A REVIEW OF HEALTH LEADERSHIP AND MANAGEMENT CAPACITY IN SOLOMON ISLANDS

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ACRONYMS

ADB  Asian Development Bank
AUD$  Australian dollar
AusAID  Australian Agency for International Development
GDP  gross domestic product
GHE  government health expenditure
Govt  government
HIV  human immunodeficiency virus
HRH  human resources for health
Lao PDR  Lao People’s Democratic Republic
MAKER  Managers taking Action based on Knowledge and Effective use of Resources
MDG  Millennium Development Goal
MHMS  Ministry of Health and Medical Services
NZAID  New Zealand Agency for International Development
NZD$  New Zealand dollar
PPP  purchasing power parity
RAMSI  Regional Assistance Mission to Solomon Islands
SBD$  Solomon Islands dollar
SIMTRI  Solomon Islands Medical Training and Research Institute
UN  United Nations
UNDP  United Nations Development Programme
UNICEF  United Nations Children’s Fund
UNSW  University of New South Wales
USD$  United States dollar
WHO  World Health Organization
WPRO  Western Pacific Regional Office

A note about the use of acronyms in this publication
Acronyms are used in both the singular and the plural, e.g., MDG (singular) and MDGs (plural). Acronyms are also used throughout the references and citations to shorten some organisations with long names.
This review describes the current state of health management and leadership capacity and issues that affect management performance in the Solomon Islands. Solomon Islands has a population of about 500,000, nearly 40% of which are under the age of 15 and around 80% live in rural areas.

The country has undergone significant social and economic upheavals over the past decade which have greatly affected its developmental efforts. Armed conflict arising from tensions between rival ethnic groups contributed to the degradation and near collapse of the economy between 1998 and 2003.

The tensions led to the deployment of the Australian-led Regional Assistance Mission to Solomon Islands (RAMSI) to restore law and order in 2003. As a result of the internal conflict and weak domestic revenue generation, the Solomon Islands economy currently relies heavily on external donor support. Overseas development assistance accounted for nearly 48% of the country’s gross national income in 2006. The Australian and New Zealand governments provide significant budget support to the health and education sectors.

The health sector has seen some improvements since independence but formidable challenges remain. Life expectancy at birth rose by nearly five years from 62.2 years in 2000 to 67 in 2010. Infant mortality has dropped significantly from 66 per 1,000 live births in 1999 to 24 per 1,000 in 2007. Increasing number of births occur in a health facility under the supervision of skilled health personnel.

According to the Solomon Islands Demographic and Health Survey 2006–2007, eight out of 10 births occur in a health facility and about 85% of births are attended to by a trained health professional. The maternal mortality ratio, nonetheless, remains high at about 220 per 100,000 live births. Overall, Solomon Islands will have difficulty in meeting its Millennium Development Goals (MDGs) by 2015. Solomon Islanders also face increasing risks of non-communicable diseases: the recent Solomon Islands STEPS Survey reported that 46% of the population is at high risk.

Significant challenges exist in the area of human resources for health, relating to cost containment, production and deployment. As at December 2010, there were a total of 2,728 health workers in the public sector in Solomon Islands. Of these, 153 were medical doctors or dentists, 936 were nurses, 524 were nurse aides, 569 were allied health professionals, 126 were administrative staff and 420 were in other support roles.

Shortages in certain cadres of health workers have been reported, particularly specialist doctors and nurses, and allied health professionals. The doctor per population ratio stands at about 1:3,300. The Solomon Islands Government (SIG) has signed a cooperation agreement with Cuba which has led to the supply of 10 Cuban doctors to work in Solomon Islands and 75 Solomon Islands students going to study medicine in Cuba, most of these students are due to return in 2013.

Improving health management and leadership capacity and performance has been identified by the Solomon Islands Ministry of Health and Medical Services (MHMS) as critical to improving health delivery and achieving the MDGs. This review identified several issues that are affecting management and leadership capacity and performance at the provincial level, where 10 provincial health directors are appointed.

Financial and human resource management skills are limited, with provincial health authorities in need of training in the use of the MYOB computer software adopted by MHMS for accounting purposes. The desire of the MHMS to strengthen management capacity is made explicit in the National Health Strategic Plan 2006–2010. Several management and leadership training activities have been organised, however, they appear to have been largely donor-driven. As in other Pacific Island countries, high staff turnover and mobility require management and leadership training programs to be available on a continuing basis.

The dual role responsibility of managers is perhaps the biggest obstacle to management effectiveness at the provincial level. The provincial health directors are clinicians...

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EXECUTIVE SUMMARY

Improving health management and leadership capacity and performance has been identified by the Solomon Islands Ministry of Health and Medical Services as critical to improving health delivery and achieving the Millennium Development Goals.
and reportedly spend much of their time providing clinical services and less in planning and managing services. The emphasis on primary health care and strengthening provincial and sub-provincial services requires accompanying management guidelines to detail the responsibilities of national and provincial health authorities. Out-of-date job descriptions, failure to structure work activities, lack of performance management systems, and poor time and attendance records make it difficult to improve service performance, particularly where the roles, responsibilities and lines of accountability of staff extend beyond provincial to central authorities.

Management support systems do not adequately support provincial health managers. The budgeting and financial management system, in particular, poses a significant challenge to provincial health directors. Due to limited budgeting and accounting skills within the health system, there are often delays in the release of funds to provinces from the central level, disrupting service provision and resulting in under-spending budgetary provisions at year’s end.

