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The Fiji Islands Health System Review

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Preface

The Health Systems in Transition (HiT) profiles are country-based reports that provide a detailed description of a health system and of reform and policy initiatives in progress or under development in a specific country.

This HiT is the very first to be produced by the Asia Pacific Observatory on Health Systems and Policies.

Each profile is produced by country experts in collaboration with an international editor. In order to facilitate comparisons between countries, the profiles are based on a template, which is revised periodically. The template provides detailed guidelines and specific questions, definitions and examples needed to compile a profile.

HiT profiles seek to provide relevant information to support policy-makers and analysts in the development of health systems. They can be used:

- to learn in detail about different approaches to the organization, financing and delivery of health services and the role of the main actors in health systems;
- to describe the institutional framework, the process, content and implementation of health care reform programmes;
- to highlight challenges and areas that require more in-depth analysis;
- to provide a tool for the dissemination of information on health systems and the exchange of experiences between policymakers and analysts in different countries implementing reform strategies ; and
- to assist other researchers in more in-depth comparative health policy analysis.

Compiling the profiles poses a number of methodological problems. In many countries, there is relatively little information available on the health system and the impact of reforms. Due to the lack of a uniform

data source, quantitative data on health services are based on a number of different sources, including the World Health Organization (WHO) Western Pacific Country Health Information Profiles, national statistical offices, the International Monetary Fund (IMF), the World Bank, and any other relevant sources considered useful by the authors. Data collection methods and definitions sometimes vary, but typically are consistent within each separate series.

A standardized profile has certain disadvantages because the financing and delivery of health care differs across countries. However, it also offers advantages, because it raises similar issues and questions. The HiT profiles can be used to inform policy-makers about experiences in other countries that may be relevant to their own national situation. They can also be used to inform comparative analysis of health systems. This series is an ongoing initiative and material is updated at regular intervals. Comments and suggestions for the further development and improvement of the HiT series are most welcome and can be sent to apobservatory@wpro.who.int

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List of abbreviations

ADB	Asian Development Bank
CMR	Child Mortality Rate
COGS	Controller of government supplies
CWMH	Colonial War Memorial Hospital
FHMRP	Fiji Health Management Reform Project
FIRCA	Fiji Inland Revenue & Customs Office
FMC	Fiji Medical Council
FNU	Fiji National University
FSMed	Fiji School of Medicine
FSN	Fiji School of Nursing
GDP	Gross Domestic Product
HRC	Human Resource Commission
HRIS	Human Resource Information System
IMR	Infant mortality rate
MDG	Millennium Development Goal
MMR	Maternity mortality ratio
MoF	Ministry of Finance
MoH	Ministry of Health
MoNP	Ministry of National Planning
NCDs	Non-communicable diseases
NHA	National health accounts
NHIC	National Health Information Committee
NPISH	Non private institutions serving health
OOP	Out-of-pocket
OPIC	Obesity Prevention in Communities (OPIC) Fiji Study Report 2004-2009
PATIS	Patient information system
PHC	Public health care
PSC	Public Service Commission
PSH	Permanent Secretary for Health

SDH	Subdivisional hospital
UNICEF	United Nations International Childrens Emergency Fund
UNFPA	United Nations Population Fund
VAT	Value Added Tax
WHO	World Health Organization

Executive Summary

This Health System Review provides an overview of the health system of Fiji, one that faces many challenges in order to meet increasing demand for health care from a highly dispersed but rapidly urbanizing island population during a time of slow economic growth. Section 1 introduces the country, its people and the economic and political context. It also briefly describes the health status of the population, whose improvements have slowed since 1990.

Section 2 summarizes the organization and governance of the health system, including the underpinning legislation and regulations. The structure of the health system comprises three levels of care and two main health programmes - primary and preventive health care services and curative health care services - as well various statutory bodies, councils and committees. Primary health care and public health care services are managed through four geographic divisions. From 1999 to 2003 during a period of reform, a more decentralized management was introduced but this has been rolled back since 2008. Public health services are provided through 16 subdivisional hospitals, 78 Health Centres (managed by a medical officer or nurse practitioner) and 101 Nursing Stations. Tertiary services are provided through three divisional hospitals and three specialized (national) hospitals. A small private sector includes two private hospitals in Suva, several day clinics and 130 private general practitioners located mostly in the urban centres. In rural areas, traditional healers are frequently consulted.

Section 3 describes financing of the health sector in Fiji, including an overview of the system, levels of spending, sources of financing and payment mechanisms. Government budget allocations for health have remained relatively constant despite the increasing demand and cost for health care. In most years, government allocations to health are 8 and

11% of its total public expenditures or between 2.9% and 3.5% of GDP, among the lowest of Pacific island countries. Although per capita health expenditure has grown since 1995, at FJ$165 in 2008 it was towards the lower end of the range for Pacific island countries; government health expenditure represented 68% of the total. The share of health expenditure spent on inpatient care in 2008 was 49.2%. Out-of-pocket expenditure has risen in association with increased activity in the private health care sector. Health care is financed predominantly through general taxation, followed by out-of-pocket expenditure. In 2008, external funding was estimated at 6% of total health expenditure. There are no compulsory social insurance schemes but spending on health insurance increased from 2005 to 2008. Public health care is free or at very low cost for all persons in the country. Very modest user fees are charged for some basic and selected services and certain groups are exempted. Fees charged by private providers are not regulated by the government. Given Fiji's geography, some populations have greater access to health services than others; transportation cost is a major barrier for those living in remote areas. Pharmaceuticals are imported by the government-funded Fiji Pharmaceutical Services . From there, they are supplied to the government health facilities or purchased by private pharmacies; wholesale and retail mark-ups are set by the government.

Physical and human resources available to the health sector are described in Section 4. The government is responsible for the construction, management and maintenance of all health infrastructure in the public sector. Many buildings were built long ago and upgrading has been inconsistent. Funding from foreign governments has been a significant component of capital expenditure in the health sector over the past decades and private health infrastructure is a growing component. Equipment requirements are determined centrally for each level of the system and requests are reviewed by a national committee. There is a computerized patient information system that operates in 16 sites and a human resources information system tracks health professionals.

The MoH employs 3500 salaried public servants, making up 70% of the health workforce; the remainder are government wage-earners. The private sector is a smaller but important employer of health professionals, including in general practice, hospital and specialized facilities. Small

numbers of paid 'carers' work informally in the community. There has been pressure to downsize the workforce to reduce costs, while at the same time the population and demand for services is growing. The per capita numbers for doctors, dentists and nurses have remained relatively static over the past 15 years, while the number of pharmacists has declined significantly. The majority of Fiji's doctors are now concentrated in urban hospitals with a marked shortage in rural areas. Insufficient numbers of health professionals, including specialists, worsened by emigration, is a major challenge, despite the creation of new cadres of health workers. To compensate, the MoH employs foreign doctors, including specialists. Nurses represent almost two-thirds of the health workforce and provide a full range of services from PHC to acute care; more than half work in the three divisional hospitals and two specialist hospitals. This section also describes the health professional training institutions.

Section 5 describes health services delivery mechanisms, explaining the various facilities available at each level and the referral system, including the system for referral to overseas tertiary care.

Principal health care reforms are described in Section 6. Despite the fact that aspects of the health system were reviewed and reforms recommended dating back to the 1970s, many of the themes taken up in earlier reviews remain valid today. Following recommendations of a 1997 review, a comprehensive five-year reform project was initiated, in parallel with changes across the whole government, to decentralize management of the health system and to build management capacity. Political instability brought the changes to an end and in 2008, and many of the decentralization reforms were reversed. Nevertheless, despite the disruptions, a decade of efforts at reform is judged to have produced beneficial change. Further reform of the health sector is needed. Two areas are a particular challenge for the future. First, reforms are needed in the production, distribution and retention of human resources across all groups of health professionals. Second, long-term reform of the health financing system is needed to ensure that health funding remains adequate and sustainable.

Section 7 presents an assessment of the Fiji health system against a set of internationally recognized criteria and drawing on the information

summarized in earlier sections. The strength of the Fiji health system is judged to be its foundation on a primary health care model. The model has, however, been affected by urban migration, along with some dissatisfaction with primary health care services, whose quality has been put under stress by underfunding. The fact that health services have been essentially free of charge has exposed the health system to the moral hazard of overuse. MoH policy relies largely on the projected success of primary health care, health promotion and disease prevention to achieve health outcomes and to contain the potential for rising curative care costs. Evidence suggests, however, that this approach is not yet reversing the trends in risk factors and chronic disease incidence. Life expectancy has decreased and injury and trauma increased. Out-of-pocket expenditure has increased along with poverty. Thus far, too little has been done to address the issue of human resources for health, including emigration. Health budgets have remained static, although costs have risen. The MoH has introduced some modest measures to raise revenue and rationalize service use. These are the first among many adjustments needed to the model of free health care that the Fiji health sector is built on. Reform has been faltering but continues, including a revitalization of primary health care.

Section 8 concludes that while Fiji achieved a high level of population health coverage through innovative primary health care initiatives in the 1970s, urbanization, changing lifestyles and other factors have led to the need for the health system to adapt. This has proven difficult to achieve in a period of political instability and slow economic growth. The financial challenge to the health system is compounded by its high dependence on taxation revenue. The issue of the appropriate degree of decentralization of decision-making will continue to be a challenge. The migration of health professionals is an issue the health sector must address. This will require innovation in terms of career structures, other incentives for health professionals and greater investment in training. The increase in non-communicable diseases highlights the need for Fiji to adopt policies and create environments that encourage healthier lifestyles, while also responding to the needs for clinical care. In summary, the Fiji health system faces many challenges that will require it to continuously adapt to new circumstances in order to ensure that it meets the increasing demands and needs of the population.

1 Introduction

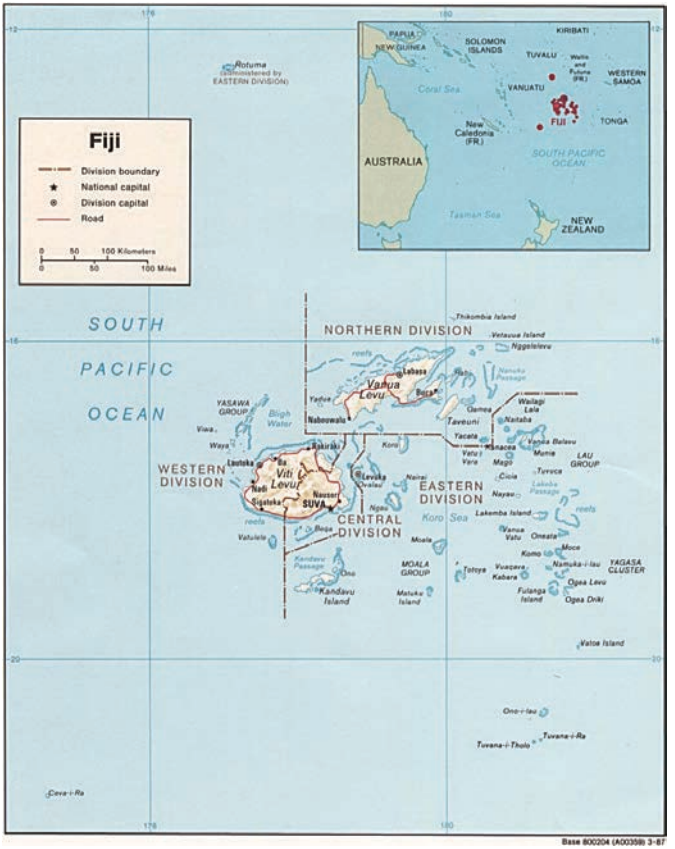
Fiji is an island state with a dispersed population, although the most urbanized of all Pacific island countries (PICs). Following independence from the United Kingdom in 1970, it experienced several decades of favourable growth in its role as the 'hub of the Pacific'. The capital, Suva, is the location of the Pacific Forum and of a number of sub-regional offices of the United Nations agencies. Its history of indentured labour in the sugar industry explains its ethnic mix, unique in the region. Internal political tensions have produced a series of coups d'état (in 1987, 2000 and 2006), which have destabilized the nation, slowed economic growth and resulted in an estimated 35% of the population living below the poverty line, and a high proportion of the employed earning below the taxation threshold. The health sector is mostly financed through taxation revenues; low levels of tax collection have constrained its potential for achieving targets and improving health outcomes for over twenty years.

1.1 Geography and socio-demography

Fiji, an island nation in the south-west Pacific, midway between Vanuatu and the Kingdom of Tonga, is made up of 332 islands, of which one third are inhabited (Figure 1-1). Its population in 2007 was 837 271 people, of whom approximately 57% were ethnic Fijians, 37% Indo-Fijian and the remainder of other ethnic groups, including Caucasian and Chinese (Table 1-1). Fiji is a multicultural and multi-religious country; indigenous Fijians are predominantly of Christian faith and Indo-Fijians of Hindu and Muslim faith. The adult literacy rate is around 94%, with English the official language and Fijian and Hindi the languages of daily use.

National population growth during the 1996-2007 inter-census period averaged 0.7% per annum with crude growth rates higher in the Fijian than in the Indo-Fijian population. The rural and urban populations comprise

Figure 1-1: Map of Fiji



49% and 51% respectively, making Fiji the most urbanized Pacific island country (PIC); it is forecasted to have an urban population of 61% by 2030. Population growth has occurred mainly in the Central Division in the Nasinu area of Viti Levu (the largest island), while the Northern Division (Vanua Levu) has experienced a very substantial population decrease, mainly due to the exodus of Indians from Macuata Province following the expiry of sugar cane leases.

Fiji's housing and employment crises are pervasive and are projected to be compounded by high rates of school drop-out. As land leases expire and food costs rise, squatter settlements now number 200 with an estimated population of over 100 000 people, most on the Island of Viti Levu.

Table 1-1: Population distribution by geographic sector and ethnicity, 2007

Geographic Sector	Ethnic group	Population 2007	% of Total
Total Fiji	All	837 271	100
	Fijian	475 739	57
	Indian	313 798	37
	Others	47 734	6
Rural Sector	All	412 425	49
	Fijian	264 235	32
	Indian	135 918	16
	Others	12 272	1
Urban Sector	All	424 810	51
	Fijian	211 504	25
	Indian	177 880	21
	Others	35 426	4

Source: Fiji Bureau of Statistics (2008)

Table 1-2 shows the population distribution by age group in 2005. According to national data for 2007, 39% of the population was under the age of 20, indicating a further increase in population over the next decade.

Table 1-2: Population distribution by age-group, 2005

Age Group	Population	% of Total
Less than 5 years	82 718	9.9
5 - 9 years	78 019	9.3
10 - 14 years	82 384	9.8
15 - 19 years	79 518	9.5
20 - 24 years	80 352	9.6
25 - 29 years	73 487	8.8
30 - 34 years	63 535	7.6
35 – 39 years	56 552	6.8
40 - 44 years	56 274	6.7
45 - 49 years	50 322	6.0
50 - 54 years	40 009	4.8
55 - 59 years	31 161	3.7
60 - 64 years	24 120	2.9
65 - 69 years	16 808	2.0

Age Group	Population	% of Total
70 - 74 years	10 110	1.2
75 years & over	11 902	1.4
Total	837 271	100

Source: UN Population Division website accessed April 2011

In comparison to its regional neighbours, Fiji has a much higher proportion of its population living in urban areas, its under-five mortality rate is relatively low, and its access to improved water sources is low, partly due to large squatter populations and a dispersed rural population.

Table 1-3: Selected regional comparative indicators

Indicator	Fiji	Samoa	Solomon Islands	Tonga	Vanuatu
Human Development Index rank[1] (2005)	92	77	129	55	120
% urban population[1] (2005)	51	23	17	24	24
Under 5 mortality rate per 1000[2] (2009)	18	25	36	19	16
Life expectancy at birth[2] (2009)	69	72	67	72	70
% of population using improved drinking water sources[1] (2004)	47	88	70	100	60
% of population using improved adequate sanitation[1] (2004)	72	100	31	96	50
Age-specific fertility rate (15-19) births per 1000 women[3] (2000–2005)	42	37	51	18	53
Contraceptive prevalence rate (percentage)[2] (2005–2009)	35	25	27	23	38

Sources: (1) UNDP Human Development Report 2008; (2) UNICEF website at http://www.unicef.org/infobycountry/fiji_statistics.html; (3) http://data.un.org/Data.aspx?q=age+specific+fertility+rate&d=GenderStat&f=inID%3a13

1.2 Economic context

Fiji's Economic Exclusive Zone contains 332 islands covering a total land area of 18 333 square kilometres within 1.3 million square kilometres of the South Pacific. Fiji's main sources of revenue are from tourism, sugar,

mining and agriculture, and bottled water. GDP was FJ$4271 billion in 2009 with a net budget deficit of 3.5% of nominal GDP. Recent performance in major sectors reflected a 2.5% decline in the economy in 2009 from 2008 and an inflation rate of over 7%. The current account continued to be supported by strong growth (56.5% in 2009) in personal remittances, reflecting increasing family support provided during the period of economic decline.

The country has a relatively good infrastructure to support its development although it requires major investment to maintain its road networks. Many of the rural water supply systems built during the colonial period are now deteriorated to the degree that village water systems can be sources of diarrheal diseases. Overall, the population´s standard of living is declining. Fiji is rated on the UNDP Human Development Index (HDI) as a medium developed country, ranked 86th among a listing of 169 nations in 2008; this represents a decline from position 46 in 1995. According to estimates from a 2008-2009 Household Income and Expenditure Survey (Fiji Bureau of Statistics 2010), 31% of the population were living below the Basic Needs Poverty Line. This represents a decrease compared with the 35% estimate from a similar survey in 2002-2003. Between the surveys, the proportion of the population defined as poor in urban areas decreased from 29% to 19%, but rural poverty actually increased from 40% to 43%. Persisting poverty, combined with high rates of school drop-out, signal substantial challenges for the economy. While generally there is an adequate food supply for all, dietary patterns and imbalances are obesogenic and contribute to high rates of non-communicable diseases.

Increasing prices of oil and food imports have stressed the economy further, while the decline in sugar production and garments exports contributes more directly to poverty. The economy has become increasingly dependent on tourism, remittances from overseas, and gold and forestry exports. Internal migration is seen in the Macuata Province in Vanua Levu, where in the inter-census period it lost 25% of its rural Indian population. This is likely to have major implications for the future development of Fiji's second largest island, and for national revenues from the sugar cane industry.

An impressive quantity and range of traditional food such as root crops, fruits and vegetables are grown throughout the country and, along with

fish, are identified as a 'hidden strength' of the economy. However, it is estimated that only 40% of energy needs come from locally-grown food. Fiji is a net importer of food and its agricultural potential for food production is largely underutilized. Much of Fiji's arable land has been devoted to sugar production, but as land leases expire, land is left fallow without any plans for further development.

The Governor of the Reserve Bank of Fiji (2010) in the Bank's Monthly Economic Review announced that foreign reserves were FJ$1069 million, equivalent to around 3.4 months of imports of goods and services. This resulted from the combined effects of weak internal demand and a 20% devaluation of the currency in April 2009.

1.3 Political context

Despite its middle ranking status and important role as a regional centre, Fiji has not attained the levels of development predicted in the early 1980s. A series of four coups over the past 20 years has produced periods of either fluctuations in the levels of private investment or no growth or decline, and has been a catalyst for the migration of the professional and skilled workforce from Fiji to Australia, New Zealand, Canada and the USA.

The current military-led government, in place since December 2006, has forecast that the nation will go to the polls in 2014. The government has identified certain conditions to be in place prior to a general election in the Roadmap for Democracy and Sustainable Socio-Economic Development 2009-2014 and the National Strategic Framework for Change. These include adoption of the People's Charter, within which Pillar 10 addresses issues for the health sector, proposing to increase the proportion of GDP allocated to health by 0.5% per annum for the next 10 years to reach a level of 7% of GDP. However, the government was unable to achieve this increase in the 2010 budget, which would result in significantly increased funding for the health sector. Yet in the current global and national economic climate, achieving this increase will require continued advocacy for health developments in the face of competing demands; and for the MoH to demonstrate that it uses its resources effectively.

1.4 Health status

Fiji made considerable progress in improving its key health indicators up to 1990, with increases in life expectancy, and decreases in maternal and infant mortality, but since then progress has stalled. The maternal mortality rate, for example, fell from 156.5 (per 100 000 live births) in 1970 to 53.0 in 1980 and 26.8 in 1990; it then rose to 67.3 in 2005 to fall again in 2007 to around the 1990 level. The infant mortality rate, which was 16.8 per 1000 live births in 1990, was higher, at 18.4, in 2007; under-five mortality showed a similar flat trend (see Table 1-4). A review of infant mortality published in 2010 reveals that the bulk of all under-five mortality in Fiji occurs in the perinatal period (Russel 2010). The MMR, CMR and IMR are far short of the Millenium Development Goals (MDG) targets of 5.6 for infant mortality, 9.3 for child mortality and 10.3 for maternal mortality.

Table 1-4: Progress towards achievement of MDG 4 and MDG 5 (1990-2007)

	MDG 4		MDG 5
Year	Child (< 5) Mortality Rate (per 1000 live births)	Infant Mortality Rate (per 1000 live births)	Maternal Mortality Rate (per 100 000 live births)
1990	N/A	16.8	26.8
1995	19.3	14.7	60.4
2000	21.8	16.2	57.5
2005	25.8	20.7	67.3
2007	22.4	18.4	31.1
MDG Target	**9.3**	**5.6**	**10.3**

Source: Ministry of Health (1990), Ministry of Health (1995), Ministry of Health (2007b).

Population health indicators presented in Table 1-5 show no significant improvement in the health status of the people of Fiji over the five years between 2003 and 2007 except for some improvements in post neonatal mortality and contraceptive coverage rates. Life expectancy at birth declined from 72.9 years in 2000 to 67.8 years in 2005 (MoH, 2005a), with women living on average five years longer than men. Only 16% of Fiji's population lives beyond 50 years of age and only 8% beyond 60 years (Sharma 2010).

Table 1-5: Fiji's key health indicators, 2003-2007

	2003	2004	2005	2006	2007
Crude Birth Rate (per 1000 population)	20.68	20.87	20.99	21.20	22.2
Crude Death Rate (per 1000 population)	7.06	6.63	7.02	7.1	9.8
Rate of Natural Population Increase	1.36%	1.42%	1.4%	1.4%	1.2%
0-5 Mortality Rate (per 1000 live births)	23.73	22.52	25.81	25.8	22.4
Infant Mortality Rate (per 1000 live births)	18.87	17.84	20.76	19.5	18.4
Perinatal Mortality Rate (per 1000 live births)	16.4	19.3	22.05	19.4	15.8
Early Neonatal (0-7days) Mortality Rate (per 1000 live births)	7.54	8.13	10.43	8.0	N/A
Neonatal (0-28 days) Mortality Rate (per 1000 live births)	9.27	10.05	15.37	11.3	11.9
Post Neonatal (1-12 months) Mortality Rate (per 1000 live births)	9.6	7.79	5.39	8.2	6.5
Maternal Mortality Ratio (per 100 000 live births)	22.3	33.9	50.5	43.5	31.1
General Fertility Rate (per 1000 women of child-bearing age)	99.2	105.6	97.3	96.9	104.1
Family Planning Coverage Rate	42.0	45.9	42.3	49.1	43.1

Source: Sutton R., Roberts G., & Lingham D. (2008)

A survey of non-communicable diseases, the NCD STEPS Survey (Cornelius et al., 2002) gave the prevalence of hypertension as 19.1% and estimated that a third of all deaths and half of the deaths in the 40-59 years age group were due to circulatory diseases. It also highlighted the prevalence of NCD risk factors; around 65% of the population took one or less servings of fruits a day, 37% currently smoked tobacco, there was a low rate of physical activity (25%) and a high rate of binge drinking (77.3% of current drinkers). The survey also showed the prevalence of Type 2 diabetes in Fiji as 16% of the adult population, up from the earlier estimate of 12%, reportedly the third highest rate per capita of diabetes in the world. The incidence of diabetes stands at around 500 new cases per year (Cornelius et al, 2002).

Recently published research reports that adult mortality in Fiji is two to three times higher than in Australia or New Zealand. The high levels of

premature adult mortality, coupled with an increasing proportion of deaths due to circulatory conditions, suggest that increasing cardiovascular disease is preventing improvements in life expectancy (Carter et al, 2010).

The 2009 data presented in Table 1-6 shows that both morbidity and mortality are dominated by chronic diseases with the exception of respiratory, intestinal and skin infections, which are a common cause of morbidity, especially among children. HIV does not rank in the top ten causes of mortality or morbidity in Fiji; the prevalence rate is less than 0.1% in 2010 despite relatively high rates of STIs.

Table 1-6: Ten major causes of morbidity and mortality in 2009

	Morbidity		**Mortality**
No	Cause	No	Cause
1	Diabetes mellitus	1	Diseases of the circulatory system
2	Injury	2	Endocrine, nutritional and metabolic diseases
3	Intestinal infectious disease	3	Neoplasm
4	Infection of skin and subcutaneous tissues	4	Certain infectious and parasitic diseases
5	Hypertension	5	Diseases of the respiratory system
6	Influenza and pneumonia	6	Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified
7	Other forms of heart disease	7	Injury, poisoning and certain other consquences of external causes
8	Other conditions originating in the perinatal period	8	Diseases of the digestive system
9	Chronic lower respiratory disease	9	Diseases of the genitourinary system
10	Ischaemic heart disease	10	Certain conditions originating in the perinatal period

Source: Ministry of Health (2009b)

2 Organization and governance

2.1 Section summary

Fiji's health system is based on a three-tier model that provides an integrated health service at primary, secondary and tertiary levels. This system was inherited from the British colonial administration and has undergone several modifications over time. From 1999 to 2003, the Fiji Health Management Reform Project introduced a more decentralized approach to management of the system, but these changes were rolled back in 2008.

While there are 17 pieces of legislation that govern and regulate the provision of health services, the health system is basically divided into two health programmes: primary and preventive health care services and curative health care services. These two programmes and their respective disciplinary areas largely determine the organizational structure and the modus operandi in the MoH. There are also various statutory bodies, councils and committees (such as the National Food & Nutrition Centre, the National Health Promotion Council, and the National Advisory Committee on AIDS) that provide supportive roles in the management and administration of specific health services.

The planning process for the MoH is based on the government's national strategic planning process. Recently, the government has strengthened the intersectoral approach to project management and implementation to ensure effective resource utilisation and minimize wastage. The MoH Clinical Services Planning Framework also plays a key role in the planning process. Ongoing efforts to strengthen the Health Information Unit should improve the information available for planning.

2.2 Overview of the health system

The MoH manages a comprehensive decentralized health system of integrated primary, secondary and tertiary care following the Fiji Health Sector Management Reform Project 1998–2002, although the administration of human resources, finance and supply remains centralized.

Primary health care and public health care services are managed and administered through four Divisional Health Services (DHS) offices: Central & Eastern combined in Suva; Western in Lautoka; and Northern in Labasa, each led by a Divisional Medical Officer (DMO) and responsible for providing public health services. There are five subdivisions in the Central Division, four in the Eastern Division, six in the Western Division and four in the Northern Division. The four DMOs are responsible to the Deputy Secretary Public Health who heads the Public Health Division in the MoH headquarters in Suva. Public health services are provided through 16 subdivisional hospitals (SDH), 77 health centres (HC) and 101 nursing stations (NS). The subdivisional hospitals, with an average capacity of 12-40 beds, provide inpatient care and outpatient services within each subdivision. Three area hospitals, smaller in capacity than a subdivisional hospital (usually with no more than 15 beds), complement the subdivisional hospital by delivering services in isolated populations.

