Financing Options for the Health Sector in Tonga
Acknowledgements

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</tr>
</thead>
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<tr>
<td>CBHI</td>
<td>Community-Based Health Insurance</td>
</tr>
<tr>
<td>EAP</td>
<td>East Asia and Pacific</td>
</tr>
<tr>
<td>GOT</td>
<td>Government of Tonga</td>
</tr>
<tr>
<td>IMF</td>
<td>International Monetary Fund</td>
</tr>
<tr>
<td>IMR</td>
<td>Infant Mortality Rate</td>
</tr>
<tr>
<td>LMICS</td>
<td>Low and Middle Income Countries</td>
</tr>
<tr>
<td>MMR</td>
<td>Maternal Mortality Rate</td>
</tr>
<tr>
<td>MOH</td>
<td>Ministry of Health</td>
</tr>
<tr>
<td>NCD</td>
<td>Non-Communicable Diseases</td>
</tr>
<tr>
<td>NHA</td>
<td>National Health Accounts</td>
</tr>
<tr>
<td>PAYE</td>
<td>Pay As You Earn</td>
</tr>
<tr>
<td>PHI</td>
<td>Private Health Insurance</td>
</tr>
<tr>
<td>SHI</td>
<td>Social Health Insurance</td>
</tr>
<tr>
<td>TOP</td>
<td>Tonga Pa’anga (national currency)</td>
</tr>
<tr>
<td>THS</td>
<td>Tonga Household Survey</td>
</tr>
<tr>
<td>U5MR</td>
<td>Under-Five Mortality Rate</td>
</tr>
<tr>
<td>WDI</td>
<td>World Development Indicators</td>
</tr>
</tbody>
</table>
Executive Summary

Current health financing arrangements in Tonga provide high levels of coverage and financial protection by middle-income country standards. Under this system, general revenues account for the bulk of health financing. An extensive network of health facilities and limited out-of-pocket payments have ensured high levels of access to services. Health outcomes in Tonga are some of the best in the region.

Despite this good performance, several factors indicate that the health financing system is likely to come under strain in the near future. Demand for health care, particularly for more complex curative care services is growing rapidly thanks to the combined effects of population ageing and the rising burden of NCDs. The growth in demand for services as well as more sophisticated technology in medical care will inevitably push expenditures upwards. Faced with rising expenditures and concerned about the sustainability of current methods of financing health care, the Government of Tonga requested this review of health financing options.

There is no one-size-fits-all health financing solution that Tonga can adopt. The choice of financing arrangement depends on the amount of revenues that can be raised through the different methods to meet specific health system objectives, and the extent to which they can be raised in an efficient, equitable and sustainable manner. The structure of the economy, as well as the financial, institutional and political capacities specific to Tonga will determine which financing arrangements best meet these criteria.

Based on the three basic principles of public finance – collection and pooling of revenues, and purchasing of services – this Note compared the different financing options available. It finds that there are essentially three health financing policy options that Tonga has at present: (i) do nothing (ii) continue to finance health care through general revenues, but generate additional resources through efficiency savings; and (iii) introduce social health insurance.

(i) Do nothing: keep the current system of general revenue financing

The sustainability of the current system depends critically on Tonga’s ability to generate additional domestic resources, or fiscal space for health. On the one hand, although economic growth is predicted to remain low given the global financial crisis, health spending could still increase from 3.2% in 2004 to 6.3% by 2013 provided historically high health spending elasticities remain high. Donor assistance to the health sector is also predicted to be quite stable. On the other hand, any further decline in economic growth will significantly affect health spending. In addition, general revenue flows are likely to be affected by the global financial crisis and its impact on remittance incomes and domestic consumption, as well as tourism. The 2009 budget provided for a more expansionary fiscal stance, but fiscal expansion financed through government borrowing is not recommended given the weak debt situation. On balance, this Note concludes that current levels of general revenue allocations to the health sector are relatively stable, but any significant additional allocations are unlikely in the short to medium term.

The current health financing system has many advantages with respect to risk pooling, efficiency and equity. The revenue collection method currently used, general taxation, is a simpler and more efficient way of raising revenues than the collection of premiums under social health insurance. The current financing system also allows for a high degree of risk pooling across the entire population, making it possible to cross-subsidise the poor. There is little fragmentation of risk pools under the current system, and consequently, fewer inequalities in utilisation of services than in many other EAP
countries. One way to maintain the positive aspects of the current system, while making it more sustainable would be to generate additional resources through efficiency savings.

(ii) Continue to finance health care through general revenues, but generate additional resources through efficiency savings

There are many sources of both allocative and technical inefficiency in the Tongan health system, which contribute to the rising costs of health care. Although NCD’s account for a large share of the disease burden, cost-effective primary and secondary prevention strategies to address NCDs account for a relatively small share of resources. Instead, in the majority of cases, NCDs are diagnosed quite late and require more expensive, acute medical care. Out-patient contact rates are very low, while hospitalization rates are very high. Strengthening primary level provision of both preventive and curative services is likely to improve efficiency in health care and in the long run, lower expenditures associated with secondary or tertiary level care. In addition, resource allocation relies almost exclusively on input-based budgeting, which provides few incentives to improve efficiency or quality of provision. International experience suggests that many low and middle income countries have succeeded in expanding service provision despite only modest increases in spending, largely due to efficiency gains.

(iii) Introduce social health insurance

The additional revenues generated through payroll taxes need to be compared against the administrative costs and the broader economic effects of introducing payroll tax-financed insurance. The formal sector in Tonga is very small and consists of only about 12,400 workers (12% of the population). Rough estimates produced for this report indicate that a 5% increase in payroll taxes for both employers and the employees will generate an additional TOP 5 million for the health sector, and contribute to a 19% increase in funding for the health sector. The costs borne by the Revenue Services Department will be about 5-6% of collected revenues, and employers will bear some additional costs. These estimates do not take into account the broader economic impact of the payroll tax on employment. Given that the Tongan economy is only just recovering from the impact of a large increase in civil servant’s wages and related redundancies, a further reduction of employment and economic activity caused by a payroll tax may not be sustainable or politically popular at this time.

Having covered the formal sector, the government will still face the challenge of scaling up coverage to the informal sector. The success of scaling up depends on: economic growth, since the most effective way to scale up health insurance coverage is for the government to subsidise premium payments for the informal sector; the administrative, technical and regulatory capacity to implement social health insurance; and political will. Failure to scale up social health insurance to the informal sector is likely to undermine risk pooling, reduce financial protection and possibly give rise to inequities in coverage.

Which option?

Continuing to rely on general revenue financing while generating additional resources for the sector through efficiency savings is likely to be the most feasible and sustainable financing option for Tonga, given the current financial, institutional and political context. As discussed in the report the current system of financing has many advantages over other financing options. Introducing changes to improve efficiency in the health system, will generate additional resources through efficiency savings while retaining the positive aspects of the present system of financing. This report has identified several opportunities for improving allocative and technical efficiency in the health system. Further work is needed to identify how these efficiency improvements may be achieved.
1. Introduction

Achieving a more diversified and sustainable financing base for the health sector is a key policy goal for the Government of Tonga. Underlying this goal is the view that general taxation alone cannot provide a sustainable revenue base for the health sector. The introduction of user fees in 2009 is expected to contribute to this goal. Other potential options include increasing the size of the general tax base, introducing a social health insurance fund, expanding existing community and private health insurance schemes, and improving the allocative and technical efficiency of current spending. In December 2007, the World Bank offered to provide technical assistance to the Government of Tonga with analysing the different options and devising a clear health financing strategy for the country.

The primary objective of this Policy Note is to provide an assessment of available options for financing health care in Tonga. The note will take into account the economic, financial and institutional constraints, as well as the health and demographic contexts of the country. This is an exploratory note which will lay out the implications of the different financing options for the Government of Tonga to make informed choices in designing its health financing strategy. A secondary objective of the Note is to identify gaps in the evidence base and outline a programme of analytical work to do a comprehensive costing of health financing options for the future.

Conceptual framework

Underlying this study are the three basic principles of public finance, relating to the collecting and pooling of revenues, and purchasing of services. Revenue collection entails the collection of a sufficient and sustainable level of revenues in an efficient and equitable manner to deliver health services that improve health outcomes, provide financial protection and are responsive to customers. Once collected, the revenues then need to be pooled so that the members of the pool share collective health risks, thereby protecting pool members from large, unpredictable health expenditures. Finally, health services need to be purchased efficiently so as to maximize health outcomes, financial protection and consumer responsiveness. Health care financing reform implies introducing changes to one or more of these three key functions.

Based on these principles, the Note will compare the different financing options available. The Note will address the following questions in the context of Tonga:

- Is the financing mechanism feasible and sustainable?
- Will the financing mechanism expand risk pooling and provide financial protection?
- Will the financing mechanisms improve the efficiency in how revenues are collected and in how resources are allocated across inputs and services?
- Will the financing mechanism improve equity in access?

The Note will conclude by providing a set of financing policy options and their implications for Tonga.

Methodology

The study relies primarily on the review and analysis of existing documents and data. Information about current fiscal policy and future economic prospects in Tonga was obtained from a review of documents produced by the Government of Tonga, IMF and World Bank. Information about the current system of health financing system was obtained through a review of World Bank project documents and National Health Accounts. Labour market data were used to model the impact of a new
payroll tax. Consultations and interview with key government officials from the Ministry of Finance, Ministry of Labour and Ministry of Health as well as other stakeholders were used to fill other knowledge gaps. In addition, the Note draws extensively from the international experience of health financing reform, and translates the lessons learnt to the Tongan context.

The primary audience for this report is the Government of Tonga, and stakeholders in the health sector.

Structure and outline of the review

The remainder of this Note is organised as follows. Chapter Two provides a brief overview of health system in Tonga, the outcomes, outputs, inputs and the health care financing. Chapter Three describes the conceptual framework for analytical framework for examining the different financing options. Chapters Four to Seven will look at each of the four main financing options, and assess their applicability for the Tongan context. Chapter Eight discusses efficiency savings as an alternative way to generate additional resources for health. Chapter Nine lays out the different financing options available for Tonga in the short to medium term.
2. Health system overview

1.1 Health outcomes, inputs and outputs

Health outcomes in Tonga are among the best in the East Asia and Pacific (EAP) region and on-par with middle income country status (Figure 1.1). Infant mortality and under-five mortality rates fell from 26 to 20 and, from 32 to 24 per 1,000 live births respectively between 1990 and 2006. The maternal mortality rate (MMR) was 110.5 per 100,000 live births in 2006 which translates into three fatalities. As a consequence, Tonga has met many of the Millennium Development Goals. Life expectancy is relatively high, with men and women living up to 67.1 and 72.1 years on average. Infectious diseases have been largely brought under control. There is no neonatal tetanus or poliomyelitis, and the last confirmed case of measles was in 1998.

Figure 1.1: Infant and under-five mortality in Tonga and global comparisons (2006)

Despite successes in infant, child, and maternal mortality, Tonga is now faced with a rapidly increasing burden of non-communicable diseases like most Pacific Island countries. Diseases such as acute myocardial infarct or cardiac arrest, heart failure, and stroke accounted for 48%, 21%, and 12% of all deaths in 2006 respectively. The prevalence of key risk factors such as obesity, diabetes, and smoking are also of concern. In 2004, nearly 75% of women and 56% of men aged 15 years and over were obese. Tonga also has the highest prevalence of diabetes mellitus among adults aged 20-79 years in the Pacific at 12.4% in 2003 and is projected to increase to 15.9% by 2025. Diabetes prevalence is even higher than in many industrialized countries in the region such as Japan, Australia, and Singapore. Finally, smoking prevalence among adults 15 years and older is 52.9% among males and 31.7% overall. Table 1.1 and Figure 1.2 presents these statistics.

As in many countries, there are some discrepancies between different sources of data on infant mortality. The estimates reported here are from the World Development Indicators. The Ministry of Health in Tonga reports a 2006 IMR of 10.7.

It is difficult to measure accurately some indicators that are based on relatively uncommon events such as MMR in low population settings; it is often more informative to compare absolute numbers.
Table 1.1: Leading Causes of Mortality in Tonga (2006)

<table>
<thead>
<tr>
<th>No.</th>
<th>Leading Cause</th>
<th>No. of Cases</th>
<th>% of Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Diseases of the circulatory system</td>
<td>195</td>
<td>38</td>
</tr>
<tr>
<td>2</td>
<td>Neoplasms</td>
<td>71</td>
<td>14</td>
</tr>
<tr>
<td>3</td>
<td>Diseases of the respiratory system</td>
<td>57</td>
<td>11</td>
</tr>
<tr>
<td>4</td>
<td>Symptoms, signs and ill-defined conditions*</td>
<td>41</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>Infectious and parasitic diseases</td>
<td>35</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Total for 5 leading causes of mortality</td>
<td>399</td>
<td>78</td>
</tr>
<tr>
<td></td>
<td>Total number of deaths</td>
<td>514</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: National Health Accounts FY2005/2006

Figure 1.2: Risk factors

Tonga’s health system outputs are relatively high and explain the good maternal and child health outcomes described above. Immunisation coverage is exceptionally high by global standards (Figure 1.3). Nearly 99% of all pregnant women attend antenatal clinics and 98% of deliveries are assisted by trained personnel. By contrast, only about 86% of deliveries are assisted by trained personnel in low and middle income countries in the EAP region as a whole (Table 1.2). Tongans on average have 1-2 outpatient consultations per year but have a relatively high annual hospitalisation rate of about 10%.
Figure 1.3: Immunization rates

![Figure 1.3: Immunization rates](image)

Source: From WEO (2008) and WDI (2008) databases

Health system inputs are also quite substantial in Tonga. Preventive and curative care services are delivered primarily by the Ministry of Health (MOH) through a network of 4 hospitals, 14 health centres, and 34 reproductive health clinics. Physical health system inputs in Tonga, measured in terms of doctors per capita and hospital beds per capita are high compared to its regional peers as shown in Table 1.2. The private sector is small and consists of non-governmental organizations (NGOs) and government doctors holding private practices alongside their Government positions.