The health management information system serves the purposes of annual planning and national reporting rather than personnel management and resource allocation decision making. It is reported that provincial health directors rarely use health data for management decision making. This may be due to the infrequent collection of data, insufficient management-relevant information and limited ability of provincial health managers to analyse and understand the available data for operational and day-to-day management activities.

In conclusion, the challenges facing health managers and leaders in the Solomon Islands are similar to those of many low- and middle-income countries; they relate both to the managerial competence of individual provincial health directors and the constraints of the national economy, organisational structures and the societies in which they operate. In seeking to strengthen management and leadership capacity, Solomon Islands will need to build the competence of individual managers while concurrently addressing the broader structural and systemic issues that constrain management performance.
SNAPSHOT: SOLOMON ISLANDS
BASIC DEMOGRAPHIC AND SOCIO-ECONOMIC DATA

Population in 2007
0.5 million

GDP per capita (PPP USD$) in 2007
$1,725

Life expectancy at birth in 2007
65.8 years

Under age 5 mortality in 2007
70 per 1,000 live births

Maternal mortality in 2005
220 per 100,000 live births

Nursing and midwifery density from 2000 to 2007
14 per 10,000 people

Doctor density from 2000 to 2007
1 per 10,000 people

Key to acronyms
GDP gross domestic product
PPP purchasing power parity
USD$ United States dollars

(Adapted from UNDP 2009, WHO 2009b)
INTRODUCTION

Like many developing countries, Solomon Islands is undergoing an epidemiological transition and now faces a double burden of communicable and non-communicable diseases.

The Solomon Islands is the third largest country in the South Pacific after Papua New Guinea and Fiji with a population of about 500,000. The population is scattered across more than 5,000 villages on 350 inhabited islands and speaks over 80 distinct languages (Rhodes 2007). About 80% of the population lives in rural areas, and 40% is under the age of 15. The population growth rate is currently estimated at about 3%; one of the highest in the developing world (ADB 2010). Solomon Islands has undergone significant social and economic upheavals over the past decade that have greatly affected the country’s developmental efforts. Armed conflict arising from tensions between rival ethnic groups contributed to the degradation and near collapse of the economy between 1998 and 2003 (Govt Solomon Islands 2006a). The tensions led to the deployment of the Australian-led RAMSI to restore law and order in 2003.

Solomon Islands’ economy is heavily reliant on external donor support partly as a result of the internal conflict but also due to weak domestic revenue generation. Overseas development assistance accounted for nearly 48% of Solomon Islands’ gross national income in 2006 (United Nations 2008). The Australian and New Zealand governments have provided budget support to the health and education sectors since 2005. The Australian Government provided AUD$216 million in development assistance to Solomon Islands in 2008–2009, while the New Zealand Government’s bilateral assistance for the same period totalled NZD$35.7 million (Australian Government 2010; NZAID 2009). Taiwan provides recurrent budget support for national debt servicing. Overall, donors have provided a steady level of on-budget (grant) funding for development spending as well as funding for off-budget expenditures (ADB 2010). Despite this significant donor support, the well-being of the vast majority of Solomon Islanders appears to have seen little improvement since independence in 1978.

In recent years, the Solomon Islands’ economy has witnessed rapid growth; between 2003 and 2008 the economy grew substantially at an average annual rate of 7%. However, this has not been enough to recover from the decline partly due to the civil conflict (World Bank 2010). The rapid growth of the economy has been driven largely by a surge in aid flows and an increase in logging activities, which contributes over SBD$200 million to the economy annually (ADB 2010). As the country’s natural forest is depleting rapidly, Solomon Islands faces severe challenges in sustaining the high economic growth it has enjoyed in recent years. Efforts are being made by government and its development partners to improve public sector management and also to build and stimulate growth in the private sector. However, growth in the local private sector will not be sufficient to provide jobs for the rapidly growing labour force, and for many Solomon Islanders the best prospects for well-paid, productive employment may lie overseas (World Bank 2010).

With rapid population growth the health sector poses a growing challenge. Despite significant progress since independence, several health indicators compare poorly with those of other Pacific Island countries. Along with other countries in the Pacific, infant mortality has improved markedly, dropping from 66 per 1,000 live births in 1999 to 24 in 2007 (Solomon Islands National Statistics Office et al. 2009). However, it still lags behind neighbouring countries, such as Fiji and Tonga, where rates have dropped to 16 and 19 per 1,000 live births respectively. The maternal mortality ratio was estimated at 220 per 100,000 live births in 2005; significantly higher than the East-Asia and Pacific region average of 120 per 100,000 births (UNICEF 2008). Life expectancy at birth, on the other hand, rose by nearly five years from 62.2 years in 2000 to 67 in 2010 (UNDP 2010).

Like many developing countries, Solomon Islands is undergoing an epidemiological transition and now faces a double burden of communicable and non-communicable diseases. Malaria continues to be a leading cause of mortality and morbidity, especially among children and infants. In 2007 clinical malaria and fever accounted for 28% of acute care attendances (Roughan and Wara 2010). At the same time, non-communicable disease risk appears to be rising in the Solomon Islands; a recent study by the SIG and WHO reported that 46% of the population is at high risk of developing a non-communicable disease. About 67% of the study population was considered overweight and 33% diabetic (Govt Solomon Islands and WHO WPRO 2010).
PURPOSE AND APPROACH

Key components of the WHO MAKER\(^1\) framework include the number and distribution of managers, managerial competency, the management working environment, management support systems and socio-cultural context in which managers operate.