Each subdivisional hospital supervises a designated medical area that includes a number of health centres and nursing stations. A health centre is managed by a medical officer or nurse practitioner working with one or two nurses. It provides the first level of referral for a number of nursing stations, and is generally staffed by one nurse who conducts outreach visits to communities in a designated nursing area. Community nursing stations complement and function like stations, except that they are built and funded by the community themselves, following approval by the government and according to government standards. In addition, MoH-trained community members serve as Village Health Workers (VHW) in Fijian villages and Community Health Workers (CHW) in Indo-Fijian communities.

Patients may first see a VHW/CHW or a nurse during an outreach visit or may go to a nursing station, health centre or subdivisional hospital. They may be referred to a higher level health facility: one of the three divisional hospitals (in Suva, Lautoka and Labasa) or the Colonial War Memorial Hospital (CWMH). All consultations, admissions and laboratory and radiological examinations are free to the public in public health facilities, except for some dental and special treatments or those in which patients choose to be admitted to a paying ward.

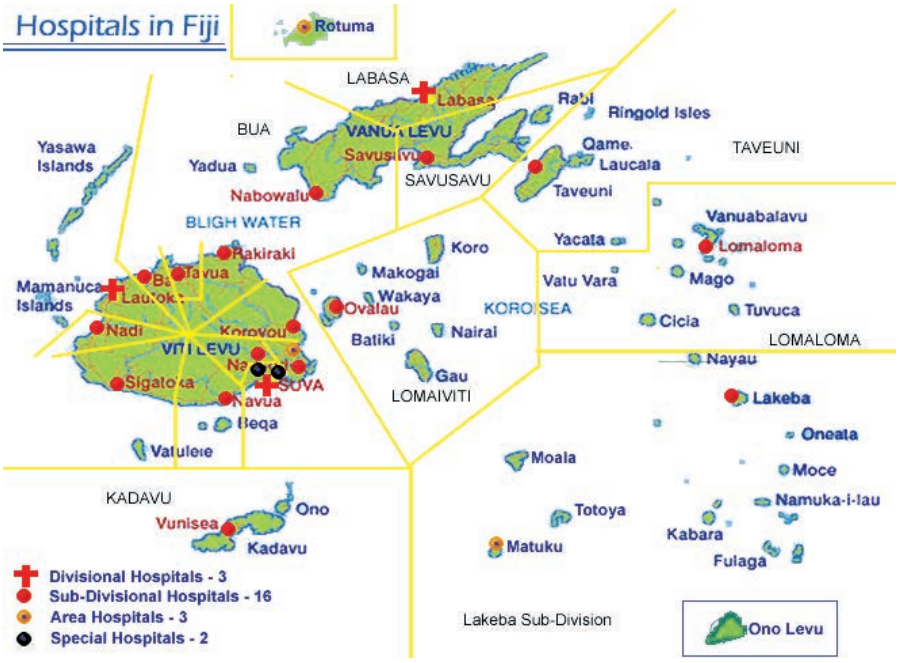
The sixteen subdivisional hospitals and the three divisional hospitals provide a comprehensive range of services, including core specialist services. The three divisional hospitals and several at subdivisional level also serve as teaching hospitals for nursing and medical students. The Colonial War Memorial Hospital serves as the national referral hospital for Fiji and is available to other countries in the region, as it provides additional specialized services, including renal, cardiac and cancer services.

There are three specialized hospitals: St. Giles Psychiatric Hospital; the P.J. Twomey Hospital for tuberculosis and leprosy; and the Tamavua Rehabilitation Hospital. Each divisional and specialized hospital is headed by a medical superintendent who reports to the deputy secretary for hospital services, head of the Clinical Administration Section in the MoH. The Clinical Services Planning Framework developed in 2005 outlines the delivery of clinical health services at the various service levels within each specialty area, benchmarked against the MoH Strategic Plan.

A small private sector includes two private hospitals in Suva (and another under construction) that provide a range of specialized services, several day clinics and 130 private general practitioners located mostly in the urban centres of the two main islands, Viti Levu and Vanua Levu. There is a private maternity hospital in the Western Division (co-funded through government grants) and another one is planned.

In rural areas, traditional healers are visited for a variety of health problems, which can range from minor health ailments to more life-threatening diseases like cancer and poisoning.

Figure 2-1 Map showing location of public hospitals around Fiji



Source: Ministry of Health

2.3 Historical background

Fiji gained its independence from the United Kingdom in 1970. It inherited a health care system in which provision of health services was subsidized; although there was a schedule of hospital charges, there were also non-fee paying wards and a provision in the Hospital Act for a medical superintendent to waive fees. A user-pays system was implemented in 1978 for those who could afford to pay for private rooms. In 1970, revenues from fees comprised 10.5% of all health expenditure, but after 1973, this fell to between 2.5 and 3.5%. The population is accustomed to a high level of public funding for health services and any attempt to significantly increase revenues through user fees would represent a major change, with political and population health ramifications. In recent years, the potential to increase government health sector allocations has been limited by slow national economic growth and periodic austerity measures, compounding historic underfunding.

Fiji's decentralized primary health care (PHC) system throughout the 1970s aimed to deliver good quality basic care to all. Fiji was implementing elements of primary health care well before the 1978 Declaration of Alma Ata made the concept internationally known. Negin et al (2010) identified that 'some elements of PHC existed in Fiji before 1976 although not institutionalized, funded or formalized'. Home visits and village health days were part of health workers' roles. Medical officers' responsibilities extended beyond their clinical role to advising communities on public health issues, while Fiji's communal culture facilitated a high degree of community engagement and participation. In practice, however, the centralized structure of the health system has tended to work against primary health care, with resource allocation tending to favour the maintenance and development of hospital services.

As primary health care activities declined in the 1980s, Fiji was beset by the now common Pacific experience of increases in non-communicable diseases (NCD). The imperative to sustain primary health care services remains, in particular, for preventive care. Health promotion activities, however, appear to be having little effect in producing healthier lifestyles, partly due to limited food consumption choices.

The Fiji School of Medicine, which celebrated its 125th year in 2010, was started by the Chief Medical Officer of the colony, Dr William MacGregor as The Suva Medical School in 1885. Its establishment was prompted by events and factors such as a devastating measles epidemic in 1875, fear of smallpox and cholera from indentured labourers from India and the acute shortage and high cost of European medical officers (Brewster 2009). The Suva Medical School progressively developed into the Central Medical School in 1928 and the Fiji School of Medicine in 1962. It now offers courses in medicine, dentistry, health sciences and public health. Fiji has a long history of training health professionals for the Pacific region, many of whom have become chief medical officers and national leaders.

2.4 Organization

In the last two decades, the MoH has embarked substantially on the model of a three-tier system of primary care with the objective of providing divisional, subdivisional and area-based health care facilities. This three-

tier system is staffed by specialist medical and nursing staff, generalist medical and nursing staff and primary care providers, including MBBS graduates, medical assistants, postgraduate trained nurse practitioners and generalist nursing graduates, with the aim of maintaining a decentralized system with a strong primary health focus. The public system is complemented by approximately 130 urban-based general practitioners registered with the Fiji Medical Council.

The Minister for Health is a member of the Cabinet of Government of Fiji. The MoH is headed by a Permanent Secretary for Health appointed by the Public Service Commission.

Permanent Secretary for Health

The Permanent Secretary for Health provides overall leadership and direction for the MoH and is mandated under legislation to ensure the safe practice of health professionals and the provision of quality health services to the people. In doing so, the incumbent is accountable to the Minister for Health and the Prime Minister through the Public Service Commission for the attainment of health outcomes, as per MoH Annual Corporate and Strategic Plans.

Division of Hospital Services

The Division of Hospital Services is the responsibility of the Deputy Secretary Hospital Services (DSHS) who provides policy advice to the Permanent Secretary on clinical services and related issues. Governed by the Public Hospitals & Dispensaries Act, the DSHS is responsible for the provision of clinical services, including the monitoring of health system standards in all health facilities, for the formulation and development of appropriate policies and for effective decision-making in resource management.

Division of Public Health

Headed by the Deputy Secretary Public Health, the Division is responsible for services ranging from the development and formulation of public health policies and their translation into priority health programmes to the provision of primary health care to the population, as legislated under the *Public Health Act 2002*. It also includes the evaluation of various public health programmes under their national advisers, such as Family Health,

Non Communicable Diseases, Health Promotion, Control of Communicable Diseases, Food & Nutrition, Environmental Health and Oral Health, to ensure effective delivery of primary health care to the people of Fiji.

Division of Administration and Finance

The Division of Administration and Finance plays a key service support role regarding asset and contract management, human, financial and physical resource development and information management. This division is led by the Deputy Secretary of Administration and Finance who reports to the Permanent Secretary for Health, and also provides policy advice on the implementation, monitoring and evaluation of civil service reforms in the MoH.

Division of Information, Planning and Infrastructure

Led by the Director of Health Information, Planning & Policy, this division is responsible for co-coordinating the development, formulation and documentation of MoH policies, the National Health Plan, department/ section/unit plans, and medium-term strategies in alignment with the MOH's long term mission and vision. It oversees the MoH Health Information System Development Programme, aimed at achieving a cost-effective and user friendly system that meets management's timely reporting, monitoring, evaluation and information needs for decision-making, and is charged with strengthening essential health research activities.

Division of Pharmacy and Biomedical Services

The Director of Fiji Pharmaceutical & Biomedical Services is responsible to the Permanent Secretary of Health for the provision of policy advice and management support in initiating and coordinating, formulating and implementing national strategies and plans in relation to pharmaceutical services and biomedical equipment. Technical matters related to medicine and therapeutics and their regulation, under the *Pharmacy & Poisons Act 1997* and the *Dangerous Drug Act 2004*, are the responsibility of the Chief Pharmacist.

Division of Nursing Services (DNS)

The Director of Nursing Services is accountable to the Permanent Secretary of Health for policy advice and nursing development. The Director holds

a statutory role as the Registrar of the Nurses, Midwives and Nurse Practitioners Board as mandated by the *Nurses, Midwives & Nurse Practitioners Act 1999*. The Director administers the Act in overseeing the functions of the Board in the registration of nurses, regulation of nursing practice and provision of nursing education, and liaises with the other directors and national advisers for the achievement of health outcomes.

2.5 Decentralization and centralization

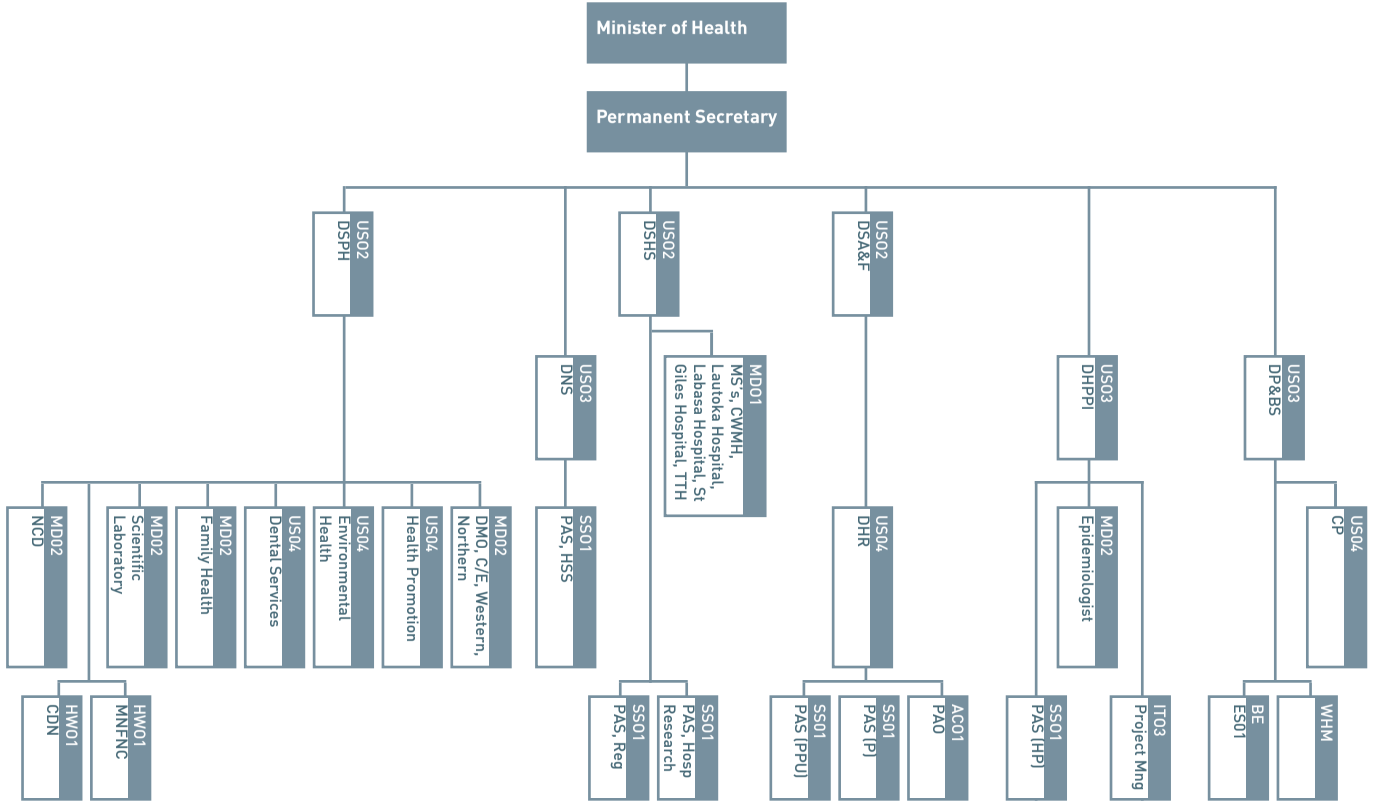
Fiji's health system has been undergoing structural reform since implementation of the Fiji Health Management Reform Project in 1999 (see Section 6). The major focus of the reform was to decentralize the Ministry's management operations, improve the management capacity in the central office and in the divisions and strengthen specific aspects of the Ministry's management systems, included updating health legislation, developing management and health information systems, enhancing planning and policy capacity, formulating standards and guidelines for management, and improving asset management and maintenance systems. A new management structure was approved by Public Service Commission in 2001, but was not fully implemented until 2003 due to funding constraints.

To accommodate decentralization, new patient, financial and human resource information systems were created to support managers. Decentralization occurred at two levels. The first was the delegation of specified responsibilities from the central agencies of the Ministry of Finance (MoF) and the Public Service Commission to the Permanent Secretary for Health. The second level was the delegation of powers by the Permanent Secretary for Health to the three Directors of the Western, Northern and Central/Eastern Divisions. The change and the need for coordinated management due to decentralization required the development of internal operational guidelines.

In 2008, the decentralized management structure created under the Fiji Health Management Reform Project was withdrawn, the health system was re-centralized and the divisional management structures were reverted to their prior form (see Section 6).

The current structure is presented on the next page.

Figure 2-2: Current structure of the Ministry of Health.



Source: Ministry of Health (2010a)

Box 2.1 Acronyms seen on organizational chart, Figure 2-2

DSPH	Deputy Secretary Public Health
DSHS	Deputy Secretary Hospital Services
DSAF	Deputy Secretary Administration & Finance
DNS	Director Nursing Services
DHPI	Director Health Planning & Information
DFPBS	Director Fiji Pharmaceutical & Biomedical Services
MSs	Medical Superintendents
NCD	National Advisor, NCD
Scientific Lab	Head, National Centre for Scientific Services & Virology
Family Health	National Advisor, Family Health
Dental Services	National Advisor, Oral Health
Environmental Health	National Advisor, Environmental Health
Health Promotion	Head, National Centre for Health Promotion
DMO	Divisional Medical Officer (Central, Eastern, Western, Northern)
PAS HSS	Principal Assistant Secretary, Health System Standards
DHR	Director Human Resources
CP	Chief Pharmacist
CDN	National Advisor, Dietetics/Nutrition
MNFNC	Manager, National Food & Nutrition Centre
PAS, Reg	Principal Assistant Secretary, Registration
PAS Hospital Research	Principal Assistant Secretary, Hospital Research
PAS PPU	Principal Assistant Secretary, Post Processing Unit
PAS P	Principal Assistant Secretary, Personnel
PAO	Principal Accounts Officer
PAS HP	Principal Assistant Secretary, Health Planning
Project Mng	Manager, IT
BE	Biomedical Engineer
WHM	Warehouse Manager

2.6 Planning

The Government's key planning document, which sets out strategic directions for each ministry and department, is the Roadmap for

Democracy and Sustainable Socio-Economic Development, 2009-2014, which captures Fiji's commitments to international agreements, such as the Millennium Development Goals (MDGs), and the National Strategic Framework for Change. These documents complement the Five-year National Strategic Development Plan, 2007-2011. The target outcomes for the MoH contained in the Roadmap are linked to key performance indicators (KPI) and outputs, with some KPIs linked to the MDGs. KPIs are reported on annually with feedback on achievements submitted to the Ministry of National and Strategic Planning.

The MoH develops its national health plans and strategic plans in recognition of the major health priorities of the people of Fiji and through extensive consultations with major stakeholders, including the private sector, nongovernmental organizations and central government agencies. The Strategic Plan, along with the KPIs, forms the basis of annual corporate plans which, in turn, guide the business plans and annual plans of various institutions and departments. The MoH liaises with the Ministry of Finance and Public Service Commission for the preparation of the annual corporate plans in terms of budget and human resources, respectively.

One problem facing the Ministry of Health is its limited capacity for the analysis and interpretation of available population health status and health system data. This hampers both planning and policy formulation and means that short-term concerns dominate at the expense of longer term planning and policy setting.

2.7 Intersectorality

The government's policy of a strong intersectoral approach has seen the set-up of the Strategic Framework for Coordinating Change Office in 2009. This Office monitors and evaluates government programmes and projects described in the various annual corporate plans, and coordinates activities where there is an overlap in the responsibilities between different stakeholders (Ministry of Health, 2009a). For example, in the prevention of typhoid, the MoH is in partnership with the Ministry of Works, Transport & Public Utilities for the improvement of water supply and sanitation, and in childhood obesity, it coordinates with the Fiji School of Medicine and the Ministry of Education.

As an outcome of MoH health promotion activities, the Public Service Commission introduced the Public Service Workplace Health Promotions Policy Framework in 2008, leading to the promotion of the safe hospitals concept in 2009. The Department of Environment is now implementing the *Environment Management Act (EMA) 2009*, and is working towards its enforcement through the MoH's Environmental Health Department. The MoH has included an objective on disaster preparedness in its Strategic Plan 2011–2015.

The MoH seeks competitive tenders from the private sector for capital works and maintenance projects, and for the provision of hospital services of laundry, security and food preparation.

2.8 External support

Both financial and human resources for health are supported by multilateral and bilateral development partners and non-government organizations. These include the United Nations agencies (WHO, UNICEF, UNDP, UNFPA, UNAIDS), the governments of Australia (through AusAID), New Zealand (through NZ AID) and Japan (through JICA), the Asian Development Bank (ADB), the European Union (EU) and the Global Fund to fight AIDS, TB and Malaria. Development partner relationships are formalized through overall and programme-specific agreements, increasingly characterized by commitment to the 2005 Paris Declaration on Aid Effectiveness. Collaboration includes supply of specific items (e.g. vaccines, family planning commodities, selected pharmaceuticals), the financing of targeted health programmes, staffing support, technical assistance, and infrastructure and human resource development through training programmes and fellowships. Technical support for selected health services is provided through the UN system, regional organizations and the non-government sector, particularly for adolescent health, immunizations and selected disease monitoring and prevention programmes. The MoH is supported by technical assistance from the UN agencies, particularly WHO. The MoH is a member of the Pacific Public Health Surveillance Network, coordinated by Secretariat of the Pacific Community (SPC) in Noumea (covering 22 Pacific island countries and territories).

The most recent example of significant broad support to the health sector is the AusAID-funded Fiji Health Sector Improvement Programme, implemented from 2005-2010. A final assessment of the Programme conducted in 2010 highlights the breadth of its support to the health sector. Achievements included finalizing clinical services planning and the strengthening of mental health, diabetes, foot care, health promotion and immunization services. It was also credited with developing systems for improved stock management and rural infrastructure improvements, such as the introduction of divisional medical boats, the rollout of MoH radio telephones and the introduction of solar lighting in targeted rural health facilities. In addition, a patient safety, quality and risk management project was established. The Programme also helped improve the Patient Information System (PATIS) and supported several staff positions at the Fiji School of Nursing. While acknowledging these achievements, the assessment concluded that the Programme had been a 'broad brush' approach that could have benefitted from a closer targeting of resources towards the achievement of Fiji's key performance indicators and MDG commitments (Sutton et al 2008).

2.9 Health information management

Health Information Unit (HIU)

The Health Information Unit supports the MoH in its functions of planning, monitoring, evaluation and research to improve the quality, efficiency and effectiveness of health services delivery. Its functions are to collect data from across the health system and to compile, analyse and interpret this into useful and timely reports, including for identifying disease outbreaks. It also provides hospital medical records departments with policy guidance on medical records and information system management.

The Unit is facing numerous challenges in providing accurate and reliable information in a timely fashion due to lack of human resources and technical capacity. Currently resources are directed towards data input rather than information output, and the statistical analysis of the data is not yet fully developed. The analysis and interpretation capacity of the Unit need to be strengthened for its potential to be fully realized. The health information policy is currently under review and efforts are being made

to improve the operations of the Unit. The Global Fund is supporting the Health Information Unit to improve the production, management and use of information, as well to develop a health information system strategic plan. While this effort will focus on three diseases (AIDS, TB and malaria), it should help to improve the overall system.

National Health Information Committee

The National Health Information Committee (NHIC), headed by the Director of Health Information, Planning and Infrastructure in MoH Headquarters, is made up of representatives of the Divisional Health Information Committees. These committees have the primary roles of overseeing the effective utilization of health data at all levels of management, and strengthening networking with other committees, such as Divisional Health Research Committee, Divisional PATIS User Group, Data Integration Working Group, and Human Resource Information System (HRIS) users.

The terms of reference and membership of the National Health Information Committee have recently been reviewed. The revised membership includes directors from MoH headquarters and the following divisions: nursing; information systems; epidemiology; communicable diseases; family health; laboratory; and human resources.

Information systems

Data are collected from all levels of the system, from nursing stations to specialist hospitals, and include inpatient data from the electronic hospital patient information system (PATIS), monthly hospital returns, monthly obstetric returns, medical cause of death certificates and pathology reports for the cancer registry. Community health data are collected through a public health information system (PHIS), diabetic notification forms, weekly notifiable disease returns and maternal death reporting forms. In all, manual data collection utilizes a wide variety of forms.

PATIS was implemented during the Fiji Health Management Reform Project and now works in the three divisional hospitals and in several subdivisional

hospitals. Many data fields in the PATIS database, however, are not filled for many patients, suggesting a need for improved coordination of medical history taking and data entry. Public health data are summarized manually at subdivisional hospital level in a consolidated monthly return, which records the numbers of cases of public health concern, immunization rates and health service activity. These monthly data are entered into the computer system at the divisional level.

Both PHIS and PATIS have the potential to contribute to better health policy and planning, for example, by tracking costs and by providing information that could be used to adjust the distribution, skill mix and task shifting for all categories of health workers. However, potential is constrained by limited capacity for data extraction, analysis and interpretation and its use in policy and planning remain a key problem.

Health technology assessment

Currently, there are no heath technology assessment agencies in Fiji. The MoH is yet to conduct a systematic evaluation of the effectiveness, costs and impact of health care technology. The need for the standardization of capital items and for contracting their maintenance and parts supply has been raised on many occasions. Sutton et al (2008) noted that 'old or non-functioning equipment impacts on service delivery' and that 'at the root of this problem is the ongoing difficulty of recruiting biomedical engineers'.

2.10 Regulation

The MoH administers a number of Acts (see Table 2-1), as delegated by Parliament and, since the suspension of Parliament in December 2006, by Decree. The MoH sets standards through powers delegated to the Minister of Health, and these are enforced and monitored by the various regulatory bodies appointed under the relevant legislation. These regulatory bodies include: Central Board of Health; Fiji Medical Council; Fiji Dental Council; Fiji Pharmacy and Poisons Board; Nurses, Midwives and Nurse Practitioners Board; Private Hospital Board; Rural Local Authorities; Hospital Boards of Visitors; Fiji Optometrists Board; and the Fiji National Council of Disabled Persons.

Table 2-1: Legislation administered by the Ministry of Health

Title of the Act	Year of enactment
1.Mental Health Decree	2010
2. Fiji Medical & Dental Practitioner Decree	2010
3. Emergency Ambulance Services Decree	2010
4. Radiation Health Decree	2009
5. Medical Imaging Technologist Decree	2009
6. Food Safety Act & Food Safety Regulations	2004 & 2009
7. Dangerous Drug Act	2004
8. Public Health Act	2002
9. Public Hospitals & Dispensaries Act	2002
10. Nurses, Midwives & Nurse Practitioners Act	1999
11. Tobacco Control Act	1998
12. Pharmacy & Poisons Act	1997
13.Private Hospital Act	1979
14. Burial & Cremation Act	1978
15. Medical Assistant Act	1978
16. Animal (Control of Experiments) Act	1957
17. Methylated Spirit Act	1957
** Fiji National University Decree (FSM & FSN) under MOE	2009

Regulation and governance of health resources

The MoH receives its annual budget allocation from Cabinet through the Ministry of Finance and Ministry of National Planning, and conforms to government accounting procedures and regulations. In purchasing health products, the MoH seeks the endorsement of the relevant regulating authority and complies with Ministry of Finance tendering procedures as enforced by the Fiji Procurement Office (formerly the Controller of government supplies). For example, in the purchase of medicines, the Fiji Pharmacy and Poisons Board ensures drug safety and efficacy (by only approving the import of drugs meeting British or United States standards), while the Fiji Procurement Office oversees the tendering process.

Staffing of the MoH is regulated through the Public Service Commission, the regulator of all government public sector staff establishments and human resource functions. The Commission negotiates with the public

sector employee unions to agree on conditions of employment, salary scales and entitlements, and code of conduct regulations. In negotiations with Ministry of Finance, the Commission responds to national level constraints on public sector expenditure, and sets limits on MoH staffing, or introduces austerity measures. The retirement age was reduced from 60 to 55 years in 2009 (in contrast to countries that have raised the retirement age). This change caused some disruption to the health system as many of the most qualified nurses, doctors and specialists were over the age of 50. Some, however, were re-hired on contract after retiring.

Regulation and governance of providers

The *Public Hospitals and Dispensaries Act 2002* and the *Public Health Act 2002* regulate the activities of the health services, within the terms of *Finance Management Act*, the Public Service Regulations, *Health and Safety Act*, *Human Rights Commission Act 1999* and International Health Regulations. Private sector hospitals are additionally regulated by the *Private Hospitals Act 1979* and are required to conform to the various Acts that regulate health practitioners and their practice. The MoH regulates its practitioners under the delegated powers of the Minister for Health by setting the standards for practice and for the registration and accreditation of courses. The various regulatory bodies ensure that standards are enforced and monitored for the health professionals registered under them.

