$0.54 to US\$2.93 across middle-income countries. This package could effectively meet three-quarters of the proposed global goal with a moderate increase in health expenditure (Lim et al. 2007).

**4.47 Of particular importance in the case of Samoa is to identify the health and financial benefits of secondary prevention:** preventing patient “progress” of an already diagnosed patient to a higher level of treatment. Maintaining just one Samoan patient with hypertension and circulatory problems via a regime of aspirin, statins, and an exercise regime may prove to be possibly hundreds of times more affordable than seeing that patient “progress” to a higher level of care, and flown to New Zealand for insertion of stents or a bypass.

**4.48 Indeed, it may be far more cost-effective for the health system to pay patients** a “performance payment” if they reduce their blood pressure and stabilize at a lower level of care, than it would be to have them flown overseas. The use of such conditional cash transfers and pay for performance has a mixed record internationally but, if carefully designed, it can be a useful mechanism for attacking constraints on the demand or supply side, providing incentives for better health outcomes, and providing financial support for the poor and vulnerable.

**4.49** Conditional cash transfers (CCTs) might also be used to address some of the gaps in primary and preventive care. As noted previously, there are relatively low rates of immunization among one-year-olds against measles, and women tend not to make ANC visits in the first trimester of pregnancy. Because both immunization and ANC visits are usually pro-poor<sup>35</sup> and highly cost-effective, they yield potentially large strategic gains in helping to close such coverage gaps. The first step would be to better understand the underlying reasons for these gaps, and ascertain if they are due to factors on the demand side (lack of perceived need, or means, to access the service) or the supply side (lack of incentive, or funds, to provide outreach services). Depending on the findings, CCTs could be trialled to see if providing women (or, if a supply-side constraint, health providers) a performance payment on completion of immunizations or for ANC visits

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35. That is, lower quintiles tend to then capture disproportionately large benefits, because infants in poorer circumstances are arguably more exposed to communicable diseases such as measles, and because poorer women tend to have more children, and so would benefit from ANC visits.

closes the gaps. If so, such payments may prove to be cost saving if they avert more expensive-to-treat medical complications.

**4.50 Reallocating funds to primary, including currently underfunded family planning and maternal care, as well as secondary care is possible in Samoa.** That is particularly the case if government were able to limit expenditure for the OVT program, where curative costs are high and benefit less than 1 percent of the population. Allocating increased revenue from taxation on tobacco, and/or revenues via some level of cost recovery, is also possible. Different approaches are possible to facilitate any such reallocation. One option is to directly cut budgets in certain lower-impact (or pro-rich) activities, to allow expansion in more high-impact (and pro-poor) ones, such as promotion of family planning. This course of action, of course, has political visibility and may therefore be difficult to achieve. An alternative might be to freeze current budgets in real or nominal terms for lower-priority/lower-impact activities, and allow growth to occur in the higher-priority/higher-impact activities.

**4.51** A second priority worth exploring in Samoa **is reallocating expenditure to maintenance.** Currently maintenance is allocated only SAT 60,000 under the recurrent budget of SAT 68.8 million for 2010/11 (Government of Samoa (2011), “Approved Estimates of Receipts and Payments for the Financial Year Ending 30 June, 2011”). This means it is so small it is recorded as 0 percent of the recurrent budget. Maintenance attracts just SAT 2 million out of a total budget of SAT 53.5 million — just 3.8 percent of the latest NHS budget (Government of Samoa (2010), National Health Services 2010). Of course, it may be that maintenance expenditure is actually captured by some other costing labels, or perhaps even the responsibility of other departments, such as the Ministry of Public Works. Whatever the explanation, the fact remains that useful, usable, and reliable information on maintenance expenditure is not available, and will inevitably remain below the radar of policy makers.

