

Fiji: Tracking Progress in Maternal and Child Survival



A Case Study Report, 2013

Tracking Progress in Maternal and Child Survival, Case Study Report for Fiji, July 2013

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United Nations Children's Fund
3rd & 5th Floors, FDB Building
360 Victoria Parade,
Suva, Fiji

Email: suva@unicef.org
www.unicef.org/pacificislands

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Abstract

This document reports on the status of reproductive, maternal, newborn, child and adolescent health achievements and challenges experienced in Fiji to fully achieve the targets of the health-related Millennium Development Goals as outlined in the Fiji National Strategic Plan.

Achievements

Fiji has made progress in several areas of health care:

- Long-established health system based on the primary care concept.
- High-quality training for health workers.
- High coverage and services usage since 1990.
- Notable rate declines in infant (40%), child (44%), and maternal mortality ratio (37%) since 1990.

Challenges

Fiji faces the following challenges to improve the nation's health care:

- Funding for staff to meet workload and retention of experienced health staff.
- Primary health care concept revitalization to reach community level.
- Attention to family planning and nutrition.
- Improved monitoring and evaluation for policy development and performance management.

Recommendations

The report offers the following recommendations:

- Rebuild village and community health networks, increase outreach, and deliver services closer to the population.
- Increase coverage and quality of care for pregnancy, childbirth and early postnatal period.
- Expand integrated management of childhood illness, emergency obstetric, newborn care and life-saving skills training.
- Strengthen the delivery of comprehensive approach to family planning.
- Strengthen the use of data to monitor and manage performance.

Keywords: Fiji; Millennium Development Goals; women's and children's health; reproductive, maternal, newborn, child and adolescent health

Cover: Mother and her baby attended the National Immunization and Breastfeeding week celebrations

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List of Abbreviations

ACSD	Accelerated Child Survival and Development Report
AusAID	Australian Agency for International Development
EmONC	emergency obstetric and newborn care
FHSSP	Fiji Health Sector Support Programme
GAVI	Global Alliance of Vaccines and Immunisations
GDP	gross domestic product
HIV	human immunodeficiency virus
HPV	human papillomavirus
IMCI	Integrated Management of Childhood Illness
IMR	infant mortality rate
MDG	Millennium Development Goals
MMR	maternal mortality ratio
MNCH	maternal, newborn and child health
MOH	Ministry of Health
U5MR	under age 5 mortality rate
UNICEF	United Nations Children's Fund
UNFPA	United Nations Population Fund
WHO	World Health Organisation

Executive Summary

Fiji, one of the most urbanised of the Pacific Island countries, is a middle-income nation with a developed but deteriorating infrastructure and economy. Fiji faces many challenges to meet a rising demand for health care from its highly dispersed, mobile population during a time of slow economic growth. For two decades, Fiji made great strides to improve the health and wellbeing of women and children. From 1990 to 2010, the mortality rate for children under age 5 fell by 44%, the infant mortality rate by 40% and the maternal mortality ratio by 37%. Death rates of children aged 1–5 years are now low but half of under age 5 deaths occur in the first year of life, with most occurring in the first month. Reproductive, maternal, newborn, child and adolescent health are firmly embedded in Health Outcomes 3, 4 and 5 of the Fiji National Health strategic Plan, 2011–2015. In the last decade, however, the rate of improvement has slowed, and Fiji faces many health care challenges that derive from restricted resources for the health system and its performance.

This document reports on the status of reproductive, maternal, newborn, child and adolescent health achievements and challenges experienced in Fiji to fully achieve the targets of the health-related Millennium Development Goals as outlined in the Fiji National Strategic Plan.

ACHIEVEMENTS

- **A long-established health system based on the primary care concept**
- **High-quality training for health workers**
- **High coverage and services usage since 1990**
- **Notable rate decline in infant (40%), child (44%), and maternal mortality (37%) since 1990**

Fiji provides relatively equitable access to health care through an extensive network of services that have achieved major reductions in maternal and child mortality. As a result, Fiji enjoys a good standard of health and compares well with other Pacific island countries. The nation's well-developed health system is based on a primary health care concept and a long-established hierarchy of services from village health

worker to specialist hospital. Fiji has applied best practices in many areas, introduced new vaccines, rolled out integrated management of childhood illnesses and strengthened obstetric and pediatric care in hospitals. They are bolstering the public health information system to provide near real-time information to improve monitoring and performance of programs, and they have demonstrated imaginative approaches to improve obstetric care through a mentorship and support program.