The Medical and Dental Practitioners Decree 2010 (Fiji Government, 2010a) has replaced the *Medical and Dental Practitioners Registration Act*, but maintains the regulatory bodies of the Fiji Medical and Dental Councils. Accreditation of the training programmes offered at the Fiji School of Medicine is undertaken by the University of the South Pacific for programmes in which students enrolled prior to 2010, and by the Fiji National University for newer enrollees, subsequent to its incorporation in January 2010 into the Fiji School of Nursing, Fiji National University College of Medicine, Nursing and Health Sciences.

Regulation and governance of pharmaceutical care

Marketing authorization: As Fiji has no Drug Registration Programme, it does not issue any Marketing Authorizations. However, products entering

the Fiji market need to meet the criteria of the British Pharmacopoeia and US Pharmacopoeia. All products entering Fiji need to be registered in their country of manufacture.

Pharmacovigilance: The National Medicines and Therapeutics Committee, through the Essential Medicines Section of the Fiji Pharmaceutical Service, monitors adverse drug reactions and receives and handles issues pertaining to therapeutic efficacy.

Patent protection: The MoH monitors compliance with the Patents Act as it applies to medicines. Direct-to-consumer advertising of prescription pharmaceuticals is prohibited under the *Pharmacy and Poisons Act 1997*, and the MoH limits the sale of products that are available 'over-the-counter', including analgesics and anti-inflammatory agents, cough, cold and allergy preparations, dermatological preparations, gastrointestinal drugs, including those for acid-related disorders, laxatives, vitamins and minerals.

Regulation of wholesalers and pharmacies: A pharmacy can only be owned and operated by a pharmacist with the approval of the Pharmacy and Poisons Board and the premises require the board's approval as suitable for a pharmacy. Wholesalers (including non-pharmacists) need to apply for a Pharmaceutical Wholesale License from the Pharmacy and Poisons Board.

Generic substitution: The purchase and distribution of generic products is supported under the National Drugs Policy 1994, to which the MoH adheres. A private sector pharmacy, when substituting a generic drug for a prescribed one, must inform both patient and prescriber that the substitution has been made.

Mail-order/Internet pharmacies: These are not permitted to operate in Fiji by order of the Pharmacy and Poisons Board.

Price control: Pharmaceuticals are subject to direct price control under the *Counter Inflation Act*: a maximum mark-up of 35% on prescription medicines (plus a 45-cent dispensing fee) and 30% on over-the-counter medicines is permitted. The selling price of medicines includes the ex-

factory price, wholesaler's profit margin, pharmacy profit margin and a Value Added Tax (VAT) of 12.5%.

Essential Drug List (EDL): All products on the list are available free of charge for public patients (i.e. those visiting government health facilities), but there is no reimbursement of products from the private sector. Fiji's National Essential Drug List is part of the Essential Medicines Formulary. The National Medicines and Therapeutics Committee requires 'evidence based research' to justify 'cost-effectiveness' of a recommended item. The National Drug Policy aims at improving cost-effectiveness in the consumption of pharmaceuticals and, in particular, through measures to influence physician prescribing behaviour.

Monitoring of rational drug use: A variety of methods are used to monitor rational drug use, including prescribing, dispensing and patient compliance surveys and the comparison of epidemiological data with drug purchasing data.

Regulation of medical equipment devices and aids

Fiji has no existing law to regulate medical equipment, devices and aids. These could conceivably be incorporated into amendments to the current Pharmacy and Poisons Act 1997. As mentioned above, tendering for capital items is regulated by the Fiji Procurement Office. However, commodities such as family planning and contraceptive devices, sourced through WHO, UNFPA, UNICEF and other global agencies, and which have received credible international testing, are adopted accordingly.

There is no legislation or regulation of the purchase and safety of biomedical equipment. The MoH refers to a biomedical equipment catalogue, which sets some direction on the types and safety of equipment. The lessons learned from Fiji's experience of biomedical engineering point to the importance of attractive career packages for biomedical technicians, maintenance contracts, staff training and parts supply as conditions of purchase. The MoH is trying to control the acquisition and evaluation of clinical health products through the National Clinical Products Management Policy.

Registration/licensing and planning of health care personnel

The nine groups of health professionals listed in Table 2-2 are registered under different pieces of legislation.

All regulatory bodies are part of the MoH structure. The Permanent Secretary for Health is the chairperson of all these boards and councils and the MoH provides a secretariat to each. Applicants to the relevant board or council apply through the secretariats on standard forms, pay registration fees and provide evidence of their qualifications. The processing of local graduates of the Fiji School of Medicine and the Fiji School of Nursing is simple, while overseas applications require verification from their certifying authority. Several Pacific regional countries have memoranda of understanding with Fiji's authorities to mutually recognize graduates of their programmes, such as the visiting doctors and nurses on clinical services teams (cardiac or complex surgery), who need temporary certification status with the Fiji Medical Council or the Nurses, Midwives & Nurse Practitioners Board.

Table 2-2: Legislation governing health workers

Professional Cadre	Legislation	Regulatory Authority
Medical Practitioner – Part 1 (Interns), Part 2 & Specialist	Medical & Dental Practitioner Amendment Decree (2010)	Fiji Medical Council
Dental Practitioner		Fiji Dental Council
Medical Assistant	Medical Assistant Act (Cap.225A)	Medical Assistant Council
Pharmacist	Pharmacy and Poisons Act	Fiji Pharmacy & Poisons Board
Nurses, Midwives & Nurse Practitioners	Nurses, Midwives & Nurse Practitioners Act	Nurses, Midwives & Nurse Practitioners Board
Optometrist, Chiropractor and Acupuncturist	Medical & Dental Practitioner (Amendment Act) Decree	Fiji Optometrist Board & Fiji Medical Council
Medical Imaging/ Radiographer	Medical Imaging Technologist Decree (2009)	Medical Imaging Technologist Council, to be formed.

The Fiji Medical Council and the Fiji Dental Council have recently amended their licensing procedures to require annual registration as evidence of participation in a Continuing Professional Development (CPD) programme. The Fiji Medical Council, among other responsibilities, is the legal/ legislative body that sets the educational standards and carries out revalidation of qualifications to ensure the medical competence of both local and expatriate doctors.

The MoH has initiated a process to register all paramedic/allied health professionals who are currently not required to register, beginning with the Medical Imaging Technologist Decree 2009. An exception is registration of para-dental cadres, including dental therapists, technicians and hygienists, now covered under the Medical & Dental Practitioners Decree 2010.

The qualifications of Fiji-trained professionals (in particular, nurses, midwives, doctors and dentists) mainly are recognized within the Pacific region. However, Fiji-trained professionals need to apply for professional registration in other destination countries and are required to pass professional examinations prior to registration and licensing.

2.11 Patient empowerment

The MoH has set up structures and policies for clinical governance and risk management in which both the patient and provider have a role to play. The system provides for feedback from patients on their degree of satisfaction with the care they receive in hospitals. Until 2004, when the Human Rights Commission in Fiji increased awareness of the potential for legal redress among service users, health had been viewed by consumers as the domain of professionals.

Patient information

Whether using public or private health services, patients have a right to information on their health, the tests needed, the provisional diagnosis, the prognosis if appropriate, the proposed treatment and any associated costs. Hospitals provide booklets containing basic information, such as visiting hours, how to lodge complaints, how to minimize the risk of hospital acquired infections, and rules related to meals.

Informed consent is required before clinical procedures are commenced, and parental consent is required for any health intervention involving a minor under age 18. However, this ideal may not always be achieved for all patients, given the mix of languages and variable levels of literacy in Fiji.

Patient rights

Patients are empowered through the Bill of Rights enshrined in the Constitution of the Fiji Islands, whereby the rights of individuals are protected. Section 22 contains the right to life. The function of the Human Rights Commission under the Human Rights Commission Act of 1999 is to promote respect for human rights and make recommendations to the government on compliance. Breaches of human rights are dealt with by the Human Rights Commission and the courts.

The MoH houses the Fiji Health Research Ethics Review Committee, which reviews the ethics of proposed research involving patients or using information pertaining to vulnerable groups.

Patient choice

Patients in urban areas can opt for private or public health services depending on their ability to pay. The public system also provides private rooms for paying inpatients. The determining factor for most people is one of affordability. Some patients may choose to use both systems according to their circumstances and their perceived urgency of care. Similarly, some will choose to transfer from private to public care when informed of the cost of their treatment plan in the private sector, and where similar services are available in the public sector. No one in Fiji is excluded from the public system. Non-residents can access the public system with minimal costs.

Patients and cross-border care

Fiji has restrictions on funding for patients seeking treatment outside the country. Patients who travel overseas for treatment are referred through the government funded system for overseas treatment, or funded by private insurance schemes, following assessment by specialists (see Section 5.4)

According to revised MoH guidelines, publicly-funded overseas treatment can be approved only if the diagnosis and/or treatment are not available locally, or cannot be delivered within a reasonable timeframe by a visiting team of specialists, and are of a one-off nature. There must also be a good prognosis for the patient having a healthy life for at least three to five years following the treatment.

All applications for overseas treatment are sent to the office of the Director of Hospital Services. Necessary documents include those supporting the patient's socioeconomic status (e.g. bank statements, district officer's approval for fund raising) and documents supporting acceptance for treatment and associated costs by an acceptable overseas health facility. Compiled information is referred to the Overseas Medical Treatment Committee and the National Medical Advisory Committee through the recommendation of the patient's specialist, after liaising with the selected recipient overseas hospital.

Complaints procedures

Patients can lodge complaints against the treatment received in any government or private health facility by writing directly to the hospital authority, or to the Permanent Secretary for Health in the case of public system. The hospital will initiate an investigation before a decision is made. Where a complaint involves a health practitioner, the matter is dealt with by the regulatory professional body. Legal provision exists for inquiries into the performance or conduct of professionals and for prescribed penalties for negligence, and in which the accused is entitled to natural justice and may be represented by a legal representative. The Nurses, Midwives and Nurse Practitioners Board has guidelines in place for nursing managers in the public system to submit all relevant complaints against a nurse's professional conduct for the Board's deliberation. In addition, patients have recourse to systems outside the MoH, such as engaging their own legal representative or applying to the Legal Aid Commission for complaints against the health system. It is not known how well the public knows and understands the procedures for lodging complaints. Health staff report that the process can be extremely drawn-out, particularly if it involves legal proceedings.

Patient safety and compensation

In 2006, the MoH launched the Year of Patient Safety in its efforts to create awareness of improvements in the care of patients and in minimizing health risks, such as hospital acquired infections. Infection control guidelines and procedures are in place in all health facilities. Resources are being pooled to achieve safety outcomes through clinical governance and clinical practice improvement initiatives. The Risk Management Units of the divisional hospitals coordinate efforts to promote patient safety through risk management, quality improvement and customer service programmes. Compensation for loss of life or injury is managed by the Ministry of Labour's compensation legislation.

Physical access

All health facilities are subject to the Fiji Building Code. Physical access for people with disabilities is mandatory, including wide entry for wheelchairs into buildings and toilet facilities and the provision of railings and elevators. This requirement is safeguarded under the Constitution in Section 38(2) on the Right to Equality.

3 Health Financing

3.1 Section summary

This section describes financing of the health sector in Fiji including an overview of the system, levels of spending, sources of financing and payment mechanisms. Government budget allocations for health have remained relatively constant despite the increasing demand and cost for health care. Since 1995, in all but one year, the government has allocated between 8 and 11% of its total public expenditures to health; 8.2% in 2008. In the same period, government health expenditure as a proportion of gross domestic product (GDP) has been between 2.9% and 3.5%, while total health expenditure has fluctuated around 4% of GDP; 4.2% in 2008. These proportions of GDP spent on health are among the lowest for Pacific island countries. Per capita health expenditure has increased since 1995; it was FJ$165 in 2008, towards the lower end of the range for Pacific island countries. The share of health expenditure spent on inpatient services increased from 35.4% in 2005 to 49.2% in 2008. In 2008, government health expenditure represented 68% of the total, lower than in all other Pacific island states, but relatively high in international terms. Private health expenditure has remained around 25% in recent years, but out-of-pocket expenditure has risen in association with increased activity in the private health care sector.

Since colonial times, the health system has been predominantly financed through general taxation, with out-of-pocket expenditure, although relatively low compared with many countries, in second place. A 2005 study concluded that it would be difficult to achieve an adequate base of contributors for a health insurance system and voluntary health insurance is not widely used. Nevertheless, spending on health insurance increased from 2005 to 2008. There are no compulsory social insurance schemes. Private health spending is not adequately

documented. Public provision of health care is free or at very low cost for all persons in the country. User fees are charged for some basic and selected services, but even at revised 2010 rates, they are modest compared with costs and certain population groups are exempted. Private providers charge user fees that are often considerably higher than in public facilities; fees are not regulated by the government. Private providers are mainly in urban locations and are used largely by those in formal employment.

The same services are available to all legal residents of Fiji; foreigners are entitled to the services at a cost. Given Fiji's geography, some populations inevitably have greater access to health services than others. Cost of transport is a major barrier to access for those living in remote areas and the government budget for emergency transport is limited, as is the allocation for overseas evacuation and treatment.

The government operates a consolidated fund in which taxation revenues and the small amounts from user fees are pooled. MoH officials submit budget proposals to government based on national, regional, and local level submissions and compete with other ministries for their financing; allocations are usually based on previous budgets. External sources of funding include contributions from multilateral and bilateral development agencies and non-government organizations. In 2008, this was estimated to represent 6% of total health expenditure.

Payment mechanisms for providers of health services are relatively straightforward as the government both finances and provides the majority of services. The MoH receives its budget under line items such as human resources, services, capital investments, and purchase of medical and nonmedical equipment, and uses a similar process in paying various government-owned health facilities. The majority of health workers in the country are salaried staff of the MoH or government wage-earners. Some limited services are outsourced. Private general practitioners receive a fee-for-service payment and some are contracted to private organizations to provide employee health care. Private insurers refund some health expenditure to patients. Pharmaceuticals are imported by the government-funded Fiji Pharmaceutical Services and supplied to the government health

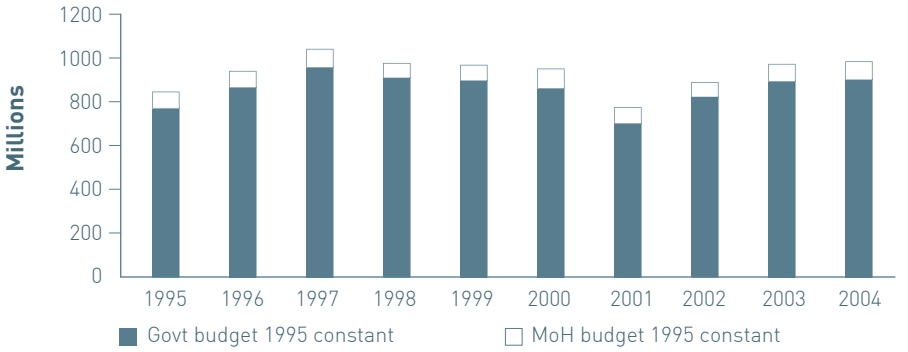
facilities. Private pharmacies can purchase from the Fiji Pharmaceutical Services with allowable wholesale and retail markups set by the Fiji Prices and Income Board.

3.2 Health expenditure

The health care system in Fiji is mainly financed through general taxation. The other main means of financing are out-of-pocket payments, mostly to the private health sector, while smaller amounts are derived from private health insurance and donor organizations.

Government budget allocations for health have remained relatively constant despite the increasing demand and cost for health care. Over the decade 1995-2004, the government allocated between 9 and 11% of its total yearly public expenditures to health, except in 1999, when it hit a low of 7.6%.

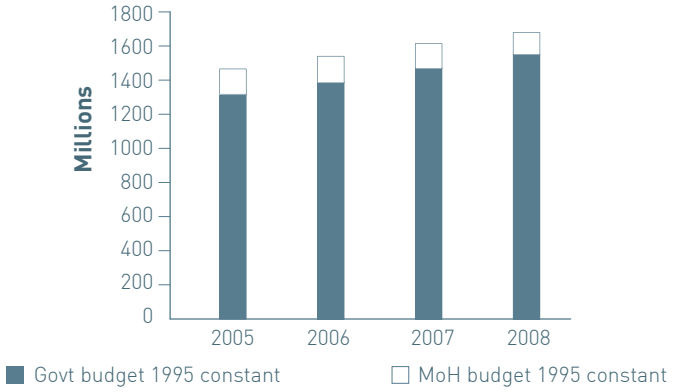
Figure 3-1 Total government budget and health budget (in constant 1995 Fiji dollars)



Source: Azzam (2007)

The total government budget has had an upward trend since 2002 after a low point in 2001, probably related to political instability in 2000. Total government expenditure amounted to FJ$920 million in 2001, or 28% of GDP. By 2008, it had risen to FJ$1710.8 million (35.2% of GDP). Health expenditure as a percentage of total government expenditure has remained around the historic level and was 8.2% in 2008.

Figure 3-2 Total government budget and health budget (in constant 2005 Fiji dollars)



Source: Fiji National Health Accounts

Table 3-1 summarizes information obtained from National Health Accounts (NHA) reports for 2005 and 2007-2008, and WHO data[1]. Since 1995, government health expenditure as a proportion of gross domestic product (GDP) has been between 2.9% and 3.5% (Table 3-3). This is one of the lowest rates among Pacific island countries, despite the fact that Fiji is more economically developed (Figure 3-3).

Table 3-1: Trends in health expenditure in Fiji

Expenditure	1995[a]	2000[a]	2005[b]	2007[c]	2008[c]
Total health expenditure in $ PPP per capita (1995 prices)	178.0	245.0	271.0	-	-
Total health expenditure as % of GDP	3.9	4.7	4.1	4.3	4.2
Public expenditure on health as % of total expenditure on health	58.2	69.0	72.0	71.2	69.6
Private expenditure on health as % of total expenditure on health	-	-	24.0	25.4	24.5
Mean annual real growth rate in GDP	-	-1.7	3.6	-6.6	0.2
Total government spending as % of GDP	4.9	35.1	31.4	33.2	35.2

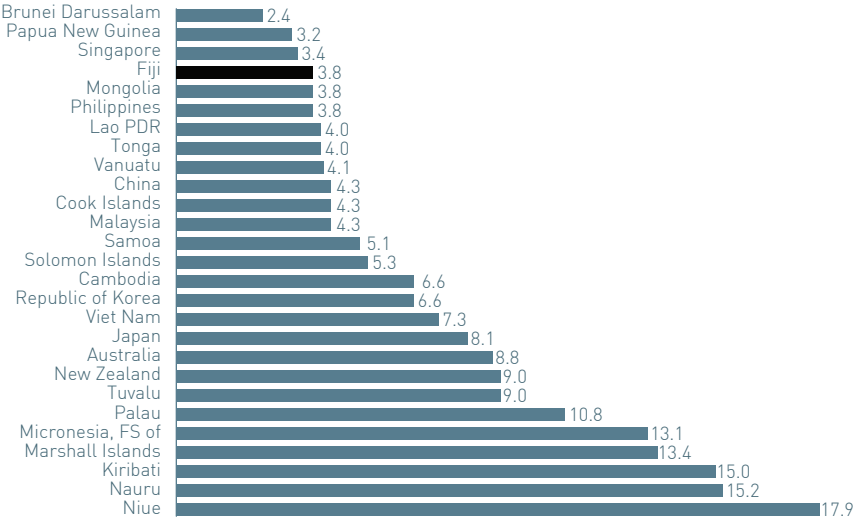
1 Caution is advised in comparing these figures since it is probable that the estimation methodologies used in NHA 2005 and in NHA 2007 differ. WHO estimates for 2007-2008 (shown in Figure 3-3) differ from National Health Account figures, as shown above.

Expenditure	1995[a]	2000[a]	2005[b]	2007[c]	2008[c]
Government health spending as % of total government spending	8.6	9.8	9.6	10	8.2
Government health spending as % of GDP	3.0	3.5	3.2	3.3	2.9
Out-of-pocket payments as % of total expenditure on health	-	-	11.9	15.4	15.5

Source: (a) WHO for years 1995 & 2000; (b) Azzam (2007) for year 2005; and (c) Ministry of Health (2010b) for years 2007 and 2008.

Estimates from the 2005 NHA put total health expenditure at 3.8% of GDP, while the 2007-2008 NHA estimated it to be 4.3% for 2007 and 4.2% for 2008. This is within the 4-5% range recommended by the WHO regional strategy on health financing (WHO, 2009).

Figure 3-3 Total health expenditure as a percentage of GDP, countries of the WHO Western Pacific Region, 2008



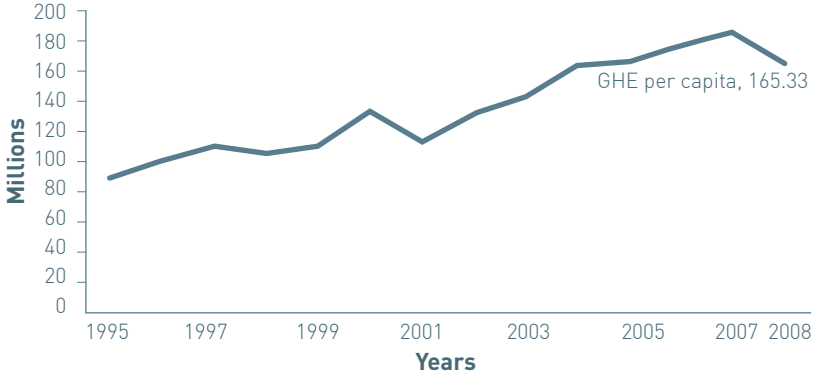
Note: No recent value for American Samoa, French Polynesia, Guam, Hong Kong (China), Macao (China), New Caledonia, Northern Mariana Islands, Tokelau, Wallis and Futuna.
Source: NHA, 2008, Accessed in March 2010.

As seen in Table 3-1, private health expenditure from 2005 to 2008 remained at a constant proportion of around 25%, but out-of-pocket expenditure increased from 11.9% to 15.5% of total health expenditure.

This increase is likely to be due to increased activity in the private health care sector. No information is available on the extent or distribution of catastrophic out-of-pocket expenditure. An equity analysis was ongoing at the time this report was being written and no findings were yet available.

There was a steady upward trend in per capita health expenditure from FJ$89.26 in 1995 to FJ$185.26 in 2007 with the exception of 2001 (see Figure 3-4). In 2008, there was a decrease to FJ$165.33 due to a reduction in government health expenditure. The 2008 per capita expenditure can be compared with that of other countries in the region (see Figure 3-5).

Figure 3-4 Government health expenditure per capita, (Fiji dollars)

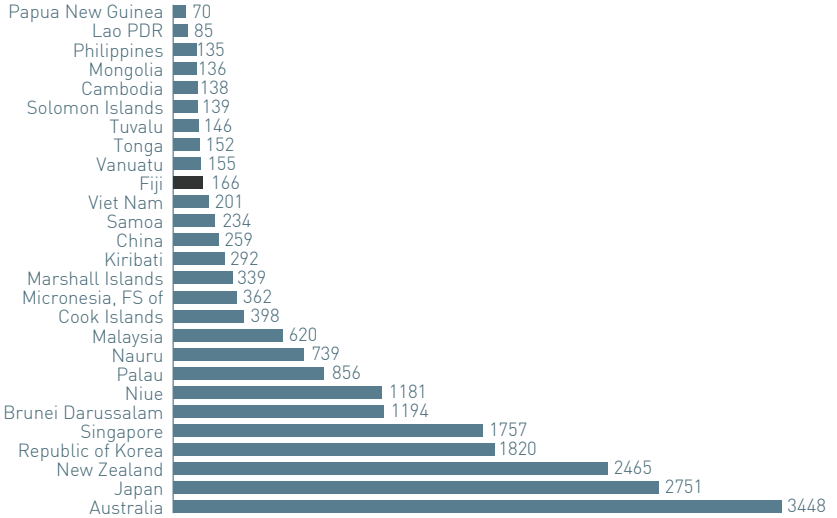


Inpatient and outpatient services together account for the majority of health expenditure. The National Health Accounts show that the proportion of total health expenditure for outpatient services was relatively unchanging from 2005 to 2008 (Table 3-2). However, the share spent on inpatient services increased from 35.4% in 2005 to 49.2% in 2008[2], possibly due to higher hospital occupancy rates, which increased by 20% in the same period (MoH Annual Reports). This increased expenditure is offset by a drop in expenditure in the category of 'other health services', from 15.2% in 2005 to 6.0% in 2008. This category refers to health education and training, health research and development, and non-profit institutions serving households. Dental outpatient expenditure increased from 0.3%

2 The increase from 2005 to 2008 is based on NHA reports: some caution is warranted in comparison of the figures because of methodological differences.

of the total in 2005 to 3% in 2008, probably as a result of increased public sector dental services.

Figure 3-5 Total expenditure on health per capita at PPP (National Currency Unit per $US), countries of the WHO Western Pacific region, 2008



Note: No recent value for American Samoa, French Polynesia, Guam, Hong Kong (China), Macao (China), New Caledonia, Northern Mariana Islands, Tokelau, Wallis and Futuna.
Source: NHA, 2008, Accessed in March 2010.

Table 3-2 Health expenditure by service programme (percentage of total health expenditure)

	% of total expenditure on health		
	2005	2007	2008
Medical services:			
• inpatient care	35.4	48.7	49.2
• outpatient/ambulatory physician services	22.0	25.7	25.2
• outpatient/ambulatory dental services	0.3	4.1	3.3
• ancillary services	1.2	1.5	1.0
Traditional healers	1.2	0.8	0.8

	% of total expenditure on health		
	2005	2007	2008
Pharmaceuticals and medical non-durables	13.0	5.2	5.7
Public health and prevention	4.6	5.4	5.3
Health administration	8.3	9.6	8.0
Health insurance	-	3.7	3.2
All other health services	15.2	5.0	6.0

Source: Azzam (2007); Ministry of Health (2010b)

3.3 Sources of revenue and financial flows

Since colonial times, Fiji's health services have been predominantly financed by the government. As stated previously, financing of health care is still largely reliant on public funding from general taxation. Successive governments have assessed that the low socioeconomic status of much of the population precluded the introduction of significant cost recovery through user fees and/or that such a move would be unpopular. In 2005, the government initiated a study on the feasibility of implementing a social health insurance scheme, but the idea was dropped after findings suggested it would be difficult to achieve a significant contribution base. Voluntary health insurance schemes are not widely used by the population and out-of-pocket expenditure, although a relatively small proportion of expenditure compared with many countries, remains the largest contributor after government funding. While the public sector expenditure is well- documented in annual government reports, less is known of the contribution made by private financing or of the amount spent through the private health sector.

Public provision of health care is free or at very low cost for all persons in the country. Modest user fees are charged for some basic and selected services provided by the public system, but the revenue generated in this way amounted to an average of 0.83% of health expenditure in the period 2003 to 2008 (Table 3-3).

User fees were first legislated for in the *Public Hospitals and Dispensaries Act 1955* to provide added revenue to the government, but were not introduced until the early 1960s. Despite the fact that the fees were based

on costs in the 1940s, they have remained largely unchanged, apart from some minor modifications in the early 1980s. Outpatient fees at public health facilities were suspended by the government in 2000 but were later reintroduced. Table 3-4 summarizes the charges revised in 1983 and in 2010. Even at the higher levels proposed in 2010, charges are modest compared with the costs of service provision. All collected revenues received at public health facilities are paid into the government's consolidated fund account, and are not available for health service enhancements. Persons exempt from user fees include members of the Fiji Military, Police Force, Royal Navy, officers of the prisons service, persons detained in hospitals under any statutory authority, and children under the age of fifteen. Services provided in the general interest of public health are also excluded.