**4.52** The **lack of investment in maintenance imposes large — and largely preventable — longer-term costs for the public health budget.** Some of these costs are direct and obvious: facilities and equipment will need to be replaced sooner than their technical or economic life would otherwise require had there been proper periodic maintenance. Other costs are more indirect: rural villagers may understandably walk past dilapidated rural clinics, and go directly to (higher-cost) secondary and tertiary clinics, imposing high (but hidden) costs on the public health system.

**4.53** A third priority for efficiency would be for government to consider **trailing public/private partnerships and contracting with the private sector.** A well-conducted, and well-publicized, study in Cambodia shows that contracting models can simultaneously improve access, outputs, efficiency, and equity, even in low-income settings such as Cambodia (Bhushan et al. 2005). While conditions in Cambodia are, of course, very different than those in Samoa, there are nevertheless some interesting and important underlying principles that emerge and could be broadly relevant in Samoa as well. Key findings from that study are as follows:

Contracted-out districts experienced an impressive increase in the use of reproductive health services, where, for example, coverage of antenatal care

increased by more than 400 percent, compared to contracted-in and control districts where coverage rose by 233 and 160 percent, respectively. Success in the coverage of child health services also followed a similar pattern. Immunization rates increased in contracted-out districts by 158 percent, in contracted-in districts by 82 percent, and in control districts by 56 percent.

The evaluation survey measured the productive time lost due to illness by patients and their caretakers. The results showed that on an average, people in contracted-out districts lost about 15 percent less time on illness and seeking health care compared to control districts. People in contracted-in districts lost about 5 percent less. Thus, the results suggest that contracting-out, besides being cost-effective, is also the most efficient option for providing health care services.

The evaluation study shows, furthermore, that the contracted districts provided more than proportionate benefits to the poor. Much of the increase in health care utilization in contracted districts was attributable to the increased use of services by households of low socioeconomic status. For example, use of curative health services at district hospitals by the bottom half of the socioeconomic group increased about twelve fold in contracted-out districts and six fold in contracted-in districts in 2.5 years. The corresponding increase in the control districts was considerably less than double. The poor benefited more than proportionately in the contracted-out districts because of the improved accessibility of health services in villages, where most poor people live. The reduction in costs of health services also raised the demand for health services by the poor (Bhushan et al. 2005).

4.54 A fourth strategic area where government and the MOH are likely to achieve significant and long-term efficiency gains is in the **recurrent cost implications of recent large infrastructure projects**. The new headquarters for the MOH and the new tertiary-level hospital are potentially attractive new buildings in Apia, replacing much older ones. However, both are large investments, involving well over SAT 26.1 million in direct soft loans. Importantly, the sheer size of these two large infrastructure projects will carry with them a large, long-term, “tail” of recurrent costs: electricity, air conditioning, cleaning, and maintenance. It is by no means clear that these long-term recurrent costs have been factored into future budgets.

4.55 More importantly, it is not clear that **everything is being done to reduce such long-term — and often avoidable and unnecessary — costs**, including by modern design and architectural techniques, passive solar generation for electricity. Nor is it clear if the hospital design is best suited to secondary prevention of NCDs, as distinct from expensive inpatient curative treatment. Similarly, the most efficient mix of staffing for the new hospital in terms of doctors, nurses, midwives, and other health professionals is uncertain. Retrofitting more affordable solutions to recurrent costs will be a very expensive option for Samoa. It is in Samoa’s interests to therefore urgently review the plans and designs for the new tertiary-level hospital, before ground breaking, to ensure that every possible opportunity has been taken to reduce long-term recurrent costs, consistent with good health standards and protocols.