Mother and her healthy baby attending National Immunisation and breastfeeding week celebrations

Among Fiji's demonstrated successes are these: 99% of women now deliver in a health facility supported by a skilled birth attendant, 80% deliver in a divisional hospital, and 99% of women receive antenatal care. Immunization coverage is high for all vaccines, with 94% measles vaccine coverage in 2012 and no outbreak since 2006. The introduction of pneumococcal and rotavirus vaccines in 2012 is expected to further reduce the burden of pneumonia, meningitis and diarrhoea.

CHALLENGES

- **Funding for staff to meet workload and retention of experienced health staff**
- **Primary health care concept revitalization to reach community level**
- **Focused attention on family planning and nutrition**
- **Improved monitoring and evaluation for policy development and performance management**

Internal political tensions have slowed economic growth and the rate of health care improvement. Unemployment has increased, with unemployment rates culturally disproportionate and twice as high for females as for males. Gross domestic product per capita in 2009 reverted to 2002 levels. Remoteness of villages, geographic barriers, limited and costly transportation and a lack of resources affect the equity of access to health care and are a critical factor in newborn survival.

Government budget allocations for health have remained relatively constant despite increased demand and higher health care costs. The national health budget is low and disproportionately allocated to curative care in hospitals. Out-of-pocket health expenditure in 2008 accounted for 24% of household income. The Ministry of Health maintains free universal health care with a small but growing private sector.

A review of child and maternal health services in 2010 highlighted a number of constraints: A high incidence of late presentation for antenatal checks; delays in seeking health care and referrals from subdivisional hospitals; transport barriers for patients that visit health facilities and for staff undertaking outreach; few standardized protocols and guidelines for nursing and medical staff at nursing stations, health centers and subdivisional hospitals; a weak system for monitoring and evaluating services; minimal community-level support that results in low rates of breastfeeding and other informed decisions on child care; and limited health promotional materials to encourage seeking earlier care.

Micronutrient deficiencies are a major public health problem. Iron deficiency anemia affects up to half of all children aged 5 years and younger, with 2008 rates the same as 1993. Consistent with global trends, anemia is more prevalent in children aged 6–23 months than in those aged 2–5 years. Gender provides no marked difference, but higher rates are prevalent by cultural group.

RECOMMENDATIONS

- **Rebuild village and community health networks, increase outreach, and deliver services closer to the population**
- **Increase coverage and quality of care for pregnancy, childbirth and early postnatal period**
- **Expand integrated management of childhood illness, emergency obstetric newborn care and life-saving skills training**
- **Encourage use of data to monitor and manage performance**
- **Need to strengthen the family planning programming using a comprehensive approach**



Young girl and her grandmother with a nurse at a medical Centre in Suva

Context and Current Status of Reproductive, Maternal, Newborn, Child and Adolescent Health in Fiji

BACKGROUND

This document reports on the status of reproductive, maternal, newborn, child and adolescent health achievements and challenges experienced in the Fiji to fully achieve the targets of the health-related Millennium Development Goals as outlined in Fiji National Strategic Plan.

Fiji has incorporated maternal, newborn and child health (MNCH) interventions into national development and health strategic frameworks and, with partners, prioritised funding and technical support in this area. Focus for the post-2015 period for MNCH should be based on evidence and analysis of interventions that have worked and recommendations for scaling up. This document summarises results of a recent consultative process with the Ministry of Health and key stakeholders for maternal and child health in Fiji. It summarises available data on health care progress in Fiji and identifies key contributing factors in successful and innovative practices and the challenges that remain. This report concludes with recommendations for accelerated action. The Annex summarises the Fiji

2011 Accelerating Child Survival and Development data profile.

CONTEXT

Fiji, one of the most urbanised of Pacific Island countries, is a middle-income nation with a developed but deteriorating infrastructure and economy. Fiji faces many challenges to meet a rising demand for health care from its highly dispersed, mobile population during a time of slow economic growth. The population of 854,000 (2010 estimate) is concentrated in 3 of 14 provinces, which are home to the main urban centres. The main island, Viti Levu, is home to 75% of the population, half of which is concentrated in the area near Suva, the capital. An estimated 125,000 people, or 15% of the population, live in high poverty levels in squatter or informal settlements that lack basic amenities. National population growth during the 1996–2007 intercensus period averaged 0.7% per annum, and the total fertility rate is 2.7, equal to about 19,000 births annually. Life expectancy is 69 years¹. Children aged younger than 15 years comprise 29% of th

¹ National census, 2007.