Table 1.2: Health system outputs and inputs in Tonga and selected EAP countries

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Tonga</td>
<td>99</td>
<td>98</td>
<td>0.7</td>
<td>2.8</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>88</td>
<td>14</td>
<td>0.3</td>
<td>0.3</td>
</tr>
<tr>
<td>China</td>
<td>93</td>
<td>97</td>
<td>1.4</td>
<td>2.4</td>
</tr>
<tr>
<td>India</td>
<td>55</td>
<td>45</td>
<td>0.6</td>
<td>0.8</td>
</tr>
<tr>
<td>Indonesia</td>
<td>70</td>
<td>67</td>
<td>0.1</td>
<td>0.6</td>
</tr>
<tr>
<td>Malaysia</td>
<td>96</td>
<td>97</td>
<td>0.7</td>
<td>1.8</td>
</tr>
<tr>
<td>Maldives</td>
<td>99</td>
<td>98</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Philippines</td>
<td>88</td>
<td>59</td>
<td>0.9</td>
<td>1.1</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>99</td>
<td>99</td>
<td>0.5</td>
<td>3.1</td>
</tr>
<tr>
<td>Thailand</td>
<td>98</td>
<td>98</td>
<td>0.4</td>
<td>2.2</td>
</tr>
<tr>
<td>Vietnam</td>
<td>94</td>
<td>83</td>
<td>0.5</td>
<td>1.9</td>
</tr>
<tr>
<td>East Asia and Pacific (EAP)</td>
<td>83</td>
<td>81</td>
<td>0.7</td>
<td>2.6</td>
</tr>
<tr>
<td>Lower Middle-income Countries (LMC)</td>
<td>87</td>
<td>86</td>
<td>1.9</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Source: WDI and WHO

Notes: EAP and LMIC averages are un-weighted

Access to health services remains high despite the fact that Tonga’s population is quite dispersed over many islands. Tonga is an archipelago made up of 129 islands and a population of 101,991
spread over four main island groups, namely Tongatapu, Vava’u, Ha’apai, and ‘Eua. As Table 1.3 shows, the physical infrastructure, measured in terms of beds per 1000 capita is fairly uniformly distributed across the islands, with the exception of Niuas where there are no hospitals. The low occupancy rates suggest that hospitals are maintained even where utilisation rates are low in order to ensure access to services in low-density areas. However, as 70.6% of the population lives on the main island of Tongatapu, the tertiary Vaiola hospital in Nuku’alofa plays a significant role in health service delivery when compared to the other three regional hospitals namely Prince Ngu’s hospital in Vava’u, Niu’ui hospital in Ha’apai, and Niu’eiki hospital in Eua.

Table 1.3: Distribution of hospital beds and occupancies by island divisions, 2006

<table>
<thead>
<tr>
<th>Divisions</th>
<th>Tot. pop.</th>
<th>% of pop.</th>
<th># of beds</th>
<th>Beds per 1,000</th>
<th>Occupancy rate (%)</th>
<th>Total Admissions</th>
<th>ALOS</th>
<th>Outpatient consultations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tongatapu</td>
<td>72,045</td>
<td>70.6</td>
<td>199</td>
<td>2.76</td>
<td>60</td>
<td>8706</td>
<td>5</td>
<td>58,198</td>
</tr>
<tr>
<td>Vava’u</td>
<td>15,505</td>
<td>15.2</td>
<td>43</td>
<td>2.77</td>
<td>33</td>
<td>1036</td>
<td>5</td>
<td>23,500</td>
</tr>
<tr>
<td>Ha’apai</td>
<td>7,570</td>
<td>7.4</td>
<td>22</td>
<td>2.91</td>
<td>25</td>
<td>370</td>
<td>5</td>
<td>12,568</td>
</tr>
<tr>
<td>Eua</td>
<td>5,206</td>
<td>5.1</td>
<td>17</td>
<td>3.27</td>
<td>19</td>
<td>268</td>
<td>4</td>
<td>11,082</td>
</tr>
<tr>
<td>Niuas</td>
<td>1,665</td>
<td>1.6</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>Total</td>
<td>101,991</td>
<td>100</td>
<td>281</td>
<td>2.76</td>
<td>49</td>
<td>10380</td>
<td>5</td>
<td>105,348</td>
</tr>
</tbody>
</table>

Source: 2006 Census and 2005/2006 NHA

Health care coverage is universal in Tonga and the incidence of financial catastrophe due to out-of-pocket spending is low. The government delivery system provides universal access to health services with minimal user fees. In 2003, 89% of health services were sought at public hospitals and 6.2% at government health centres. The Tonga Household Survey (THS) in 2003 indicated that out-of-pocket payments are low and account for about 0.5% of total household expenditures. Out-of-pocket payments account for 2-5% of household expenditures in EAP countries generally.

Despite the provision of universal coverage, inequalities in health care use exist across socioeconomic groups. The THS 2003 showed that the poorest quintile reported 0.86 outpatient consultations per person per year, compared to 1.39 in the richest quintile. The poorest quintile was also less likely to see care when ill.

Patients requiring specialist care that is not available in Tonga can be referred to New Zealand under an overseas treatment scheme funded the Governments of Tonga and New Zealand. The decision whether to refer is made on a case-by-case basis by the Medical Transfer Board, taking into account the appropriateness and adequacy of the treatment for each referral case. Private health insurance policies to cover the cost of international referrals are also available. Overseas medical treatment accounts for about 3% of government health expenditures annually.

1.2 Underlying demographic and epidemiological situation

Fertility rates are high in Tonga, but population growth remains low thanks to high rates of emigration. In 2006, the total fertility rate was 4.2 children per woman compared to the average fertility rate of 3.7 in the Pacific region and 2.0 in EAP as a whole. Meanwhile, the population growth rate between 1996 and 2006 was only 0.4%. The low growth rate is largely explained by the high level of emigration, estimated at -1,800 net migrants a year, mainly towards Australia, New Zealand, and the United States.
The combination of high fertility rates and high rates of emigration of working age adults has resulted in a relatively young population and high dependency ratios. At present, 38% of the population is under 15 years of age and 19% of the population between 15-24 years of age. This translates into a significantly high youth dependency ratio of 68%. The high dependency ratio is likely to have major implications on the provision of public sector services, as well as land pressures.

Population projections are not available for Tonga, but review of existing population data indicates growing population pressures (Figure 1.4). The demographic transition is characterised by falling fertility rates, an increase in the share of the working population due to the population momentum created by high fertility rates in previous years, and consequently, declining dependency ratios. The declining dependency ratios are an opportunity for economic growth, provided they are accompanied by significant investment in human capital and the creation of productive employment opportunities. Historically, rapid economic growth in many EAP countries such as Japan and Taiwan (China) has been attributed to this “demographic dividend”. Current trends imply that the impact of any demographic dividend may be limited in Tonga. Even if fertility rates were to fall, the continued out-migration of working age Tongan adults means that dependency ratios will remain high as the population ages rapidly. The dependency ratio, which was 78.1 in 2005 is projected to decline to 50.9 by 20503.

Figure 1.4: Age structure in Tonga, 2006

The epidemiological transition is well underway in Tonga. Non-communicable diseases account for large proportion of adult morbidity and mortality. The incidence of these diseases is exacerbated by risk factors such as tobacco use, poor diet and a lack of exercise. It is particularly striking that the incidence of non-communicable diseases such as diabetes is as common among younger adults as among older adults. Meanwhile, communicable diseases such as Hepatitis B and typhoid have emerged.

3 World Development Indicators, 2008.
The dual impact of Tonga’s demographic and epidemiological transition will be to significantly increase the demand for health services and social protection, more generally. Changes in the share of the population aged over 65 are associated with increased demands for health care services. In Tonga’s case, the transition towards an older population coupled with greater harm arising from current risky behaviours suggest that the burden of NCDs will increase rapidly with the ageing population. In turn, this will create even greater demand for hospital-based medical services, given relative underinvestment in good primary care and early detection of chronic diseases at present. Changes in the share of the population aged over 75 will likewise increase demand for high dependency health and social services, particularly as emigration results in a decline of traditional family-based provision of social security for the elderly.

The cost implications of the dual demographic and epidemiological transition for the health sector are potentially quite large. In 2003, about 10.4% of all patients admitted to a hospital were admitted for NCD’s. NCDs account for about 13% of total health spending at present. In Tonga, diagnosis of NCD’s is weak and most often made at more advanced stages of disease. This is a key factor driving up costs as patients end up requiring more complex treatment. In addition, average lengths of stay for NCD-related admissions are longer than for normal admissions. For instance, a patient admitted with a NCD had an average length of stay (ALOS) of 9.2 days, compared to an ALOS of 4.9 days for other admissions (Doran 2003). Moreover, the expenditure burden of treating NCD’s is likely to be exacerbated by the ageing population.

1.3 Health financing overview

LEVELS AND TRENDS IN EXPENDITURES AND FINANCING SOURCES

Total health expenditures per capita were US$ 176 in 2005/06 in Tonga, or about 6.8% of GDP. Government and external financing accounted for 54% and 33% of total health expenditures, and out-of-pocket payments accounted for the remaining 13%. In 2006, health spending accounted for just over 15% of total government spending (Table 1.4). In 2008, user fees were introduced for services provided at Vaiola hospital.

Tonga stands out as having some of the highest levels of health spending of both total and government, by comparison with the rest of the EAP region. Total and government health expenditures per capita are high when compared with the EAP region as a whole, even when Tonga’s middle income country status is taken into account. The majority of countries in the EAP region allocate less than 10% of the government budget for health, compared to 15% in Tonga (Figure 1.5). However, the Pacific islands have some of the highest expenditures on health, and Tonga is no exception when compared to this group (Table 1.5).

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Table 1.4: Health expenditures and financing in Tonga

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</thead>
<tbody>
<tr>
<td>Total Health Expenditure (US$ ’000)</td>
<td>9,328</td>
<td>11,563</td>
<td>16,715</td>
</tr>
<tr>
<td>Total Health Expenditure per capita (US$)</td>
<td>93</td>
<td>114</td>
<td>164</td>
</tr>
<tr>
<td>Total Health Expenditures share of GDP (percent)</td>
<td>6.29%</td>
<td>5.85%</td>
<td>6.80%</td>
</tr>
</tbody>
</table>

*Sources of financing for health (percent)*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ministry of Health</td>
<td>49.5</td>
<td>54.5</td>
<td>54.0</td>
</tr>
<tr>
<td>Ministry of Defense</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Parliament</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Donors</td>
<td>26.1</td>
<td>31.1</td>
<td>32.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Insurance Enterprises</td>
<td>2.6</td>
<td>0.1</td>
<td>2.1</td>
</tr>
<tr>
<td>Private Households' OOP</td>
<td>18.8</td>
<td>10.9</td>
<td>8.2</td>
</tr>
<tr>
<td>NGOs</td>
<td>2.9</td>
<td>3.0</td>
<td>2.9</td>
</tr>
<tr>
<td>Private Firms</td>
<td>0.3</td>
<td>0.0</td>
<td>0.0</td>
</tr>
</tbody>
</table>


**Figure 1.5: Total Health Expenditure per capita and as % of GDP**

*Source: Data from WDI (2008) and WEO (2008).*

Table 1.5: Health expenditure in the Pacific (2005)

<table>
<thead>
<tr>
<th>Country</th>
<th>Health expenditure per capita (current US$)</th>
<th>Health expenditure, public (percent of GDP)</th>
<th>Health expenditure, public (percent of government expenditure)</th>
<th>Health expenditure, total (percent of GDP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiji</td>
<td>148</td>
<td>2.9</td>
<td>9.6</td>
<td>4.1</td>
</tr>
<tr>
<td>Kiribati</td>
<td>118</td>
<td>11.7</td>
<td>13</td>
<td>12.7</td>
</tr>
<tr>
<td>Marshall Islands</td>
<td>294</td>
<td>15.0</td>
<td>15.2</td>
<td>15.4</td>
</tr>
<tr>
<td>Micronesia, Fed. States</td>
<td>290</td>
<td>12.4</td>
<td>18.9</td>
<td>13.5</td>
</tr>
<tr>
<td>Palau</td>
<td>690</td>
<td>8.7</td>
<td>16.4</td>
<td>9.6</td>
</tr>
</tbody>
</table>

*Figures based on WDI data to assure comparability; they are not necessarily the official statistics of Member States, which may use alternative methods.*

*See footnote 3.*
Tonga’s high reliance on general government revenue financing, and low share of out-of-pocket spending are also in contrast with the rest of the EAP region. In the EAP region as a whole, direct and indirect tax sources account for 30-40% of total health spending (Figure 1.6), while out-of-pocket sources accounts for 50-60% (Figure 1.7). Meanwhile, social health insurance accounts for a significant share of total health spending in upper-middle income and high income countries, but not low and lower-middle income countries. Tonga is comparable to the other Pacific Island countries, where general government revenues form the mainstay of health financing and reliance on out-of-pocket spending is minimal.

User fees were introduced in 2009 to supplement general government revenues for financing health care. Initially, the user fees will only apply for services provided at the national referral Vaiola Hospital, and will be for inpatient services only. Plans to roll out the user fee policy to other hospitals are under discussion. The new user fee scheme is described in more detail in Chapter 2.