The purpose of this review is to describe the current status of health management and leadership capacity in the Solomon Islands public health sector and to analyse issues that affect the performance of provincial health managers. It is part of a study intended to inform the development of policy recommendations for improving management and leadership performance in six AusAID priority countries – Cambodia, Fiji, Lao PDR, Papua New Guinea, Solomon Islands and Timor-Leste.

The review was conducted through desk review of both published and grey literature and discussions with key individuals. The next three sections of this report provide a brief description of key aspects of the health system of Solomon Islands and the final four sections attempt to assess management and leadership capacity by using a modified version of the WHO MAKER\(^1\) framework (WHO 2007b). Key components of the framework include the number and distribution of managers, managerial competency, the management working environment, management support systems and socio-cultural context in which managers operate.

A summary of key points about management and leadership in Solomon Islands is provided at the end of this report. Detailed analysis and discussion of the issues identified in this series of reviews will be presented in a separate paper that brings together all of the issues identified from the six countries, and will be available at [www.hrhhub.unsw.edu.au](http://www.hrhhub.unsw.edu.au)

\(^{1}\) MAKER: Managers taking Action based on Knowledge and Effective use of Resources.
The Government of Solomon Islands has the primary responsibility of providing hospital and primary health care services to the population under the Health Services Act of 1979 (Govt Solomon Islands 2009b). Overall, health care is available at national, provincial, area and village/ward levels (Waqatakirewa 2001).

The National Referral Hospital in Honiara provides tertiary level care while provincial hospitals provide secondary level care. Primary health care is mainly provided by area health centres and rural clinics. As of December 2010, there were two large provincial hospitals in Western and Malaita provinces and seven smaller ones in other provinces; 37 area health centres; 103 rural health clinics and 185 nurse aide posts (Kolae 2011). Church health services, particularly the United Church and Seven Day Adventists run and staff health clinics, hospitals and nurse training schools, which are also supported through Health Sector Support Program funding.

Access to health care in Solomon Islands is constrained by a range of factors including security, human resources, finance and socio-cultural factors (Govt Solomon Islands 2005; WHO WPRO 2008). The armed conflict that engulfed Solomon Islands between 1998 and 2003, and on-going ethnic tensions thereafter have endangered the safety of health workers especially in rural and remote areas, and significantly disrupted the provision of primary health care services.

In the Solomon Islands National Health Strategic Plan 2006–2010, the Health Minister acknowledged that the population has experienced severe health problems as a result of the ongoing tensions and armed conflict, which have partly led to a relative collapse of primary health care in the country (Govt Solomon Islands 2005).

In addition to the disruption of service provision, primary health care infrastructure has degraded over time, as a result of prolonged neglect, physical isolation and harsh tropical conditions. However, despite these deficiencies access to health care is relatively high with 87% of the population seeking care while sick (AusAID 2009a).

Access to quality health care depends on adequate numbers of a well distributed workforce. With about 2.2 health workers (doctors and nurses) per 1,000 people, Solomon Islands appears to have an adequate number of health workers. However, shortages in certain cadres (medical specialists, laboratory scientist, pharmacists and others) are constant and some inequalities in staff distribution exist across provinces and Honiara. Differences also exist in access indicators, for example, utilisation of health care in times of sickness is reportedly lowest in Makira province and highest in Western province (World Bank 2008). It is also reported that isolated pockets of the population live eight hours or more from a health facility and receive health care only infrequently (AusAID 2009a).

Access to health care is also affected by socio-cultural factors. Traditional beliefs about diseases and low levels of education, especially among women, have been identified as barriers to health service utilisation (Blignault et al. 2009). While the overall utilisation of health care has reportedly increased, self-medication for diseases such as malaria and the use of traditional medicine (kastom medicine) for a variety of illnesses are still widespread in Solomon Islands (Edmonds 2006), thus affecting the rates at which formal health services are utilised.

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2 WHO recommends 2.3 health workers per 1,000 people (WHO 2006). The 2.2 per 1,000 stated here is based on 2010 figures for public sector doctors and nurses obtained from the Solomon Islands Ministry of Health and Medical Services.
The Solomon Islands health system is financed by government and a host of development partners. Operational funding (recurrent expenditure) for the MHMS comes from two major sources – the Solomon Islands Government (SIG) and Government of Australia through the Health Sector Trust Fund. Funding from SIG sources usually goes towards payroll expenses, utilities and staff travel, while funding from the trust fund pays all other recurrent expenses. Investment funding (capital expenditure) is primarily provided by donor agencies and largely used for construction or renovation of facilities, acquisition of equipment, motor vehicles, furniture and fittings (Govt Solomon Islands 2006c).

In 2006, the total amount of funds from SIG sources was about SBD$116 million\(^3\) representing nearly 14% of total government expenditure (Govt Solomon Islands 2006a). Together with funding from donor sources, including the Health Sector Trust Fund account, almost SBD$283 million (AUD$35.1 million) was spent on health services and health sector development in 2006. Payroll expenses consume the largest proportion of the MHMS budget – usually over 50% of total government health expenditure (Govt Solomon Islands 2006a, 2006c).

Recently the SIG placed a series of reservations on ministerial goods and services budgets that effectively reduced budget by 33%, severely impacting on provincial budgets and resulting in acquired debts. Shortfalls have been addressed by allocating Health Sector Support Program funds to the provinces to allow services to continue, a strategy that will likely recur, but by which donor support replaces government provision.