TABLE 1. National Indicators Measure Progress on MDG 4 and 5

MDG	Indicators	1990 Baseline	2010	2015 MDG Target
MDG 4	Infant mortality rate/1,000 live births	25	15	5.5
	Under age 5 mortality rate/1,000 live births	30 (22, ACSD)	17 (18, 2011, ACSD)	7
	Proportion of 1-year-old children immunised against measles	84	>94%	>95%
MDG 5	Maternal mortality ratio/100,000 live births	41	26	10.3
	Proportion of births attended by skilled health personnel		99% (2008)	100%
	Antenatal care coverage		99%	100%
	Unmet need for family planning		No Data	
	Contraceptive prevalence rate		44.7%	56%

Note: Mortality data from United Nations Interagency Working Group on Mortality Estimation, in *Committing to Child Survival: A Promise Renewed*; UNICEF Progress Report 2012; and UNICEF Country Profile Fiji, *Maternal, Newborn and Child Survival*, March 2012, including data received from World Health Organisation Regional Office for Western Pacific, also known as the Accelerated Child Survival and Development (ACSD) Report. ND indicates no data.

TABLE 2. Comparative Nutrition Data from 1993 and 2004 National Surveys

	1993	2004		
		Overall	iTaukei	Indo-Fijian
Underweight (weight/age)	11%	12.8%	N/A	16%
Stunted (height/age)	1.6%	3.4%	N/A	5%
Wasted (weight/height)	4.3%	4.4%	N/A	7%

Source: National Food and Nutrition Centre, National Nutrition Surveys 1993, 2004.

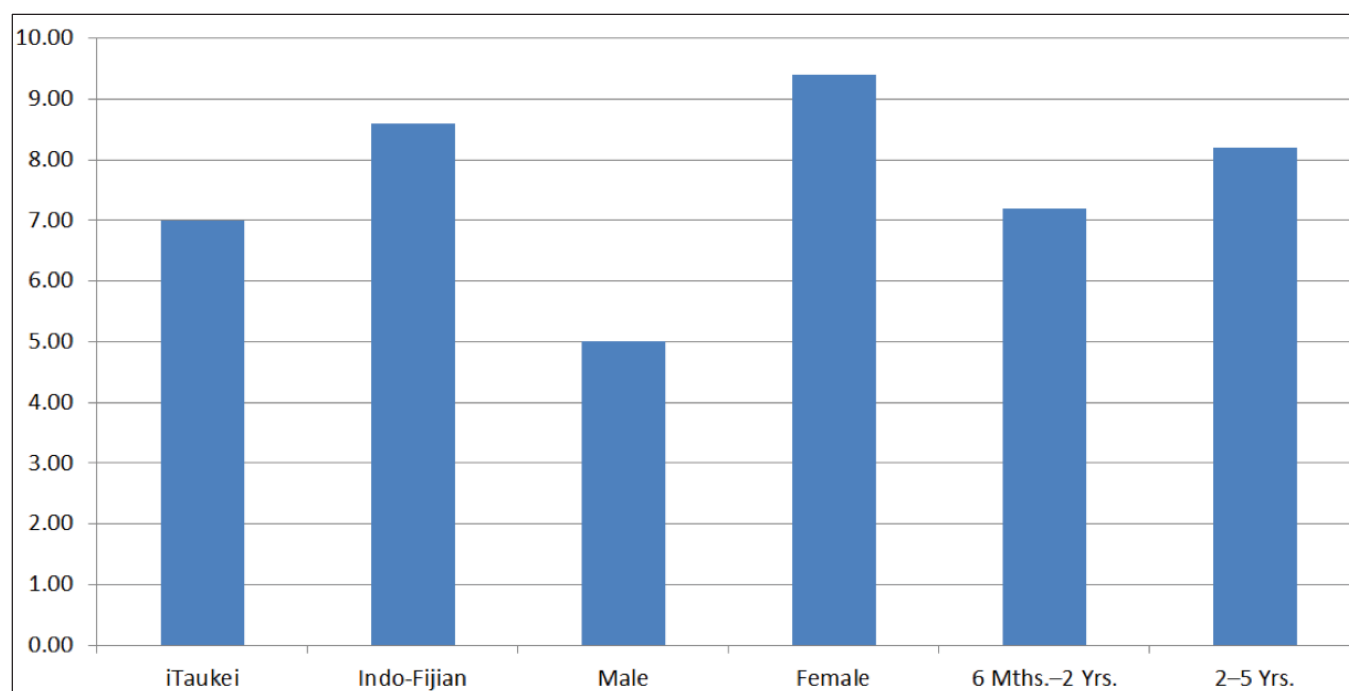
population and those younger than 18 years almost 40%. The growing adolescent population has limited employment opportunities.