**Figure 1.6: Sources of health financing in LMICs in the EAP region, various years 2000-2006**
COMPOSITION OF HEALTH EXPENDITURES

While curative care expenditures account for the largest share of health spending in general, capital investment accounted for a disproportionately large share of both government and donor spending during 2005-2008 due to the construction of Vaiola Hospital. In 2005/06, government health expenditures were composed primarily of capital investment (24%), curative care (23%), and pharmaceuticals (10%). Similarly, donor expenditures were composed of capital formation of health providers (53%), education and training of health personnel (15%), and research and development (11%). Pharmaceuticals and overseas treatment received additional funds from donors, 4% and 8% respectively. Construction of the new Vaiola Hospital which took place from 2004 to 2008 absorbed a significant share of donor and government expenditures during this period.

Expenditure allocations to public health and preventive services are low. Prevention of communicable and non-communicable diseases and health promotion accounted for less than 5% of total government expenditure, and about 6% of donor health expenditures. With 29% of funds dedicated to inpatient curative care versus 7% for preventive and public health services it is clear that there is a need to refocus expenditures towards the provision of primary care. Surprisingly, the bulk of NCD spending (60.5%) is attributed to pharmaceuticals. Inpatient and outpatient curative care services only account for 10.6% of total spending, and preventive services for about 12%.

Private spending on health is incurred largely on traditional medical care and overseas treatment. Out-of-pocket spending was largely attributable to traditional healers (30%), private pharmacies (28.3%) and private physicians (17.2%). Private health insurance, which accounts for about 0.4% of total health spending, is used almost exclusively to cover the costs of overseas medical treatment.

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7 Tonga NHA Report 2005-06 – NCD expenditure analysis
FINANCING FUTURE HEALTH NEEDS

The current health profile, and demographic and epidemiological projections indicate that Tonga will need to increase spending on health or increase the effectiveness of existing spending in the future. High levels of health spending in Tonga have largely helped buy universal coverage. Most countries in the EAP region have in place health policies that imply universal coverage. In practice, universal coverage rarely translates into universal access due to resource constraints (UNESCAP 2007). Tonga has succeeded in providing high levels of access to health services to the majority of its population. The challenge will be to ensure that such high levels of coverage are maintained even as population ageing leads to increasing demands for health care; health care demand, which will be exacerbated by the rising burden of non-communicable diseases. Given the need for additional resources, the remainder of this report will outline some of the key drivers and options for generating additional resources for health in a sustainable manner.
3. A framework for assessing financing options for health

Health financing includes not only the processes that mobilise funding, but also how funds are channelled and applied to obtain health services. Health financing strategies have to address three key challenges. The first challenge is over how best to expand risk pooling. This implies shifting from out-of-pocket financing to public or private pooling arrangements that ensure effective financial protection and coverage. The second challenge is how best to improve efficiency in how resources are mobilised and how resources are allocated. The third challenge is how best to ensure equity in access to needed and effective medical services.

Underlying this are issues of feasibility and sustainability of the financing mechanism. Sustainability refers to the ability of the financing mechanisms to maintain its level of funding in the long term and generate additional resources commensurate with health care needs (McPake and Kutzin 1997); while feasibility refers to the level of support from stakeholders and the administrative, technical and regulatory capacity needed to operate that financing mechanisms.

To address these challenges, a health financing system performs three key functions: the collection and pooling of funds, and purchasing of services. Revenue collection refers to how funds are raised, and if the manner in which they are raised is efficient, equitable and sustainable. Pooling refers to the ability to prepay and share across the population the financial risks associated with illness and health care. It is therefore critical for ensuring financial protection. Purchasing refers to how resources are allocated to inputs, services and patients, and how providers are paid. Thus, it has direct bearing on improving health system efficiency, and equity in access to services.

Four types of health financing arrangements exist to pool risks, foster prepayment, raise revenues and purchase services. They are: (i) national health services financed through general revenues; (ii) social health insurance; (iii) community health insurance; and (iv) voluntary health insurance. Each is linked to distinctive instruments for revenue collection, pooling and purchasing. This Policy Note will assess each of these four options by analysing a range of country-specific factors which influence whether each financing arrangement can mobilise resources sustainably, pool risks, improve efficiency and equity in the context of Tonga.

The ability of financing mechanisms to address the challenges outlined above are determined by a range of economic, social and political factors specific to each country. Economic factors include income levels, employment structures and the level of economic development more generally. Administrative capacity, particularly of the public sector, has implications for the type of pooling and purchasing arrangements. Moreover, public and private prepayment and risk-pooling arrangements observed around the world evolved from historic social and political decisions about how to organise pre-payments and pooling. Social solidarity and public preferences regarding income redistribution, both historical and present, influenced these decisions. In Tonga, the country’s constitution calls for universal coverage and high levels of coverage have been maintained since the 1920s. Thus, any discussion of new financing arrangements to generate additional resources for health must include consideration of the social and cultural preferences that contributed to existing levels of health care coverage.

An important underlying determinant in this analysis is the government’s ability to mobilise domestic resources, or fiscal space for health. Fiscal space refers to the extent to which a government can increase spending in a financially sustainable manner, so that long-run financial solvency is not jeopardised (Heller 2005). It can be defined with respect to the availability of...
additional resources for overall government spending, or for a specific sector. While fiscal space is of greatest relevance to general revenue financed national health service arrangements, it has implications for all of the other three financing arrangements as well. For instance, in settings where there is a high degree of informality in labour markets and payroll contributions for social health insurance are limited, high levels of government subsidies will still be needed to ensure coverage even if social health insurance arrangements exist. Thus, the feasibility of social health insurance financing is related in part to fiscal space for health. Voluntary insurance, private or community-based, mainly provide supplementary financing for health. Thus, the greater the fiscal space for health, the more extensive the coverage of national health services, the more limited the role played by voluntary insurance.
4. Government revenues

At present, Tonga has a national health service financed primarily through general revenues. Under this system, general revenues are collected primarily through taxation. The funds are used to directly finance government operated services, which are provided on universal basis to the whole population at zero or minimal price. Thus, risks are pooled across the entire population. Public financing and provision are integrated under this system.

The sustainability of this health financing arrangement depends on the ability of the government to mobilise domestic resources for health or improve the effectiveness of current allocations. The concept of fiscal space was defined in the previous chapter. Although fiscal space is usually assessed in aggregate, i.e. without regard to a specific sector, the analytical framework within which the fiscal space is assessed can be adjusted to take into account the prospects for increasing government spending specifically for health in a particular country (World Bank 2008).

Fiscal space for health may be assessed by examining the different options by which sources of government financing for health could be increased (World Bank 2009). These include:

(i) conducive macroeconomic conditions
(ii) improved revenue generation capacity
(iii) a re-prioritisation of health within the government budget
(iv) an increase in health specific resources e.g. through ear-marked taxation or external borrowing and grants.
(v) generation of efficiency savings in government health outlays

The first three options lie outside of the domain of the health sector as they are linked to general macroeconomic policies and conditions, and cross-sectoral priorities of the Government of Tonga. Nonetheless, it is important to analyse what the implications of changes in the overall macroeconomic and political environment might be to the health sector, and what potential they hold for generating additional resources for health. Discussion of the other options will examine ways of generating new sector-specific resources for health. This framework is used to assess the sustainability of the general-revenue financed national health services in this chapter.

4.1 Economic growth and overall macroeconomic conditions

Economic growth is a key driver of growth in government health spending in general. One reason is that rising incomes are associated with increasing demand for and supply of health care. A second reason is that as incomes drive up spending, the relative price of health care also rises. Third, rising incomes are accompanied by both an increase in the revenue generation capacities of government as well as public preferences for allocating a greater share of government resources to health and other social sectors.

Total health expenditure as well as the government’s share of total health expenditures generally increase with national income across countries. This is clearly seen in Figure 4.1 from which the elasticity of both total and government health spending to income can be derived. The latter elasticity is higher at about 1.25 (implying that a 1% rise in income on average leads to a 1.25% rise in government health spending) and the former is about 1.10 (implying that a 1% rise in income raise total health spending by 1.10%) (World Bank 2008). There are many recent examples of countries, such as India, where economic growth has led to greater fiscal space for health.
In Tonga’s case, government health expenditure has increased with GDP over time, with the estimated elasticity of government health spending to GDP around 1.84 (IMF 2008). Based on the analysis of trend data from 1994 to 2006, nominal government health expenditures rose by 1.84% for every 1% increase in nominal GDP in Tonga. Part of the responsiveness of nominal health spending to nominal GDP may be a result of differential prices changes in health versus the average for the economy. Assuming no significant differentials between the health price index and the general price index, Tonga’s economic growth prospects hold the key to the sustainability of general revenue financing for health.

Medium-term economic forecasts for Tonga indicate that GDP growth is likely to remain low. Tonga, a middle-income country with GDP per capita of US$5,189, is typical of Pacific Island economies that are highly vulnerable to external economic shocks and natural disasters. For the past decade, economic growth has been muted with real GDP growth averaging about 1.9 percent. Economic growth was severely disrupted during 2006-2007 following the wage settlement of 2005 and the November 2006 riots, and real GDP dropped by about 3.25 percent in FY06/07. Economic projections made just prior to the current global financial crisis suggested that GDP growth would stabilize at its long run average of 1.75 percent (Figure 4.2). High costs of labour and energy, limited export diversification and the lack of long-term investment to improve productivity and efficiency are the main factors impeding higher levels of economic growth. More recent data indicate that the economy is likely to contract due to a reduction in tourism and remittance revenues, both of which are linked to the economic downturn in countries such as Australia and New Zealand as discussed below.

---

8 The wage settlement of 2005 and associated redundancy program led to large civil servant wage increases of 60-80% and a reduction in the number of civil servants by nearly 20%. The total cost of the wage settlement accounted for about 19.1% of GDP in FY05/06, 16.2% in FY06/07, and 13.8 in FY07/08 compared to its pre-settlement level of 11.7% in FY04/05. Civil disturbance in Nuku’alofa in November 2006 led to the destruction of shops, offices, plant and equipment, and stocks of goods for sale resulting in an estimated cost of $112 million according to surveys by the Ministry of Labor. Both these major events severely affected the flow of remittances and tourism earnings and had significant fiscal implications.

Government health spending could potentially rise from 3.7% of GDP in 2006 to 6.3% in 2013 if the elasticity of government health spending to GDP in Tonga remains at the rate it has been over 1994-2006. Table 4.1 reports the projected trends for government health spending – in levels and as percent of GDP – assuming the IMF Article IV growth and nominal GDP forecasts for Tonga. Based on economic growth related projections and despite the relatively low rate of growth, Tonga could still increase spending by a significant amount if government health spending responds to GDP growth in the same manner it did during 1994-2006. This assumes that the relationship between government health spending and national income has reached a form of steady-state (World Bank 2008). During 2004-2007, the government injected approximately 0.3% to 0.5% of GDP into the reconstruction of Vaiola Hospital, which is now complete. The expenditure-GDP elasticity was estimated separately to exclude the impact of Vaiola hospital spending. The projections still show expenditures as a share of GDP increasing from 3.7% in 2006 to about 5.2% in 2013.

Table 4.1: Government health expenditures: actual (2004-2007) and projected (2008-2013)

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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Nominal GDP</td>
<td>372</td>
<td>425</td>
<td>474</td>
<td>493</td>
<td>554</td>
<td>604</td>
<td>670</td>
<td>737</td>
<td>802</td>
<td>865</td>
</tr>
<tr>
<td>Total Gov't Health Spending</td>
<td>12</td>
<td>13</td>
<td>17</td>
<td>20</td>
<td>25</td>
<td>29</td>
<td>35</td>
<td>41</td>
<td>48</td>
<td>55</td>
</tr>
<tr>
<td>Health share of GDP (%)</td>
<td>3.22</td>
<td>3.14</td>
<td>3.68</td>
<td>4.10</td>
<td>4.48</td>
<td>4.79</td>
<td>5.19</td>
<td>5.58</td>
<td>5.96</td>
<td>6.33</td>
</tr>
</tbody>
</table>

Sources: GDP projections from IMF (2008); health expenditure projections are from staff estimates.

Increases in food and fuel prices, and the global financial crisis pose a threat to Tonga’s economic recovery, however. The country relies heavily on imports, mostly food and fuel, while its export base remains narrow, making the trade balance highly vulnerable to major external price shocks (IMF 2008). Historically, export activities have been restricted to a narrow range of agricultural goods dominated by squash pumpkins targeted at a single market, namely Japan which accounts for 53.4 percent of all exports. High food prices could drive up inflation and intensify external vulnerability, thus weakening domestic confidence and real economic activity. Despite the recent rise in
international fuel and food prices, the current account deficit as a share of GDP is expected to narrow over the medium-term to -7% as remittances are able to offset almost 81% of imports. However, Tonga’s reliance on remittances is also a source of vulnerability.

**Remittances are a significant driver of economic activity in Tonga, which makes the country vulnerable to the current global financial crisis,** particularly that in the United States, Australia and New Zealand where most remittances are sourced from. In 2007, remittances accounted for 35% of Tonga’s GDP (Ratha, Mohapatra et al. 2008). Tonga is the third highest recipient in terms of remittances in GDP in the world. Strong community ties that bind expatriate Tongans to families back home underpin the continued flow of remittances from abroad. Remittances are now the key mitigating factor against external shocks as a result (IMF 2008). Globally, the slowdown of remittance flows that began in 2008 is expected to deepen in 2009 due recessionary pressures in the North America and Europe. The growth of remittance flows is expected to decline from 7.5% in 2008 to 0.4% in 2009 in the EAP region as a whole (Ratha, Mohapatra et al. 2008). This is a potential threat to GDP growth in Tonga, given that the economy is geared towards meeting domestic demand driven by remittance incomes.