Table 3-3: Government expenditure on health and revenue collection (Fiji dollars)

Year	Actual health expenditure ('000)	Government revenue from health services ('000)	Revenue as % of expenditure
2003	124 423	270	0.2
2004	130 149	1410	1.1
2005	130 756	1336	1.0
2006	149 312	971	0.7
2007	137 779	1650	1.2
2008	127 565	1111	0.9

Source: Ministry of Health (2010b)

Table 3-4 User fees for selected services at public health facilities (Fiji dollars)

Services at public health facilities	Cost/day Residents (1983 amendment)	Cost/day Residents (2010)
Private suite (per day)	25.0	115.0
Private ward single bed (per day)	10.0	46.0
Semi-private wards 2 beds (per day)	6.0	34.5
General paying ward (per day)	4.0	23.0
Outpatient clinic (divisional hospitals)	0.5	0.6
Outpatient clinic (other facilities)	0.2	0.2
Special clinics	2.0	2.3

Services at public health facilities	Cost/day Residents (1983 amendment)	Cost/day Residents (2010)
Consultants clinics	< 8.0	0.6
Minor operation	< 30.0	< 230.0
Intermediate operation	< 60.0	< 690.0
Major operation	< 150.0	< 2875.0
Use of delivery rooms by private practitioner	50.0	230.0
Dental examination	1.0	5.8
Dental tooth extraction	2.0	5.8
Dental X-ray	2.0	5.8-9.2
Conservative dentistry (e.g. amalgam)	3.0-8.0	3.5-230.0
Oral surgery	5.0-30.0	23.0-103.5
Prosthetics-F/F Dentures	1.0-60.0	3.0-200.0
Periodontics	1.0-24.0	3.5-230.0
Orthodontics	20.0-100.0	115.0-460.0
X-rays (immigration, employment, etc.) (adult)	10.0	23.0
X-rays others	8.0-40.0	23.0-460.0
Laboratory tests	1.0-10.0	8.1-115.0
Cath Lab Charges		
• Insured patients		3450.0
• Uninsured patients earnings > 15k		1725.0
• Patients earning < 15k		575.0

Source: *Public Hospitals and Dispensaries Act* (1983 and 2010 amendment)
Note: * Fees for non-residents are usually double those charged to residents; "<" means "less than".

Private providers of health care services (e.g. general practitioners, dentists, private hospitals, and pharmacies) charge user fees that are often considerably higher than the amount charged in public health facilities. These may be four to five times the public charge or, in some cases, substantially higher. For example, a tooth extraction that costs FJ$2.00 in government facilities may cost FJ$20-40 at a private dental practitioner. There is no regulation governing fee-setting at private health facilities; therefore, user fees vary widely across practitioners. Private providers are mainly located in urban locations and are used largely by those in formal employment. Revenues of private providers of health services were estimated at FJ$38 million in 2007 and FJ$33 million in 2008. In both years, Fiji's largest private hospital accounted for approximately 50% of that revenue.

There are no compulsory social insurance schemes. The supply of voluntary health insurance is limited and only affordable by relatively high income earners (see Section 3.6). The proportion of the population covered by voluntary health insurance is unknown, but is thought to be concentrated in towns and urban areas and among the formal working sector. The proportion of total health expenditure funded through private health insurance rose from 4.9% in 2005 to approximately 7% in 2008.

3.4 Overview of the statutory financing system

Coverage – breadth, scope, and depth

The statutory public health system offers the same services to all legal residents of Fiji. Foreigners are entitled to access the services, but at a cost. Health facilities provide a range of services according to their role and function in the system. Pharmaceuticals on the essential drugs list are provided free-of-charge at government health facilities. Some services are not available because facilities do not have the resources (human, physical, or financial). As the population of Fiji is dispersed across many small islands, posing a significant challenge to delivery of health services, inevitably some populations have greater access to health services than others. Private healthcare facilities, mainly concentrated in urban areas, provide services at a cost to anyone who is able to pay.

Cost of transport to obtain health care is considered to be a major barrier to access, especially for those living in remote areas. The MoH allocates a budget for emergency transport, including air flights, but this service is rationed as the budget allocated to it is limited. Restrictions also apply regarding access to overseas evacuation of persons requiring health treatment that cannot be provided within the country. Expenditure on emergency domestic travel and overseas treatment varies considerably from one year to another. It was around FJ$3.5 million in 2007, fell to around FJ$1 million in 2008, and rose again to FJ$2 million in 2009. Most of the variation was due to expenditure on domestic travel.

Collection

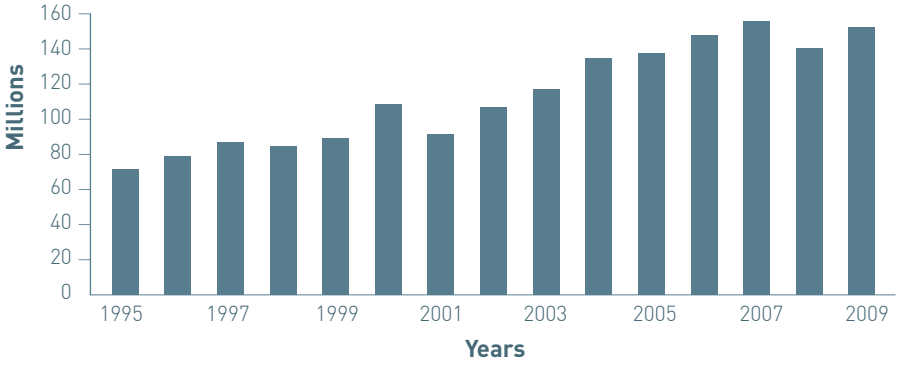
Government revenue collected by the Fiji Inland Revenue & Customs Office through taxation (tax contribution was 89% of total government revenue in

2007) is used to finance the public health system. Tax revenues accrue mainly from income and indirect value added tax (VAT); those in formal employment are the largest contributors to both. In 2008, government's largest source of revenue came in the form of indirect taxes, which comprised 53.7% of total revenue. Until recently, a high proportion of the population did not pay taxes. The taxation system is currently under reform.

Pooling of funds

As most health care is funded from government revenues through allocation of a budget to the MoH, there is a high level of pooling in health financing. The government operates a consolidated fund into which taxation revenues and the small amount generated from user fees are pooled. MoH officials submit budget proposals to government based on national, regional, and local level submissions and compete with other ministries for their financing. The size and content of the allocated budget is usually based on historical trends of previous line item budgets. In the past, the MoH has generally managed to operate within its assigned budget; however, there have been occasions where the MoH has required more funds following episodes of national disaster, such as cyclones and floods. In these situations, supplementary budget allocations are made available.

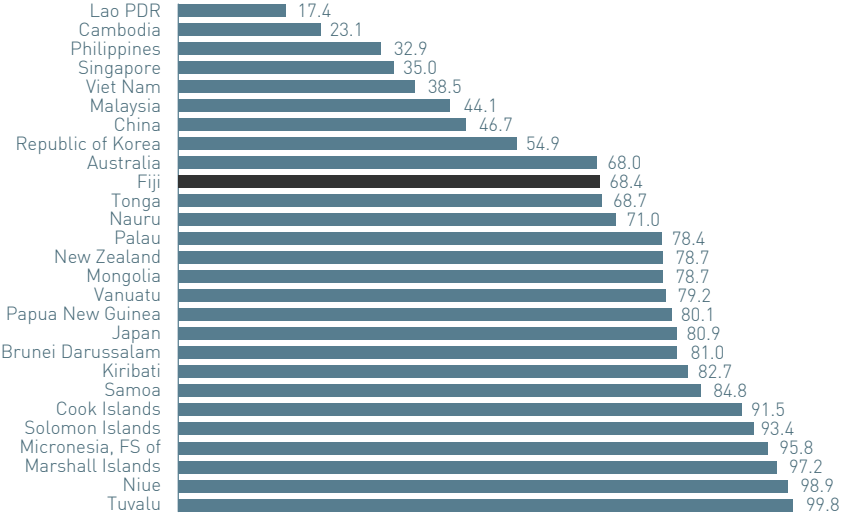
Figure 3-6 Government budget allocation for health (Fiji dollars)



Source: Data for this graph is sourced from the Ministry of Health financial accounting system

The Fiji Government's budget allocation for health has increased fairly steadily from 1995 to 2009 (Figure 3-6). Government expenditure in 2008 was 68% of total health expenditure. Although this is a relatively high proportion, it is lower than in all other Pacific island countries (Figure 3-7).

Figure 3-7 Government expenditure on health as a percentage of total health expenditure, countries of the WHO Western Pacific Region, 2008



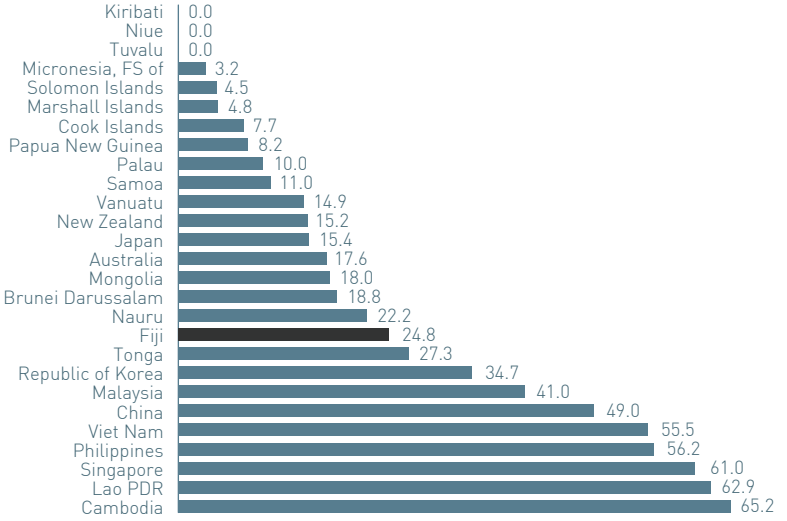
Note: No recent value for American Samoa, French Polynesia, Guam, Hong Kong (China), Macao (China), New Caledonia, Northern Mariana Islands, Tokelau, Wallis and Futuna.
Source: NHA, 2008, Accessed in March 2010.

3.5 Out-of-pocket payments

Out-of-pocket (OOP) payments constitute the second largest source of finance for health services, after government expenditure. As a percentage of total health expenditure, OOP payments increased from 12% in 2005 to 15% in 2008. In 2005, OOP payments totalled FJ$21.7 million; by 2008, they had risen to FJ$29 million. In the same time period both public financing and employer funding for health decreased. Most OOP payments were for prescriptions and over-the-counter medications and outpatient services. The rise in OOP expenditure also reflects a shift in use from public sector to private sector health services. No data are available on the distribution

of OOP expenditure across difference population groups. Fiji is in the mid-range of reliance on OOP expenditure in WHO Western Pacific region countries (Figure 3-8).

Figure 3-8 Out-of-pocket expenditure as a percentage of total expenditure on health, countries of the WHO Western Pacific Region, 2008



Note: No recent value for American Samoa, French Polynesia, Guam, Hong Kong (China), Macao (China), New Caledonia, Northern Mariana Islands, Tokelau, Wallis and Futuna.
Source: NHA, 2008, Accessed in March 2010.

OOP payments may be in the form of cash but also in kind, the latter especially in rural areas and for 'traditional healers'. It has been estimated that expenditures on traditional healers amounted to FJ$2.1 million in 2005, FJ$1.6 million in 2007 and FJ$1.7 million in 2008. In 2008, this amounted to 0.8% of total health expenditure. It is highly probable that these figures are underestimated since most traditional healers are paid in-kind and it is difficult to put a dollar value on the payments.

3.6 Voluntary health insurance

The coverage of voluntary health insurance is limited in Fiji and is considered affordable mainly by those in formal employment. Most

coverage is through employer-based schemes that provide accident and injury cover and co-payment for general medical insurance. Around ten overseas-owned, and a smaller number of local or joint venture, companies operate across the insurance sector in Fiji; health accounted for only 14% of insurance premium payments in 2009 (Reserve Bank of Fiji Insurance Annual Report, 2009), with three companies representing the main sources of voluntary health insurance. Companies contract with hospitals and individual practitioners to provide their clients (organizations or individuals) treatment and accommodation at both public and private health facilities. Some schemes also cover overseas medical care.

According to National Health Accounts reports, insurance expenditure for health by both individuals and organizations stood at FJ$8.9 million in 2005 and rose to FJ$14 million by 2008. This increase may be due to: i) increased voluntary involvement of organizations and individuals in health insurance, ii) increased premiums or iii) methodological differences in estimations between the 2005 and 2007/2008 NHA reports. Government has been reviewing private health insurance arrangements with the intention of promoting wider coverage.

3.7 Other sources of financing

The remaining source of finance for health care is from external sources, including multilateral and bilateral development agencies and non-government organizations. In Fiji, these include the United Nations agencies (WHO, UNICEF, UNDP, UNFPA, UNAIDS), the Governments of Australia (through AusAID), New Zealand (through NZ AID) and Japan (through JICA), the Asian Development Bank (ADB), the European Union (EU) and the Global Fund to fight AIDS, TB and Malaria. In 2005, donor agencies´ contributions to health amounted to FJ$9.5 million or 5.3% of total health expenditure. In 2007, it decreased to FJ$6.9 (3.4% of THE) following the coup d'état of December 2006, and then rose again in 2008 to FJ$12.2 million (6% of THE). Global Fund support to Fiji may be affected by the fact that the World Bank elevated its status from lower middle income to an upper middle income country. External support to the MoH is not yet well-harmonized to achieve a more effective use of the funds available.

3.8 Payment mechanisms

Payment mechanisms for providers of health services are relatively straightforward as the government both finances and provides the majority of services.

Paying for health services

The size of the annual government health budget is determined by the available government revenue and negotiations between the MoH and the MoF. The MoH receives allocations to budget line items, such as human resources, services, capital investments, and purchase of medical and nonmedical equipment. The MoH uses this same approach when allocating payments to various government-owned health facilities (including hospitals, health centres, and nursing stations).

Paying health workers

The majority of health workers in the country are salaried staff of the MoH. These are in two categories: established staff and un-established staff. Established staff are governed by the Public Service Act while un-established staff conditions and rules are stated in the Joint Industrial Council agreement. Project, cleaning and casual positions are commonly un-established. Private health care providers may be contracted by government and paid on an outputs basis according to the terms of individual contracts.

Salaries of government staff are set in detailed national pay scales drawn up by the Public Service Commission. Incentive payments for the number of patients seen or procedures performed, or payment according to results, do not exist. Salaried staff move up the salary scale according to their years of experience with the MoH, level of education, and role within the organization. It is generally considered that under-the-table payments to health workers are infrequent; this has not been highlighted as a complaint by the public who have used the complaints procedures.

Employee associations and trade unions represent workers´ interests and negotiate pay and conditions on their behalf. In 2007, the Fiji Nurses

Association was vocal on issues pertaining to salaries and employment conditions for nurses, but was unable to make gains. Several industrial strikes have been unsuccessful and have left staff feeling undervalued, which has contributed to emigration. Prompted by the financial crisis, a recent proposal was made to introduce 50% salary cuts; however, this was reversed following protests by health workers.

General practitioners in private practice receive payment from individuals for service. There are no legislated fees for private practitioners and they can charge at their discretion within market constraints. Current consultation fees range from about FJ$10.00 to $20.00 excluding the cost of medications, which are obtained through private sector pharmacies. A small number of GPs enter into contracts with private organizations to provide care for employees, and private insurers refund some health expenditure to patients.

Health workers in the private sector may work in hospitals, clinics and private surgeries that are legally established as private corporations. They are governed by the rules of these corporations and usually receive a fortnightly salary. The *Fiji Employment Relations Bill 2004* sets certain work and minimum salary terms and conditions.

Pharmaceuticals are imported by the Fiji Pharmaceutical Services (FPS), which is government funded, and supplied to government health facilities. Private pharmacies can purchase medicines and drugs from the FPS. There are approximately 39 private retail pharmacies located in urban centres. Private GPs are legally entitled to dispense and supply medicines if they are not within five kilometres of a private pharmacy, in which case charges for medicines are added to patients' consultation and treatment fees. When drugs are out-of-stock at government pharmacies, patients have to purchase medicines at their own expense from private pharmacies. The Fiji Prices and Income Board controls prices in the market by setting percentage markups for both wholesalers and retailers.

4 Physical and Human Resources

4.1 Section summary

This section provides an overview of resources available to the health sector. The government is responsible for the construction, management and maintenance of all health infrastructure in the public sector. A number of buildings were built more than three decades ago and upgrading has been inconsistent. Funding from foreign governments has been a significant component of capital expenditure in the health sector over the past decades. Private health infrastructure is a growing component of the health system, and includes four hospitals, as well as a number of clinics, pharmacies and laboratories. Government health services include 25 hospitals, 78 health centres, six specialized centres and 99 nursing stations; the model is based on access to primary health care for all, but coverage varies across the country.

Equipment is managed through an asset information system according to defined policies and processes with requirements determined by a clear delineation of roles at each level of the system. Requests for new equipment are considered by a national committee. There is a strategic plan for information technology development within a framework provided by the Ministry of Information. The MoH launched a website in 2008. A computerized patient information system has been installed in 16 sites across the country with expansion planned. A human resources information system tracks the number of health professionals working nationwide, while a national training database tracks the number of graduates from all training institutions.

The MoH is the second largest employer of salaried public servants in the government. The almost 3500 established posts represent nearly 70% of the health workforce, while the rest consist of government wage-earners in unestablished posts. The private sector is also an important employer of health professionals including those practitioners in general practice,

at the Suva Private Hospital and in some specialized facilities. In addition, small numbers of paid 'carers' work informally in the community.

There has been pressure to downsize the workforce, which consists of 60% of the national health budget. At the same time, demand for services is increasing as the population grows. Lack of adequate numbers of health professionals is a major challenge, compounded by significant rates of emigration. The number of health staff per capita is around the middle of the range for Pacific island countries; the number of doctors, dentists and nurses has remained relatively static over the past 15 years, while the number of pharmacists has declined significantly.

The majority of Fiji's medical workforce is now concentrated in urban hospitals with the shortage of doctors most marked in rural areas. This is partly explained by urban drift of the general population. The shortage of doctors over the years has led to the creation of new cadres of health workers, including nurse practitioners. The Fiji School of Medicine offers post-graduate education but there is a continuing shortage of specialists; this risks impacting on medical training as well as quality of care. The MoH employs foreign doctors, including specialists.

Nurses are recognized as the backbone of the Fiji health care system, including in isolated areas. They represent almost two-thirds of its workforce and provide a full range of services from PHC to acute care; more than half work in the three divisional hospitals and two specialist hospitals. From 1999 to 2001, the number of nurses who resigned was greater than the number newly trained but the situation has improved.

This section also describes the health professional training institutions, notably the Fiji School of Medicine and the Fiji School of Nursing, and their programmes, as well as the career paths of different types of health professionals, including environmental health workers and various allied health workers.

4.2 Physical resources

The government is responsible for the funding of all public health sector physical resources, including infrastructure, medical equipment and

information technology (IT), as well as their management and maintenance. The health sector receives around 5% of the total government capital budget (excluding aid) per annum. Infrastructure developments require the MoH to submit a development proposal with an estimated cost provided by the Ministry of Works.

Funding from foreign governments is a significant component of capital resource expenditure in the health sector. Such funding is coordinated by the Ministry of National Planning and released through the Ministry of Finance. Public health infrastructure funded by the Governments of Australia, Japan, Republic of Korea and New Zealand, (mostly through their development assistance agencies) in the past 25 years includes: the Paediatric Hospital in Suva; hospitals in Kadavu and Taveuni; hospital extensions at the Colonial War Memorial Hospital and in Rakiraki; the Fiji School of Nursing; the Fiji School of Medicine Pasifika Campus and a student hostel; the Fiji Pharmaceutical Services; the National Centre for Disease Control at Mataika House; and the National Centre for Health Promotion. Work has started on the relocation of Navua Hospital and construction of a new hospital at Nausori with financing provided by the Government of People's Republic of China and management under the Office of the Prime Minister.

Private health services infrastructure is a growing component of the Fiji health system.

Public Sector Infrastructure

Government health services are provided through a range of offices and health facilities, including the MoH head office, three divisional offices with administrative and clinical facilities, 25 hospitals, 19 subdivisional offices, 78 health centres, six specialized centres, 99 nursing stations (both government and self help community centres) and three old people's homes. These facilities are equipped with medical equipment and IT appropriate to their classification in the Delineated Role of Health Facilities document (MoH 2007c) (Refer to 2.1).

Fiji has a ratio of 2.05 hospital beds per 1000 population but there is considerable variation across hospitals (Table 4-1). This excludes holding beds available at isolated health centres for short-term (up to 12 hours) observation

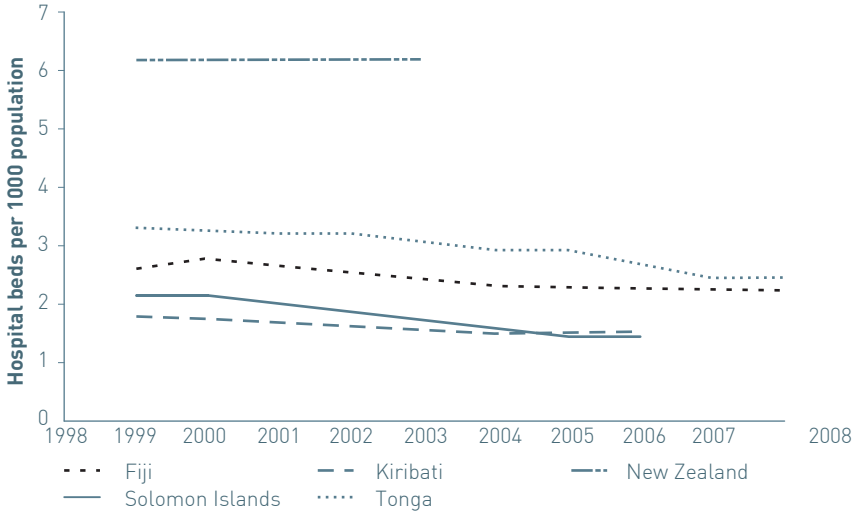
of general patients and those requiring emergency deliveries. The number of hospital beds per capita is similar to that in Kiribati, Solomon Islands and Tonga and, as in those countries, has declined slowly since 1999 (Figure 4-1).

Table 4-1 Public hospitals with population and bed capacity allocations

Division	Sub-division	Role	Hospital name	Served Population (2007)	Bed Capacity
Central	N/A	National Referral Centre (NRC)	St Giles	850 000	136
	N/A	'	Tamavua/Twomey	850 000	91
	N/A	Divisional & NRC	Colonial War Memorial	330 245	458
	Tailevu	SDH – Level 2	Korovou	22 287	17
	Rewa	'	Nausori Maternity	47 891	15
	Serua/ Namosi	'	Navua	26 220	12
	Naitasiri	'	Vunidawa	19 332	21
	Rewa	Area Medical	Wainibokasi	14 434	14
Eastern	Lakeba	SDH – Level 2	Lakeba	8149	12
	Lomaloma	'	Lomaloma	26 220	16
	Lomaviti	'	Levuka	16 400	40
	Kadavu	'	Vunisea	10 285	22
	Rotuma	Area Medical	Rotuma	2479	14
	Matuku	'	Matuku	650	5
Western	Lautoka	Divisional &NRC	Lautoka	345 810	339
	Ba	SDH –Level1	Ba	60 700	50
	Tavua	SDH – Level 2	Tavua	28 160	42
	Ra	SDH – Level 2	Rakiraki	30 940	22
	Nadi	SDH – Level 1	Nadi	80 688	85
	Nadroga/ Navosa	SDH - Level 1	Sigatoka	54 400	60
Northern	Macuata	Divisional &NRC	Labasa	133 070	161
	Cakaudrove	SDH – Level 1	Savusavu	32 204	58
	Bua	SDH – Level 2	Nabouwalu	14 660	31
	Taveuni	SDH – Level 2	Waiyevo	15 328	33
TOTAL			25	850 000	1749

Source: MoH 2007c

Figure 4-1 Ratio of hospital beds per 1000 population, 1998–2007



Source: WHO, Regional Office for the Western Pacific, Health Indicators Database

Private Sector

The private health sector infrastructure includes two private and two semi-private hospitals. (Table 4-2). Other non-governmental health sector institutions are a haemodialysis centre, a hospice, the Pacific Eye Institute, a medical school and two nursing schools. The government recognizes the importance of the private sector and is encouraging public-private partnerships. In addition, there are private general practice clinics, laboratories, dental surgeries, pharmacies, drug manufacturers, physiotherapy clinics, radiography services, specialized day care centres, a hospice, a special health institute and old people's homes.

Table 4-2 Private hospitals

Hospital/Location	Bed Capacity	Role	Other Facilities
Suva Private Hospital	40	General private - national referral centre	X-ray, lab, pharmacy, cardiac lab, surgery, maternity (served by local & visiting foreign specialist)

Hospital/Location	Bed Capacity	Role	Other Facilities
Suva Bayview Hospital		General	Not fully operational, currently offering outpatient & consultations
Nasese Medical Centre	2 holding beds	Minor surgery	OT, laboratory, x-ray and pharmacy
Ra Maternity Hospital	7	Maternity care	Staffed by government midwives & nurses

Capital stock investments

Current capital stock

The current public sector capital stock in buildings under the custody of the MoH and ownership of government includes the 25 hospitals listed in Table 4.1. Of these, six were built before 1940 and a further 10 between 1940 and 1975. Several of the older hospitals have had extensions in the 1990s and replacement hospitals are approved or planned for several more. Hospitals are built to the standards of the Ministry of Works, which approves architectural design, supervises construction, engineering and related works and is responsible for repairs and maintenance; they must be Occupational Health and Safety compliant. The land on which health facilities are located is either freehold, state-owned or native land for which government holds a long-term lease. The Tamavua Hospital in Suva and the Levuka Hospital are preserved by the National Trust and Heritage and cannot be replaced, only upgraded and preserved.

Medical equipment, devices and aids

The MoH biomedical equipment stock is managed through an Asset Information System. The Fixed Asset Management Manual sets out the policies, guidelines and processes for assets management. The Ministry of Lands and Survey is responsible for their valuation. The Clinical Services Plan Framework determines the delineation of roles of the various health facilities, which, in turn, sets minimum standards for equipment.

Requests for new equipment are processed by the National Equipment Committee according to the criteria of uniformity, sustainability, technical complexity, training and staffing required, safety, durability and cost, including running costs, the cost of spare parts and consumables.

Until recently, the Colonial War Memorial Hospital had the only computed tomography (CT) scanner in the country. The demand for use of this machine, the costs of transporting patients from Lautoka and Labasa to Suva and delays in diagnosis have justified the purchase of two more CT scanners for these hospitals.

Information technology

The MoH has a strategic plan for IT development, although the Ministry of Information is responsible for monitoring the general use of IT services, including internet access and the web sites of all government ministries and departments. The MoH website launched in 2008 (http://www.health.gov.fj) aims to provide access to information on its services. The MoH currently has 569 personal computers used in 36 sites.