Fiji enjoys a good standard of health and compares well with other Pacific island countries². It has a well-developed health system built on the primary health care concept and an established hierarchy of services from village health workers to specialist hospitals. The Ministry of Health (MOH) provides free universal health care, with a small but growing private sector. Fiji has a limited donor presence, with support accounting for less than 6% of the health budget³. Out-of-pocket health costs in 2010 accounted for 20%

of total health expenditure⁴. In recent years, government budget allocations for health have remained relatively constant despite increasing health care demand and costs. In most years, health allocations are between 8% and 11% of total public expenditure or between 2.9% and 3.5% of gross domestic product (GDP), among the lowest of Pacific Island countries. The Government of Fiji signaled an intention to increase the future health budget by 0.5% of GDP annually until it reaches 6% to 7% of GDP.

Pressure on operational budgets has strained the health care system and caused difficulty in sustaining improvements. Most funding is allocated to curative

FIGURE 1. Stunting (Height for Age) by Ethnic Group, Gender and Age



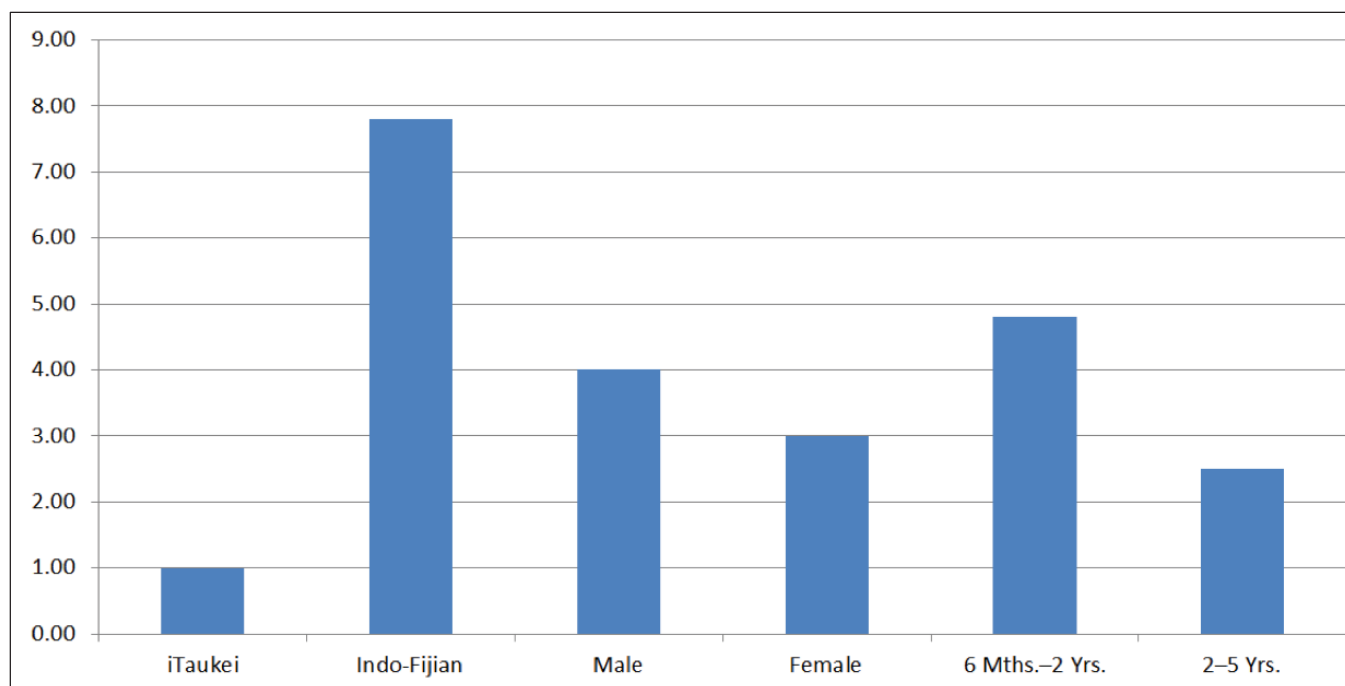
Source: National Food and Nutrition Council, 2008, *Micronutrient Status of Children 6 months–5 years*.