### 4.2 Improved revenue generation and overall fiscal policy

Higher general government revenues can significantly expand overall fiscal space. Improved revenue generation capacity is key underlying determinant of higher government spending, including health spending. In general, revenue generation is constrained not only by low levels of per capita income, but also limited overall resources, large informal sectors, and poorly developed administrative structures. Thus, increased revenue generation capability is not entirely reliant on increased GDP growth, although the latter is important. Overall government spending is highly related to revenue generating capabilities in a country: there is a close correlation between the government budget as a share of GDP and revenues as a share of GDP (Figure 4.3). On average, the relationship between government health spending as a share of GDP versus revenues as a share of GDP is similar to that of total government spending (World Bank 2008).

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10 Estimates are based on IMF Balance of Payments Statistics Yearbook 2008 and data releases from central banks, national statistical agencies and World Bank country desks. Remittances are defined as the sum of workers’ remittances, compensation of employees and migrant transfers.
Recent tax reform and improvements in tax compliance could potentially improve revenue generation capacity in Tonga. Improved administration of existing tax and non-tax collection efforts are key to improving revenue generation and, potentially expanding fiscal space for health. Revenue reform was initiated in 2002 to end Tonga’s heavy reliance on taxes on international trade as a main source of government revenue. With the accession of Tonga in December 2005 to the World Trade Organization, custom duties were changed to meet membership obligations through a uniform ceiling of 20% on all imports with the exception of alcohol, tobacco, vehicles, and petroleum. To compensate for the loss of income from import duties, a 15% consumption tax on goods and services was introduced in April 2005, making domestic taxes the most significant source of tax revenue. In addition, the new Income Tax Act introduced in February 2008 provides for a progressive tax rate system establishing the taxable income threshold at TOP7,400, where all incomes from TOP 7,400 to TOP 30,000 is taxed at 10% and all incomes above TOP 30,000 are taxed at 20%. Tax collection has also been made more efficient and tax compliance improved. The change in level and composition of total tax revenues over the last five years is shown in Table 4.1.

Table 4.1: Tax Composition (in millions of TOP)

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>Import Duties</td>
<td>27.9</td>
<td>30.1</td>
<td>34.2</td>
<td>46.3</td>
<td>49.0</td>
<td>49.3</td>
</tr>
<tr>
<td>Port &amp; Service Tax</td>
<td>25.7</td>
<td>27.0</td>
<td>21.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Income Tax</td>
<td>15.5</td>
<td>16.3</td>
<td>20.6</td>
<td>25.2</td>
<td>25.0</td>
<td>26.0</td>
</tr>
<tr>
<td>Sales/Consumption Tax</td>
<td>8.1</td>
<td>9.0</td>
<td>18.6</td>
<td>49.3</td>
<td>51.5</td>
<td>57.1</td>
</tr>
<tr>
<td>Other</td>
<td>3.5</td>
<td>3.5</td>
<td>3.6</td>
<td>4.9</td>
<td>0.1</td>
<td>0.5</td>
</tr>
<tr>
<td>Total tax Revenue</td>
<td>80.7</td>
<td>85.9</td>
<td>98.3</td>
<td>125.7</td>
<td>125.6</td>
<td>132.9</td>
</tr>
<tr>
<td>Non-tax Revenue</td>
<td>17.6</td>
<td>18.5</td>
<td>17.6</td>
<td>22.0</td>
<td>20.7</td>
<td>29.1</td>
</tr>
<tr>
<td>Total Govt. Revenue</td>
<td>98.3</td>
<td>104.4</td>
<td>115.9</td>
<td>147.7</td>
<td>146.3</td>
<td>162.0</td>
</tr>
</tbody>
</table>

Source: Fakahau, 2008

Tax revenues are estimated to have increased by 15% in 2007/08 as a consequence of improved tax administration and compliance. The government expected to collect TOP 162.0 million from tax revenues.
(TOP 132.9 million) and non-tax (TOP 29.1 million) revenues in 2007/08\textsuperscript{11}. Figure 4.4 shows trends in revenues in Tonga. In 2003/04, the government collected 30\% of GDP as revenues, of which taxes accounted for 23.2\%. On average, middle income countries collect about 25\% of GDP in revenues. After the tax reforms, revenues particularly from tax sources, increased and are expected to stabilise around 32\%.

Figure 4.4: Revenues as a share of GDP, actual and projected (2003-2013)

However, the need to ensure fiscal prudence means that improved revenue generation capability may not necessarily be translate into increased public spending. The impact of the wage settlement in 2005 has largely been mitigated by the fiscal restraints imposed by the government and improved revenue collection. As a result, the fiscal deficit was 0.4\% of GDP in 2006/07, significantly lower than budgeted deficit of 2\% of GDP. In addition, a balanced budget is likely to have been achieved in 2007/08. The CPIA rating for fiscal policy was upgraded in 2008 to reflect these improvements in fiscal performance. Nevertheless, the IMF Article IV consultation in 2008 concluded that maintaining fiscal prudence in FY08/09 was critical for sharing the burden of macroeconomic management while generating fiscal savings to buffer increase in debt service over the medium term. It is also worth noting that tax revenues are heavily reliant on consumption taxes, which make them vulnerable to a reduction in remittances and thus, domestic consumption.

In the face of the global financial crisis, the Government of Tonga has provided for a more expansionary fiscal stance in the 2009 budget. Public debt levels are relatively high in Tonga, and government borrowing to finance a fiscal stimulus is not considered appropriate\textsuperscript{12}. As it is, a World Bank/IMF Debt Sustainability Analysis has shown that the existing reconstruction loan has put Tonga at a high risk of debt distress\textsuperscript{13}.

The question of whether improved revenue generation will necessarily benefit the health sector is addressed next.

\textsuperscript{11} The IMF’s 2008 Article IV report also reports $162.8 million in total revenue for FY07/08, but $144.9 million in tax revenue and $17.9 million in non-tax revenue.

\textsuperscript{12} ABD, 2008.

\textsuperscript{13} IMF, 2009
4.3 Increasing health share of the government budget

The Government of Tonga allocated 12% of the budget for health on average during 1994-2006, and generally accords high priority to health. This is higher than average in comparison with most other EAP countries, as discussed in Chapter 1. Moreover, the health sector was largely exempted from the redundancy programme in 2006-2007 in order to protect the capacity of the sector to deliver essential services. Funding for the reconstruction of Vaiola Hospital was not affected by the fiscal constraints after 2006 either. The government did however introduce legislation to charge user fees and implement a voluntary health insurance scheme (Fakahau 2008).

Increasing the health sector’s share of the total budget may not be feasible in the short to medium term, given the large share already allocated to health. The Ministry of Finance indicated that, while budgetary allocations for the social sectors (education and health) are likely to be protected over the short to medium term, it is unlikely their relative shares will be increased (Somanathan 2008). The economy faces structural impediments that undermine growth. These included limited export diversification in agriculture as well as a lack of long-term investment in tourism, a potential area for growth. Tourism and agriculture are two sectors that are likely to need increased budgetary allocations. However, the relatively high priority given to health implies that the health sector would benefit considerably from improved revenue generation, assuming the health share of the government budget remains constant.

4.4 Potential sector-specific resources

Resources specific to the health sector exist, which could potentially be used to generate additional financing for health. These include overseas development assistance specific to the health sector, taxation of alcohol and cigarette consumption that could be earmarked so that the revenues go directly to the health budget and user fees for use of public health facilities.

Overseas development assistance (ODA) in the form of foreign aid or grants specific to the health sector can increase fiscal space for health in Tonga. During 2003-2006, ODA accounted for 33% of all health spending in Tonga. Nearly half of this is attributable to the Vaiola Hospital reconstruction project. Prior to 2003, ODA accounted for 24% of total health spending. The share of ODA financing for health is high in Tonga given its middle income country status and generally good health indicators. Still, AusAID has recently committed itself to contribution Aus$ 20 million to the health sector in Tonga for the next 10 years. With this substantial contributions, it is unlikely that donor contributions to the health sector will decline in near future.

Scope exists for increasing taxes on tobacco in Tonga, and potentially earmarking cigarette tax revenues for health. Tonga has acceded to a World Health Organisation treaty on tobacco control, which obliges the Ministry of Health to introduce measures to reduce the prevalence of smoking. 39% of the population (60% of adult males aged 20-24) are smokers. At present, cigarettes are subject to a Consumption Tax of 15% on the price of cigarettes as well as an excise taxes, making the tobacco rate in Tonga one of the lowest in the region. As Table 4.1 shows, the tobacco tax rate is 30-50% of the price of cigarettes in most EAP countries, although the proportion of smokers in the population is similar to that in Tonga.

Thailand, Ghana and Zimbabwe are two examples of countries that have successfully used earmarked taxation to create fiscal space for health (World Bank 2008). The Thai Health
Promotion Foundation is funded directly through a 2% earmarked tax on tobacco and alcohol taxation. Estimated annual revenues from are about US$ 50 million (WHO and SEARO 2006). Thailand has also increased cigarette taxation from 55% in 1993 to 75% in 2001, leading to declining consumption rates and increased government revenues from tobacco taxes. In Ghana, the national health insurance program is funded in part by a 2.5% VAT earmarked for this purpose. In Zimbabwe, a 3% levy on personal income and corporate taxes are used to help fund AIDS related interventions.

However, ear-marked taxes are distortionary and not the most efficient form of revenue generation. While ear-marked taxes generate fiscal space, they can also displace existing funding, so that the net impact on overall resources for health is minimal. The amount of the revenue generated through the ear-marked tax is often offset by an equivalent reduction in the general tax-funded proportion of the budget allocation to the health sector. Ear-marked taxes can also reduce the flexibility of spending budgets to respond to changing public priorities and macroeconomic circumstances (McIntyre 2007).

Ear-marked taxes may also prove to be a regressive mechanism for financing health care. In Tonga, the majority of smokers – adult males aged 20-24 – represent one of the lower income groups in the population, given high levels of unemployment among the youth. The incidence of the tobacco tax is likely to fall disproportionately on the income group. The potential for revenue generation through ear-market taxes on tobacco therefore needs to be tempered by the distortionary effects and regressivity of such taxes.

Table 4.1: Comparison % of Smokers and Tobacco Tax Rates in the EAP region and EU-15

<table>
<thead>
<tr>
<th>Country</th>
<th>Year</th>
<th>% of Smokers</th>
<th>% of Tobacco Taxes in the Price of Cigarettes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cambodia</td>
<td>2004</td>
<td>21.7</td>
<td>9</td>
</tr>
<tr>
<td>China</td>
<td>2002</td>
<td>31.4</td>
<td>21</td>
</tr>
<tr>
<td>Fiji</td>
<td>2002</td>
<td>15</td>
<td>...</td>
</tr>
<tr>
<td>Indonesia</td>
<td>2001</td>
<td>28.7</td>
<td>22</td>
</tr>
<tr>
<td>Japan</td>
<td>2006</td>
<td>27</td>
<td>5</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>2005</td>
<td>29.1</td>
<td>10</td>
</tr>
<tr>
<td>Lao PDR</td>
<td>2003</td>
<td>35.7</td>
<td>32</td>
</tr>
<tr>
<td>Malaysia</td>
<td>2006</td>
<td>21.2</td>
<td>39</td>
</tr>
<tr>
<td>Mongolia</td>
<td>2005</td>
<td>24.2</td>
<td>31</td>
</tr>
<tr>
<td>Philippines</td>
<td>2003</td>
<td>23.6</td>
<td>41</td>
</tr>
<tr>
<td>Singapore</td>
<td>2004</td>
<td>12.6</td>
<td>69</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>2003</td>
<td>13.6</td>
<td>54</td>
</tr>
<tr>
<td>Thailand</td>
<td>2004</td>
<td>21.1</td>
<td>79</td>
</tr>
<tr>
<td>Tonga</td>
<td>2000</td>
<td>31.7</td>
<td>...</td>
</tr>
<tr>
<td>Vietnam</td>
<td>2003</td>
<td>17.5</td>
<td>32</td>
</tr>
<tr>
<td>EU 15 average</td>
<td>*</td>
<td>24.2</td>
<td>58</td>
</tr>
</tbody>
</table>

Sources: for EAP countries: WHO Global InfoBase, latest national available data; for EU 15 countries: OECD Health Data 2008 - Latest available data are selected

Note: Data for Cambodia, Fiji, Indonesia and Mongolia are 15 ‘daily tobacco users; Korea and Japan are for 20 ‘current cigarette users; Lao PDR, Myanmar, Philippines, Singapore, Sri Lanka and Vietnam are for 18 ‘daily tobacco users; Malaysia are for 25 ‘daily tobacco users; Thailand are for 11 ‘current cigarette users; Tonga are for 15 ‘cigarette users; Fiji’s data for tobacco tax are not available. Data for EU-15: % of population 15 ‘ who are daily smokers

User fees were introduced in Tonga in January 2009 as a potential new financing mechanism for the health sector. The new fees are primarily targeted at non-Tongan nationals using government health services in Tonga, and health services related to travel or emigration. However, the new policy
involves a five-fold increase in fees for inpatient food and domestic services (admission fees) for Tongan nationals. These charges are capped at twenty-one days. User fee exemptions apply to patients under the age of 14 and over 70, those in the Infections Disease Ward or isolated in the ward for infection control, and those admitted for psychiatric illness.