The Patient Information System (PATIS) and its hardware, continuing education for its users and recruitment of staff for its maintenance, are the responsibility of the MoH, although AusAID continues to provide technical assistance. PATIS is installed in 16 sites, including headquarters, three divisional offices and the three divisional hospitals, the national psychiatric hospital and eight subdivisional hospitals. Fourteen additional sites are proposed. All current PATIS sites have access to the internet and transmit data nightly to the central server in Suva, while non-PATIS sites send their data in writing to MoH Health Information Unit for classification and entry into the database.

The human resources information system (HRIS) tracks the number of health professionals working nationwide, disaggregated by cadre. A national training database tracks the number of graduating medical, paramedical and allied health professionals from all training institutions. This contributes to workforce planning and continuing education.

4.3 Human resources

Public sector human resources

The MoH is the second largest employer of established staff among government ministries. Its workforce comprises professional health service providers, health administrators and support staff, 3452 (69.7%) of whom are in established posts (salaried public servants) and 1503 (30.3%) in unestablished posts (government wage-earners). The total number of MoH employees approved by the Public Service Commission in 2010 was 4955 (Table 4-5), an increase from 4815 in 2008. The increases were in nursing (8.6%) and medical (5.3%) staff, the two cadres that together comprise 48.4% of the public sector health workforce. Reductions in non-professional posts were made in the Senior Executive Service (SES) and in administrative, domestic and unestablished posts.

Table 4-3 Ministry of Health approved posts as at 1 January 2010

Post or Cadre	Established posts approved by PSC*	Vacancies
Minister of Health	1	0
Permanent Secretary for Health	1	0
Senior executive posts	14	6
Medical	416	25
Dental	201	25
Nursing	1981	56
Pharmacy	84	23
Dieticians	57	5
Environmental health	119	9
Laboratory technician	134	10
Physiotherapists	35	2
X-Ray technicians	65	5
Occupational therapist	1	1
Biomedical technicians	10	4
Supervisor HG- hospital services	5	3
Orthodontist	1	1

Post or Cadre	Established posts approved by PSC*	Vacancies
Adm., accounting, IT & support	327	81
TOTAL	**3452**	**256**
Government wage-earners (unestablished)	1503	-

Note: * Fiji Public Service Commission

Private sector human resources

The private sector is an integral component of the Fiji health care system and one which has seen significant growth since the opening of the Suva Private Hospital in 2001. This hospital employs a number of doctors, mainly specialists and consultants, both local and expatriate, 33 nurses and other health professionals and management staff. There is a provision for government consultants to access private patients, which allows it to meet its workforce needs. The other private hospital, the Ra Maternity Hospital is owned by the Roman Catholic Church, but its staff includes eight nurses who are public servants. The number and distribution of private sector health staff is shown in Table 4-4.

Table 4-4 Private health providers

Types of Services	Central Division	Western Division	Northern Division	Total
General Practitioners	62	55	8	125
Dentists	14	7	4	25
Pharmacies	26	15	2	43
Optometrists	6	1	-	7
Acupuncturists	12	9	1	22
Chiropractor	1	-	-	1
Laboratories	2	-	-	2
X Ray	1	1	-	2
Physiotherapists	1	1	-	2

In 2008, the first kidney dialysis unit opened to serve both Fiji and other Pacific island countries as a public-private partnership between the MoH and the Kidney Foundation of Fiji. The unit provides care by doctors, nurses and technicians who have undergone specialized training.

Families provide the major private human resources for health, most of it unpaid and not costed. Small numbers of paid 'carers' work informally providing basic care at homes, and in private old age facilities, although there is no data available to determine their number. They are paid whatever the community can give in cash or kind. Other informal groups are the Wainimate group of traditional medicine practitioners, and local traditional birth attendants who supervise about 1.5% of all deliveries in Fiji. They are recognized by the MoH as complementary services.

Trends in health care personnel

The health workforce accounts for more than 60% of the national health budget. While the MoH strives to operate more efficiently within its approved staffing levels, pressure on services is increasing as the population grows, and staff numbers remain inadequate and are static or increasing only slowly for most cadres. The scarcity of qualified health professionals has been identified as the biggest hurdle to achieving the Millennium Development Goals (MDGs) for improving the health and the well-being of the population (Oman 2009).

Table 4-5 Staff approved establishments and staff to population ratios 1986, 1997, 2008

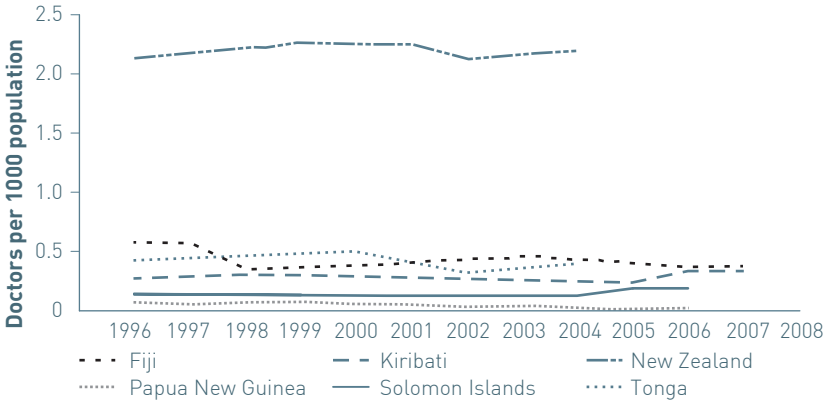
Year	1986	1997	2008
Population	715 000	802 000	879 301
Medical staff (includes medical assistants; excludes HQ medical staff)	375	417	396
(Staff to population ratio)	1:1907	1:1923	1:2220
Dentists/therapists (includes dental support staff: technicians, hygienist)	153	186	201
	1: 4673	1: 4311	1: 4375
Nurses (includes 67 orderlies)	1499	1742	1811
	1:477	1:460	1:485

Year	1986	1997	2008
Population	715 000	802 000	879 301
Radiographers	49	62	65
	1:14 592	1:12 935	1:13 528
Pathology Laboratory Technicians	86	102	134
	1:8314	1:7862	1:6562
Pharmacists	48	50	84
	1:14 896	1:16 040	1:10 468
Environmental health staff	116	98	119
	1:6164	1:8183	1:7389

Table 4-5 shows staff numbers and staff to population ratios for different categories of staff in 1986, 1997 and 2008, based on Public Service Commission approved established posts. Although the number of staff in most categories has increased, there was less change in the staff to population ratios, except in a few categories.

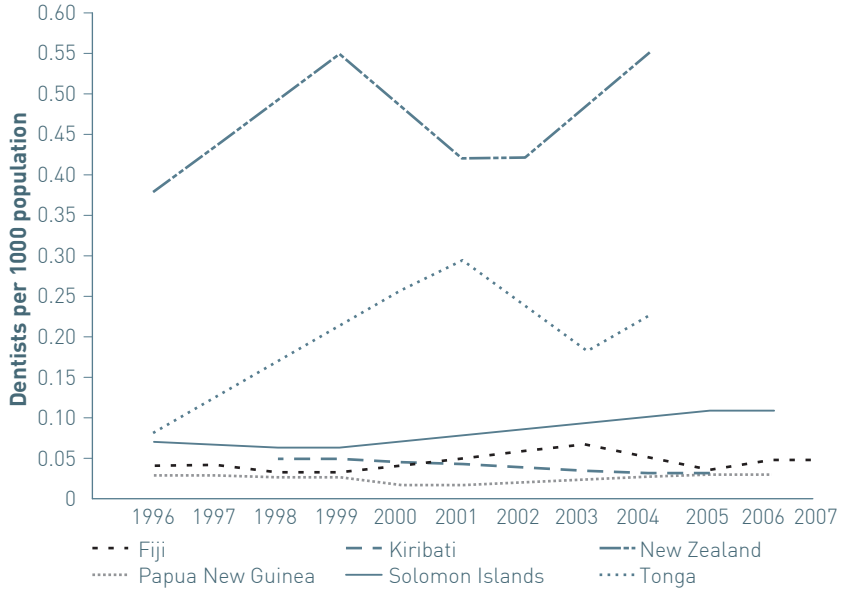
Figures 4-2 to 4-5, based on WHO data, compare the staff-to-population ratios of Fiji with four other Pacific island countries and New Zealand for doctors, dentists, pharmacists, midwifes and nurses. Fiji's ratios are around the middle of the range for the comparison Pacific island countries, but well below those of New Zealand and internationally-accepted desirable levels.

Figure 4-2 Ratio of doctors per 1000 population, 1995-2006



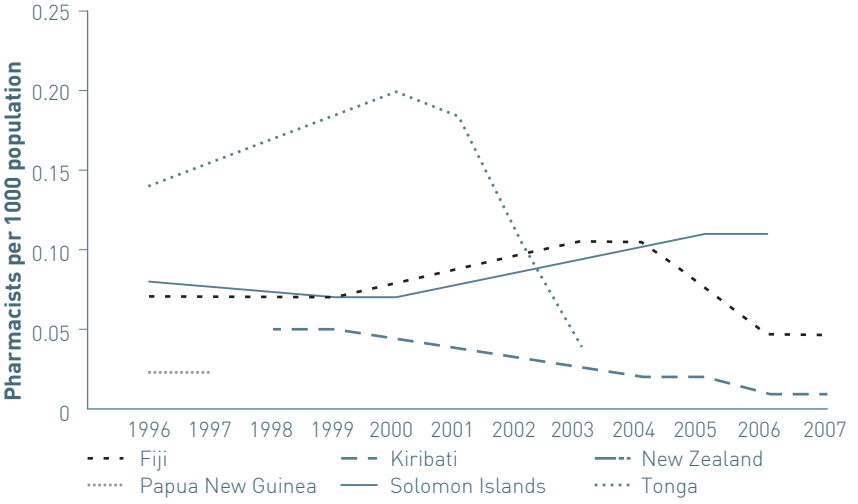
Source: WHO, Regional Office for the Western Pacific, Health Indicators Database

Figure 4-3 Ratio of dentists per 1000 population, 1995-2006



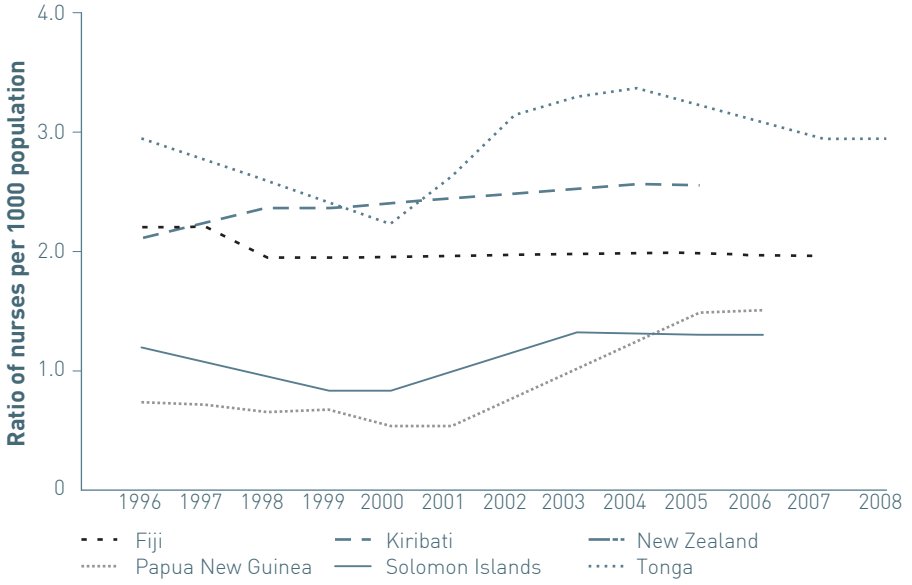
Source: WHO, Regional Office for the Western Pacific, Health Indicators Database

Figure 4-4 Ratio of pharmacists per 1000 population, 1995-2006



Note: New Zealand is removed from this graph as it is off the scale with values of 6.8 in 1995 and 10.2 in 2002.
Source: WHO, Regional Office for the Western Pacific, Health Indicators Database

Figure 4-5 Ratio of nurses per 1000 population, 1995-2006



Source: WHO, Regional Office for the Western Pacific, Health Indicators Database

One indication of the adequancy of health staff numbers is the degree to which projections made in the Fiji Health Workforce Plan 1997 to 2012 (Dewdney 1996) have been met. Table 4-6 suggests that the projection for doctors has been met and the number of nurses is only 5% below the projected number needed. However, this is considered to be a result of projected needs that were set too low. In the case of nurses, because of budgetary constraints, the Fiji School of Nursing has only trained the number necessary to fill the Public Service Commission approved nursing numbers Deficits are significant in most other staff categories.

Despite staffing shortages, the MoH has a policy to progressively reduce the proportion of expatriate staff as more trained local staff become available. It also aims to strengthen the integration of private medical practice into the national health system, which has been piloted in some peri-urban population growth areas.

Table 4-6 Comparison between projected need and actual positions in seven health professions

Category	1997 approved establishment*	2010 projected need	2010 approved establishment	Shortfall as a proportion of 2010 projected need (%)
Medical	417	417	416	0
Dental	186	344	201	71
Nurse	1742	2088	1981	5
Pharmacy	50	69	84	18
Environmental	98	152	119	28
Radiography	62	109	65	68
Laboratory	102	169	134	26

* Source: Dewdney (1996)

Medical Practitioners

The Fiji Medical Council had 1436 doctors on its register in 2010. This includes those serving in government, in private practice, at the private hospital, at the Fiji School of Medicine and foreign visiting specialists. The number, however, is not useful in assessing current availability of doctors as it includes temporarily registered visiting doctors who over many years have visited Fiji.

The geographical distribution of public sector medical staff among the population is built on the primary health care model from the early 1970s. The network of health centres was designed to be managed by doctors. However, ongoing shortages of doctors required the creation of Medical Assistants in 1975.

The Fiji School of Medicine trained a total of 61 Medical Assistants from 1975 to 1984 to work in primary health care settings. Many have since retired, while others have increased their qualifications to Bachelor of Medicine and Bachelor of Surgery (MBBS) and are practicing as doctors. A model of primary care provider training was implemented in 1988, but was phased-out five years later. The same year, a nurse practitioner programme commenced based on new legislation and it continues today.

The majority of Fiji's medical workforce is now concentrated in urban hospitals. Approximately one third of all health centres are headed by nurses, but some posts are vacant. The shortage of doctors is particularly evident in Fiji's rural areas and significant issues remain in retaining medical staff at health centre level. The urban concentration of doctors is partly explained by the recent high rates of internal population migration. Just over half (51%) of Fiji's population live in urban areas, a uniquely high proportion for the Pacific region.

The MoH has employed a number of strategies to counteract doctor shortages, exacerbated by emigration of Fijian doctors. These include recruitment of foreign doctors, who now fill 25% of health centre medical posts. The first group of expatriate doctors was recruited in the mid-1990s from China, Burma and the Philippines. Some of these were found to be unsuitable, particularly due to communication difficulties (Naidu 1997). At the same time, a small number from Britain and Australia were recruited through development assistance schemes. In 2010, the MoH employed 55 expatriate doctors from Bangladesh, Burma, China, India, Nigeria, Pakistan, Philippines and from other Pacific island countries, some of whom have acquired Fijian citizenship.

In 1998, the Fiji School of Medicine established postgraduate programmes in medical specialties of internal medicine, surgery (including orthopaedic and urology), obstetrics and gynaecology, paediatrics, anaesthetics, ophthalmology, psychiatry, pathology, radiology and emergency health. Of the 416 medical positions in government, 104 (25%) are consultants/specialists, a number of them expatriates. Some private specialists support public services through part-time work at hospital accident and emergency and general outpatient departments. Over time, the continuing shortage of specialist doctors will impact on medical training, the provision of quality services and waiting times.

Nurses

The MoH recognizes that nurses are the backbone of the Fiji health care system. The nursing workforce comprises 57 % of all persons employed

by the Ministry and 64% of the health workforce. The ratio of one nurse to 485 people in 2008 compared favourably with international averages. Nurses provide a full range of services from primary health care to acute care across the health system. Nursing stations located in the more isolated areas are staffed only by registered nurses (RNs).

Fiji has only one category of registered nurse (RN); they are first-level practitioners, graduates of a three-year basic nursing programme, registered under the *Nurses, Midwives & Nurse Practitioners Act 1999*. The nursing workforce is comprised of 76% RN (staff nurses) and 21% senior nurses with post-basic specialist skills, including managers, tutors, nurse practitioners and midwives.

The Public Service Commission approved a nursing workforce of 1981 positions in 2010. The 170 new positions approved for 2010 from 2008 levels were all at base grade of staff nurse. Orderlies, who form 3% of the nursing workforce, are trained in assisting RNs but are not licensed to practice independently. The three divisional hospitals employ 45% of the nursing workforce; subdivisional hospitals, health centres and nursing stations, 45%; the two specialist hospitals, 8%; and the Fiji School of Nursing, 2% (37 nurses). The Suva Private Hospital employs 33 nurses and a small number work in other private clinics. Fiji law prohibits nurses from practicing nursing and midwifery as independent operators.

Most nursing positions are filled by RNs graduated from the Fiji School of Nursing, plus a small number who trained overseas, and those recently graduated from the Sangam Private Nursing School. The first graduation from this school was in 2008 and since then, 50 to 60 graduates per year have been absorbed into the MoH staff establishment.
The introduction of the Nurse Practitioner (NP) programme in 1999 has been a successful strategy for providing health services to people in remote areas of Fiji (Usher 2004). A total of 46 NPs have been trained at the Fiji School of Nursing from 1998 to 2007 and by end of 2010, 53 were in post in both rural and urban health centres.

Professional mobility of health care workers

Health professionals trained in Fiji, and wanting to practice their profession overseas, must conform to the registration requirements of their destination countries. For most, this is an attainable goal. MoH records show that by 1999, 78% of Fiji trained doctors who had migrated had gone to New Zealand, Australia and the United States of America (Naidu 2004). Within the last decade, the mobility pattern for Fiji trained doctors has changed to other Pacific island countries, including Palau, American Samoa and the Cook Islands. A few have been recruited recently to work in rural and remote areas in Australia, where the registration requirements are less rigorous.

The first significant movement of Fiji nurses occurred through recruitment by the Nauru government in the mid 1970s, followed by a special arrangement between the Fiji Government and the Northern Mariana Islands in Saipan in the early 1990s, for a group of ten midwives to staff their maternity unit. Some of these have returned while a few have remained. Other PICs have also benefitted from Fiji trained nurses, such as Palau, the Marshall Islands and Cook Islands. In the late 1990s, Fiji nurses were recruited by international agencies for a particular hospital in England; some have moved on to other countries, such as New Zealand and Australia. Recently, nurses have been recruited to work in the United Arab Emirates and the Caribbean. Remittances from these nurses employed overseas contribute to family wealth and to the economy of Fiji.

Table 4-7 shows that in the years 1999 to 2001, resignations of registered nurses exceeded new graduates; the situation reversed in 2002 and improved until 2007. In 2008, there was another dramatic reversal with a halving of graduates and resignations rising to an almost equal number (this includes all resignations, i.e., those retiring, moving to the private sector, migrating, etc.) In 2010, the government decided to increase the Fiji School of Nursing intake to 200 per annum for the next three years, although this decision will place a heavy load on clinical training opportunities and may have to be revised downward.

Table 4-7 FSN Graduates and resignations of registered nurses 1999-2002

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
FSN RN* graduates	114	121	131	124	143	140	162	200	177	84
RN resignations	129	132	133	93	53	46	99	83	53	78

* Fiji School of Nursing Registered Nurses

Training of health care personnel

Medical and dental training

The Fiji School of Medicine celebrated its 125th anniversary in 2010. In 1888, its first graduates of a three-year curriculum were called native medical practitioners. This term persisted until 1951, when graduates became known as Assistant Medical Practitioners, until 1956, when their name changed to Assistant Medical Officers and to 1964, when graduates became Medical Officers. In 1968, the University of the South Pacific taught the first year of the medical and dental programmes. The prerequisite for entry into the school was increased to New Zealand school matriculation. Programmes ran for five years for medical students and four years for dental students. The qualifications were upgraded in 1973 to Diploma in Medicine and Surgery and Diploma in Dentistry and by 1988, those who graduated for the new six-year programme in medicine earned a Bachelor of Medicine & Bachelor of Surgery (MBBS). The curriculum was further reviewed and since 2000, was converted into a problem-based learning model. On graduation, medical internships are completed at one of the three divisional hospitals. The Bachelor of Dental Surgery (BDS) was introduced in 1993 and the first students graduated in 1997.

Fiji School of Medicine commenced a post-graduate Certificate in Public Health in 1960 and ran the course for nine years, for retraining older medical graduates in modern public health techniques. Doctors now have a wide range of postgraduate courses available, including from a one-year Postgraduate Diploma in Medicine that can be followed by a three-year Master in Medicine within the various clinical disciplines. Public health doctors and other health professionals can study for one year for the Postgraduate Certificate in Public Health and continue to a Masters

in Public Health through an additional year of coursework. A Master of Public Health through research is also available for suitable candidates. Completing these courses will contribute to the new Medical and Dental Practitioner Decree 2010 requirements for continuing professional development activity.

Postgraduate courses are not available at Fiji School of Medicine in highly specialized areas, including pathology, radiology, psychiatry, emergency medicine and ear, nose and throat medicine, so candidates need to study overseas, taking them out of the Fiji health system for three to five years. Unfortunately, many who have been sent by the MoH for overseas training successfully completed their courses but did not return to Fiji. Accordingly, the MoH continues to have vacancies in these specialties and will continue to require expatriates to fill them.

Nurse training

The Fiji School of Nursing was established in 1893 and was for many years the sole provider of nursing education in Fiji. Later, the Ba Mission Hospital of the Methodist Church had a school of nursing for several decades, mainly to staff the hospital, until the hospital was transferred to the government in 1994. In January 2010, the Fiji School of Nursing merged with the Fiji School of Medicine to form the College of Medicine, Nursing and Health Sciences in the new Fiji National University. The Fiji School of Nursing continues to provide a three-year pre-service Diploma of Nursing as approved by the Nurses, Midwives & Nurse Practitioners Board, as does the Sangam Private Nursing School. The Fiji School of Nursing programme is also offered to students from other Pacific island countries that do not have their own nursing schools, namely, Tuvalu, Nauru and Tokelau. The Sangam Private Nursing School was established in 2005 in Labasa in the Northern Division; it uses a curriculum adopted from the Fiji School of Nursing and approved by the Fiji Nurses and Midwives & Nurse Practitioners Board, and Labasa hospital provides teaching facilities for the students.

The Fiji School of Nursing is only able to train the number of nurses needed to fill MoH establishments, although the number of applicants annually has been well in excess of available places. For example, in 2004 there

were 1757 shortlisted of 2152 applicants, but only 199 could be accepted. The other constraint to increasing numbers in training is the limited capacity of the clinical areas to accommodate a large number of students in competency-based learning.

Post-basic nursing programmes in midwifery and public health have been offered to local and regional RNs since the mid 1960s and new programmes have been added in the past decade. The Fiji School of Nursing, in association with Australia's James Cook University, now offers a range of post-registration qualifications. Through this collaboration, by the first quarter of 2010, 184 RNs had completed a Bachelor of Nursing Sciences, 24 a Postgraduate Certificate in Cardiac /Intensive Care Unit Nursing, two a Postgraduate Certificate in Peri-operative Nursing, 51 a Postgraduate Certificate in Mental Health Nursing, and 5 a Master in Nursing Practice. These recent developments have opened up new frontiers in nursing education at university level. The diploma course in nursing is now being upgraded to a Bachelor in Nursing Sciences and the post-basic courses to Advanced Diplomas

A framework for Continuing Professional Development (CPD) is being developed for the various cadres of health professionals. This is linked to the requirements under the revised legislation, e.g. the Medical & Dental Practitioner Decree 2010.

Career paths

The appointment and promotion of medical officers are made according to minimum qualification requirements for each level and according to the policies and processes determined by the Public Service Commission. After completing a medical internship, doctors are registered to practice medicine anywhere in Fiji, whether in the government or the private sector. The majority start their career in the public sector, where they are usually posted initially to a subdivisional hospital or rural health centre to serve for at least one year. Medical Officers can be promoted to Senior Medical Officer (SMO), then Principle Medical Officer, followed by Chief Medical Officer (CMO). Appointment to CMO and Consultant positions requires postgraduate qualifications, preferably fellowship at an international college of specialists, and the meeting of other criteria of experience

and leadership. Sutton et al (2008) found that one third of all positions of SMO and above were vacant, following which the MoH made a series of promotions of existing staff.

Due to the overall shortage of doctors, relatively junior or expatriate doctors are sometimes required to act in Senior Medical Officer and Principal Medical Officer positions in some rural subdivisional hospitals and health centres. For senior medical positions, the decision to appoint is made by the Permanent Secretary for Health after processing by the National Staff Board. For CMO and above, the interviews and decisions are made by the Public Service Commission.

Those wishing to study for specialist qualifications request transfer and, subject to vacancies, work within that specialty area in any of the three district hospitals, serving for at least 12 months before qualifying for postgraduate training. After completing a Diploma, they again apply to the Master in Medicine programme. The various clinical disciplines have established clinical networks involving the three district hospitals where they regularly discuss issues of clinical management, treatment protocols, clinical research, infection control and risk management.

Other health staff career paths

Nurses' career path

Nurses are in demand at every level of the health service, particularly in clinical areas where they are often the only worker available. They are often isolated in nursing stations, requiring them to be available every day and at any time. Despite the high demand for their services and their critical role in the health system, career opportunities for nurses are limited. The majority of staff nurses (72% of the total nursing establishment) risk remaining at the same level for their entire career. The current inadequate career structure for nurses in Fiji contributes to high rates of emigration.

Two recent nursing workforce reviews (2007 and 2008) recommended developing career paths for nurses with three streams: clinical, managerial and educational. Currently, in the absence of a clinical career path, there are few incentives for nurses to improve their clinical skills through further

clinical education. Most await promotion to a higher paid managerial position. For the same reason, several nurse practitioners have abandoned clinical work to become matrons and managers. Better career paths are needed in order to retain clinical skills among the nursing workforce.

Dental practitioners

Dentists in Fiji are graduates of either the former Diploma, or the current Bachelor of Dental Surgery (BDS) programmes at Fiji School of Medicine. In the public sector, there are currently 38 approved dentist positions in all three levels of dentists (Dental Officer, Senior Dental Officer and Principal Dental Officer). There is one National Oral Health Adviser based at the MoH head office. Because of bottlenecks regarding promotion within the public system, dentists are attracted to private practice. Specialization in dentistry has not been developed to allow for career advancement and improve retention of staff.

The majority of the remaining positions in the dental occupational group are dental therapists, technicians and hygienists. Through the modified dental training programme, which commenced at the Fiji School of Medicine in the mid 1990s, many dental therapists were able to upgrade their qualifications to BDS and have become qualified dentists.

Pharmacists

Prior to an amendment in the *Pharmacy and Poisons Act*, only graduates with a Bachelor of Pharmacy were registered in Fiji, and the Fiji School of Medicine offered only a Diploma in Pharmacy. By 1977, there were only three registered pharmacists working in government. Following the recommendations of the Pharmaceutical Services Workforce Requirements & Working Conditions Review (1997), changes allowed for expansion of the criteria for registration to diploma holders, allowing for the restructuring of the pharmaceutical services and the strengthening of staffing at divisional and subdivisional levels. The School currently offers a Bachelor of Pharmacy. In addition to government posts, there are now approximately 45 private pharmacies in Fiji.