² Fiji Islands Bureau of Statistics (2011). Available at <http://www.statsfiji.gov.fj/>

³ Asia Pacific Observatory on Health Systems and Policies. (2011). The Fiji Islands health system review. *Health Systems in Transition*, 1(1).

⁴ World Health Organisation and Fiji Ministry of Health. (2012). *Service delivery profile, Fiji, 2012*. Geneva, Switzerland, and Suva, Fiji: Authors.

FIGURE 2. Wasting (Weight for Height) by Ethnic Group, Gender and Age



Source: National Food and Nutrition Council, 2006 Micronutrient Status of Children 6 months–5 years.

care, with 63% of the budget allocated to hospitals in 2010⁵. Skilled staff levels have suffered substantial losses through emigration and pressure to cut costs, including through compulsory retirement at age 55. Almost 1,000 staff members, many senior and experienced, left the service between 2003 and 2008⁶, with 291 more in 2010⁷.

Internal political tensions slowed economic growth and GDP per capita, and in 2009 had reverted to 2002 levels. Unemployment increased from 3.7% in 1996 to 8.6% (rural 6.6%, urban 10.5%) in 2007⁸. Unemployment rates are twice as high among females as males, and higher among iTaukei (9.8%) than Indo-Fijians (7.0%). While poverty rates declined from 28% to 19% in urban areas, they increased from 40% to 43% in rural areas from February 2002 to September 2008. The Northern Division is the poorest, with 47% of the population living below the poverty line⁹. In remote areas, geographic barriers, limited and costly transportation and lack of resources affect the equity of access to services; however, service provision is equitable after individuals enter the system. Reproductive, maternal, newborn, child and

adolescent health are firmly embedded in Health Outcomes 3, 4 and 5 of the Fiji National Health Strategic Plan, 2011–2015.

CHILD MORTALITY AND HEALTH

Under age 5 years mortality rate (U5MR) declined by 44% and infant mortality rate (IMR) by 40% from 1990 to 2010, according to calculations based on data in Table 1 (p. 9). As the U5MR has declined, however, infant deaths have increased as a proportion of the total mortality rate. Perinatal and neonatal deaths contribute substantially to the IMR and U5MR in Fiji¹⁰. Children who die in the first 28 days of life (neonatal mortality) account for 60% of those who die before age 1 year (infant mortality) and 50% of those who die before age 5 years. Geographic location is a critical factor in newborn survival because it determines how quickly medical assistance can be obtained if complications arise during pregnancy and childbirth. Deaths in the first week of life now account for 40% of under age 5 deaths. Under age 5 mortality is significantly higher in the Eastern and Northern Divisions, where the remoteness of villages and lack of easily accessible health services are contributing factors. Death rates of children aged 1–5 years are now very low; however, despite the gains, Fiji is not on track to meet its MDG 4 target. The Annex, Fiji Maternal, Newborn & Child Health 2011, summarizes key indicator data.

⁵ Ibid.

⁶ Ministry of National Planning. (2010). *Millennium Development Goals 2nd report, 1990–2009: Report for the Fiji Islands*. Suva, Fiji: Author.

⁷ Irava, W., & Prasad, R. (2012). *A case study of the public and private mix of health services in Fiji*. Suva, Fiji: Centre for Health Information Policy and Systems Research, Fiji National University.