In recent years, growing evidence of the impoverishing effects of out-of-pocket payments have called into question the appropriateness of user fees in low and middle income countries. User fees were widely advocated in the 1980s and 1990s for their potential for cost-recovery at the facility level and ability to promote appropriate referral routes. Recent empirical work on the incidence of payments for health care have provided compelling evidence that reliance on user fees, and out-of-pocket payments more generally, can lead to large inequities in service delivery (Wagstaff, van Doorslaer et al. 1999; O'Donnell 2008; O'Donnell, van Doorslaer et al. 2008). Moreover, the costs of collecting user fees are non-trivial, especially with regard to making sure exemptions and fee-waivers are effective. These factors, and growing emphasis on poverty reduction have prompted several countries including South Africa, Uganda and Zambia to remove some or all user fees charged at public facilities. Eliminating user fees is not straightforward and alternative sources of funds need to be sought to avoid a decline in the quality and quantity of services provided. Nevertheless, there is a clear movement away in favour of prepayment mechanisms (tax and social insurance), which has been strengthened by the 2005 World Health Assembly resolution encouraging the organisations’ Member States to favour social and other forms of health insurance (McIntyre 2007).

The positive and negative impact of user fees need to be assessed carefully in Tonga. The user fees may have a positive impact by discouraging excessive use of inpatient facilities, and encouraging greater use of primary care or outpatient facilities. On the other hand, they may undermine financial protection and make health service use more pro-rich. The amount collected in user fees may be small, relative to the costs of administering the user fee scheme and the negative impact on health care use. As this is the first year of implementation, there is no information yet on revenues collected through user fees, the costs of implementing the scheme and demand-side effects of the fees.

4.5 Assessment of general revenue financing

FEASIBILITY AND SUSTAINABILITY

The current system of financing using general revenues is sustainable in the short to medium term, provided current growth and revenue forecasts hold. Economic growth is projected to be stable despite recent economic shocks. Government revenues are projected to increase due to tax reform. Given the high priority already accorded to health in the government budget, economic growth, albeit low, and increased tax revenues are likely to ensure that health spending is not likely to be affected. It is unlikely that the system will be able to mobilise significant additional resources for the health sector however, because of other competing priorities in the government budget. There is scope for mobilising additional resources through external grants or ear-marked taxes. The former would depend on the key priorities of regional donors, and the latter on the feasibility of introducing tobacco taxes, given concerns about distortionary effects and regressivity of taxes.

There are two caveats to generating addition fiscal space for health, which have direct bearing on sustainability (Gottret and Schieber 2006). First, it is important to consider that increased funding for the health sector, even if financed through external grants, may have ripple effects in other sectors that may not have the same level of financing. This is particularly relevant with regard to wages for health workers. Second, even if grants are available for financing today’s expenditure needs, they may not be available to cover the implied increase in expenditures in the future, when grant financing is no
longer available. These are caveats particularly relevant given that Tonga is likely to graduate out of lower-middle income country status in the medium term.

In low and middle income countries, general revenue financing tends to be the most administratively feasible method of financing. The collection of earnings-related contributions for social health insurance (SHI) is carried out within specific infrastructure created for that financing system, while the tax-financed system’s revenues are collected via the existing system for collecting inland revenues. This is likely to make the SHI system more costly, although SHI advocates argue the extra costs are worth paying for generating funds that are ear-marked for the health sector.

RISK POOLING AND FINANCIAL PROTECTION

Health financing arrangements in Tonga have been successful in pooling risk relatively well until now. Most low and middle income countries rely primarily on out-of-pocket payments, and are not effective at pooling risks. As a consequence, they are unable to prevent a high incidence of financial catastrophe due to illness, or achieve financial protection objectives. This has not been the case in Tonga. Universal access to public sector services and, until recently minimal user fees, have provided adequate levels of financial protection. Survey data indicate that out-of-pocket payments for health account for a very small share of the household budget, and that financial catastrophe due to illness is limited.

The recent introduction of user fees at Vaio la hospital care could undermine financial protection, however. Globally, is clear evidence that out-of-pocket payments for health care, whether they are user fees or payments made to private providers, are significant barriers to health improvement because they reduce coverage (Van Doorslaer, O'Donnel et al. 2006; O'Donnell, van Doorslaer et al. 2008; Rannan-Eliya 2008). Therefore, the proposed evaluation of the user fees should examine whether the user fees are associated with excessively large payments for health care in relation to the household budget, which could imply financial catastrophe. If user fees achieve only marginal increases in funding, but at the same time significantly undermine risk pooling and financial protection, the costs of introducing user fees are likely to outweigh their benefits.

EFFICIENCY

Relative efficiency of revenue collection and pooling under the current system could be undermined by the introduction of ear-marked taxes and user fees. By comparison with other types of health financing, the current system offers are broad revenue base, and one less likely to act as a disincentive for formal job creation. Moreover, recent tax reforms have improved the efficiency of tax administration by modernising the tax system and streamlining income tax. The introduction of ear-marked taxes on tobacco, while generating additional resources for health could have distortionary effects.

The administration of user fees and exemption schemes associated with them are likely to reduce cost-efficiency of revenue collection. A correct assessment of user fees is needed, which compares the revenues raised against the costs of administering the user fees scheme, and potential leakages due to weak implementation of exemptions. Since user fees were introduced only in January 2009, no data were available on revenues collected at the time of writing this report.

The current method of resource allocation and purchasing is not conducive to improving efficiency. Under the current system, health facilities are paid on the basis of line-item budgets, and doctors are paid salaries. Neither of these methods uses incentives to improve performance. This is fairly typical of most health financing systems with direct provision of services. While indirect provision through purchasing linked to performance will improve efficiency, such methods require a...
minimum degree of government regulatory and administrative capacity to function effectively. Most low and middle income countries, including Tonga lack the regulatory frameworks and monitoring and evaluation capacity that would enable them to hold providers accountable for performance.

There are limited data and information to assess the levels of efficiency in service provision in Tonga. However, Chapter 4 will assess options for improving revenue generation through efficiency savings in the health sector, given the current system of resource allocation and purchasing.

**EQUITY**

While general revenue financing is progressive, increased reliance on indirect taxes could reduce progressivity depending on the specifications of the tax base, exemptions and exclusions. Evidence from both the OECD and EAP region shows that direct (income) taxes are the most progressive, particularly in low and middle income countries where the tax base is limited to the relatively well-off formal sector (Wagstaff, van Doorslaer et al. 1999; O'Donnell 2008). Income taxes are indeed quite progressive in Tonga. By contrast, indirect taxes have a more mixed re-distributional impact depending on which types of goods and services are targeted. In EAP countries where all goods and services including food are targeted, indirect taxes were found to be regressive because the burden of taxes is concentrated on low income groups who allocate a large share of their household budget to food. In Tonga, although the new consumption tax is levied on all goods and services, any increase in regressivity will likely be mitigated by tax exemptions available for health and education and the reduction in duties on basic foods. The CPIA report for 2008\(^{14}\) notes that revenue generation is generally aligned with national poverty reduction priorities.

Poor-rich inequalities do exist in Tonga and should not be allowed to worsen as a consequence of health financing reform. Inequalities in use of services in Tonga are not as pronounced as in some other low and middle income countries like Vietnam and Indonesia, but exist nevertheless as discussed in Chapter 1. The introduction of user fees could be detrimental to equity in access, particularly if it is rolled out to the entire country. It is well-known that user fees worsen access by the poor because appropriate waivers and exemptions are seldom implemented (Gottret and Schieber 2006; Xu, Evans et al. 2006; Cohen and Dupas 2008). In Tonga, there is no mechanism yet for identifying the poor, let alone exempting them. The user fee legislation includes exemptions for some vulnerable groups, but no suitable mechanism has been found for identifying the poor. Anecdotal evidence indicates that informal methods are often used to identify the poor and exempt them from payments for health care. This may be a response to socio-cultural objections to explicitly identifying the poor. Give that it is unclear whether the poor will be exempt from user fees, it is vital that when the new user fee programme is evaluated, close attention is paid to the extent to which the user fees discourage use.

\(^{14}\) CPIA (2008). World Bank
5. Social health insurance

The introduction of social health insurance represents an alternative way of generating new resources for the health sector. It involves the mandatory collection of contributions from designated segments of the population, typically through payroll taxes, and the pooling of these contributions in independent funds to pay for services on behalf of the insured.

The Government of Tonga recently proposed the introduction of a health insurance scheme for formal sector workers in response to fiscal restraints in the public sector. The design of this insurance scheme is still being worked out. This chapter presents rough estimates of the revenue impact of a payroll tax, before discussing the feasibility of scaling up social health insurance in the Tongan context. The last section will assess the prospects for social health insurance Tonga in terms of its sustainability, and ability to expand risk pooling, improve efficiency and ensure equity.

5.1 A new payroll tax

A payroll tax could be introduced on all income earners through the current PAYE system in Tonga. The number of formal sector employees covered by the PAYE system are estimated to be about 12,400\textsuperscript{15}. By applying this number to personal income tax data collected over the past three years, it is possible to provide rough estimates of the revenue impact of a 1% and 5% payroll tax. First, income tax revenues are calculated using personal income tax data collected over the past three years. Next, the additional revenues generated by the payroll tax are calculated. It is assumed that the tax would be shared equally between employers and employees. The estimates are presented in Table 5.1

\textbf{A new payroll tax of 1% or 5% shared equally between employers and employees in the could raise an additional TOP 1 million or TOP 5 million in additional revenues} (Table 5.1). The additional revenues will be allocated entirely to the health sector under social health insurance. The revenue generated by the payroll tax would increase funding for the Ministry of Health by 19%.

In reality, the revenues generated and the amount made available to the health sector are likely to be much less. To begin with, the analysis above does not take into account the administrative costs of the new tax. The additional cost of collecting the taxes to the Revenue Services Department is estimated to be 5-6% of total payroll tax revenues. Employers will also bear a portion of the administrative costs. In addition, even under a mandatory scheme, evasion of payroll taxes, possibly through under-reporting of wage incomes, is likely to lead to some loss of revenues.

The analysis is limited in many ways. It does not take into account the general equilibrium effects that will result as employers pass on the higher wage costs on to employees and consumers. Secondly, the additional revenues generated through payroll taxes will only benefit about 12% of the entire population. The social health insurance scheme needs to be scaled up to the remainder of the population. Financing the scaling-up will still require additional revenues.

\textsuperscript{15} Fakahau, 2008.
Table 5.1: Revenues generated through new payroll tax

<table>
<thead>
<tr>
<th>Income bracket (TOP)</th>
<th>Partial Income (TOP m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 7,399</td>
<td>$65.4</td>
</tr>
<tr>
<td>7,400 to 29,999</td>
<td>43.9</td>
</tr>
<tr>
<td>30,000 and over</td>
<td>5.6</td>
</tr>
<tr>
<td></td>
<td>114.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tax Rate</th>
<th>Tax Revenue (TOP m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>0.0</td>
</tr>
<tr>
<td>10%</td>
<td>4.4</td>
</tr>
<tr>
<td>20%</td>
<td>1.1</td>
</tr>
<tr>
<td>21%</td>
<td>1.2</td>
</tr>
<tr>
<td>25%</td>
<td>1.4</td>
</tr>
<tr>
<td>25%</td>
<td>8.0</td>
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</tbody>
</table>

Individual Income Tax revenues: $5,500,000

<table>
<thead>
<tr>
<th>Income bracket (TOP)</th>
<th>Partial Income (TOP m)</th>
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</thead>
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<tr>
<td>0 to 7,399</td>
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<td></td>
<td>114.9</td>
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<th>Tax Revenue (TOP m)</th>
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<tr>
<td>25%</td>
<td>6.0</td>
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Tax revenue from Payroll Tax: $500,000

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<thead>
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<th>Income bracket (TOP)</th>
<th>Partial Income (TOP m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 to 7,399</td>
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<td>7,400 to 29,999</td>
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<tr>
<td>15%</td>
<td>6.6</td>
</tr>
<tr>
<td>25%</td>
<td>1.4</td>
</tr>
<tr>
<td>25%</td>
<td>8.0</td>
</tr>
</tbody>
</table>

Tax revenue from Payroll Tax: $2,500,000

Source: Fakahau, 2008

5.2 Barriers to scaling up and predictors of success

While it is feasible to introduce health insurance for formal sector workers, several barriers exist to scaling up health insurance to the entire population (Hsiao 2008). Like Tonga, most countries in Europe, Latin America and Asia began by insuring formal sector workers. The availability of employment and earnings records means this segment of the population easy to reach and to collect premiums from. Once the formal sector is covered, most countries faced significant challenges in extending insurance to informal sector workers, the elderly, the poor and the unemployed, a group classified broadly as the informal sector in this report. Individuals in the informal sector are typically not affiliated with an organisation through which to enrol and collect premiums. They are also poorer, and less able to afford the premiums.

The large informal sector in Tonga is a potential barrier to scaling up health insurance coverage. The formal sector, consisting of workers in the PAYE database accounts for only 12% of the population. According to the latest Labour Force Survey of 2003, the unemployment rate was 5.2% among the general working age population of 15 years and above. Unemployed youth account for 43% of the total unemployed population. As discussed in Chapter 1, dependency ratios are high in Tonga, with 38% of the population less than 15-years of age. The rural population, much of which is outside the formal sector, accounts for over three-fourths of the population.

Cross-country comparisons have helped identify several factors which are good predictors of a country’s ability to scale up social insurance as well as ensure sustainable financing for health (Hsiao 2008). These are: the country’s economic growth performance; administrative and technical capacity to operate health insurance programs; regulatory capacity; and political willingness to scale up social health insurance. The next section examines each one in the context of Tonga.