4.56 A fifth strategic area where efficiency and effectiveness can be improved is in **developing a better and more explicit understanding of the cost of treating major diseases in Samoa**. Policy makers cannot make informed choices about the best mix of inputs because they do not have essential data on the true cost of providing services (costs including, for instance, overheads or depreciation). Managers cannot tell if a primary or secondary prevention treatment is two, three, or four times as expensive as another for a given outcome. Nor can they tell how much the true cost to the public health system is if a patient “progresses” from a hypertension or glucose impairment regime, to a stent, bypass or dialysis regime. Understanding the true cost of treatment for the key drivers of the health system budgets would help managers make more informed, evidenced-based decisions about where to allocate scarce financial and management resources. Having a good knowledge of cost structures will also enable managers to identify cost drivers for a particular intervention, and seek out lower cost but equivalent efficacy alternatives. This will also enable policy makers to identify cheaper but equally effective alternatives (for example, use of generic drugs) or mix of inputs. Highlighting the cost of treatment, including x-rays and lab tests, might help to sensitize health care providers to avoid unnecessary or duplicate tests. Development partners are likely to be supportive of analytical work that helps establish such an evidence base, as it will help all stakeholders make better and more transparent choices.

4.57 Sixth, government and MOH might also wish to consider analytical work on **how public expenditure can be better used to drive incentives**. Most, if not all, health professionals in Samoa are guided by a sense of professionalism and compassion to do their work well. However, monetary incentives and the form of provider-payment systems also clearly matter in any country’s health system: hence the debates over capitation, fee for service, salaried employment, and diagnostic-related groups. When the health sector absorbs approximately 16 percent of government expenditure it is strategically important for government to understand how, and for what services, health workers are paid and how those payment mechanisms then affect the level and quality of service delivery. Government and MOH might therefore wish to identify stubborn gaps and blockages in service delivery, including reaching rural and remote areas and transitory peri-urban migrants. Government and MOH might then trial quasi-experimental and operational research to see if performance payments are a cost-effective intervention compared to existing payment arrangements.

4.58 A seventh strategic area to target for efficiency is for government and MOH to use more **applied operational research to provide an evidence base for policy making**. For example, the vast majority of experienced Samoan doctors interviewed during the research for this paper noted that patients do not usually complete their course of medication, despite being urged to do so. From a health perspective, the doctors noted that this undermined health outcomes for those individuals, and raised the chances of antibacterial resistance among the public at large. From an economic perspective, failure to complete the course of medication undermines cost-effectiveness of treatment and is wasteful of a major part of the health system. Doctors had many opinions about why so many people failed to complete the prescribed course of drugs. (The most common theory was that patients did not “value” the drugs because they were free or only of notional cost, and that raising the out-of-pocket price would help people value the drugs



more. This is, however, not a recommendation of this paper.) However no one really knows. The important policy point is that an apparently widespread reluctance to complete drug courses is clearly a major leakage point for better health outcomes, and potentially a gross source of inefficiency. Operational research to understand the situation, and then respond on the basis of evidence, would therefore be a good strategic investment to improve the efficiency and effectiveness of the health system.

4.59 This paper has also identified other areas where operational research would strengthen the evidence base for policy making. Clearly, serious studies that increase understanding of the socioeconomic reasons for NCD risks are a major priority in Samoa, and could potentially enhance regional and global public benefit as well. There would be value in understanding better the socioeconomic characteristics of public versus private provision (paragraph 2.4). As discussed in paragraph 3.10, it would also be beneficial to verify that the apparently low levels of out-of-pocket expenditure are not simply a result of poorer Samoans failing to seek health care. There is policy benefit in understanding the economic and financial costs to the future health system of an ageing population (paragraph 4.1). There is benefit in understanding the role and impact of user fees, should they eventually be trialled (paragraphs 4.35–4.38). Finally, there would be public and policy benefit in better understanding why women tend not to make ANC visits in the first trimester; why immunization rates against measles is relatively low; and what factors are contributing to the level of STIs and certain NCDs, and whether conditional cash transfers are cost-effective and affordable interventions (paragraphs 4.5–5.1).

## SECTION 5: CONCLUSION AND RECOMMENDATIONS

5.1 **Samoa is currently facing two important public policy challenges in the health sector.** One challenge is to stem, and then reverse, the rapid rise of NCDs. The second challenge is to put the country on a health-financing path that is effective, efficient, and financially affordable and sustainable. The two challenges are clearly interconnected.