⁸ Narsey, W. L. (2011). *Report on the 2008–09 household income and expenditure survey*. Suva, Fiji: Fiji Islands Bureau of Statistics.

⁹ Narsey, W. L. (2010). *Poverty in Fiji: Changes 2002–03 to 2008–09 and policy implications*. Suva, Fiji: Fiji Bureau of Statistics.

¹⁰ Perinatal deaths are those from 28 weeks of gestation to the end of the first week postbirth and include stillbirths. Neonatal deaths are those in the first month of life.

The major causes of infant and child mortality are birth asphyxia, neonatal sepsis, prematurity, congenital malformations, injuries, diarrhoea and pneumonia with underlying malnutrition¹¹. Clinicians cite the high rate of congenital syphilis as a cause of death.

About 10% of births are classed as low birth weight (less than 2,500 g). An increasing problem is birth of babies greater than 4,000 g (10% in 2004) with associated higher risks for childbirth complications. Breast-feeding is early and universal, but levels of exclusive breast-feeding at 6 months are only 40%, with little evidence of community support mechanisms¹².

Immunisation rates are high for all vaccines, and 94% of children younger than 1 year received measles vaccine in 2010¹³. The last epidemic of measles was in 2006, and only sporadic cases have been seen since among children younger than 1 year and older than 12 years. The introduction of pneumococcal and rotavirus vaccines in 2012 is expected to further reduce the burden of pneumonia, meningitis and diarrhoea¹⁴.

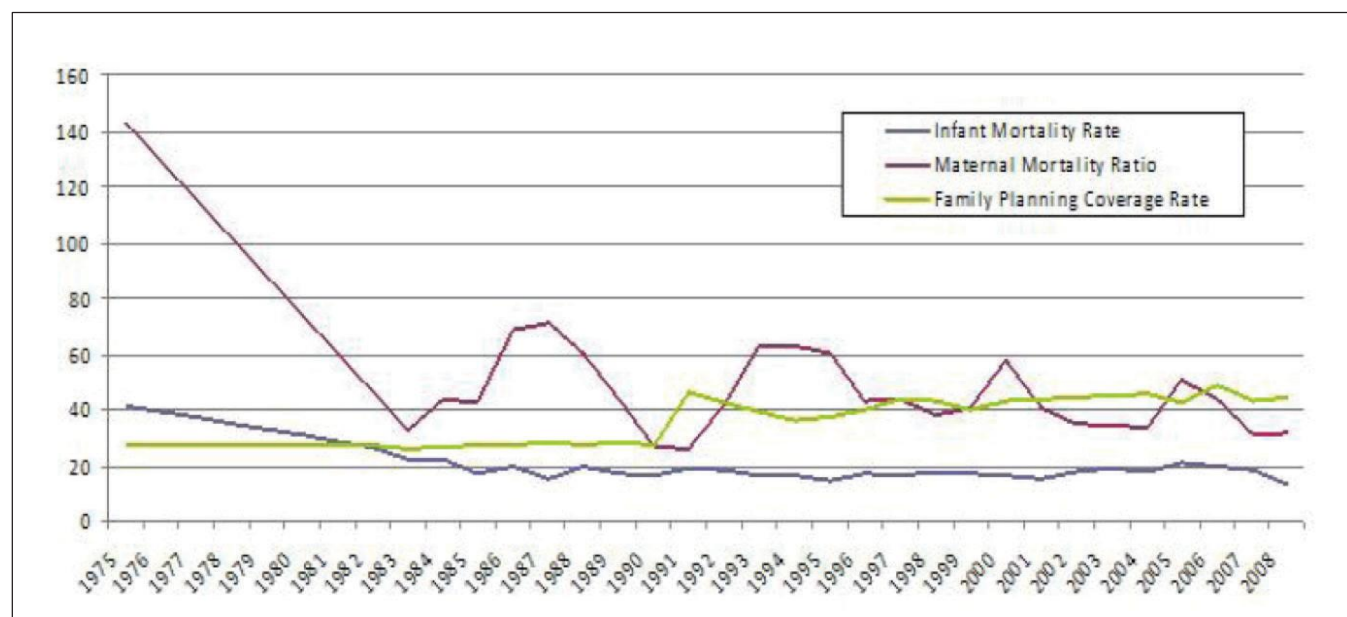
NUTRITION

Table 2 (p. 10) shows data available on nutrition trends from 1993 to 2004 from the Fiji National Food and Nutrition Centre¹⁵.