Economic performance is a critical predictor because the most effective way to scale up health insurance coverage is for the government to subsidise premium payments for low-income, informal sector workers. As already noted, a country’s ability to mobilise domestic revenues is
determined in part by economic growth. The few low and middle income countries that have successfully extended social insurance coverage despite large informal sectors did not follow the classic social health insurance model where insurance coverage is linked to insurance payments. Instead, they employed substantial general tax revenues to fund their social health insurance schemes, and extended insurance coverage on a mostly non-contributory basis (Rannan-Eliya 2008). Mongolia (Nymadawa and Tungalag 2005) and Thailand (Tangcharoensathien, Prakongsai et al. 2005) both extended coverage through social health insurance to 90-100% of their population. In order to do so, 60% or more of the insurance fund was sourced from general tax revenues. In both cases, increases in taxation were necessary. In Latin America and the Caribbean, where social health insurance is a major source of financing, labour unions are actively involved in managing health insurance contributions. Even so, most countries in this region have had to maintain a parallel tax-financed system with separate providers operated by the Ministry of Health (Wagstaff 2007).

**As discussed in Chapter 2, economic growth is predicted to be stable, but low in Tonga.** Revenue mobilisation capacity is improving due to recent tax reforms, and allocations to the health sector are protected. However, it is unlikely that allocations to the health sector can be increased significantly in the short to medium term. Another concern related to introducing social health insurance at the present time is whether the economy can sustain the effects of a new payroll tax. Tonga is only just recovering from an exceptionally high increase in civil servants’ wages, which was also associated with a large scale redundancy programme in the public sector. Payroll taxes can negatively impact on job growth and capital formation. A 10% increase in tax rates could decrease labour inputs by 1-3% for the working age population as high payroll tax rates discourage firms and workers from coming into the formal economy (World Bank, 2007).

**Payroll taxes can negatively impact on job growth and capital formation.** Payroll taxes place a tax on employers and could have a negative effect on future economic growth, so important for expanding the revenue base. Nickell’s (2004) review of labour markets in OECD countries found that tax rates are a significant factor in explaining differences in the amount of market work undertaken by the working age population. A 10% increase in tax rates could decrease labour inputs by 1-3% for the working age population (World Bank, 2007). The direct evidence of payroll taxes decreasing labour inputs in transition economies, however, is less clear cut. What is clearer is that high payroll tax rates discourage firms and workers from coming into the formal economy (World Bank, 2007).

**Effective collection and pooling of SHI revenues requires a high degree of government administrative and technical capacity.** Administrative capacity is related to how well the government can design and operate the health insurance programme. In countries where the government already operates social security programmes, administrative capacity will be high because of previous experience with defining eligibility, identifying beneficiaries etc. Tonga does not have any other social security programme at present. There is no suitable mechanism for identifying the poor, for instance. Technical capacity refers to the skill set of the labour force to operate a health insurance program, including book-keeping, banking and actuarial skills, as well as information systems for monitoring performance. In Indonesia, the lack of actuarial skills in government led to the premiums for the Health Maintenance Organisation (HMO) being set well below cost. By contrast, high technical capacity to provide policy and analytical advice in Thailand made it possible for the country to learn from the means testing failures of an earlier, failed scheme and create new and improve information systems for the new social insurance scheme (Hsiao 2008). It was beyond the scope of this report to assess whether Tonga has the needed administrative and technical capacity to implement and manage social health insurance. However, such an assessment would be critical prior to making the decision to introduce social health insurance.
Regulatory capacity to pass and enforce social health insurance laws is important to ensure the long-run financial sustainability of social health insurance programmes. Mandatory enrolment is desirable in order to have wide funding base. In settings where regulatory capacity is weak and the government is unable to enforce mandatory enrolment, adverse selection becomes a problem. Individuals with low expected health care costs do not enrol. This erodes away the funding base, but health expenditures remain constant. The long-run financial sustainability of the social health insurance is undermined as a result.

Non-enrolment of workers and evasion of payments by enrollees is a consequence of weak regulatory capacity, and a common problem in many middle-income countries. In urban China for instance, only 24% of private sector employees and 50% of state-owned enterprise employees were enrolled in the new urban health insurance scheme in 2004 (Chen 2004; Wu 2004). In Vietnam, only one out of three formal sectors is enrolled in social health insurance (Nguyen 2006). In Indonesia, it is estimated that 86% of those eligible for coverage in the national scheme have taken advantage of an opt-out clause in the legislation (Hsiao and Shaw 2007). In Colombia, evasion in the contributory regime caused by underreporting and non-payment is associated with revenue losses of about 2.75% of GDP (Giugale, Lafourcade et al. 2003). In Eastern Europe and the former Soviet Union, the introduction of social health insurance schemes did not actually result in additional revenues for health care; in Kazakhstan, only 40% of expected revenues were actually collected (Gottret and Schieber 2006).

Successful scaling up of social health insurance is not possible without strong political commitment to providing universal coverage, even if all of the other enabling factors are in place. In Thailand and China, social health insurance coverage was extended as it was part of a political strategy to gain popular support. In Indonesia, social health insurance legislation was passed in 2004, but has not been implemented yet due to political disagreements. In general, weak economic conditions do not garner much political support for scaling up health insurance. With the Tongan economy in recovery mode and businesses still trying to regain lost ground from the civil unrest, the introduction of a payroll tax may be politically difficult (Fakahau 2008). Strong political will to push through social health insurance reform on the part of government may however be able to overcome any resistance to the payroll tax.

Finally, it is worth noting that introducing a SHI scheme solely for formal sector workers first may actually slow down further extensions of coverage. Many Latin American countries introduced SHI several decades ago by covering only the formal sector workers. Their experience has been that the system becomes so entrenched that it becomes an obstacle to extending coverage (McIntyre 2007). Levelling up to the most comprehensive plan is too costly, while a reduction in comprehensiveness of the benefit package is resisted those who have it (Ensor 2001). It is critical that there is explicit commitment at the outset to achieving universal coverage via mandatory insurance in the shortest possible time.

5.3 Assessment of social health insurance financing

FEASIBILITY AND SUSTAINABILITY

The small size of the formal sector and few opportunities for mobilising additional resources, will be key constraints to scaling up SHI in Tonga. The large size of the informal sector means that significant additional resources will have to be mobilised to ensure coverage. As already discussed, economic growth conditions and the need to maintain fiscal prudence may not allow for this. In addition, the experience of SHI implementation in Latin America has shown that focusing only on
formal sector worker at first, without an explicit mandate to provide universal coverage could actually slow down future scaling up.

The feasibility and sustainability of SHI depend critically on strong administrative and technical capacity, and good regulatory oversight. As in many other middle income countries in the EAP region, these enabling factors are not yet present in Tonga. The lack of strong administrative and technical capacity will impede the design and implementation of the social health insurance system. The lack of strong regulatory oversight will threaten the long-run sustainability of social health insurance due to problems of non-enrolment and evasion.

Finally, the timing may not right. Given the recent overhaul of the tax system, civil unrest and large wage increases, the timing is not right - politically or economically- for introducing a payroll tax. Payroll taxes can negatively impact on job growth and capital formation, both of which are not desirable in an economy that has just returned to stability after multiple economic shocks.

RISK POOLING

The development of multiple, small pools can lead to a fragmentation of pooling arrangements and limits the potential for cross-subsidising. A national social health insurance programme with mandatory enrolment can achieve significant risk pooling and financial protection. In reality, most EAP countries have multiple, small pools covering different segments of the population, so that risk is spread unevenly across different groups. Ideally, funds would be transferred across pools to ensure cross-subsidisation. But, this process if costly, and most countries lack the regulatory capacity to ensure transparency in fund transfers. Typically, high risk groups are the ones that end up with any social insurance coverage, and have to resort to the publicly delivery system. As a result, the government ends up financing the health care of a higher proportion of high-risk individuals than usual.

If Tonga embarks on a social health insurance programme that is restricted to formal sector workers, with other financing arrangements for the informal sector, this will result in fragmentation of risks. The better-off, potentially younger (working age) groups in the population will belong to one risk pool covered by social insurance. Poorer, more vulnerable groups in the population will belong to different pools. As discussed below, individuals in the latter pool(s) will have shallow coverage, and therefore limited financial risk protection. It is important to integrate the poor into broader risk pools in order to ensure financial protection.

EFFICIENCY

The distortionary effects of payroll taxes on labour markets and problems of non-enrolment and evasion in social health insurance schemes imply that social health insurance financing is less efficient and more costly to collect than general revenue financing. Payroll taxes place a tax on employers and potentially have a negative effect on future economic growth. Nickell’s (2004) review of labour markets in OECD countries found that tax rates are a significant factor in explaining differences in the amount of market work undertaken by the working age population. By contrast, some taxes—indirect taxes, for example—are quite efficient from a revenue mobilisation perspective, relatively hard to evade and cheap to collect. Collection costs in SHI systems, by contrast, are nontrivial. Moreover, given that taxes have to be collected for other purposes anyway, and there are economies of scale in tax collection. The collection costs associated with SHI could probably by and large be avoided altogether if health care were financed out of general revenues (Wagstaff 2007).

Social health insurance is generally associated with strategic purchasing of services, which could improve efficiency in resource and purchasing. In fact strategic purchasing is feasible under tax or
social health insurance. The success of strategic purchasing methods depends on the administrative, technical and regulatory capacity to: clearly define and cost benefit packages; identify beneficiaries; and monitor and evaluate the quality and performance of providers. Strategic purchasing, which allows for performance based payments can improve efficiency of resource allocation, provided the capacity is available to performance the above tasks. In the EAP region for instance, there is a rich variety of provider payment systems under both tax and social health insurance systems. The multiplicity of forms and variations across different payers dilutes the impact of these policy tools for encouraging efficiency and quality (World Bank 2008). There is a critical need to restructure incentives and improve coordination across public and private providers, across levels of care, and across multiple insurers. Doing this requires a high degree of administrative and technical capacity, and high quality health information management systems. Tonga has not attempted to introduce significant strategic purchasing of services yet, partly because of the heavy administrative and technical requirements associated with it.

EQUITY

Social health insurance financing is progressive in most low and middle income countries where it is limited to a small segment of the population. This is due to the fact that coverage is generally limited to skilled, professional groups such as the civil servants. In countries such as Korea and Taiwan (China) where social health insurance is the predominant means of financing health care, social insurance tends to be broadly proportional or regressive because contributions are levied as a fixed percentage of earnings.

Inequalities in access to services under social health insurance financing can be driven by deficiencies in both breadth and depth in coverage. Social health insurance financed systems, where universal coverage has not been achieved can be characterized as follows: formal sector employees who have comprehensive coverage, and the unemployed, agricultural and informal sector workers who have either no coverage (e.g. China, Indonesia, Vietnam), or have shallow coverage that entitles them to a less comprehensive benefits package (e.g., China, Philippines). Where universal coverage has been achieved, inequalities still exist due to shallow coverage: some of the more catastrophic expenditures may be outside the domain of health insurance or, there may be wide variation in benefits packages offered under different insurance schemes. Inequalities are small only in those countries where the social insurance law mandates the same benefits for all.
6. Community-based health insurance

Community-based health insurance (CBHI) can be defined broadly as non-profit insurance plans that involve voluntary membership and are controlled by the community. It typically operates in settings where those in the informal sector incur large out-of-pocket payments for healthcare, and lack any other form of insurance. CBHI schemes are quite heterogeneous in terms of population covered, services offered and management. There are three common features, however (Jakab and Krishnan 2004). First, affiliation is based on community membership and the community is strongly involved in managing the system. Second, the beneficiaries are usually individuals who have been excluded from other insurance schemes. Third, members share a common set of social values, which are reflected in rules governing the management of the scheme.

CBHI schemes make only modest contributions to overall coverage, and only serve to complete or fill the gaps of other health financing schemes (ILO and STEP 2002; Ekman 2004). With the exception of China, and a few schemes in India, CBHI has never been able to cover large segments of the population or reach the very poor (Ranson, Sinha et al. 2007). Coverage rarely exceeds 10% of the population. Thus, CBHI can never be relied upon to provide medical coverage to the entire population, but can help meet the needs of specific categories of people such as informal workers in a particular industry, or inhabitants of a village. As a result, CBHI is often used to extend coverage funded by large financing instruments such as social health insurance. In the Philippines for instance, the government has used existing community schemes to develop the national health insurance system (Gottret and Schieber 2006).

A strategy of achieving universal coverage through incremental CBHI-driven extensions of insurance coverage is not always a reliable one (McIntyre 2007). CBHI schemes are often used to draw informal sector workers into a mandatory system. Indeed, both Japan and Korea achieved universal coverage by gradually expanding CBHI schemes to become a part of the mandatory insurance system. However, if numerous insurance schemes develop with their own distinct approaches to setting the benefit package and contribution rates, integrating these heterogeneous schemes into a mandatory system could become problematic. Members of different CBHI schemes may resist changes to their program, just as formal sector workers covered by a social health insurance scheme may resist being drawn into a mandatory system that may provide less comprehensive coverage.

While no real CBHI coverage exists at present in Tonga, church-based community membership offers a potential vehicle for developing CBHI. Churches play an important role in Tongan society and already collect significant amounts of revenues from their members for a range of church provided services. Although not involved in the health sector, churches have been active in the education sector for many years. The role of the church in expanding CBHI to the informal sector has been considered by the Government of Tonga, although no initiatives has been taken yet to establish church-based CBHI.

6.1 Assessment of community-based health insurance

FEASIBILITY AND SUSTAINABILITY

The financial sustainability of CBHI schemes is limited for three reasons (Gottret and Schieber 2006). Firstly, the small size of the pool leaves many CBHI schemes vulnerable to failure. The
realization of even one large risk could lead to bankruptcy. Secondly, the solvency of CBHI schemes is threatened by problems associated with voluntary enrolment such as adverse selection. Benefit packages are defined broadly to include all services delivered by the facilities participating in the scheme. As such, individuals with pre-existing conditions have greater incentive to join, giving rise to adverse selection issues (Bennet, Creese et al. 1998). Thirdly, the viability of CBHI schemes is weakened by limited management skills available at the community level. Given that CBHI is a relatively new concept in Tonga, the last factor may be a key constraint.