5.2 However, Samoa **also has several strategic building blocks in place** that will enable it to respond.

5.3 First, and importantly, it has a **government that is clearly committed to improving the health (and education) of its people.** This is clearly evidenced by its financial commitment to the health sector to date. The government is also keen to move the health sector to a more outcomes-focused approach. The government wishes its expenditures to be pro-poor where possible. The newly elected government is now at the beginning of its term, so it has the “political space” to bring forward necessary reforms that might — initially at least — be unpopular.

5.4 Second, government is **supported by a competent bureaucracy and active development partners.** MOH and NHS have clear roles and clarity of purpose (policy and regulation, and service delivery, respectively). MOH has a well-developed (although now somewhat dated) system of National Health Accounts that has the potential to serve as an evidence base for better public expenditure management and resource allocation.

5.5 Third, there is **some potentially “low hanging fruit” that could be harvested to achieve better health outcomes at reduced financial cost to Samoa. The chief opportunity exists in making better use of existing resources already in the health system, but not used to maximum effect.** Improving technical and allocative efficiency of the existing system has the potential to make a large difference and is technically feasible. Specific recommendations include reorienting public expenditure from curative to primary and secondary prevention; increasing investments in maintenance; proactively reducing future recurrent costs from large infrastructure projects; exploring contracting out and private/public partnerships; leveraging the power of public expenditure to drive incentives on the demand side and supply side of health care; understanding better the true cost of services and underlying cost drivers; and investing in operational research to build up the evidence base for policy making.

5.6 **Samoa also has other opportunities to mobilize additional revenue.** Increasing taxation on tobacco is an option, and maintaining the tax in real terms against inflation, given the inevitable rise of (preventable) tobacco-related NCDs and the simultaneous need to generate revenue in Samoa. Some potential exists to generate more investment from the supportive group of external development partners, but this is limited. Development partners will likely respond favorably to Samoa’s own willingness to undertake additional reform and resource-mobilization efforts. There is arguably some potential for cost recovery, which at 0.08 percent of expenditure is currently quite low. However, this should only be considered if there is sound evidence cost sharing will lead

to significant revenues without detrimental impact on access, equity, and financial protection.

5.7 The paper concludes that **social health insurance and other forms of formal insurance are useful options for the longer term, but are premature at this stage.** That is because of the formidable technical and managerial challenges associated with introducing such schemes in Samoa at present. Further, there are arguably higher — and more feasible — gains to be had by improving efficiencies with the resources already in the health system.

5.8 The paper also concludes that there is **only limited capacity for additional financing directly from government over the longer term,** given that health is now the second-largest item in the budget and absorbs approximately 16 percent of government expenditure. The paper argues strongly against deficit financing at the macroeconomic level as a source of additional revenue for the health sector.

## **SECTION 6: NEXT STEPS**

6.1 This paper is intended to provide an overview of the health-financing situation in Samoa, and to identify options for government to consider. Eight options have been examined. Some, but not all, are shown to be viable or appropriate in Samoa's current circumstances.

6.2 Government may wish to discuss these options with key stakeholders, including the Ministry of Health, the Ministry of Finance, the National Health Service, private sector health professionals, and development partners. Government can then decide which of the options discussed in this paper best suit Samoa's needs and interests.

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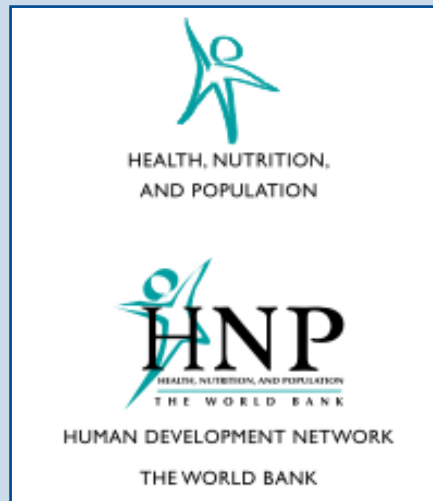
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