Government expenditure on health as a proportion of GDP is around 5% on average in the last decade: relatively higher than the proportion of GDP spent on health in other low- and middle-income countries, including Fiji and Cambodia. Figure 1 shows GDP per capita and government health spending as a proportion of GDP in 1990 and 2000 to 2004 in the Solomon Islands.


<table>
<thead>
<tr>
<th>Year</th>
<th>GDP/capita (PPP)</th>
<th>GHE % GDP</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>2,689</td>
<td>5.0</td>
</tr>
<tr>
<td>2000</td>
<td>1,648</td>
<td>5.5</td>
</tr>
<tr>
<td>2001</td>
<td>1,910</td>
<td>4.7</td>
</tr>
<tr>
<td>2002</td>
<td>1,590</td>
<td>4.5</td>
</tr>
<tr>
<td>2003</td>
<td>1,753</td>
<td>4.5</td>
</tr>
<tr>
<td>2004</td>
<td>1,814</td>
<td>5.6</td>
</tr>
</tbody>
</table>

\(^3\) This amounts to approximately AUD$14.7 million as per October 2009 exchange rate. SBD$ = Solomon Islands Dollars.
WHO estimates that Solomon Islands has the lowest annual out-of-pocket household spending on health in the world at about USD$1 per annum.

Household spending on health appears negligible in Solomon Islands. WHO estimates that Solomon Islands has the lowest annual out-of-pocket household spending on health in the world at about USD$1 per annum (WHO 2007a). Thus, health expenditure in Solomon Islands is almost exclusively public. This contrasts sharply with neighbouring Fiji where about 15% of health expenditure is out-of-pocket and government allocation to health is around 3% of GDP (Govt Fiji 2009). However, a significant proportion of public funding for health in Solomon Islands is provided by development partners.

The World Bank estimates that around 50% of total health expenditure is provided through external assistance (World Bank 2008). AusAID contributes significantly to the operating and development budgets of the MHMS and provides individuals and teams of technical advisers. Other key health development partners include the World Bank, the UN agencies and other bilateral donors such as Taiwan and Japan.

Management of financial resources for health in Solomon Islands largely remains the responsibility of the Department of Administration at the MHMS head office in Honiara, which receives allocations for health from the National Treasury. AusAID’s review of the Solomon Islands health sector identifies the excessive share being spent on the National Referral Hospital in Honiara and that the lack of financial administration skills at the provincial level has hindered the decentralisation of financial management (AusAID 2009b).

As of December 2010, there were a total of 2,728 health workers in the public sector in Solomon Islands. Of these, 153 were medical doctors (including dentists), 936 were nurses, 524 were nurse aides, 569 were other professionals (pharmacists, etc.), 126 were administrative staff and 420 were in other support roles (Kolae 2011). Only 29% of the 153 medical doctors in Solomon Islands is female. The pie chart in Figure 2 shows the workforce distribution by proportion of cadre.

Solomon Islands has shortages of certain cadres of health workers, particularly doctors and medical specialists, but also medical laboratory staff, radiologists and other allied health professionals. At the National Referral Hospital in Honiara, most clinical departments reportedly have had 50% of their clinical posts vacant (Govt Solomon Islands 2009a). The Under-Secretary of Health Improvement stated in a radio interview in 2008 that Solomon Islands is ‘in desperate need of anaesthetists, obstetricians, gynaecologists and doctors in general medicine’ (Alependava 2008). He observed that there was only one anaesthetist in the whole country. While WHO estimates one doctor per 10,000 people, recent figures from the MHMS give a public sector doctor to population ratio of about 1:3,300; relatively lower than that of neighbouring Fiji, which has a ratio of 1:2,200 people (Kolae 2011; WHO 2009b). Solomon Islands has a nurse to population ratio of approximately 13 per 10,000 people.

Only minor disparities exist in the distribution of MHMS staff across provinces: Guadacanal, Temotu and Malaita have slightly more health workers than required compared to Isabel, Makira and Chiuseul slightly understaffed (Figure 3).

In 2007 the Solomon Islands Government signed a cooperation agreement with Cuba which has led to the supply of Cuban doctors to work in Solomon Islands and Solomon Islands students being offered scholarships to study medicine in Cuba. As of December 2009, there were 10 Cuban doctors working in Solomon Islands and 75 Solomon Islanders studying medicine in Cuba (Anderson 2010). The Solomon Islands Government, under the Cuban Cooperation Agreement, requested 40 specialist doctors (Solomon Times Online 2009), hence there are likely to be more Cuban doctors arriving in Solomon Islands in the years to come. Remunerating, supplying and housing these 75 returning graduates and 40 expatriate staff presents a significant management and resourcing challenge.

4 The MHMS has established the number of health workers required for health delivery in each province. It is unclear whether this is based on how many the MHMS can recruit based on its budget or how many are necessary to deliver health services to meet the health needs of the population.
A review of health leadership and management capacity in Solomon Islands

Asante et al.

FIGURE 2. DISTRIBUTION OF HEALTH WORKFORCE BY PROPORTION OF CADRE IN THE SOLOMON ISLANDS, 2010

(Adapted from Kolae 2011)

5% Administrative staff
6% Medical officers
15% Other support staff
19% Nurse aides
34% Nurses
21% Professionals (e.g., pharmacists)

FIGURE 3. DISTRIBUTION OF SOLOMON ISLANDS MINISTRY OF HEALTH AND MEDICAL SERVICES STAFF BY PROVINCE, 2010

(Adapted from Kolae 2011)

Key to symbols
^ Excludes National Referral Hospital
The structure of health and human resources for health management in Solomon Islands is complex. In principle, provincial governments share with the national government the responsibility for the management of several government services. Provincial government divisions are headed by professional staff seconded from national line ministries, who report to the Provincial Secretary, the chief public servant in the province. These professional staff also report to their line ministries. In practice, however, it is unclear how much authority provincial governments have with regard to management of government services.