RISK POOLING

Low levels of coverage combined with the small size of the risk pool mean that CBHI schemes provide limited scope for risk pooling and financial protection. The ability of CBHI schemes to raise significant resources is limited by the low overall income of the community. The low resource base is also a constraint to expanding the size of risk pools and scaling up. Meanwhile, the existence of a multitude of CBHI schemes leads to the fragmentation of risk pools, the drawbacks of which were discussed in Chapter 5. This is also a potential constraint to scaling-up insurance coverage because the more heterogeneous the schemes, the harder it is to bring them into one mandatory system.

EFFICIENCY

CBHI schemes have the potential to improve efficiency of resource allocation by purchasing cheaper and better quality services and goods from the providers participating in the scheme. The evidence from evaluations of CBHI schemes suggests that they have little or no effect on efficiency or quality (Ekman 2004). Only a minority of CBHI schemes negotiate the quality and costs of services with the provider.

EQUITY

The main weakness of CBHI is that it fails to reach the very poor. The very poor do not enrol in CBHI because they cannot afford the premiums. As a result, even though CBHI does provide effective financial protection, the beneficiaries tend to be relatively well off. CBHI schemes are generally financed through regressive flat-rate contributions. The poor also face non-financial disincentives to enrol such as providers’ attitudes towards the poor and physical barriers to access.

In conclusion, CBHI schemes can only be a stop-gap solution at best. The evidence indicates quite clearly that CBHI approaches are not able to scale up to achieve universal coverage or provide high levels of financial protection. High rates of church membership and the fact that churches play a critical role in community life in Tonga, mean that church-based CBHI could be used to provide a limited degree of health insurance coverage in Tonga.
7. Private health insurance

Private health insurance (PHI) can be defined broadly as for-profit insurance plans that involve voluntary membership and are provided on an individual basis or through organised employee groups. Private health insurance is not typically used to cover large population groups. In most countries, its main purpose is to provide complementary or supplementary coverage alongside existing public schemes. The only exception is the USA, where private health insurance is the predominant source of financing. But, this leaves 45 million people uncovered. In low and middle income countries, PHI covers only about 2-5% of the population and accounts for less than 5% of overall health financing (Rannan-Eliya 2008).

In Tonga, PHI accounts for a negligible share (0.4%) of total health financing and is primarily used to cover the costs of overseas medical treatment. Only one or two insurance companies sell health insurance policies, including both group and family policies. PHI policies are used primarily for overseas treatment, and insurance companies sometimes purchase services directly from hospitals in New Zealand\textsuperscript{16}. The companies find that administration of health insurance policies is generally more costly than the administration of other policies.

Tonga does not have many of the pre-requisites that are needed for the development of a viable private health insurance market. In most countries, large out-of-pocket shares of total spending create the demand for supplementary voluntary insurance. Out-of-pocket payments for health care have been quite minimal until now, with the exception of overseas medical treatment. Indeed, the few private health insurance policies that do exist in Tonga cater almost exclusively for the overseas treatment market. Second, the existence of a viable financial market is critical for the development of private insurance entities because the reserves from premiums collected must be invested to ensure profits over resource outlays; this profit is critical for the sustainability of private entities (Gottret and Schieber 2006). The World Bank CPIA report in 2008 noted that the size and reach of financial and capital markets in Tonga is growing, but still quite underdeveloped\textsuperscript{17}. Third, a large middle class and high quality private health services to cater for the middle class are needed. With 77% of the population living in rural areas, and service provision dominated by the public sector, this pre-requisite has not been met either. Fourth, strong regulatory oversight and management skills are necessary to ensure that all parties involved in PHI carry out their fiduciary responsibilities. It must also be noted that the administrative and regulatory costs required to establish and maintain a voluntary health insurance market can be quite substantial (Gottret and Schieber 2006).

Although there are frequent claims that private health insurance initiatives can help scale-up insurance coverage in low and middle income countries, in practice, there is little evidence of this (Rannan-Eliya 2008). Regardless of the income level of the country, PHI has never been able to surmount problems associated with voluntary enrolment and cost-inefficiency and to scale up coverage, as discussed below.

\textsuperscript{16} The largest provider of PHI in Tonga sells about 1000 policies per year covering about 2400 individuals, and has a claims rate of about 1%. Premiums cost about TOP 34 per month and cover medical costs up to a ceiling of TOP 50,000. Administration expenses account for about 20% of total costs. If care is sought from Ascot Mary Hospital in New Zealand, the insurance company reimburses the hospital directly. Otherwise, the patient is reimbursed upon submitting their insurance claim.

\textsuperscript{17} World Bank, 2008. CPIA
7.1 Assessment of private health insurance

Feasibility and sustainability

Voluntary enrolment and, in the case of most low and middle income countries, small pools undermine the feasibility and financial sustainability of PHI schemes. Adverse selection and cream-skimming, limit the ability of PHI to provide extensive coverage beyond organised employee groups. As discussed for CBHI, adverse selection is a major threat to the financial solvency of health insurance plans. In Tonga’s case, the feasibility of extending PHI coverage is likely to remain limited for some time, given that many of the pre-requisites for PHI market development have not been met.

Risk-pooling

PHI can lead to the existence of multiple risk pools and consequently, to the fragmentation of risk, as in the case of CBHI. The drawbacks associated with the fragmentation of risks were already discussed in Chapter 5. Often PHI schemes are engaged in “cream-skimming”, whereby the insurance scheme creates disincentives for high-risk individuals to join by setting high risk-rate contributions, for example by excluding individuals with pre-existing conditions. One of the health insurance policies in Tonga examined for this report makes enrolment conditional on the individual having a full medical check-up. The same policy also covers all costs of up to TOP 50,000 – the approximate cost of heart surgery in a New Zealand hospital. The patient has to pay out-of-pocket for any costs exceeding this amount. Cream-skimming exacerbates the fragmentation of risks, with the healthy, better-off population covered by PHI, and more vulnerably high-risk groups resorting to public sector care. This also reduces the ability of the system to provide financial risk protection, especially for the poor.

Efficiency

High administrative costs and the lack of any pressures for cost-control make PHI one of the more inefficient health financing mechanisms. Cost-containment becomes difficult when there are a large number of independent purchasers of health care. This is usually the case when there are multiple private health insurance plans purchasing services from health care providers. A single purchaser such as the government (tax-financed system) or social insurance agency (mandatory social health insurance system) can use its purchasing power to negotiate lower fees or impose global caps on reimbursement claims. When there are a large number of small purchasers, providers could potentially refuse to provide services to beneficiaries of purchasers who attempt to limit their profit margins (McIntyre 2007).

Equity

PHI is invariably concentrated among the upper-income groups, and worsens equity in coverage. The fragmentation of risk pools and the limited opportunities to cross-subsidise across risk pools, mean that PHI is associated with large inequities in coverage and financial protection. A current initiative to support health insurance in Namibia provides subsidised PHI schemes to middle and upper income employees at the cost of about $35 per capita. Yet, per capita spending on the poor costs less than US$ 10 per capita (Rannan-Eliya 2008). It is often argued that PHI could help reduce inequities by encouraging the rich to use more private sector services paid for by private insurance, thus allowing the public sector to target the poor more effectively. In practice, there is little evidence of this. Moreover, such opting out may reduce support for the public sector among the rich, who not only pay the taxes needed to support the public system, but also have more political voice.
8. Efficiency savings

An alternative way to mobilise additional resources for health care is to increase the efficiency of health spending. There is no doubt that additional financing for the health sector will be needed to cope with the twin effects of population ageing and the growing burden of NCDs in Tonga. It has to be acknowledged though, that significant additional financing may not be feasible given the fact that Tonga already allocates 6% of GDP and 15% of the total government budget to health. In this context, reducing inefficiency in the health system can be an important source of fiscal space, regardless of what financing mechanism is used. Inefficiency can be classified into two types: allocative and technical.

Allocative inefficiency is the sub-optimal distribution of available public resources across potential uses or programmes. For instance, in many low and middle income countries preventive and primary-level curative services tend to be underfunded, even though they are known for being far more cost-effective in addressing many of the health problems prevalent in those countries.

Technical inefficiency occurs when providers do not use the least cost method for delivering a service, or the best quality for any given level of resources. Examples include: the use of doctors for child delivery when well-trained midwives could perform the same role; the failure of procurement systems to purchase medicines at the lowest available prices; the use of tertiary care hospitals for the provision of basic, primary care simply because primary care facilities are inadequately supplied; or more generally, an inefficient mix of medicines and personnel being used to provide a service. Technical inefficiency can also arise due low productivity of health care workers, who see fewer patients than they could. In some countries, inefficiencies account for a ten-fold variation in the unit cost of delivering the same services but at different health facilities (Hensher 2001).

Strengthening primary and secondary prevention, and primary health care in Tonga will increase both allocative and technical efficiency. Improving the quality of primary care services would allow the treatment/control of diseases early in their onset. In turn, this would lower/delay hospital admissions and lengths of stay, and thus overall costs. Chapter 1 showed that hospital admission rates are very high in Tonga, but outpatient contact rates are very low. At present, lower level ambulatory care services are bypassed in favour of hospitals. Referral patterns can be enforced through user fees and other forms of gatekeeping. But, enforcing referral patterns without improving quality of care at the lower levels is likely to disadvantage the poor more. The poor are least likely to be able to afford the fees needed to by-pass the lower levels of the system when services are unavailable or inadequate at that level. Therefore, to achieve efficiency gains and do so without undermining equity, greater investment to improve accessibility and quality of health service delivery is needed at the lowest levels of the health system.

Many of the diseases that contribute to the disease burden in Tonga, such as diabetes and rheumatic fever can be diagnosed and controlled at the primary care level. For many such conditions, hospitalisation should only be required in extreme cases. For example, amputations and kidney dialysis related to untreated diabetes in Tonga comprise a large portion of tertiary-level health services and overseas treatment. Early diagnosis and treatment of diabetes through glycemic control should lower such extreme conditions over time. Another example is rheumatic fever, which is thought to be prevalent among 5% of Tongan children. When undiagnosed and untreated, it is associated with higher probability of heart disease in adults, which would require long, expensive hospital stays. This can be avoided through early treatment with antibiotics, provided effectively at the primary care level. Box 8.1 summarises the cost-effectiveness of different treatments for these two conditions.
Globally, many low and middle income countries that achieved efficiency gains were able to expand service provision considerably despite only modest increases in spending. This is possible because even a 2% annual increase in efficiency implies a doubling of service delivery every 20 years (Rannan-Eliya 2008). For instance, Botswana doubled service coverage during 1960-80 without increasing the share of health budgets in GDP. Uganda tripled service delivery during 1955-69, only half of which was financed through increased spending, whilst the rest was financed through efficiency gains. Sri Lanka was able to achieve significant reductions in infant and maternal mortality by rapidly expanding coverage from the 1960s to the late 1990s a result of efficiency gains, even though health spending as a share of GDP fell during this period.

Tonga could potentially generate additional resources for health care through efficiency gains. At present, there is little evidence with which to assess efficiency. Data on unit costs and routine service indicators such as occupancy rates and average lengths of stay at public facilities are needed to assess efficiency and identify parts of the health system where there is scope for reducing unit costs through the re-allocation of resources.
Box 1: Cost-effectiveness of interventions to address diabetes and rheumatic fever

**Early attention to diabetes control:**

In the East Asia and Pacific, prevalence of diabetes is expected to rise from 2.6% in 2003 to 3.9% by 2025. The direct medical costs of diabetes in this region were estimated to be around US$ 2,656 in 2003. When left untreated, diabetes-related complications include blindness, kidney failure (requiring dialysis), coronary heart disease and lower extremity amputations. Early diagnosis of diabetes followed by glycemic control through a combination of medical and non-medical intervention, blood pressure control and regular foot examinations have been found to be cost-effective interventions for the control of diabetes.