The next national nutrition survey is scheduled in 2014. Figures 1 and 2 (pp. 10, 11) indicate findings of a nonrepresentative 2008 National Nutrition Council study on micronutrient deficiency¹⁶. Overall, 7.9% of children were found to be stunted (with higher levels among Indo-Fijians). Female children have higher rates than male children. A marked difference in wasting is evident, with low levels among iTaukei and high levels among Indo-Fijians. The 2008–2009 Household Income and Expenditure Survey indicated large decreases in food consumption in lower wealth quintiles in rural areas.

Micronutrient deficiencies are a major public health problem. Iron deficiency anemia affects up to half of all children younger than age 5 years; there is no marked difference by gender but higher rates are

FIGURE 3. Maternal and Infant Mortality and Contraceptive Coverage Rates, 1975–2008



Notes: Infant Mortality Rate per 1000 live births; Maternal Mortality Ratio per 100,000 live births. Data for some years was not available and was estimated by the authors. Sources: World Bank 1994; MoH 1996; MoH 1999; MoH 2000; MoH 2006; MoH 2008; Sutton et al. 2008.

¹¹ World Health Organisation. (2011). *Western Pacific country health information profiles: 2011 revision*. Geneva, Switzerland: Author.

¹² Australian Agency for International Development. (2010b). *Child healthcare review* (Report prepared for Fiji Health Sector Improvement Programme). Canberra, Australia: Author.

¹³ http://www.unicef.org/infobycountry/fiji_statistics.html

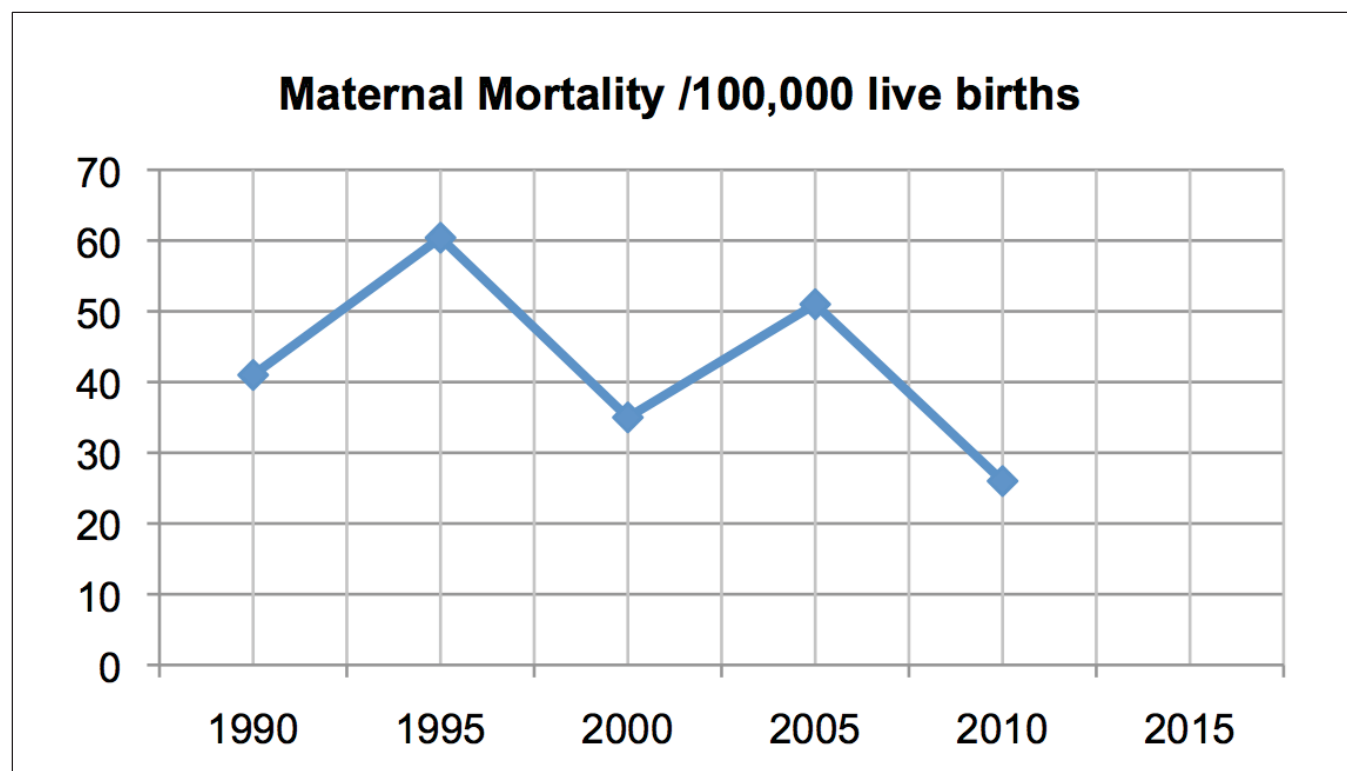
¹⁴ Studies estimate that rotavirus is responsible for 5–6 deaths and pneumococcal infection for 40 deaths from pneumonia and meningitis annually; however, vaccination is expected to deliver significant reductions in morbidity and