Unlike decentralisation in Papua New Guinea, where a significant amount of power has been transferred to provincial authorities from the central government, the Solomon Islands Provincial Government Act 1981 allows for partial devolution of national government functions to provincial governments. Functions for key national government services such as health and education were not envisaged under the Act to be fully devolved functions (Cox and Morrison 2004). Cox and Morrison (2004) described Solomon Islands’ decentralisation as a ‘political decentralisation through the Provincial Assemblies without the corresponding devolution of adequate powers, functions, staff, budgets and clear lines of accountability and adequate support and supervision from the National level’ (p.12).

Within the health sector, the central MHMS has the overall responsibility for health policy development, coordination and provision as required by the country’s constitution. The Permanent Secretary for Health, through the three under-secretaries (Under-Secretary for Health Care, Under-Secretary for Health Improvement and Under-Secretary for Administration and Finance) translates political aspirations for the health sector into technical, practical and operational national health policies and development plans (see Appendix – Organisational Chart of MHMS), some of which are vertical programs funded by development partners.

The provincial directors of Health Services and various heads of divisions and departments of the MHMS have the responsibility to operationalise and implement these national health policies and plans (Govt Solomon Islands 1999). Given the high national interest in health, the central MHMS retains a considerable degree of control in the relationship with provincial health authorities, with all donor and UN agency projects subject to central approvals and coordination; now increasingly so, as Solomon Islands moves towards a sector-wide approach to donor coordination.

Responsibility for management of public sector health personnel is shared between the Public Service Division (PSD), the Central Payroll Treasury and MHMS (Govt Solomon Islands 2006c), and a PSD staff member is deployed to the MHMS office in Honiara. The PSD controls appointment of new staff and has the power to terminate appointments. It produces an establishment register to facilitate human resources for health planning within the MHMS. Recruitment of new employees requires the agreement of PSD as the employer, but in practice procedures are not always followed (Govt Solomon Islands 2006c). However, payments of all health worker salaries are controlled by the Central Payroll Treasury, except those employed by the provinces as direct wage earners; usually ancillary and casual staff.

In general, health and human resource management skills at both central and provincial levels have been identified in almost all national health reports as being limited. The Solomon Islands Health Corporate Plan 2006–2008 specifically mentions improvement of management and supervision of services and human resource management in its eight priority areas. The National Health Strategic Plan 2006–2010 identifies improving management and leadership capacity throughout the MHMS as a key goal (Govt Solomon Islands 2005).

5 See WHO WPRO 2008.
As in other countries, there are different categories of health managers at different levels of the Solomon Islands health system. This section attempts to capture the number and distribution of health managers at the provincial level; essentially provincial health directors and members of their health management teams.

With the focus of this series on management of the public and primary health care services, it does not seek to capture managers of hospitals unless the same person manages both the hospital and primary health care service.

Administratively the Solomon Islands is divided into nine provinces plus the capital territory – Honiara City Council (Table 1). The provinces are sub-divided into smaller regions managed by the Senior Clinician of Area Health Centres. Information on the characteristics of provincial health directors who manage the provincial health service indicate they are 10 in number (one in each province and one in Honiara City Council) with only one female (Personal Communication 2011).

These middle-level managers lead provincial health management teams in providing support to area health centres, which are largely run by consultant nurse aides (Foster et al. 2009).

The Provincial Health Management Team comprises the Provincial Director of Health Services, Hospital Secretary, Health Accountant, Dental Officer (some provinces have a Dental Therapist), Director of Nursing, Assistant Director of Nursing (in big provinces only), Principal Field Officer (Vector Borne Disease Control Program), Chief Health Inspector (in small provinces, Principal Health Inspector), Senior Pharmacy Officer, Medical Technologist and Radiographer (Personal Communication 2011).

### TABLE 1. DISTRIBUTION OF HEALTH PERSONNEL AND FACILITIES BY PROVINCE IN SOLOMON ISLANDS, 2010

(Adapted from Govt Solomon Islands 2006b; Kolae 2011)

<table>
<thead>
<tr>
<th>PROVINCE</th>
<th>POPULATION</th>
<th>HEALTH FACILITIES</th>
<th>HEALTH PERSONNEL(^)</th>
<th>RATIO: HEALTH WORKERS TO POPULATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central</td>
<td>27,928</td>
<td>26</td>
<td>127</td>
<td>1:220</td>
</tr>
<tr>
<td>Choiseul</td>
<td>25,870</td>
<td>28</td>
<td>110</td>
<td>1:235</td>
</tr>
<tr>
<td>Guadalcanal</td>
<td>78,290</td>
<td>40</td>
<td>184</td>
<td>1:425</td>
</tr>
<tr>
<td>Honiara*</td>
<td>63,311</td>
<td>14</td>
<td>124</td>
<td>1:511</td>
</tr>
<tr>
<td>Isabel</td>
<td>26,310</td>
<td>35</td>
<td>123</td>
<td>1:214</td>
</tr>
<tr>
<td>Makira</td>
<td>40,386</td>
<td>38</td>
<td>139</td>
<td>1:291</td>
</tr>
<tr>
<td>Malaita</td>
<td>159,923</td>
<td>73</td>
<td>370</td>
<td>1:432</td>
</tr>
<tr>
<td>Rennell and Bellona</td>
<td>3,025</td>
<td>3</td>
<td>22</td>
<td>1:138</td>
</tr>
<tr>
<td>Temotu</td>
<td>24,412</td>
<td>17</td>
<td>119</td>
<td>1:205</td>
</tr>
<tr>
<td>Western</td>
<td>81,214</td>
<td>60</td>
<td>333</td>
<td>1:244</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>530,669</strong></td>
<td><strong>334</strong></td>
<td><strong>1,651</strong></td>
<td><strong>1:321</strong></td>
</tr>
</tbody>
</table>

**Notes to Table 1**

\(^\) Includes all health personnel.