Environmental health

Fiji's growing population, increasing urbanization, more intensive agricultural production and greater dependence on processed foods have increased environmental hazards and impose ever growing demands on the environmental monitoring and control activities of MoH environmental health staff. The work of the environmental health officers is of an increasingly technical nature, requiring training at overseas universities.
The MoH employs 119 environmental health officers who provide services related to sanitation, pollution control and waste management, health education, vector control, border health control and building standards. The Food Unit was established in the MoH in 2008 under the *Food Safety Act 2004* and the MoH is also legally recognized as the competent authority for fish and fishery products for export purposes. The Ministry for Environment also provides career opportunities for environmental health officers at policy level, while local government councils employ them in city and town councils.

Other allied health workers

Other health workers in the cadres of radiographer, physiotherapist, pathology laboratory technician and dietician and nutritionist are graduates of the Fiji School of Medicine. Although demands for the services of these groups have continued to grow over the years, there has been no significant change in their numbers or career opportunities, due to government constraints on expanding staff numbers. Yet despite a lack of growth in their numbers, all training curricula at the School have been upgraded to bachelor degree level: the Bachelor of Imaging Sciences and Bachelor of Medical Laboratory Services had their first graduates in 2008; the Bachelor of Dietetics and Nutrition was on offer from 2009 and Bachelor of Physiotherapy from 2011.

Physiotherapists have been allowed to establish private physiotherapy services, although there is no legislation yet to license them. Radiographers have been granted licenses by the newly enacted Radiation Health Decree 2009. The granting of licensing for radiographers will pave the way for private practice outside of government. The growth of private sector medical laboratories will expand the employment opportunities for pathology laboratory technicians and scientists.

5 Provision of services

5.1 Section summary

This section describes health services delivery in Fiji by both the public and the private sector. The MOH provides both public health services and primary care through nursing stations, health centres and subdivisional hospitals. The system of secondary level clinical care commences at the subdivisional hospital, which refers patients to tertiary level facilities at divisional hospitals and the national referral centres. Private hospitals provide clinical care on a fee-for-service basis. Fiji's decentralized services are consistent with its dispersed population. This section describes the various facilities available at each level, illustrated by two case scenarios to demonstrate how patients are seen and referred in this geographically-challenging nation, including the system of referral to overseas tertiary care.

Government health services are overseen by the Divisions of Public Health and Hospital Services of the Ministry of Health and its subsections at the geographical divisional level (Central, Eastern, Western and Northern), and the 19 subdivisional services, further divided into nursing zones. Public health services are mostly primary care outpatient services with a special emphasis on preventive care. They are coordinated by the deputy secretary of public health and provided through a network of facilities, including village/community dispensaries, nursing stations, health centres and subdivisional hospitals, and managed by divisional medical officers. Hospital services are coordinated by the deputy secretary of hospital services and are provided at four levels through the divisional and specialist national referral hospitals. They include generalist medical services, specialist referral services ((both inpatient and outpatient), sub-specialist referral services and high-cost complex referral services.

5.2 Public health

The term 'public health' is often used to refer to services and activities aimed at improving health and prolonging life of the whole population through health promotion, disease prevention and other health interventions. In Fiji, public health includes the clinical primary care services provided to rural populations. Thus, it is sometimes difficult to distinguish between public health and primary health care in Fiji, as both terms are used interchangeable. Indeed, as in many countries, the primary care level carries out a number of public health interventions. In describing public health in Fiji, the internationally accepted definition has been used.

The Public Health Division in the MOH sets the strategic direction and framework for all public health and primary care services, develops evidence-based policies, facilitates the implementation of public health activities at operational levels, and monitors and evaluates public health activities, including disease surveillance and research. Each of the technical units of the Public Health Division is headed by a national advisor with counterparts within the divisions and subdivisions. The following section provides an overview of the organization and implementation of communicable and non-communicable disease policies and strategies in Fiji.

Communicable disease control

Surveillance and outbreak detection and response

The MoH communicable disease reporting system relies on both passive and active surveillance. The former includes weekly reporting in the event of any reported case of a notifiable disease and follow-up of patient contacts, as required under the Public Health Act. Active surveillance is through sentinel sites that are required to report on specific communicable diseases every month, even if no cases have occurred. Diseases under active surveillance include poliomyelitis, acute flaccid paralysis (AFP), acute fever with rash, influenza-like illness and acute rheumatic fever. In September 2010, active surveillance reporting was stepped up by requiring all the 21 sentinel sites to report to the MoH headquarters using mobile

phones. Active surveillance reports on polio and AFP are submitted to WHO as part of a regional surveillance programme.

Fiji conforms with International Health Regulations (2005) under which it is required to report any public health emergency of international health concern to WHO. Action on communicable disease outbreaks in Fiji is guided by several nationally-endorsed plans: the Fiji National Health Emergencies and Disaster Management Plan; the Fiji National Influenza Pandemic Plan; and the Fiji National Communicable Disease Surveillance and Disease Outbreak Plan.

The main disease outbreaks that have occurred in Fiji in the past two decades include measles, dengue fever, rubella, typhoid, leptospirosis, influenza, and diarrhoea. Although most of the outbreaks were contained within the affected areas through public health and clinical interventions, some avoidable deaths occurred.

Once a potential disease outbreak has been identified by surveillance, or an unusually high number of cases of a communicable disease is reported, an outbreak response team is activated. The Fiji National Communicable Disease Surveillance and Outbreak Response Guidelines provide guidance on activating subdivisional and divisional communicable disease surveillance and outbreak response committees and the action to be taken. These committees are chaired by senior medical officers, and membership comprises all subdivisional or divisional technical and administrative heads of units, with other relevant people co-opted as members from other sections of government, the private sector or donor agencies. Where a subdivision is unable to contain an outbreak within its resources, a divisional team is activated by the divisional medical officer, including the Divisional Disaster Management Committee, chaired by the divisional commissioners with membership comprised of divisional heads of the various ministries and agencies. If the divisional team cannot contain the outbreak, the National Committee is activated by the Deputy Secretary for Public Health with guidance from the Permanent Secretary for Health and advice from the WHO and other agencies. These processes are encompassed within the legal framework of the National Disaster Management Council through the *Disaster Management Act 1989.*

Major communicable disease of public health importance

Typhoid fever has remained endemic over the last two decades in Fiji. A typhoid outbreak in the Navosa District of the Western Division in May 2010 resulted in more than 200 cases and four suspected deaths reported over a two month period. A health emergency was declared by the government, restricting movements and public gatherings except for funerals. The main source was healthy carriers who had shed *S.typhi* into sewerage, which had contaminated water sources. A mass immunization campaign was conducted with numerous health education and health promotion sessions to address hygiene practices, hand-washing with soap, protecting the water supply and improving sanitation. The epidemic declined, but the area is still closely monitored.

Preparedness to address typhoid was enhanced by experience gained with a 2005 outbreak. The response at that time included: mass dissemination of relevant preventive and health promoting strategies; building new toilets and water tanks; up-skilling doctors and other health professionals and preparing guidelines for effective diagnosis and clinical management, follow-up, contact tracing and case notification; mass immunization in typhoid hot-spots; and intensive monitoring and evaluation. The Fiji School of Medicine is currently undertaking research to identify other potential interventions.

Dengue fever is also endemic in Fiji. It was first detected in 1885 and since then, a number of significant outbreaks have been documented, in 1930, 1943/1944, 1971 (an explosive type-2 dengue epidemic),1989/1990 (a type-1 epidemic with 3686 recorded cases) and 1997/1998 (24 780 suspected cases with 13 deaths). The latest outbreak of dengue fever in Fiji was in 2008 with an incidence of 216 cases per 100 000. Outbreaks have been observed to occur at periods of five to eight years.

Measles has been a notifiable disease in Fiji since it was imported from Australia in 1885 and caused extensive mortality. Fiji has experienced measles outbreaks every 4-5 years over the past two decades because of low accumulated herd immunity. The most recent measles outbreak occurred in 2006 (Tuiketei et al, 2006) with a total of 117 cases, 13 hospital admissions and no recorded deaths. Addressing measles outbreaks is a

significant periodic expense as costly mass measles vaccination campaigns are part of the outbreak intervention strategy. Fiji has modified its measles immunization schedule, now giving a measles-rubella (MR1) combination vaccine to all children at 12 months and MR2 at children of school entry age. The measles coverage for children reaching their first birthday was 94% in 2008 compared to 81% in 2007 and 74% in 2006. The total number of cases reported nationwide in 2008 was 33.

Filariasis is addressed through a national mass drug administration programme of albendazole and diethylcarbamazine to the whole population over two years of age, excluding pregnant and nursing mothers; the 5th round in 2006 achieved an average coverage rate of 66%. The drugs are distributed by the MoH through all health facilities and by zone nurses during outreach clinics, with simultaneous coverage data collection. A f***ilariasis*** directly observed treatment programme commenced in 2009.

The ***tuberculosis*** and ***leprosy*** control programmes have existed since 1946. Tuberculosis control activities have been boosted in recent years by funding from the Global Fund to fight AIDS, Tuberculosis and Malaria. The incidence of tuberculosis per 100 000 has gradually declined from 35 in 1990 to 20 in 2000 and to 12 in 2008. Between 2006 and 2008, the case detection rate was above 80%. However, there have been subsequent reported increases in incidence from areas with both sporadic and endemic disease, including Cakaudrove, Rewa, Tavua, Suva and Ra Subdivisions.

Confirmed tuberculosis cases are admitted either to the Lautoka Hospital tuberculosis ward or referred to the Tamavua Tuberculosis Hospital for inpatient treatment for two-three months before they are discharged with their TB DOTS (Directly Observed Treatment) drug packs and followed up by community nurses. Contacts are traced at the time of their diagnosis. In 2007, the MoH introduced a policy that all tuberculosis patients be tested for HIV, and vice versa.

Fiji is classified as a low HIV prevalence country. Cumulative cases recorded by the Fiji Centre for Communicable Diseases from January 1989 to June 2010 number 354 confirmed HIV diagnoses. In the first ten years of the HIV epidemic in Fiji, there was a slow but steady increase in the number of HIV infections detected annually, with between three and eight cases

of new reported infections. The rate of HIV infections increased from 2000 onwards with an average of 30 detections annually between 2000 and 2008, and 43 in 2009. In 2010, there were around 350 people diagnosed as living with HIV. Most cases have been detected through the screening of pregnant women, screening for employment or migration purposes, or in people with advanced symptoms of disease. Fiji has endorsed the National HIV and AIDS Strategic Plan 2007-11 (Ministry of Health, 2007d) that reflects a multisectoral response to HIV.

Leptospirosis arose as a public health concern in 2000 when an outbreak occurred in Labasa with 110 cases and 23 deaths recorded in two weeks. A retrospective serological analysis covering the period between 1991 and 2001 revealed cases nationwide. A total of 293 laboratory confirmed cases were detected, 61% in the age group 20 to 49 years and mostly caused by *Leptospirae copenhageni* and *Leptospirae canicola.* Since 2000, at least three further outbreaks have been reported, mostly following periods of heavy rainfall. The crude incidence rate has increased from 0.75 per 100 000 population in 1992 to 7.14 in 2000 and to 9.4 in 2008.

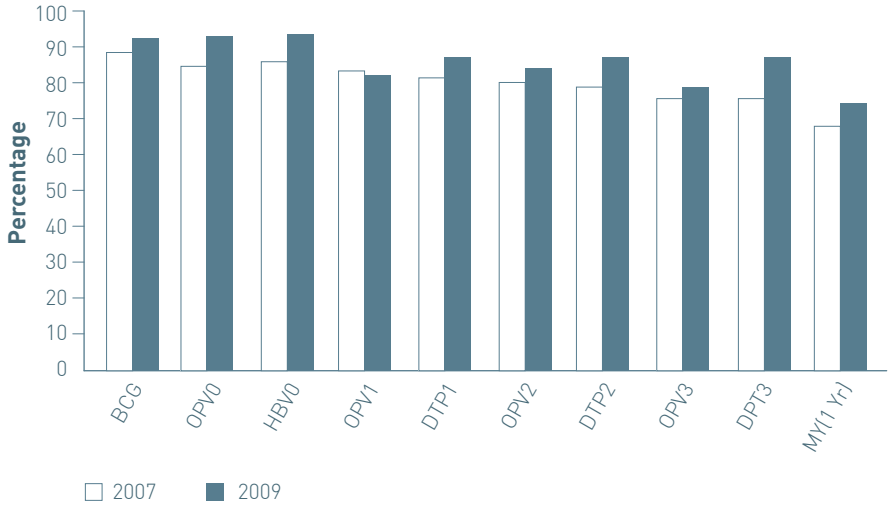
The public health measures implemented include mass health promotion strategies, improved clinical management and laboratory confirmation, working with the Animal Health Section of the Ministry of Agriculture. Further research is currently being undertaken by the Fiji School of Medicine in collaboration with the MoH to strengthen future interventions.

Immunization

Immunization is an important component of communicable disease prevention in Fiji. The National Expanded Programme of Immunization (EPI) Strategic Plan 2007-2011 embodies the MoH vision and mission statements on immunization. Vaccination against *Haemophilus influenza* and *Hepatitis B* has been introduced, since 2006 through the pentavalent (DPT, Hib and Hep B) vaccine. A programme of human papilloma virus vaccination was launched in 2008. Immunization is delivered by nurses at all levels of the system, in maternity units, in maternal and child care and antenatal clinics, in schools, and by general practitioners. Immunization coverage has fluctuated in Fiji over the past years. Immunization services have been strengthened by the establishment of divisional EPI project officers and

continuing education on immunization for nurses. Nevertheless, according to MoH annual reports for 2007 and 2009 (Ministry of Health, 2007e & 2009b), immunization coverage rates declined for all vaccines between those two years (see Figure 5-1).

Figure 5-1 EPI coverage rates in 2007 and 2009



Source: MoH Annual Reports Fiji (2007e and 2009b)

Noncommunicable disease control

Fiji has implemented a number of important public health initiatives in the area of noncommunicable disease (NCD) which are a growing concern due to the increasing impact of changing lifestyles on health. The incidence and prevalence of diabetes, cardiovascular diseases and respiratory diseases are high and increasing. Strategies to address noncommunicable disease in Fiji are contained in the National NCD Strategic Plan 2004-2008 (Ministry of Health, 2004a), and the more recent NCD Plan 2010-2014.

MoH strategies for noncommunicable disease prevention give priority to the SNAP risk factors (smoking, nutrition, alcohol and physical activity). Social marketing strategies include radio jingles, radio and TV spots, billboards, posters, pamphlets and other media for promoting positive behavioural change. Evaluation of this programme is currently being undertaken by

the National Centre for Health Promotion. The repetition of the NCD Steps survey in 2010 will provide an evaluation of the effectiveness of these strategies. The 2009 Obesity Prevention in Communities (OPIC) project conducted by Deakin University in Australia and the Fiji School of Medicine suggests that many health promotion activities have little effect if not provided with sufficient saturation (Swinburn 2010).

Health promotion projects include the *Bula 5-30* initiative of the Public Health Division of the MoH launched in 2008 by the Minister of Health, promoting the concept of eating five servings of fruit and/or vegetables daily and conducting 30 minutes of physical activity every day. This is based on the findings of the 2004 Fiji National NCD STEPS Survey of a sample of 7000 people, which identified that the population ate little fruit and vegetables, did little physical activity, smoked too much and drank considerable amounts of alcohol. This initiative has been implemented in the various settings where people live, work and play. Other complementary programmes include the establishment of foot care clinics, the distribution of NCD toolkits and the 'hospital in the home' initiative.

Tobacco free initiative: Fiji ratified the WHO Framework Convention on Tobacco Control in 2004. It was the third country in the world, the first developing country, and the first country in the Western Pacific region to do this. There has been progress in establishing and reviewing tobacco legislation, in establishing Tobacco Free Villages of which Fiji now has three, in conducting educational and health promotion activities and non-smoking campaigns, and in implementing other components of the Framework. In recognition of these activities and progress, WHO gave the prestigious World No Tobacco Day Award to Fiji in 2004 and 2005. The WHO WPRO Regional Director, Dr Shigeru Omi, declared Nabila Village as the first Tobacco Free village in Fiji and the Pacific. Emphasis is also placed on preventing passive smoking in public areas through tobacco free initiatives in communities, including villages, workplaces, markets and shops.

Nutrition: Following a conference convened by the World Food Programme in Rome in 2000, Fiji followed up on its commitment to develop strategies to address nutrition and food security. This took the form of the Fiji Plan of Action on Nutrition which was developed in 2004 by the National Food and Nutrition Centre of the MoH in collaboration with the Ministry of

Agriculture, other government departments, the Foundation for the Peoples of the South Pacific – Fiji, the UN agencies and AusAID. It was based on the findings of the 2004 Fiji National Nutrition Survey and the Fiji NCD STEPS Survey Report 2004. The Nutrition Plan was revised in 2008 and is complemented by the Food-Based Dietary Guidelines.

Legislation on breast milk substitutes and junk food advertising to children is currently in its final stages of drafting. School canteen policy and guidelines are being strengthened through a memorandum of understanding between the MoH and the Ministry of Education. Policy on salt reduction in foods manufactured in Fiji is under development, as are other policies arising from the Obesity Prevention in Communities (OPIC) Fiji Study Report 2004-2009 (Tuiketei et al, 2010).

The Baby Friendly Hospitals Initiative programme, under the criteria of WHO and UNICEF, commenced in 1989 when Lautoka Hospital was declared the first Baby Friendly Hospital in Fiji and the Pacific. To date, 21 of the 23 Baby Friendly Hospitals in the Pacific region are in Fiji. Exclusive breastfeeding up to six months of age is encouraged for all mothers and supported by the Nursing Mothers Association.

Diabetes: Prevention of diabetes is addressed in the NCD Strategic Plan. Primary prevention is implemented through health promotion activities by community nurses, and through outreach activities of village health workers. The primary health care services are also responsible for secondary prevention, including screening and early diagnosis, tertiary prevention through the education of diabetes patients and their relatives, and continuing medical education for all medical staff. Tertiary prevention includes interventions to prevent foot sepsis and amputations, ophthalmology checks and medication replenishment.

Rheumatic heart disease: A three-year programme to control rheumatic heart disease began in 2006 and encompasses the screening of all primary school children using stethoscopes and echocardiogram. Cases are identified that require specialists´ review or surgery by visiting cardiologists in CWMH in Suva. Of the 3680 people screened by 2008, 1% had confirmed rheumatic heart diseases/acute rheumatic fever and 11% had a cardiac murmur. Compliance with benzathine penicillin treatment only achieved

50% coverage. This activity was implemented with the collaboration of the MoH, the CWMH Paediatrics Department and the World Heart Federation. The project has been integrated into the MoH health system with Colonial War Memorial Hospital paediatricians conducting the screening programmes in selected schools throughout Fiji.

Other screening programmes: Breast screening services are available in all the maternal and child health clinics. Prevention of cervical cancer and Pap smear services are also in place, although only an estimated 10% of women use this service. Prostrate screening is not done unless requested by males themselves, which represents a gap in health service provision to men.

Environmental Health

The Central Board of Health administers the *Public Health Act 2002* which enforces regulations and policies of border control and quarantine at ports of entry, and of environmental health in the general community, including water and air pollution monitoring, environmental sanitation, safe water supply and building safety.

There are 12 urban sanitary districts (2 city and 10 town councils) and 16 rural sanitary districts in Fiji. Environmental health officers are employed by urban health authorities in cities and towns, while rural local authorities are serviced by the MoH environment health officers at divisional or subdivisional levels. Occupational health and safety services are implemented by environmental health officers in conjunction with the Ministry of Labour, and the occupational health and safety committees established in health facilities. The environmental health officers exercise their authority under the *Public Health Act 2002*, *Town Planning Act 1997*, *Subdivision of Land Act 1976*, and the *Environment Management Act 2005*. The Department of Environment also addresses environmental issues concerning health at the national level, such as waste management, climate change, and incineration.

A Tourist Health Unit was established to strengthen linkages between the Ministry of Health and the Department of Tourism to address international health protection activities. This function has now been absorbed within the environmental health units. The Food Unit was established in 2008 to

monitor and evaluate food-related regulations and activities addressed in the *Food Safety Act 2004*.

Patient pathways

Patients enter public health services either by going directly to a nursing station, a health centre or a subdivisional hospital or by being referred by a village or community health worker. They will be seen by a nurse in a nursing station or a doctor, medical assistant or nurse practitioner in a health centre or hospital. Patients may be referred to a higher level health facility depending on their need. In urban areas, people may enter either the public or private hospital systems by referral from a private general practitioner. Emergency medical evacuation by air from remote areas to the divisional hospitals is available. When it is not possible to evacuate a patient, a flying squad is sent out to conduct emergency life-saving procedures, most commonly for acute obstetrics and acute surgical emergencies.

The following examples are provided to illustrate possible scenarios of Fiji residents living in a remote area who need medical care.

Patient pathway: Case Scenario 1

A Fijian woman, Mrs W. aged 55 living on Fulaga Island, one of the outer islands of the Lau Group in Lakeba Subdivision, 1500km southeast of Suva, developed chronic foot sepsis and suspected that she might have diabetes, like her mother. She visited the Fulaga nursing station on the other side of the island for consultation and treatment. The visit was free of charge, but she had to pay FJ$60 for return transportation by boat, which was a lot of money to her. The nursing station was open when she arrived and fortunately, the nurse was there that day, not away conducting home visits. Mrs W. did not need to wait long as there were only a few patients waiting to be seen. The nurse tested the woman for diabetes using a glucometer and the results confirmed diabetes. The foot wound was not clean and needed treatment. The nurse wanted to refer the woman to the nearest health centre in Kabara, an adjacent island. The same boat that Mrs W. had hired from her village would take her to Kabara Health Centre at the

Continued on next page

Patient pathway: Case Scenario 1 continued

cost of an additional FJ$200 return trip. The nurse called the doctor by radiotelephone, discussed Mrs W's condition, and told him when to expect her. Mrs W. was given a referral letter to take with her. Kabara Health Centre is equipped with a medical boat and is staffed by a doctor, two staff nurses and a labourer/cleaner/boatman. Mrs W. was seen immediately on arrival. The doctor confirmed her diabetes and treated her wound under local anaesthesia. Fortunately for Mrs W., the doctor was experienced and could handle her case competently. Mrs W. could have stayed in the health centre's holding beds but she opted to stay with relatives in Kabara for a few days. The doctor reviewed her again, advised and counselled her on how to manage her condition and sent her home with dressings and drug supplies for a short period. She asked Mrs W. to carry a follow-up note to the Fulaga Island district nurse, where Mrs W. could collect her medication (free of charge) during follow-up clinics. The Kabara Health Centre doctor runs a medical clinic at the Fulaga Nursing Station once every three to six months, and would provide follow-up care for Mrs W. while there.

Patient pathway: Case Scenario 2

A 35 year-old woman with four children, at full term with her fifth pregnancy, was in labour in Qarani Health Centre on Gau Island in the middle maritime zone in Fiji, and developed complications that could lead to an obstetric emergency situation. The pregnant mother had been referred by the Qarani Health Centre doctor to go to Suva for her delivery, but she had financial constraints and did not go. She was attended to by the nurse who was staffing the health centre, as the doctor was in Suva attending a workshop. The registered nurse promptly provided the appropriate initial clinical management, but the patient needed to be referred immediately to Colonial War Memorial Hospital in Suva because of the complications. The nurse then contacted the obstetrics and gynecologist consultant on call at the hospital through the radiotelephone for assistance. The consultant accepted the patient based on the nurse's assessment details and the condition of the pregnant woman and said she should be evacuated to the hospital as soon as possible. The hospital arranged for a mercy mission flying squad team with an anaesthetist, Obstetrics and Gynaecology Registrar and a theatre nurse to go in a chartered helicopter to Qarani Health Centre within two hours. The mercy mission flying squad team arrived, assessed the patient and performed a caesarean section

Continued on next page

Patient pathway: Case Scenario 2 continued

at the health centre. Both baby and mother were alive and well after the operation, but were brought over to the Colonial War Memorial Hospital by the team to complete their recovery. The cost of the helicopter, borne by the government, is around FJ$1800 - $2000 an hour.

5.3 Primary and ambulatory care

The different levels and components of primary health care in Fiji are defined in the Clinical Services Planning Framework. They are briefly described in the following sections.

Village (or Community) Health Workers: The village or community health services consist mainly of lay workers, usually women, trained for six weeks according to a specified curriculum with a requirement of one to two days annually of continuing education and/or in-services training. Village health workers (VHW) provide first aid and basic treatment and care for easily managed conditions to the people in the community in which they live. They are trained to refer serious cases to the nearest health facility when the need arises.

Communities select their volunteer VHWs, build a dispensary and support them in-kind. The MoH provides the training, drugs & equipment and in recent years, has provided a minimal allowance. There have been more than 820 VHW trained, mostly women, since training commenced in the early 1980s. VHWs submit monthly reports to the district nurse or to the subdivisional health sister. They are usually members of their village health committee, a subcommittee of the village development committee. Health related activities are coordinated by them and the Turaga ni Koro (village head man) in collaboration with the MoH and they are the focal point for the MoH in their community.

Nursing Stations: Each of the 101 nursing stations in Fiji is typically staffed by one registered nurse who is on call 24 hours a day and caters for a catchment population of between 100 and 5000 people depending on the population density of the nursing area. The nurse may also have other postgraduate qualifications in midwifery or public health. The number

of patients seen by a district nurse per annum depends on the size and population density of the nursing area. It ranges widely from 1500 to 30 000 per year; from 20 to 200 per day. The average travelling time from a nursing station to the nearest health centre by land or sea is nearly 1.5 hours. To make outreach visits to households, the nurse may walk or use a boat, a vehicle, a motorbike, or a horse.

Most (95%) nursing stations are owned by the MoH and consist of a standard concrete building for clinics and staff quarters. Most have septic tanks, a safe water supply and water tanks. Some have electricity, and radio-telephones for keeping in touch with supervisors and for referring cases. Nursing stations that are provided by communities have to meet government standards and over the years, the government has taken over most of these stations in order to maintain them. Guidelines and policies are available on the types of conditions that nurses can treat and manage in the nursing station and those that need to be referred to a higher health facility. Community nursing stations also have a supply of drugs and other consumables that the nurse can order through the government system.

The main challenges for staff at nursing stations are: isolation and missing out on an urban lifestyle, especially if the nurse is single; the responsibility of being independent and having to make sound judgments on patient treatment and referrals; and limited equipment and drugs. Nurses need to be multiskilled, knowing how to integrate the demands of different health programmes and how to both serve and be supported by the community.

Health centres: Each of the 77 health centres (HCs) in Fiji provides primary care services at a step up from the nursing station. All health centres are staffed by either a doctor or a nurse practitioner with one or more nurses. The number of staff ranges from two in rural areas to 20 in cities (Suva, Labasa and Lautoka/Yasawa), depending on the type of services offered, the location and the population covered. HCs cater to an average population of 3500 in a rural area and 8000 to 10 000 in an urban setting. Some large HCs have a pharmacy, laboratory, x-rays, dental unit, health inspector, dietician and clinic nurses and other nurses who conduct school visits and zone nurse activities. Each HC has a number of nearby nursing stations reporting to it. Some HCs in remote areas have holding beds for short term (up to 12 hours) observation of general patients and for those requiring emergency

deliveries. The HC refers patients to the subdivisional hospital or directly to the divisional hospital in the maritime zones. The average travelling time from a health centre to a subdivisional hospital by the most commonly used mode of transport is around 2.5 hours. Depending on the size of the health centre, the total number of patients seen annually ranges from 15 000 to 50 000, with between 50 and 2000 patients seen in a day. Some HCs have a boat or vehicle for the provision of health services and outreach clinics. The full medical team usually goes out together in these outreach programmes. Some HCs have transport available or use transport from the subdivisional hospital on specified days to conduct public health programme activities.