**Cost-effectiveness of interventions for preventing and treating diabetes in East Asia and Pacific**

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Cost per QALY gained (2001 US$)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary and secondary prevention</td>
<td></td>
</tr>
<tr>
<td>Glycemic control in people with HbA1c&gt;9%</td>
<td>Cost-saving*</td>
</tr>
<tr>
<td>Blood pressure control in people with BP&gt;160/95mmHG</td>
<td>Cost-saving*</td>
</tr>
<tr>
<td>Foot care in people with high risk of ulcers</td>
<td>Cost-saving*</td>
</tr>
<tr>
<td>Lifestyle interventions for preventing type-2 diabetes</td>
<td></td>
</tr>
<tr>
<td>Intensive glycemic control in people with HbA1c&gt;8%</td>
<td>80</td>
</tr>
<tr>
<td>Screening for undiagnosed diabetes</td>
<td>2,410</td>
</tr>
<tr>
<td>Treatment for diabetes related complication – e.g. kidney failure</td>
<td></td>
</tr>
<tr>
<td>Kidney transplant</td>
<td>11,000</td>
</tr>
<tr>
<td>Center haemodialysis</td>
<td>79,000–114,000</td>
</tr>
</tbody>
</table>

*The intervention is both more effective and less expensive than the comparator

**Early detection and treatment of rheumatic fever / rheumatic heart disease (RF/RHD)**

Although prevalence has declined markedly in developed countries, RF/RHD is a significant health problem in many low and middle income countries. Its prevalence is thought to be particularly high in many Pacific Island countries due to a combination of unique genetic and environmental factors. Left untreated, rheumatic fever leads to cardiovascular problems often requiring heart surgery overseas. The total costs of treatment and travel overseas is around US$ 30,000 per patient. Alternatively, early diagnosis and antibiotic treatment particularly of streptococcal pharyngitis can significantly reduce morbidity and mortality associated with RF/RHD. Findings from evaluations of a WHO Community Control program focused on secondary prevention of RF/RHD are presented below:

**WHO Community Control: impact on prevalence**

<table>
<thead>
<tr>
<th>RHD prevalence per 1000 school children</th>
<th>Before Program</th>
<th>After Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pinar del Rio, Cuba</td>
<td>2.3</td>
<td>0.2</td>
</tr>
<tr>
<td>Cairo, Egypt</td>
<td>7.2 (1)</td>
<td>2.3</td>
</tr>
<tr>
<td>Laguna, Manila, the Philippines</td>
<td>2.0</td>
<td>1.0</td>
</tr>
<tr>
<td>Panyu City, China</td>
<td>0.8</td>
<td>0.3</td>
</tr>
<tr>
<td>Chandigarh, Indina</td>
<td>3.0 (2)</td>
<td>1.4</td>
</tr>
</tbody>
</table>

(0) Control group; (1) National average

**WHO Community Control: impact on hospitalizations**

<table>
<thead>
<tr>
<th>Penicillin injections per year</th>
<th>0-9</th>
<th>10-11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient years</td>
<td>2117</td>
<td>919</td>
<td>2463</td>
</tr>
<tr>
<td>Number of hospital admissions</td>
<td>470</td>
<td>136</td>
<td>263</td>
</tr>
<tr>
<td>Number of hospital days per year</td>
<td>3.7</td>
<td>1.8</td>
<td>0.6</td>
</tr>
</tbody>
</table>

Source: Economic and Financial Analysis conducted for the Samoa Health Sector Management Program, 2008

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18 Jamison et al. Disease Control Priorities in Developing Countries. 2006
19 WHO/WHF consultation on RF/RHD November 1999 WHO Documents
9. Financing options for Tonga

Current health financing arrangements in Tonga provide relatively high levels of coverage and financial protection. Under this system, general revenues account for the bulk of health financing, while ODA accounts for about a third. A large network of health facilities that extend even to the more remote islands and limited out-of-pocket payments have ensured high levels of access to services and financial protection. Health outcomes in Tonga are some of the best in the region.

Despite this relatively good performance, several factors indicate that the health financing system is likely to come under strain in the near future. Demand for health care, particularly for more complex curative care services is growing rapidly thanks to the combined effects of population ageing and the rising burden of NCDs. The growth in demand for services as well as more sophisticated technology in medical care will inevitably push expenditures upwards. Faced with rising expenditures and concerned about the sustainability of current methods of financing health care, the Government of Tonga requested this review of health financing options.

9.1 Three potential health financing options

Having examined possible financing arrangements, this review finds that there are essentially three health financing policy options available for Tonga:

(i) Do nothing: keep the current system of general revenue financing
(ii) Continue to finance health care through general revenues, but generate additional resources through efficiency savings
(iii) Introduce social health insurance

The remainder of this section assesses the outcomes of each one of these options with regard to their feasibility and sustainability, and impacts on risk-pooling, efficiency and equity.

(1) DO NOTHING: KEEP THE CURRENT SYSTEM OF GENERAL REVENUE FINANCING

The sustainability of the current system depends critically on Tonga’s ability to generate additional domestic resources, or fiscal space for health. Economic growth is a critical determinant of fiscal space. Despite recent economic shocks, the Tongan economy is recovering and the economic growth rate is projected to remain stable, but low in the near future. Historically, elasticity of health spending relative to GDP growth has been quite high in Tonga. Assuming the elasticity of spending remains constant, health spending could still increase from 3.2% in 2004 to 6.3% by 2013, even with relatively low rates of economic growth. In addition, recently initiated tax reforms continue to improve Tonga’s revenue generation capacity. Earmarked taxes on tobacco have scope for generating additional revenues. Overseas Development Assistance continues to be a reliable source of revenues for the health sector. The current system of health financing is not necessarily unsustainable.

There are several factors that could undermine the sustainability of this system of financing health care, however. First, lower than expected economic growth could slow down growth in health expenditures. The global financial crisis is expected to lead to a contraction in economic growth, due to a decline in remittance revenues and tourism. Second, the flow of tax revenues may be undermined by the fact that they rely largely on domestic consumption driven by remittances. Worsening economic conditions, particularly in the United States and Australia, where much of the remittance revenues are sourced from are likely to reduce consumption spending and thus, indirect tax collection. Third, even if revenue growth were to increase, it is unlikely that the health sector would be favoured with any significant inter-sectoral allocations, given that it already accounts for a large share of
government spending. Fourth, ear-marked taxes may not generate additional revenues, if the general revenue allocation is reduced by the same amount as the increase in ear-marked tax revenues. All of these factors could potentially lead to a shortfall in resources allocated to the health sector.

The shortfall in resources is likely to be met by further cost shifting to the patient, with negative impacts on financial protection, equity in access and eventually, on health system outcomes. The present system achieves a high degree of financial protection and coverage, but inequities in access to care exist. In 2008, user fees were introduced in the public sector to offset the shortfall in public sector revenues created by the civil servants’ wage increase. As demand for health care grows and budgetary allocations are not commensurate with the increased expenditures, health care providers will increasingly resort to user fees and other formal and informal payments in order to close the resource gaps. For instance, patients may be asked to buy drugs and supplies from private pharmacies because hospitals do not have adequate supplies. Or, hospitals and health centers may charge additional fees. Out-of-pocket payments including user fees have a negative impact on utilisation by the poor and on financial protection. The absence of any exemptions for the poor will exacerbate these effects.

Thus, the current system of financing is likely to come under strain due to a combination of macroeconomic and sectoral resource allocation-related problems. Maintaining the status quo is therefore not a feasible option. One way to maintain the positive aspects of the current system, while making it more sustainable would be to generate additional resources through efficiency savings.

(2) CONTINUE TO FINANCE HEALTH CARE THROUGH GENERAL REVENUES, BUT GENERATE ADDITIONAL RESOURCES THROUGH EFFICIENCY SAVINGS

There are many sources of both allocative and technical inefficiency in the Tongan health system, which contribute to the rising costs of health care. Although NCD’s account for a large share of the disease burden, cost-effective primary and secondary prevention strategies to address NCDs account for a relatively small share of resources. Instead, in the majority of cases, NCDs are diagnosed quite late and require more expensive, acute medical care. Out-patient contact rates are very low, while hospitalization rates are very high. Strengthening primary level provision of both preventive and curative services is likely to improve efficiency in health care and in the long run, lower expenditures associated with secondary or tertiary level care. In addition, resource allocation relies almost exclusively on input-based budgeting, which provides few incentives to improve efficiency or quality of provision.

International experience suggests that many low and middle income countries have succeeded in expanding service provision despite only modest increases in spending, largely due to efficiency gains. This is possible because even a 2% annual increase in efficiency implies a doubling of service delivery every 20 years, as noted in Chapter 8. Indeed, efficiency gains are a potential mechanism for expanding fiscal space for health.

Selecting this policy option would mean that many of the positive aspects of the existing health financing system would be retained. The revenue collection method currently used, general taxation, is a simpler and more efficient way of raising revenues than the collection of premiums for social health insurance. Given relatively low administrative and technical capacity to collect insurance premiums, and the absence of a strong legislative framework to prevent non-compliance of premium payments, the relative simplicity of general revenue collection presents an advantage over all other forms of health financing. The current financing system also allows for a high degree of risk pooling across the entire population, making it possible to cross-subsidise the poor. There is little fragmentation of risk pools under the current system, and consequently, fewer inequalities in utilisation of services than in many other EAP countries.
(3) INTRODUCE SOCIAL HEALTH INSURANCE

Tonga is not alone in considering social health insurance for the formal sector as a starting point for shifting to social health insurance financing for health for the entire country. Many countries in the EAP region have introduced health insurance programmes to cover civil servants and/or formal sector workers. The availability of employment and earnings records means it is quite feasible to identify and enroll formal sector workers in health insurance programmes. Their relatively high income levels mean that insurance premiums are affordable to them.

Under this option there are two important questions to consider. First, what will be the impact of the new payroll tax? Second, how will health care for the rest of the population be financed – i.e. how will social health insurance be scaled up?

In assessing the impact of the payroll tax, the additional revenues generated through social health insurance need to be compared against the administrative costs and the broader economic effects. The formal sector in Tonga is very small and consists of only about 12,400 workers (12% of the population). Rough estimates produced for this report indicate that a 5% increase in payroll taxes for both employers and the employees will generate an additional TOP 5 million for the health sector, and contribute to a 19% increase in funding for the health sector. The costs borne by the Revenue Services Department will be about 5-6% of collected revenues, and employers will bear some additional costs. This analysis does not take into account the broader economic impact of the payroll tax on employment. In general, the pre-conditions necessary for the successful implementation of payroll tax financed health insurance are high levels of economic growth, and a competitive economy able to absorb the macroeconomic impacts of the increase in taxes. Given that the Tongan economy is only just recovering from the impact of a large increase in civil servant’s wages and related redundancies, a further reduction of employment and economic activity caused by a payroll tax may not be sustainable or politically popular at this time. Moreover, Tonga has only just undergone extensive tax reforms.

Assuming that it is feasible to cover the formal sector through an additional payroll tax, the government may still face significant barriers in scaling up SHI to cover the remaining 88% of the population – the informal sector, which includes the unemployed, the young, the elderly etc. This is the experience of almost all countries that have initiated health insurance by covering the formal sector first. Thus, it is necessary to examine whether Tonga has most of the factors which are considered good predictors of a country’s ability to scale up social insurance as well as ensure sustainable financing for health. First, economic growth is a critical predictor because the most effective way to scale up health insurance coverage is for the government to subsidise premium payments for low-income, informal sector workers. As already noted, a country’s ability to mobilise domestic revenues is determined in part by economic growth. The few low and middle income countries that have successfully extended social insurance coverage despite large informal sectors did not follow the classic social health insurance model where insurance coverage is linked to insurance payments. Instead, they employed substantial general tax revenues to fund their social health insurance schemes, and extended insurance coverage on a mostly non-contributory basis. Tonga’s macroeconomic conditions and inter-sectoral resource priorities mean that substantially additional subsidies for health will not be available in the near future. Second, strong administrative, technical and regulatory capacity are required to design and implement the programme, as well as prevent non-compliance and evasion. Tonga does not have a great deal of experience with implementing social security programmes. A closer assessment of the regulatory frameworks and availability of in-country administrative and technical capacity is necessary. Third, the political economy of scaling up is important. Once social health insurance has been provided to the formal sector, usually with a fairly
generous package, this may create political resistance to scaling up, as it may imply “levelling-down” the benefit package. Strong political commitment to scaling up is needed to overcome such resistance from the groups that have already got coverage.

**Failure to scale up social health insurance to the informal sector is likely to undermine risk pooling, reduce financial protection and possibly give rise to inequities in coverage.** The existing general revenue financed system essentially consists of one risk pool. Introducing social health insurance for the formal sector leads to fragmentation of risk pools. The relatively young, better-off formal sector population will belong to one risk pool, and have access to a comprehensive package of benefits and high level of financial protection. If the informal sector is not covered adequately through general revenues, the more vulnerable groups in the population will be left with little or no financial protection and a much less comprehensive benefit package. CBHI and PHI can be used to meet gaps in coverage, but do not offer long-term, viable solutions for scaling up coverage effectively. Church-based CBHI is more feasible than PHI in the Tongan context, and is an intermediate option worth exploring.

**9.2. Which option?**

**Continuing to rely on general revenue financing while generating additional resources for the sector through efficiency savings is likely to be the most feasible and sustainable financing option for Tonga,** given the current financial, institutional and political context. As already discussed, the current system of financing has many advantages over other financing options. Firstly, the collection of revenues, is simpler and more efficient under general revenue financing. Given the large informal economy and the limited administrative, technical and legal capacity to implement social insurance, the scaling up of social health insurance financing is likely to be costly. In addition, social health insurance financed through payroll taxes is likely to have a distortionary impact on labour markets, at a time when the economy is just beginning to recover from major recent crises. Secondly, the current system of financing achieves significant pooling of revenues. Given the large informal economy, and difficulties in collecting premiums from the informal sector, social insurance is likely to lead to a fragmentation of risk pooling, and consequently an increase in inequities in access to services. Thirdly, social insurance and the introduction of third party payers requires greater strategic purchasing capacity, which is underdeveloped at present. The current system of direct financing and provision is more suited to the present context. Introducing changes to improve efficiency in the health system, will generate additional resources through efficiency savings while retaining the positive aspects of the present system of financing. This report has identified several opportunities for improving efficiency in the health system. Further work is needed to identify how these efficiency improvements may be achieved.

Regardless of which option is chosen, there are several important gaps in evidence and information for policy that need to be met. First, an accurate assessment of the baseline or current situation is needed with respect to current levels of health spending, coverage and the availability and use of services. Tonga has relatively good health expenditure data, but more information is needed on the unit costs and other indicators related to utilisation and efficiency. Second, health care demand and cost projections are needed to assess the impact of the different policy scenarios. The demand projections will need to take into account factors such as population ageing, the epidemiological transition, potential supply-side constraints in the future etc. Meeting these information gaps prior to embarking on health financing reform will ensure that health financing reform is evidence-based and responds to the specific health, demographic and epidemiological challenges faced by Tonga.
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