\(\#\) Excludes National Referral Hospital
COMPETENCE OF PROVINCIAL HEALTH MANAGERS

Managerial competence is acquired through a combination of training, experience and coaching (WHO 2009a). All the 10 provincial health directors leading the provincial health management teams are clinicians with basic medical degrees. Only three of them have a Master in Public Health Degree that may have exposed them to health service planning and management. Most of the provincial health directors are also recent graduates and have not been in their current position for a long time (Personal Communication 2011).

The Solomon Islands MHMS and its development partners recognise the need to scale-up managerial competence through further training. A draft national training plan was to be completed by the end of 2004. The 2009 AusAID country report notes that some provincial health directors are undertaking relevant postgraduate training – on their own initiative – through WHO’s Pacific Open Learning Health Network (Foster et al. 2009). In 2006, a health leadership and management course was presented by the University of New South Wales School of Public Health and Community Medicine for about 30 senior and middle managers from national and provincial levels (Govt Solomon Islands 2006a).

A 2008 World Bank Health Sector Support Program included a training and capacity-building component that sought to strengthen the management capacity of senior managers and provincial health directors to be more effective in strategic planning, particularly in donor coordination. The Program planned to finance part of the MHMS strategic human resource training plan, particularly in the area of leadership skills for senior managers and training in technical subjects related to health service management (World Bank 2008).

In general, it is assumed in Solomon Islands, as in other Pacific Island countries, that clinicians can be effective service managers and that management training within public health programs is sufficient. Currently the MHMS has no plan to create a cadre of trained health administrators (Personal Communication 2011).

MANAGEMENT WORKING ENVIRONMENT

In common with other countries, one of the key challenges faced by provincial health directors in the Solomon Islands is a lack of supportive supervision. This has been noted in several MHMS documents (National Health Plan 2004–2005; National Health Strategic Plan 2006–2010; National Health Annual Report 2006). AusAID has observed that provincial health directors receive no supportive supervision from senior managers at the national level; neither do they provide supervision to area health centres. In turn, the area health centres do not supervise rural health facilities in the expected manner (Foster et al. 2009).

At the community level, lack of supervision of staff is a reason for low confidence in government clinics among the general population (Edmonds 2006). While there will be a range of reasons for the lack of supervision, the most important seems to be limited finance; it has been reported that there is an insufficient budgetary allocation for supervisory activities (Foster et al. 2009), although improving management and supervision is a priority the MHMS had emphasised in its Corporate Plan for 2006–2008 (WHO WPRO 2008).

Lack of proper role delineation presents another challenge for provincial managers. At the national level, the demarcation of roles and responsibilities between central and provincial health authorities remains unclear despite the continuing emphasis on health delivery at local levels (World Bank 2008). At the provincial level, roles, responsibilities and lines of accountabilities of staff (including managers) are not properly defined. To be able to manage health service delivery effectively, provincial health directors and their local management teams need to know exactly what is required of them and have sufficient resources and time to perform these functions.

Provincial health directors’ roles include both clinical and managerial functions with no clear directives for how much of each role is expected of them. As reported by Foster et al. (2009), many provincial directors spend much time providing clinical services at the hospitals and are unable to put sufficient energy into managing the health services. With a shortage of doctors, it is hard to see how medically trained provincial health directors could be freed from clinical duties. The anticipated influx of Cuban trained doctors may

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6 No further information could be found on the draft training plan. Presumably, it was a plan for the training of health staff at different career levels and not only provincial health directors.

7 Govt of Solomon Islands 2004
8 Govt of Solomon Islands 2005
9 Govt of Solomon Islands 2006a
10 The provincial directors might also be more comfortable in clinical than managerial roles given their limited training in health service management.
FUNCTIONING OF MANAGEMENT SUPPORT SYSTEMS

Many provincial directors spend much time providing clinical services at the hospitals and are unable to put sufficient energy into managing the health services.

Present an opportunity for senior clinical provincial level staff to strengthen their management skills, and develop dedicated managerial roles in provinces.

It's not clear how much control provincial health directors have over centrally employed health staff in the province. The authority to manage health personnel, other than the direct wage earners employed from provincial budgets, is vested in the Public Service Division, while at the provincial level, the Provincial Secretary is the highest public servant to whom all employees in the province are responsible.

In addition to the above, there is no established system of incentives for promoting good performance in Solomon Islands (World Bank 2008). Provincial health directors don't have an appropriate forum, apart from the Annual National Health Conference, to meet regularly and share ideas or exchange experiences. Many of them face acute problems with housing, as the market for rental housing is non-existent in many locales served by provincial and area health services (Govt Solomon Islands 2006a).