All health centres are built according to government standards and have running water, electricity and septic tanks. They are all supplied with drugs, consumables, equipment and other supplies specifically allocated from the Essential Drug List (EDL). Their public health programmes are integrated into both clinical and community activities; a team approach is essential in the successful implementation of the various programmes. The main challenges at the health centre level are: limitations on the services they are allowed to provide with the equipment and drugs available; meeting the needs of the communities in remote areas; and transferring patients to a higher level health facility.

Subdivisional hospitals: Subdivisional hospitals (SDH) are typically staffed by medical officers, midwives, registered nurses, environmental health officers, radiographers, dentists, dieticians, physiotherapists, health promoters, peer educators and laboratory staff who work across inpatient, outpatient and community settings. The medical officer head of the subdivision supervises the various subdivisional heads, the executive officer or subdivisional clerk, laboratory technician, x-ray technician, physiotherapist, dietician, dental staff, sisters and nurses and un-established staff who provide support services (drivers, boatmen, cleaners etc).

There are 16 subdivisional hospitals plus three area medical hospitals established in strategic places to increase hospital access (see Table 4-1). The Rotuma Hospital, which serves a population of more than 2000 with 14 beds, functions as a subdivision hospital due to its unique position, more than 600 km from Fiji. The other two area hospitals, Wainibokasi and Matuku, are within subdivisions. The average travelling time from

a subdivisional hospital to the respective divisional hospital by the most commonly used mode of transport is nearly 4.5 hours by sea, land or air (see Table 5-1).

The level of health services carried out at the subdivision hospital level is determined by MoH policies. The equipment, drugs, consumables, dressings and material requirements are reflected in the Essential Drugs List and other policy documents. One of the challenges at the subdivisional level is to ensure that all the equipment, drugs and other resources in MoH facilities are available and working. The services provided vary depending on the type of health professional staff and equipment available. Subdivisional staff are available on-call as the first point of referral from the health centre level. Selected subdivision hospitals also function as teaching hospitals for final year nursing and medical students. The number of patients seen annually at general or specialist outpatient clinics ranges from 300 000 to more than 1 000 000, depending on the size of the subdivision and its catchment area. Patients can also make appointments to be seen by divisional level specialists conducting outreach clinics to the subdivisional hospitals.

Private Practitioners: Most of the 125 private general medical practitioners provide primary care, mainly in or around Suva and Nadi. In some cases, medical staff in public service work part-time in private practices. There is no legislated fee-setting process that governs the private sector, so private practitioners charge fees at their discretion. Current consultation fees range from about FJ$10.00 to $20.00 excluding the cost of treatments and drugs. Some practices operate single-handedly, while others have more than one doctor; some are open 24 hours while almost all are available on call 24 hours. The number of patients seen per day depends on the practice and ranges from 10 to 50 over an eight hour period. While the private medical sector does not seem to be expanding rapidly, there is increasing collaboration between the public and private sectors, including through contracting arrangements.

Private medical practitioners must be registered with the Fiji Medical Council as general practitioners or specialists before they can practice. The College of General Practitioners provides continuous medical education support for practitioners to update their skills and knowledge in medicine.

In return for fees, they provide a variety of services, including outpatient consultations, inpatient care, specialist clinics, home care for chronically-ill patients. There are also private radiology and laboratory services.

In addition to private medical practitioners, in private practice, there are 25 dentists, 43 pharmacists, 7 optometrists, 22 acupuncturists and 10 other health care professionals of different categories.

Maternal health care: Maternal health care is one of the core areas of primary care and is usually offered at all levels of the health system. Services include providing information and education, health promotion, screening and interventions for women of reproductive age to reduce risk factors that may affect future pregnancies. Women are urged to seek antenatal care early in their pregnancies at the nearest health facility providing it. Postnatal checks are offered to mothers six weeks after delivery and family planning services are available at the maternity units, health centres and nursing stations. Other postnatal care issues include recovery from childbirth, newborn care, including immunization, nutrition, and breastfeeding.

5.4 Specialized ambulatory care/hospital inpatient care

The referral system

Patients may be referred from the primary care level to a higher level health facility depending on their medical needs. In rural areas, most referrals are by nurses, while in urban areas, people may enter either the public or private hospital systems by referral from a public facility or a private practitioner. There is no defined gatekeeping system, and the population can bypass the primary care level and go directly to hospitals or be prepared to pay in private hospitals. Some opt to go to public hospitals even though waiting times can be long, contributing to the congestion of these facilities with patients who could be seen elsewhere.

Hospital inpatient care

Public specialized ambulatory care and hospital inpatient care are provided through the three divisional hospitals and two specialized

hospitals, as shown in Table 5-1, with a total of 1185 beds. The specialized hospitals are in Suva and act as national referral centres for services in psychiatry, rehabilitation and chronic infectious diseases (TB & leprosy). These hospitals serve as teaching hospitals for undergraduate and post-graduate medical and nursing students, especially those in Suva and Lautoka. Specialists from these hospitals also conduct visits to the subdivisions to run specialist clinics in subdivision hospitals and selected health centres and provide in-service training for staff whenever required.

Table 5-1 Divisional and specialist public hospitals

Division	Name	Role	Catchment Population:	Bed Capacity:
Central	St Giles	National Referral Centre (NRC)	837 271	136
Central	Tamavua/ Twomey [2]	'	837 271	91
Central	CWMH	Divisional & NRC	330 245	458
Western	Lautoka	Divisional & NRC	345 810	339
Northern	Labasa	Divisional & NRC	133 070	161
TOTAL	**6**			**1185**

Source: MoH (2007c)

Divisional hospitals also coordinate visiting national and international sub-specialist teams in intensive care, cardiology and cardiac surgery, plastic surgery, ophthalmology, neurosurgery, urology, vascular surgery and paediatric surgery, while some patients are referred for overseas medical treatment. Consideration is being given to developing capacity in Fiji for cardiology, improved intensive care, neurosurgery, and vascular surgery.

Hospital indicators for the years 1999 to 2008 for the three divisional hospitals and the total for all hospitals reflect an increase in hospital utilization. Occupancy increased in Suva and Lautoka divisional hospitals, while the hospital in Labasa showed a decrease in 2008 relative to 1999, but an increase with respect to 2004. Average length of stay has increased at Lautoka hospital from 1999 to 2008.

Table 5-2 Hospital utilization indicators for three divisional and all hospitals

	Admissions			Bed occupancy			Average length of stay (days)		
	1999	2004	2008	1999	2004	2008	1999	2004	2008
CWMH	20 666	21 142	23 265	59%	76%	82%	5.3	6.2	5.7
Lautoka	13 030	13 963	13 766	55%	65%	91%	5.4	5.8	8.2
Labasa	5600	7209	8776	107%	59%	76%	10.2	4.8	5.1
All hospitals*	64 244	65 528	71 166	55%	56%	70%	5.6	4.8	6.2

Source: MoH (2001 & 2008a)
Note: *excludes specialty hospitals

The Fiji Military Forces have a nine-bed hospital which caters to its employees, ex-servicemen, and their families. The hospital operates general inpatient and outpatient services together with dental, laboratory, radiography and pharmaceutical services. For surgery, obstetrics and other specialized services, patients are referred to the MoH hospitals, the Suva Private Hospital or for overseas evacuation funded through the Fiji Military Forces Welfare Insurance Scheme. Medicines are provided free by the MoH through the Fiji Pharmaceutical Service. Health professionals who work at the military hospital must also undertake military training.

In addition to publicly provided inpatient services, a number of private hospitals provide specialized ambulatory and inpatient services (Table 5-3). The biggest private hospital in Fiji is the Suva Private Hospital with 40 beds. There is no legislated fee-setting mechanism to govern private hospitals, which charge for services at market rates.

Table 5-3 Private hospitals

Hospital/Location	Beds	Role	Other Facilities
Suva Private Hospital	40	General private national referral centre	X-ray, lab, pharmacy, cardiac lab, surgery, maternity (served by local & visiting foreign specialist)
Suva Bayview Hospital	*	General	Not fully operational, currently offering outpatient & consultations

Hospital/Location	Beds	Role	Other Facilities
Nasese Medical Centre	2 holding beds	Day case for minor surgery	Operating Theatre, laboratory, x-ray and pharmacy
Ra Maternity Hospital	7	Maternity cases	Staffed by government midwives & nurses

*Under construction at time of writing; currently providing outpatient services

Specialized ambulatory care

Specialist services in the public sector include internal medicine, general surgery, orthopaedic surgery, ophthalmology, obstetrics & gynaecology, paediatrics, psychiatry and orthodontics. Referrals to specialized ambulatory services are made by doctors at health centres and subdivisional hospitals, by general practitioners, or in the general outpatient or accident and emergency services of the major public hospitals. Waiting time for specialist services ranges from 1 week to 3 months depending on whether the service is continuously available or depends on visiting specialists. Private patients may be referred to the Colonial War Memorial Hospital for specialized treatment not available at the Suva Private Hospital, such as in the adult or paediatric intensive care units, at no extra costs to the patients. Referrals are sometimes made from the public system to the Suva Private Hospital if visiting specialists are available, but the costs are borne by the patient.

There are frequent vacancies in the medical specialist positions and the Fiji School of Medicine clinical teaching staff provide services as a component of their role in carrying out post-graduate medical training. It is, however, becoming increasingly difficult for the School to attract specialist clinical academic staff into positions paid in Fiji dollars, as the currency is in decline in relation to international currencies.

Day Care

Patients admitted for treatment such as minor surgery or diagnostic procedures are discharged from the hospital on the same day whenever possible. The provision of day care aims to reduce the average length of hospital stay. However, the management information system cannot as yet determine the contribution of day care to reducing the average length of

stay and it is not possible to identify the savings made through this strategy. Day care is also provided at chronic and long-term health care facilities, such as the Rehabilitation Hospital and the Mental Health Hospital. The haemodialysis unit run at the Colonial War Memorial Hospital under a public-private partnership also provides day care, but access to it is limited by cost.

Overseas Tertiary Care

Using resources available in the country, small numbers of carefully-selected patients are referred overseas for speciality and sub-specialty treatment that cannot be obtained in Fiji through resident or visiting specialists. Most overseas referrals are now to India (84%, in the years 2006-2009). According to MoH annual reports, in the four years between 2006 and 2009, 274 cases were referred for overseas treatment funded by the government. Of these, 50.4% had cardiac conditions, 24.1% had cancer requiring chemotherapy and/or radiotherapy, 6.2% had ophthalmic conditions and 8.8% had renal disease (including 10 patients requiring kidney transplants).While the data are not presented in the MoH reports, the number of people requesting treatment overseas is reported to be much higher than the number of overseas referrals.

Case Scenario: Overseas Evacuation

Ms K., a 48 year old woman who collapsed at work, was rushed by ambulance to the accident and emergency department of the Colonial War Memorial Hospital at midday on a Friday. The senior registrar in the department suspected a cardiac diagnosis and called the consultant physician. A history of backache and abdominal pain was taken from an accompanying family member and the provisional diagnosis made by the consultant was confirmed by chest radiography and a CT scan to be an abdominal aortic aneurysm; this was a medical emergency requiring overseas evacuation. By then, Ms K. was in a stable condition in the ICU and the MoH was alerted by the consultant to prepare for her evacuation to the Auckland Hospital in New Zealand, which was willing to accept her for surgical treatment. By the next day, a Saturday, all preparation for her medical evacuation with a medical escort, oxygen in the plane, and

Continued on next page

Case Scenario: Overseas Evacuation continued

an emergency electronic visa for entering New Zealand had been made. Communication with the Auckland Hospital confirmed the flight details and coverage of costs. Ms K. arrived in Auckland at 7 pm and was received by staff of the Auckland Hospital on arrival at the airport and taken straight to the operating theatre for repair of the aneurysm. The local consultant physician and MoH were kept well-informed of the successful outcome of the surgery by telephone and email and her relatives in Fiji were kept informed throughout Ms K.'s hospitalization. She recovered fully and was sent home four weeks after surgery; all costs for the emergency overseas evacuation were borne by the Governments of Fiji and New Zealand.

The MOH has guidelines for the utilization of government funds for financial assistance to Fiji citizens requiring medical treatment overseas (Ministry of Health, 2008b). A committee of medical consultants and specialists at the Colonial War Memorial Hospital considers all requests and makes recommendations that are considered by the Deputy Secretary of Curative Services and the Permanent Secretary for Health, who take the final decision. Three key criteria guide the decision of the committee: a patient's ability to pay that will determine the level of support to be provided by the government; the prognosis for the patient following treatment; and whether the treatment is likely to require repeated referrals. Every effort is made to assist those who are unable to contribute financially, while taking into account the other two criteria. The secretariat to the committee arranges all logistics for the overseas referral hospital and a doctor may accompany the patient if required by the patient's condition or the airline. Follow-up of referred patients on return is arranged among the team of consultants at the Colonial War Memorial Hospital. Overseas treatment is financed by the government and under the New Zealand Medical Treatment Scheme. From 2006-2010, annual allocations of FJ$500 000 - 600 000 have benefitted over 70 patients per year.

5.5 Emergency care

The MoH has in place the Fiji National Health Emergencies and Disaster Management Plan 2007-2011; divisions and subdivisions have their own plans within this framework. The three divisional hospitals offer 24-hour access to dedicated accident and emergency departments. In subdivisional

hospitals, emergency services are generally combined with the general outpatient departments. Subdivisional hospitals and health centres are equipped to deal with immediate emergency care and stabilization prior to transport to a facility with more resources available.

Road transportation of patients in an emergency situation is either by the Saint John's Ambulance Service or by hospital-based ambulances. The Emergency Ambulance Decree 2009 transferred overall responsibility for ambulance services from St John's Ambulance to the National Fire Authority to allow it to improve coordination of emergency services in conjunction with the National Disaster Management Office. Medical evacuation is normally by helicopter, airplane or boats chartered from private companies. Emergency medical evacuation to either New Zealand or Australia for paediatric and surgical emergencies within 24 hours is available at government or at private cost, depending on financial need.

A Certificate in Emergency Care Practice is offered by the Fiji School of Medicine to frontline health workers and others involved in accident and emergency services, such as the National Fire Authority and the Fiji Police Force. The Nurses, Midwives and Nurse Practitioner Board now authorizes selected competent nurses to perform more advanced tasks in the management of cardiac arrest.

5.6 Pharmaceutical Services

The *Pharmacy and Poisons Act 1997* and the *1994 National Drug Policy* guide the provision of pharmaceuticals. The Act has been revised into two separate acts, the *Medicines and Poisons Act* and the *Pharmacy Profession Act*, expected to be passed in 2011. A revision of the *National Drug Policy* is expected to be submitted to Cabinet in August 2011. Fiji has a relatively well-developed pharmaceutical service. All public health facilities dispense pharmaceuticals. Out-of –stock drugs (stock-outs) are monitored monthly by the MoH. The MoH annual report for 2008 reported some improvement in supply for that year compared with the two previous years. Stock-out frequency was not reported in the 2009 Annual Report. Officers in charge of public hospitals and other health facilities are responsible for the day-to-day management of the public sector pharmacy outlets. All pharmaceuticals provided through public health facilities to individuals

are free. The MoH also supplies pharmaceuticals to the army, police and prisons at no cost. In 2010, per-capita government expenditure on pharmaceuticals was FJ$22.36.

The Fiji Pharmaceutical and Biomedical Services are centralized within the MoH. Its two main functions are to manage the Fiji Government Pharmacy Warehouse in procuring, storing and distributing drugs, medical supplies and consumables to health services, and to manage the Bulk Purchase Scheme that supplies drugs and medical supplies to the private sector and to small island states of the Pacific. The Bulk Purchase Scheme, established in 1981, operates on a commercial basis using a revolving accrual accounting system. Some private pharmacies, some private GPs and individuals use the Scheme for purchasing pharmaceuticals and other consumables, such as peritoneal fluids and diabetes testing kits.

The Ministry of Finance, through its normal budgetary allocation process, provides all finances for the supply of public sector pharmaceuticals, except in the case of international aid like that of the Global Fund, which provides a stock of antiretroviral drugs for the Pacific region through the Fiji Pharmaceutical Service.

Private sector pharmaceutical suppliers comprise one manufacturer, nine wholesalers selling prescription medicines, the Suva Private Hospital with its own private pharmacy, 45 private pharmacies and 125 GPs. Current legislation allows all GPs to maintain a small stock of pharmaceuticals for emergencies and certain GPs, who live more than five kilometres from a pharmacy, to dispense pharmaceuticals. No other entities are allowed to dispense pharmaceuticals. The quality of medicines procured in the private sector is not monitored, and doctors and pharmacists are legally entitled to import any medicine, except narcotics and other restricted substances, provided that the label states compliance with either the British Pharmacopoeia or United States Pharmacopoeia standards.

The Essential Drug List (EDL) is used by the MoH to standardize the 430 drugs available in the public sector, including 61 vital drugs. The List indicates the type of drugs that can be supplied at the different levels of health services. The three divisional hospitals are linked to the Fiji Pharmaceutical Service by the Epicor computerized inventory system

for monitoring stock levels and distribution, ordering, and reporting management-related information. The remainder of the public system orders and monitors stock levels of pharmaceuticals and supplies using a well-established paper-based system.

5.7 Rehabilitation care

Tamavua Hospital with 20 beds serves as Fiji's National Rehabilitation Medicine Hospital. It specializes in the rehabilitation of patients with spinal injuries, trauma related to motor vehicle accidents, amputation resulting from diabetes or limb injuries, paraplegia resulting from diving accidents and other physical conditions. In 2008, there were 98 new admissions to the NRMH, the largest number for amputations (42) and paraplegia (22). The Prosthetic Laboratory at the Tamavua Hospital provides prosthetic aids to patients at a reasonable cost. The aim of the rehabilitation programme is to provide rehabilitative treatment and to prevent deterioration, with the intention of discharging the patients as soon as practically possible.

At the subdivisional level, rehabilitation of patients is normally provided by physiotherapists. A cadre of community rehabilitation assistants (CRA) was trained in the early 1990s by the Save the Children Fund to care for children with physical disabilities under five years of age. About ten CRAs remain in the health system, working within the subdivisions. Rehabilitative care of patients requires aids, such as wheelchairs, walking aids, urinary catheters, bathing assistance aids, as well as prostheses. The MoH and donor agencies provide for these needs, as does the Fiji Red Cross Society, the Fiji Society for Disabled People and the Fiji Crippled Society. As the rate of motor vehicle accidents and diving injuries continue to increase, the need for rehabilitation services is also growing and extending to locations beyond Suva.

5.8 Long-term care, care for the aged and informal carers

The MoH provides long-term care, at no cost, in the specialized hospitals of Tamavua Hospital (for tuberculosis), Twomey Hospital (for leprosy), and Saint Giles (for mental illness). In 2008, the average length of stay was 38.5 days in Tamavua Hospital, 59.6 days in Twomey Hospital and 85 days in St Giles Hospital. For those with physical and intellectual disabilities, a small

number of privately-run residential homes are available. Hilton House for children and youths with learning disabilities is provided by the Fiji Crippled Children's Society.

While care for senior citizens has changed in the last decades because of social demands on the family, the place for this group of citizens is still generally seen, in the Fijian cultural context, as in their own homes rather than in old people's home or care for the aged facilities. Older people are highly valued and respected by their communities and families, so to remove them from their natural homes or villages would be culturally insensitive and demoralizing. Further, public aged-care facilities in Fiji are inadequate with only 115 places in the Samabula, Labasa and at Natabua Senior Citizens Homes, which are provided with government staff and funding for their operational costs. They are complemented by a limited number of places in a few privately-run homes.

As is culturally expected, many people with disabilities and chronic diseases and the elderly are cared for by their families in their own homes. There is, however, no information available to determine the number of people requiring long-term care, or the number of family or informal caregivers. There is no financial assistance provided by the state to support informal carers. Help Age is one organization that provides training to informal carers in the provision of basic daily living activities to support aged and disabled people. Some carers have certificates in caregiving, and perform these caring roles for people privately at homes. While people with chronic disabilities can access all medical facilities, there are no designated government facilities to cater to their special needs.

5.9 Palliative care

Palliative care for people who suffer from terminal diseases such as cancer has only recently been developed in Fiji. The MoH has a national cancer policy providing guidelines on the prevention and treatment of cancer. Currently, many patients still require overseas treatment for cancer that respond to radiotherapy and chemotherapy.

The three divisional hospitals have basic oncology units normally managed by oncology nurses that provide palliative care to inpatients. Discharged

patients are given a palliative care plan and pain relief medications at no cost. Patients are invited to access the hospital at any time they require assistance, and oncology nurses may visit homes as required. The role of the Fiji Cancer Society is recognized by the MoH and, through a memorandum of understanding, it has been allocated space at the Tamavua Hospital.

5.10 Mental health care

Mental health services remain centralized at the country's only psychiatric hospital, St. Giles. General adult psychiatric services are available, but there are no sub-specialist psychiatric services available for women, children and adolescents, geriatrics, post-traumatic stress, refugees, forensics, or for alcohol and other drug addictions. Community facilities such as residential facilities, respite care, day care, crisis intervention, psychosocial rehabilitation or vocational facilities are not yet available. St Giles provides mental health services in the community through the network of public health facilities. Government services are supplemented by NGOs that provide counselling and support services such as Pacific Counselling and Social Services, the Fiji Women's Crisis Centre, Fiji Council of Social Services and some faith-based organizations.

Most mental health specialists are based at St. Giles Hospital with the exception of a small number of mental health nurses based at other general health facilities and two psychiatrists at the Fiji School of Medicine. As of 2008, the MoH reported a staff to population ratio per 0.12 psychiatrists per 100 000 persons, 1.2 psychiatric nurses, 0.12 psychologists (all in the private sector), 0.12 physicians trained in mental health, and 12 nurses trained in mental health. At present, there is a dearth of allied mental health workers with no local psychiatric social workers, occupational therapists or psychologists in government service.

In recent years, the MoH has recognized the importance of developing mental health services and has adopted it as a health outcome indicator. Accordingly, new efforts have been made to strengthen existing clinical and community mental health services through the training of public health and mental health staff, community mental health outreach clinics provided at divisional hospitals and selected health centres, the revision of

current mental health legislation (Fiji Government 2010b), the development of mental health and suicide prevention strategic plans and policies, the endorsement to establish general hospital psychiatric units in the divisional hospitals and selected subdivisional hospitals, and the endorsement by Cabinet to develop a Pacific regional mental health facility with sub-specialist psychiatric clinical, education and research capabilities.

The establishment of the Mental Health Clinical Services Network has also been instrumental in bringing together the public health, medical and psychiatric staff to begin to develop standard clinical and treatment guidelines and referral protocols.

Fiji has been able to work more closely with other Pacific island country partners through the establishment of the Pacific islands Mental Health Network. The network aims to develop and improve mental health care through collaboration, cooperation and consultation to make mental health a priority, to positively impact on mental health consumers through advocacy and implementation of appropriate policies and legislation, and to improve mental health service delivery.

Progress has been made in reducing the stigma associated with mental health through community mental health education and awareness raising and the establishment of mental health advocacy groups, such as the Psychiatric Survivors' Association and more recently, the Youth Champs for Mental Health and the Fiji Association for Mental Health.

5.11 Dental care

The last National Oral Health Survey conducted in 2004 showed that oral health conditions were widely prevalent, with dental caries and periodontal diseases as the two most common. The National Oral Health Plan 2007-2011 sets the direction for improvement of oral health services and the oral health status of Fiji. The next National Oral Health Survey will be in 2012.

Dental health services are provided by both the public and private sector. The public sector provides generalist and specialist clinical oral health services at the three divisional hospitals, and dental facilities at all the 16 subdivisional hospitals, the three area medical hospitals and most of the

large health centres. There are 210 approved dentists and para-dental technicians providing oral health services. The number of dental staff in government has increased from 153 to 201 (from 1986 to 2008) and achieved a population ratio of 1:4375. Access by some communities in rural and remote areas remains poor. The cost of dental treatment in the public system is quite minimal, while that provided at Colonial War Memorial Hospital and at other selected hospitals and health centres is subsidized by the Fiji School of Medicine as part of its training programme for dental and medical students.

Oral health services are provided under four main areas: emergency services; preservative and conservative dentistry; oral health education; and specialized clinical dentistry, which includes oral surgery, prosthodontics, orthodontics, oral medicine, paediatric dentistry and forensic dentistry. In 2008, the three divisional hospitals reported that conservative procedures accounted for 57% of their total curative service; exodontias: 40%; and oral surgery: 3%. The high level of extractions remains a concern.

Community public dental services include oral health community outreach programmes and the school oral health programme, which provides health education and limited treatment to primary school children using mobile dental clinics. Prevention programmes based at the community level, such as fissure sealant and water fluoridation, have been in place for several years; however, survey results have not demonstrated any significant improvement in oral health status.

5.12 Complementary and alternative medicine

Fiji has a long history of traditional medicine based on theory, beliefs and experiences that are indigenous to the culture and have been handed down from generation to generation. In Fiji, this complementary medicine includes herbal medicine (including the use of seaweed), massage, diet, acupuncture, traditional birthing practices, and bone setting. Medicinal plants are used by an estimated 80% of the population, especially in remote areas where access to health services is difficult and where there is also a strong cultural interest in traditional herbal therapy. No information is available to determine whether the use of traditional medicine is increasing

or decreasing. The 2007-2008 National Health Accounts valued its contribution at FJ$ 1.6 million, less than 1% of total health expenditure.

As complementary and alternative medicines play an important role in health care, safety, efficacy and quality control have become important concerns. Despite the high commercial value of herbal medicines, there is a lack of common international standards and methods for evaluating their safety and efficacy. Much of the work on traditional medicine in Fiji has been carried out by the University of the South Pacific and NGOs such as a women's health group known as the 'Wainimate'. Currently, there is no regulation of herbal medicine in Fiji.

In 2000, the Cabinet agreed to the development of a traditional medicine policy by the MoH. In 2001, a number of working groups were set up following a national workshop to discuss issues such as safety, efficacy, legal and intellectual property rights, registration of healers, practitioners and conservators, and overall management and integration. Despite these early efforts, to date there is no policy in place, which limits the role that traditional medicine can play in health service delivery.

5.13 Health care for specific populations

Special services are provided by the government and NGOs (some with government support) for particular population groups. These include young people seeking reproductive health services, street children, commercial sex workers, prisoners, ex-military personnel and people living with HIV and AIDS.

6 Principal health care reforms

6.1 Section summary

Aspects of the health system have been reviewed and reforms recommended since the 1970s, including by select committees and special commissions. Many of the themes taken up in earlier reviews remain valid today. For example, a 1979 report focused on delegating responsibility, human resource challenges and encouraging the use of outpatient facilities, all issues that are still relevant. Similar themes, with a focus on hospitals, were taken up in 1982 and in the 1990s, recommendations were made on financing and, once again, on decentralization. Following the 1997 recommendations, a comprehensive five-year reform project was initiated within the context of changes across the whole government. This concentrated on decentralizing management of the health system and building management capacity.