Government-owned housing is available for rent in some locations, but is often of substandard quality and availability is unable to meet demand. Some provinces, such as Choiseul, have initiated a provincial health staff housing project to alleviate the housing problems of health workers, as the MHMS provides minimal funds for renovating the houses of provincial staff. However, concerns about poor staff housing conditions for health workers in all provinces remain (Govt Solomon Islands 2006a).

Budgeting and financial management is a significant challenge for provincial-level managers. The Government provides funds through a grant system which is theoretically effective for financial control but practically inappropriate for implementation. The ‘advance and acquire’ system releases funds only when previous grants have been reconciled. While this may ensure that reconciliation functions are carried out at the provincial level, there is reportedly a scarcity of qualified personnel with sufficient financial management skills in the provinces to successfully acquire the funds.

Provincial accountants are said to have been inadequately trained in the use of the new computer-based financial system (Foster et al. 2009), resulting in provinces sending original statements to the central MHMS in Honiara instead of analysing and reconciling them at the provincial level.

This inability to analyse financial data at the provincial level contributes to delays in the release of provincial grants and to an end-of-year under spending of budgeted funds. At the end of 2006 the MHMS had under spent by about SBD$2.8 million (Govt Solomon Islands 2006a). The Government has planned to address this issue by outsourcing its accounting functions while it trains provincial staff in financial management (Foster et al. 2009), but at the time of this review there was no timetable for implementing this plan.

The health information system used in the Solomon Islands is reportedly of a reasonable standard but appears to offer little support to provincial managers. Available evidence suggests that provincial health directors rarely use health information for decision making. Health data from the province is often passed directly to MHMS head office in Honiara, and largely serves the interests of the head office and donors (Foster et al. 2009).

The limited use of health data in the province is due to a combination of management issues; the inability of provincial health directors to understand financial information, the demands of other concurrent roles and the lack of management-relevant information in the datasets. As observed in other countries reviewed in this series, Solomon Islands information systems are largely based on counts of clinical presentations; information that may assist in managing staff performance and resources more effectively is not collected.

Delayed supply of essential drugs and materials is a recurrent problem and a serious challenge for provincial health directors. The National Medical Store in Honiara is
Provincial accountants are said to have been inadequately trained in the use of the new computer-based financial system, resulting in provinces sending original statements to the central MHMS in Honiara, instead of analysing and reconciling them at the provincial level.

The Solomon Islands shares a series of socio-cultural characteristics with its fellow Melanesian states, which may influence management and leadership practices. The laen (lineage) system of familial allegiance and the associated ‘big-man’ leadership type, which are unique to Melanesian societies (Fukuyama 2008; McLeod 2008), have the potential to affect health management at the provincial level.

The role of the big-man is fundamental to concepts of leadership in the Solomon Islands, particularly in the political arena (McLeod 2008). A big-man is one whose success is determined by personal power, oratory and status. This differs from a hereditary chief (as in Fiji), whose power is positional rather than personal. A big-man will reward supporters for their patronage.

In the context of managing health workers, these cultural features create issues where a manager may be reluctant to discipline a member of their clan or a big-man may favour supporters or patrons over others. Additionally, the culture of respecting one’s elders may make a younger manager reluctant to criticise an older subordinate or a superior (McLeod 2008).

A gender bias against women is apparent in perceptions about a woman’s role in Solomon-Islands society: masculine political cultures, violence against women, restrictions of women’s social mobility and their limited economic independence (McLeod 2008). These factors are manifested in the form of limited participation by women in management and leadership roles. For example, there are no female representatives in the national legislature (McLeod 2008).

These factors are likely to impact the work environment negatively for a female manager. Internal migration, especially from the island of Malaita to Guadalcanal, created ethnic tensions over property rights between migrating Malaitans and the traditional landowners of Guadalcanal. Fukuyama (2008) argues that big-man leaders turned what was essentially competition for resources into an ethnic rivalry that ultimately escalated into open conflict.

The intervention of the Regional Assistance Mission to the Solomon Islands was required to pacify the conflict. An element of distrust between the ethnic groups continues (Fukuyama 2008). These ethnic tensions, as noted earlier, create an atmosphere of insecurity which affects health worker performance and health delivery generally.
Access and utilisation of health care

- The armed conflict that engulfed the Solomon Islands between 1998 and 2003 significantly disrupted the provision of health care especially in rural and remote areas. There is one doctor for 3,300 people and approximately 13 nurses and midwives for 10,000 people. Despite limitations, 87% of people seek health care when sick.

Financing the health system

- The SIG placed a series of reservations on ministerial goods and services budgets that effectively reduced the budget by 33%, severely impacting provincial budgets and resulting in acquired debts. Shortfalls have been addressed by allocating Health Sector Support Program funds to the provinces to allow services to continue, a strategy that will likely recur, but by which donor support replaces government provision.

- Provincial health accountants have received training in MYOB in 2009 but acquittal systems require higher level accounting skills for reports to be submitted on time to permit the release of subsequent funding tranches.

Human resources for health

- The shortage of doctors and specialists is a key challenge. As at December 2010, there were a total of 2,728 health workers in the public sector in Solomon Islands. Staff costs consume on average 55% of provincial health grants.

- Filled Public Service Division staff establishments and budgetary reservations have reduced the ability to meet the salary and wage costs of new graduates. Solomon Islands is currently negotiating to assist Vanuatu in filling its nursing staff vacancies with its surplus.

- The return of 75 Cuban trained medical officers from 2013 presents the management challenge of accessing budget provisions for so many new positions and in funding the infrastructure needed to house, equip and maintain them in service.

Health management structure

- Provincial health managers are operationally responsive to local needs, managerially responsible to provincial governments, while being concerned with adherence to central MHMS policy and to Ministry of Finance and Public Service Division regulations.

- The delineation of central and provincial health authorities’ responsibilities requires guidelines in a changing system, where both population-based and targeted vertical programs are implemented at local levels.

Number and distribution of managers

- Nine of the 10 positions of Provincial Health Director have experienced high turnover, which reportedly occurs without adequate handover to incoming appointees, most of whom are recent clinical graduates. Health services in the Honiara urban area are provided through the Honiara City Council. Church health services are staffed by government employees.

Competence of district health managers

- Management skills are reportedly weak at the provincial level. The Regional Assistance Mission to Solomon Islands provides governance training inputs to provincial government staff. Provincial health departments have limited financial and human resource management capacity. They also have clinical backgrounds and no training in public health planning or health services management, other than that provided by donors, the Regional Assistance Mission itself and the MHMS.

Management working environment

- Provincial health directors have limited control over health staff. Little supportive supervision in management is provided to new provincial health directors. No performance management systems are in place to ensure that staff are properly assessed and supported to do their best.

- Large numbers of non-government organisations working at the provincial level in youth and women’s programs require coordination by Provincial health directors to avoid duplication or implementation of programs that will require ongoing funding, but this is not done.

Functioning of management support systems

- Management support systems for budgeting and finance, management information and procurement and supply do not function adequately to support provincial health directors to manage effectively.

The socio-cultural context

- Socio-cultural issues such as favouritism based on kinship, discrimination against women and the big-man culture have implications for effective management and strong health leadership.

- These cultural features create situations where a manager may be reluctant to discipline a member of their clan, or where a person with cultural influence may be able to distort systems.
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APPENDIX

ORGANISATIONAL CHART OF MINISTRY OF HEALTH AND MEDICAL SERVICES
(Adapted from WHO WPRO 2008)

MINISTER FOR HEALTH

Permanent Secretary

Internal Audit

Undersecretary for Health Improvement

Undersecretary for Health Care

Undersecretary for Administration and Finance

National prevention and control programs:
- Environmental health
- Health promotion and education
- Vector borne disease control
- HIV and sexually transmitted infections
- Tuberculosis and leprosy
- Non-communicable diseases
- Reproductive and child health
- SIMTRI (public health training and research)
- Epidemiology and disease surveillance

Provincial health services:
- Provincial primary health care
- Honiara city council
- Community-based rehabilitation
- Mental health

Coordination:
- Partner development coordination
  (churches, non-government organisations)
- Aid-donor coordination
- Cross-sectoral development

Planning:
- Policy development
- Health legislation

Professional Boards:
- Nursing and medical services
- Specialist care services:
  - National Referral Hospital
  - Provincial hospitals
  - National psychiatric hospitals
- Paramedical services:
  - Diagnostic services
  - Dental services
  - Pharmacy
  - Physiotherapy

Monitoring and evaluation:
- Health information systems

Coordination:
- Aid-donor coordination
- Cross-sectoral development

Planning:
- Policy development
- Health legislation

National policy and planning:
- Coordination and integration with external stakeholders
- Health asset management and planning
- National medical stores
- Information technology
- Human resources management
- Human resources development

Finance:
- Financial management
- Resources allocation formula

Coordination:
- Aid-donor coordination
- Cross-sectoral development

Planning:
- Policy development
- Health legislation

Key to acronyms
- HIV human immunodeficiency virus
- SIMTRI Solomon Islands Medical Training and Research Institute
THE KNOWLEDGE HUBS FOR HEALTH INITIATIVE

The Human Resources for Health Knowledge Hub is one of four hubs established by AusAID in 2008 as part of the Australian Government’s commitment to meeting the Millennium Development Goals and improving health in the Asia and Pacific regions.

All four Hubs share the common goal of expanding the expertise and knowledge base in order to help inform and guide health policy.

Human Resource for Health Knowledge Hub, University of New South Wales
Some of the key thematic areas for this Hub include governance, leadership and management; maternal, neonatal and reproductive health workforce; public health emergencies; and migration.
www.hrhhub.unsw.edu.au

Health Information Systems Knowledge Hub, University of Queensland
Aims to facilitate the development and integration of health information systems in the broader health system strengthening agenda as well as increase local capacity to ensure that cost-effective, timely, reliable and relevant information is available, and used, to better inform health development policies.
www.uq.edu.au/hishub

Health finance and Health Policy Knowledge Hub, The Nossal Institute for Global Health (University of Melbourne)
Aims to support regional, national and international partners to develop effective evidence-informed national policy-making, particularly in the field of health finance and health systems. Key thematic areas for this Hub include comparative analysis of health finance interventions and health system outcomes; the role of non-state providers of health care; and health policy development in the Pacific.
www.ni.unimelb.edu.au

Compass: Women’s and Children’s Health Knowledge Hub, Compass is a partnership between the Centre for International Child Health, University of Melbourne, Menzies School of Health Research and Burnet Institute’s Centre for International Health.
Aims to enhance the quality and effectiveness of WCH interventions and focuses on supporting the Millennium Development Goals 4 and 5 – improved maternal and child health and universal access to reproductive health. Key thematic areas for this Hub include regional strategies for child survival; strengthening health systems for maternal and newborn health; adolescent reproductive health; and nutrition.
www.wchknowledgehub.com.au
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