A change of government in 1999 brought the government-wide changes to an end, followed by the 2000 coup d'état, which severely constrained reform in the health sector. But some decentralization, however, was achieved with powers delegated to chief executive officers at divisional level. Support for decentralization, improved community and rural health services, rural health service delivery and human resource development continued under a new programme beginning in 2005. In 2008, nevertheless, many of the decentralization reforms were reversed, some before they could take hold. In any event, a decade of efforts at reform is judged to have produced beneficial change despite the disruptions.

Further reform of the health sector is needed. Two areas are a particular challenge for the future. First, reforms are needed in the production, distribution and retention of human resources across all groups of health professionals. Second, long-term reform of the health financing

system is needed to ensure that health funding remains adequate and sustainable.

6.2 Historical perspective

Since the late 1970s, a series of reviews of different aspects of the health sector in Fiji have recommended reform. While a number of these recommendations were taken up, and the context in which the health system operates has evolved, many still remain relevant today. The Report of the Select Committee of Inquiry into Health Services in Fiji (Fiji Government 1979a) found that planning responsibility was rarely delegated from MoH headquarters, including for control of hospital staff postings and transfers, and that hospital administrators had minimal influence over hospital expenditure. It also found that Colonial War Memorial Hospital administration was weak and of low calibre. The report identified poor staff morale, high staff turnover, high rates of transfer and inadequate numbers of staff as issues of concern. The Select Committee recommended that authority be delegated from the headquarters to workers in charge of hospitals and further highlighted the need of decentralizing services and of encouraging patients to utilize outpatient clinics at peripheral health centres and subdivisional hospitals.

The Coombe Report (1982) was directed to improving hospital standards through new administrative arrangements, and placed particular emphasis on human resources, proposing the delegation of duties from MoH headquarters to divisional structures, which would provide a career structure for health professionals, improve general human resources management and raise hospital standards. The 1993 World Development Report (World Bank 1993) examined problems of health sector financing and recommended to government that efforts should be made to develop a strategic focus and ensure coordination and direction of donor funding according to national priorities. An Auditor General's Report (1996) and a Senate Select Review Committee (1997) both highlighted the management problems faced by the MoH due to its complex organizational structure, unmanageable span of control and lengthy chain of command. Importantly, the report also pointed out that the MoH lacked the autonomy to decide on matters such as personnel and finance. As a result of these findings and the ongoing concerns for the management of CWMH, a WHO mission to

review divisional hospital management took place in 1997. In consultation with the MoH, the review's terms of reference were extended to include the Ministry of Health headquarters. Soon after, Dunn (1997) recommended the redefinition of the role of MoH headquarters, the transformation of divisional hospitals into decentralized business units, the redrafting of legislation and the revision of centralized processes of finance, human resources management and information systems, as well as supply and maintenance.

6.3 Analysis of recent reforms

These recommendations for decentralizing management authority and responsibility to the divisional levels formed the rationale for the Fiji Health Management Reform Project 1999-2004, a partnership of the Government of Fiji and the Government of Australia. The goal was to improve health service delivery in Fiji through decentralization and building management capacity within the health sector, within a wider 'whole of government' reform being planned by the government at that time.

Soon after commencement of the project, the national election of March 1999 produced a change in government, which effectively stopped the prior government's 'whole of government' reform plans. As the Ministry of Finance and the Public Service Commission reform plans then ceased, the potential to implement the health management reform project as designed was consequently constrained. After a year of policy inactivity, in March 2000, a coup d'état further disrupted plans. Management reform activities thereafter were reduced to management strengthening and the decentralization of a limited number of MoH roles through delegations to divisional chief executive officers. A subsequent phase of AusAID funding to the health sector, from 2005 to 2010, was implemented as the Fiji Health Sector Improvement Programme, which aimed to support continued decentralization of the MoH and to strengthen selected divisional level community health services, rural health service delivery and human resource development.

A recent study shows that both reform programmes were welcomed by staff and empowered them to make decisions at the local level that aided the improvement of the delivery of health services. Support to strengthening

the divisional structures to meet health needs of the community was also widely appreciated (Mohammed, 2010). Although the aim of devolving centralized authority to new divisional authorities within the context of whole of government reform was not fully achieved, the project did facilitate new responsibilities for divisional medical officers/CEOs and the decentralization of selected administrative functions.

In 2008, many of the decentralization reforms were reversed, in some cases before structural reform had taken place to consolidate them. The 'rollback' of the health sector reforms was ostensibly due to the higher cost of the decentralized structure. It was also due to a belief that recentralization of power would improve the efficiency of the services. The title of CEO reverted to the prior title of permanent secretary and health system management was recentralized. The Public Service Commission withdrew the delegation of authority for CEOs at different levels to hire certain categories of staff. The recentralization of these responsibilities has worked against the recommendations of multiple reports and the objectives and achievements of the reform process. Nevertheless, it is clear that Fiji has retained some essential elements of a decentralized model, even though it has recentralized policy making, decision-making and reporting.

6.4 Future developments

Significant reform of the health sector is not foreseen in the immediate future. Inevitably, this has an impact on the nature of planned external support to the sector. AusAID support to the health sector for the period 2011-2014, for example, will focus more directly on Millenium Development Goal (MDG) 4 (reduce the under-five mortality rate by two-thirds)) and MDG 5 (reduce the maternal mortality rate by three-quarters). It will also focus on reducing the prevalence of diabetes mellitus and other non-communicable diseases, and strengthening information systems rather than supporting broad sectoral reforms as in the past. AusAID will also support the collaboration between technical agencies and NGOs and the MoH to achieve national health objectives that the Ministry is not able to achieve on its own.

Another area of current effort is revitalization of primary health care. Fiji has been active in this area over many years, with a particular emphasis

on community environmental health and health promotion. In the face of the growing burden of non-communicable diseases, there is now an effort to increase health promotion and preventive care, recognizing that this is a more cost-effective way of addressing this challenge than expensive curative care.

One area that is expected to receive more attention in the immediate future is human resources due to the major constraints imposed on service delivery, and human resource development itself, by staff shortages, partly as a consequence of the emigration of skilled personnel. Training programmes will be further developed to increase the output of health professions, particularly in medicine, postgraduate medicine, specialist ICU and paediatric nursing, laboratory science and public health. Concurrently, policy alternatives will be developed that aim to improve the retention of health professionals in Fiji and to address the issues of career path, salaries, working conditions and international networking.

Health financing is another area of expected development, including the establishment of the system and resources for completing periodic National Health Accounts to inform financing policy. Health systems research is to be further developed to assist management of the health system through a period of difficult economic conditions, where demand is increasing while resources are constrained.

7 Assessment of health care system

7.1 Section summary

This section presents an assessment of the Fiji health system using a set of internationally recognized criteria and drawing from material presented in previous sections. This assessment proposes that the strength of the Fiji health system is its foundation on a primary health care model. This foundation clearly needs strengthening since increasing numbers of people now go directly to tertiary level institutions. This is a result of urban migration, coupled with some dissatisfaction and disconnectedness with urban primary health care services, and an apparent desire to receive an array of services in one place. Because health services have been essentially free of charge, the health system has been exposed to the moral hazard of overuse. By international comparisons, the health system is relatively underfunded, placing an inevitable tension on service quality.

MoH policy relies largely on the projected success of primary health care, health promotion and disease prevention to achieve health outcomes and to contain the potential for rising curative care costs. Existing evidence suggests, however, that health promotion and disease prevention services are not yet effective in reversing the trends regarding risk factors and chronic disease incidence. This is more visible in the case of an urbanizing population where the social cohesion and authority that allowed for the success of primary care in villages and settlements is no longer there to the same degree.

Few studies have been conducted to ascertain the performance of the Fiji health system as a whole. The WHO, using a defined set of criteria, ranked Fiji at 96 on the measure of overall health system performance in the year 2000. This placed Fiji on the bottom half of the international scale, but as the second highest country in comparison to other Pacific island countries.

Recent indications show that non-communicable disease risk factors and behaviours have not decreased, that life expectancy has decreased and that injury and trauma have increased. At the same time, Fiji has experienced several recent outbreaks of communicable diseases. Simultaneously, out-of-pocket expenditure has increased along with poverty. There are high rates of emigration of health professionals, yet little has been done to improve career structures and retirement age has recently been decreased from 60 years to 55. There appears to be few constructive policy responses to the issue of human resources for health, and the costs of training sufficient numbers of staff in order to retain an adequate workforce in Fiji will inevitably increase.

Health budgets have remained static, although costs have risen. The MoH has introduced measures to raise revenue through a revision of user charges in government health facilities and to divert people from going directly to the tertiary level by extending the opening hours of the peri-urban health centres. These are the first among many adjustments needed to the model of free health care upon which the Fiji health sector is built.

The Fiji health system has both strengths and weaknesses and is constantly ungoing change. Reform has been faltering but continues, including a revitalization of primary health care.

7.2 Stated objectives of the health system

The overarching goal of the government for the health sector is to provide: *quality, affordable and efficient health services for all.* There are two strategic objectives flowing from this goal:

- Strategic objective 1: Provide communities with adequate primary and preventive health services, thereby protecting, promoting and supporting their well-being.
- Strategic objective 2: Provide communities access to effective, efficient and quality clinical health care and rehabilitation services.

In addressing the goal and the strategic objectives of the health sector, the MoH emphasizes its strategic themes of: *provision of health services, protection of health, promotion of health, productivity in health, and people in health*.

The Ministry is planning to establish a health policy commission and to develop policy on health care financing, maternal and child health, reduction of non-communicable diseases and expansion of tertiary health care services. Improvements to the delivery of health services will continue to be pursued by the MoH and in partnership with key stakeholders, including the private sector and development partners. The Ministry will also continue with training of personnel to address critical staff shortages in health institutions, together with improved provision of pharmaceuticals and biomedical equipment, and the maintenance and upgrading of health facilities. The MoH is also considering how to improve services to the aged/elderly and those with chronic illnesses (Ministry of Health Corporate Plan, 2010).

7.3 Equity

The MoH affirms the right of every citizen of Fiji, irrespective of geographical location, cultural background or economic status, to equal access to a national health system that provides health services for all in need of care. In principle, this means universal coverage for most available services. In practice, however, some barriers (geographic, social and financial) exist that limit equity in access to health care. While no studies have been conducted to assess access to and use of health services by different socioeconomic or cultural groups, it is likely that social barriers may limit utilization of services by some population groups, even when they are accessible. Once a patient has entered the health system, however, a high degree of equity in access to clinical services exists, with those who need more services generally being able to obtain them.

Equity in financing

The health system is largely government financed through general taxation revenues, so financing is, in essence, both progressive and proportional. Given that those who earn more income pay more tax, and those who earn less than FJ$15,000 per annum pay no tax, a degree of vertical equity exists in the financing of the health system. However, those who earn more are more easily able to access private health insurance and private sector services in addition to public services. Those less well-off would need to pay a significant proportion of their income to access health insurance and the private sector; so for many, they are simply unaffordable.

Some degree of finance-related inequity in access to services arises from the need for rural populations to travel to urban centres in order to access higher-level services; this is especially true for remote island populations. While the benefits of services are available to all, the costs of transport to, and accommodation in, urban areas are additional costs that urban dwellers do not have to pay. These costs are not subsidized by the government.

Programmes financed by external funds, such as immunization and visiting specialist services, generally strive to ensure that all sectors of the population have access to them at no cost.

As public (and donor) funding for overseas treatment are inadequate to meet demand, as evidenced by occasional direct calls for donations made by families, it is reasonable to assume that those who are unable to access the government-funded scheme may face some degree of catastrophic or impoverishing health expenditure in accessing such care. Of the 274 persons who accessed the MoH overseas treatment scheme from 2006 to 2009, 77% were Indo-Fijians. This is a higher proportion than their representation in the general population; this may reflect different disease and care-seeking patterns rather than any bias in the approval process.

Equity in provision of services

In a country where the population is dispersed across an archipelago of more than 300 islands, one third of which are permanently inhabited, but also with the highest proportion of urban inhabitants of the Pacific island countries, inequities in the provision of services are inevitable. The highly dispersed rural primary health care (PHC) system was designed to provide equitable access, but now available services vary, in part because not all health centres have medical officers. The ratio of nurses to the population is higher in the rural areas than in urban areas. Equity across urban and rural facilities, however, is complicated by urban migration of the population without a commensurate increase in health staff, which has adversely affected service provision in some urban areas. Overall, access to treatment for minor complaints can be considered to be equitable, but access to the diagnosis and management of more serious conditions is increasingly less so.

Access to specialist health services and care for chronic diseases is not equitable. The recent establishment of the nation's only renal dialysis unit in Suva is an important attempt to address the needs of patients with ongoing renal failure, but the cost of dialysis is not fully covered by the government, and is unaffordable for many. The health needs of the chronically ill pose a continuing challenge to the Fiji health care system. Services for the aged, mentally ill and physically and intellectually disabled are not widely available across the country. Psychiatric care is focused in Suva, although recent attempts have been made to increase the number of psychiatric nurses in the divisions, and mental health beds in the divisional hospitals. The strength of the extended family in rural areas helps to address the lack of care for these groups, but as urbanization increases and the proportion of extended families living together decreases, the need for public provision of such services grows.

While there are a variety of health programmes and services that have been specifically created for women, children and adolescents, few special services are available for adult males.

Equity in health outcomes

Few data are available that allow comparisons of health outcomes by socioeconomic or other population characteristics. The two major ethnic groups have maintained much of their lifestyle and dietary differences, and consequently, have differing epidemiological profiles. Data for 2009 (Ministry of Health, 2009b) show that Fijians are more prone to infectious and parasitic diseases, while Indo-Fijians are susceptible to diseases of the circulatory system. The suicide rate for Indo-Fijians (24 per 100 000) well exceeds that of Fijians (4 per 100 000). Morbidity and mortality data for 2009 disaggregated by race, sex and age-group shows a male gender bias in 'poisoning, injury and death consequent to external causes', diseases of the digestive system and diseases of the skin and subcutaneous tissue, while females have more diseases of the genitourinary system Of note is that females have greater frequency of contact with health services than males, with most contacts during the reproductive period, 15-44 years. Paternity leave for men is not yet formalized in employment conditions in Fiji. Of the HIV-positive population, in 2007, 56% were male and 81% were Fijians. (MoH, 2007e).

7.4 Efficiency of resource allocation

Government funding accounts for approximately 70% of total health expenditure. A high proportion is spent on curative care, while spending on health promotion and prevention appears to be inadequate. Limited data on the distribution of costs and benefits across different population groups, disease types, and health interventions, as well as the slow development of systemized epidemiological and service utilization databases, limit the evidence for resource allocation adjustments.

The National Health Accounts (NHA) report for 2007-2008 (Ministry of Health, 2010) shows that hospitals received more than 50% of total health expenditure. Trends in hospital performance indicators forecast the increasing use of curative services and consequent stress on resources. In the period 2003-2008, the average length of stay in hospital increased from 4.5 to 6.3 days (MoH Annual Reports 2003-2008), while total hospital admissions also increased, rising from 59 950 in 2001 to 71 166 in 2008, a 19% increase, compared to a 4.5% population increase over the same period. Efficiency in the use of limited resources is now a management imperative, as government expenditure ceilings are fixed. While some items of the MoH budget are underspent at the end of the year, other budget lines are depleted before the year ends.

The NHA report and a costing study planned for 2011 will contribute to a better understanding of resource use and should lead to improved budgeting. Costing the components of the health system has not been conducted for over a decade, and, until recently, the schedule of user fees had not been revised for more than 20 years. Most budget requests are based on allocations and performance from the previous year, which is constrained by the limited capacity of the MoH to spend in some areas.

Efficiency should increase through the implementation of the Clinical Services Planning Framework, which provides models of care and delineates the roles of the various levels of services, their staffing and equipment needs. As the Framework is rolled out, it will increasingly determine the nature of the health system and its resource needs, and when implemented with systems for assets management, as planned, efficiency should improve.

The MoH has the technical capabilities to produce health promotion campaigns and provide health education materials, to increase public understanding of disease prevention and healthy lifestyles. The WHO 'settings approach' has been used to engage communities in various health promoting activities and radio health programmes are broadcast weekly. Yet the prevalence of obesity, other risk factors and NCDs are all increasing. The National Health Promotion Council has failed to achieve effective intersectoral action from its vertically structured stakeholders. The OPIC project was unable to identify an effect from its health promotion activities over five years, suggesting that the 'dose' was insufficient to produce a response. These and other findings suggest that health promotion needs to be far more intensive and supported by much greater financial resources than it is currently.

Donors provide core and project-specific funding and also provide technical advice. The timely use of donor funds depends on the absorptive capacities of the MoH and health sector NGO recipients. Some donors direct funding to specific health interventions, such as those aimed at the achievement of particular MDG targets. Dealing with multiple donor partner activities tends to overwhelm the available MoH management capacity and reduces administrative efficiency. As 'harmonization' of donor activities progresses, efficiency gains can be anticipated through greater coordination and less duplication.

7.5 Technical efficiency

The technical efficiency of hospitals has been compromised over many years by inadequate investment in health infrastructure upgrading and maintenance. This has been compounded by the purchase and donation of biomedical equipment from a variety of sources, without a coherent plan for the maintenance and supply of consumables, parts and trained technicians. The lack of a cadre of trained hospital administrators has also impacted on technical efficiency, as many issues of organizational inefficiency in hospitals have never been properly addressed. The technical efficiency and clinical efficacy of the national pharmaceutical supply has not been assessed for many years, potentially leading to unnecessarily long treatments and extending the average length of stay in hospitals.

Questions remain on the technical efficiency of human resource management. Lack of attractive career structures for health professionals in the public sector and inadequate budget for salaries may constrain productivity. The cost of increasing remuneration to specialists, for example, may be much less than the lost investment in specialists who migrate overseas, but no assessment has been made of this issue. Efficiency gains may have been achieved by the introduction of nurse practitioners who provide services in many health centres where doctors are not available, but no assessment has been conducted comparing costs and services provided. There are no incentives or provisions for productivity for health workers or managers based on improving technical efficiency.

In the absence of evidence to support improvements in efficiency, most efficiency gains are the result of improved resource use by individual managers, rather than systematic changes aimed at increasing technical efficiency and improved health outcomes.

7.6 Quality of care and patient safety

In 2003, the MoH established the Division of Health System Standards as an integral part of its health management reform with the aim of integrating quality improvement initiatives with the promotion of a culture of safety. A framework on clinical governance based on quality improvement, risk management and customer satisfaction was also developed (Ministry of Health, 2005b). The year 2006 was launched as the Year of Patient Safety with a number of focus areas that included clinical incident reporting and management, infection control and the safety of the blood system, medications and injections. Building on these initiatives, the Fiji health system continues to develop its systems of care to minimize risks to patients. However, while clinical indicator data are available to monitor health outcomes and quality of care, their analysis remains limited.

The quality of clinical care in Fiji's hospitals is in part related to the quality of the Fiji School of Medicine training programmes in undergraduate and postgraduate medicine. Academic staff of the School are internationally trained and students are examined by external examiners often from international specialist professional bodies. Teaching staff also contribute to setting standards of care by their consultant specialist services at

the CWMH and Lautoka Hospital where students are taught. Therefore, shortages of specialist senior medical and nursing staff have impacted on service quality, standard setting and the training and mentoring of students. This situation is exacerbated by the fact that there are limited opportunities and incentives for clinical staff to build careers in Fiji.

Periodically, the MoH faces litigation related to quality of care and patient safety. The Medical and Dental Practitioner's Decree 2010 requires clinicians to arrange indemnity insurance, which is currently negotiated through the MoH.

7.7 Responsiveness

Over a number of years, Fiji health services have not responded to needs at a level consistent with the nation's economic status. During years of economic growth, the proportion of GDP committed to health remained low. The need for its increase has been acknowledged by the Government in the People's Charter for Change, Peace and Progress (2008), in which Pillar 10 includes 'increase [health] financing as a proportion of GDP by 0.5% annually to 7% within the next 10 years'. Unfortunately, the increase has not been possible in the last year or in the current year's budget.

Assessments of patient satisfaction made since 2005 have been derived from surveys of patients in waiting rooms, mainly in the larger urban health facilities, and do not reflect well the general community's views on the responsiveness of health services. They have shown that, overall, people are 'somewhat satisfied' with the health services provided by government. Anecdotally, public perceptions of the acceptability of the health services vary widely across sub-groups of society. In the past, most people accepted the system's shortcomings, in a 'Pacific way', taking what comes without complaint. This is changing as the population becomes more aware of its rights, including in health.

Increasing use of divisional hospitals suggests that people are not satisfied with services available at urban health centres. The greater use of hospitals has resulted in long waiting times and possible stock-out of essential items in general outpatient departments, which has contributed to a perception of poor quality of services in the public sector. This situation is attributed

to system management weaknesses and is being addressed by extending hours and staffing of urban health centres.

Providing quality health services to the satisfaction of the public is one of the four elements of Fiji´s Clinical Governance Framework.

7.8 Transparency and accountability

In general, policy development by the MoH involves wide consultation with the health professions and other stakeholders, including the UN and other development agencies. Draft legislation related to health issues is presented to stakeholder interest groups for discussion and proposed amendments.

Procedures for purchasing capital equipment and pharmaceuticals have been reviewed in recent years to achieve efficiencies in purchasing and those derived from standardization. This has also led to greater transparency in processes and better control of corruption.

Occasionally, cases of alleged medical misconduct, especially those that result in unexpected death, achieve public notice. Media reports have drawn attention to the fact that certain cases have been very slow to resolve. This view has to be balanced with recognition of the need for due process as the consequences of conviction for medical practitioners are severe.

7.9 Contributions to health improvement

There are few data available to assess the impact of health system changes on health improvement. As the previous sections of this report have described, the reality of health service provision and trends in health outcomes are dynamic. Improvements have been made in some areas of the system and services have expanded, while in others, inadequate investment or lack of policy reform has resulted in reduced services. It is reasonable to assume that the impact on the health of the population has also been mixed. Basic level health services are widely available and service enhancements continue to be made. Specialist care is fragile and continues to depend on visiting specialists or expensive overseas evacuation for many types of more specialized care. Inadequate investment

in health promotion and prevention have allowed risk factors for chronic disease and their incidence to increase. As one example of improved services, immunization rates have improved in recent years and been maintained at levels among the highest in the world. There are several areas of community health that appear to have been managed well, although evidence for health improvements is not yet available.

In a number of areas, maintaining services at a level that can be expected to have a health impact is dependent, in part, on development partner support to the MoH or to NGO partners. These include: immunization; adolescent reproductive health; HIV prevention; filariasis elimination and communicable diseases surveillance; and outbreak response (for example, to control outbreaks of measles, typhoid and dengue fever).

8 Conclusions

Fiji achieved a high level of population health coverage through innovative primary health care initiatives in the 1970s. Forty years later, culture, mobility-- including a move to urban areas-- and access to services have all changed. Patterns of societal behaviour and individual lifestyles have changed too, along with the diseases associated with them. These changes all require the health system to adapt, a challenge which is all the more difficult in a period of slow economic growth. The financial challenge is compounded by dependence on taxation revenue and limited prospects for introducing health insurance or greater private spending.

The health system, with centralized policy authority and administrative control, decentralized services and revitalized primary health care, can increase its effectiveness if greater decision- making authority is delegated to the point of service delivery. In recent years, some decentralization has been retracted, indicating the consolidation of centralization. Yet, the health sector is in a fluid state, with reforms on hold or as yet incomplete; it can be anticipated that the issue of decentralization will re-emerge from the revitalization of primary health care.

The migration of health professionals presents the greatest ongoing threat to service effectiveness and one cross-cutting issue that the health sector must address. Discouraging migration will require innovation in terms of career structures and other incentives for health professionals, while counteracting its consequences will require a greater investment in training and access to clinical training programmes supported by international professional associations.

As in other Pacific island countries, the increase in non-communicable diseases highlights the need for Fiji to create policies and environments that encourage individuals to adopt healthier lifestyles, while also

responding to the continuing needs of those whose illnesses become chronic.

The Fiji health system fares relatively well in comparison with its Pacific neighbours but, like them, it faces many challenges that will require it to be continuously adaptive to new circumstances in order to ensure that it meets the increasing demands and needs of the population.

9 Appendices

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9.2 Further reading

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9.3 Websites

For Fiji Ministry of Health reports:
http://www.health.gov.fj/reports--plans.html

9.4 HiT methodology and production process

HiTs are produced by country experts in collaboration with an external editor and the Secretariat of the Asia Pacific Observatory, based in WHO's Western Pacific Regional Office in Manila. HITS are based on a template that, revised periodically, provides detailed guidelines and specific questions, definitions, suggestions for data sources and examples needed to compile reviews. While the template offers a comprehensive set of questions, it is intended to be used in a flexible way to allow authors and editors to adapt it to their particular national context. The most recent template is available online at: http://www.euro.who.int/en/home/projects/observatory/publications/health-system-profiles-hits/hit-template-2010.

Authors draw on multiple data sources for the compilation of HiTs, ranging from national statistics, national and regional policy documents to published literature. Data are drawn from information collected by national statistical bureaux and health ministries. Furthermore, international data sources may be incorporated, such as theWorld Development Indicators of the World Bank.

In addition to the information and data provided by the country experts, WHO supplies quantitative data in the form of a set of standard comparative figures for each country, drawing on the Western Pacific Country Health Information Profiles (CHIPs) and the WHO Statistical Information System (WHOSIS). HiT authors are encouraged to discuss the data in the text in detail, including the standard figures prepared by the Observatory staff, especially if there are concerns about discrepancies between the data available from different sources.

The quality of HiTs is of real importance since they inform policy-making and meta-analysis. HiTs are the subject of wide consultation throughout the writing and editing process, which involves multiple iterations. They are then subject to the following.

- A rigorous review process consisting of at three stages. Initially the text of the HiT is checked, reviewed and approved by the Observatory Secretariat. It is then sent for review to at least two independent experts, and their comments and amendments are incorporated into the text, and modifications are made accordingly. The text is then submitted to the relevant ministry of health, or appropriate authority, and policy-makers within those bodies are to check for factual errors within the HiT.
- There are further efforts to ensure quality while the report is finalized that focus on copy-editing and proofreading.
- HiTs are disseminated (hard copies, electronic publication, translations and launches). The editor supports the authors throughout the production process and in close consultation with the authors ensures that all stages of the process are taken forward as effectively as possible.

9.5 About the authors

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Jim Tulloch has spent 35 years working in international health in over 50 countries of the developing world, including early career involvement in smallpox eradication in Bangladesh and malaria research in Papua New Guinea. From 1984 to 1999 worked with WHO HQ in Geneva on different child health and disease control programs, including as Director for Child and Adolescent Health and Development. He coordinated for WHO the conception, research, development and initial implementation of the WHO/UNICEF strategy of integrated management of childhood illness (IMCI); and, was head of health for the UN Transitional Administration in East Timor in 2000-2001 and WHO Representative in Cambodia from 2002 to 2005. From then until 2009, he served as Principal Health Adviser at AusAID in Canberra.

The **Asia Pacific Observatory on Health Systems and Policies** is a collaborative partnership which supports and promotes evidence-based health policy making in the Asia Pacific Region. Based in WHO's Regional Office for the Western Pacific it brings together governments, international agencies, foundations, civil society and the research community with the aim of linking systematic and scientific analysis of health systems in the Asia Pacific Region with the decision-makers who shape policy and practice.

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