hospitalisations.

¹⁵ Seen at <http://www.nutrition.gov.fj/publications/reports/>

¹⁶ National Nutrition Surveys 1993, 2004 and 2008 (micronutrient survey), Fiji National Food and Nutrition Centre data. Available at <http://www.nutrition.gov.fj/publications/reports/>

FIGURE 4. Maternal and Infant Mortality and Contraceptive Coverage Rates, 1975–2008



found among Indo-Fijians. Consistent with global trends, anemia was more prevalent in children aged 6–23 months than in those aged 2–5 years. Anemia rates in children declined from 2004 (51%) to 2008 (38%) but are the same as 1993 levels (39%)¹⁷.

Fiji has a high prevalence of vitamin A deficiency among children aged 6 months–2 years (15%) compared with 5% among children aged 2–5 years. There was no marked difference in gender, but iTaukei children (11%) had a higher prevalence than Indo-Fijians (4%). The overall rate of zinc deficiency for children surveyed in 2008 was 5.6%, with a higher prevalence (14.5%) among children aged 6 months–2 years.

Findings in a 2010 child health care review highlighted a number of factors most frequently associated with childhood death¹⁸:

- Delayed health-seeking behaviour because of lack of recognition of severity of illness, coupled with transportation difficulties and delayed referral from subdivisional hospitals.
- The Integrated Management of Childhood Illness (IMCI) programme was not operational in many divisions, and shortages of IMCI drugs were common.
- Subdivisional hospitals have a need for continued training in core paediatric skills to improve capacity.

The Fiji Health Sector Support Programme (FHSSP) (2011–2015) design document highlights a number of constraints to improving child and maternal health¹⁹:

- High incidence of late presentation for antenatal checks
- Transport barriers for patients visiting health facilities and staff undertaking outreach
- Shortage of standardised protocols and guidelines for nursing and medical staff at nursing stations, health centres and subdivisional hospitals
- Weak system and culture for monitoring and evaluation of services
- Low rates of breast-feeding at 6 months because of weak community-level support
- Limited availability of health promotional materials in health centers; little evidence of key health messages that reach some communities
- Inconsistency between size and population catchment for similar levels of health facility; some facilities with small workloads were better equipped and staffed than others with much larger workloads

MATERNAL MORTALITY AND MORBIDITY

The MMR decreased From 156/100,000 live births in 1970 and 53/100,000 live births in 1980, to 41/100,000

(2010b).

¹⁹ Australian Agency for International Development. (2010a). *Fiji Health Sector Support Programme 2011–2015 final design document*. Canberra, Australia: Author.

¹⁷ National Nutrition Surveys 1993, 2004 and 2008 (micronutrient survey), Fiji National Food and Nutrition Centre data.

¹⁸ Op. Cit., Australian Agency for International Development.

live births by 1990²⁰, as seen in Figures 3 and 4 (pp. 12, 13). The rate has fluctuated since and gradually decreased to 26/100,000 live births in 2010.

Attendance at antenatal clinics is universal (at least one visit), although visits in the first trimester are low, and 99% of births occur in a health facility and are supported by a skilled birth attendant. Eight maternal deaths were reported in 2012. Reviews of maternal deaths and adverse effects follow an established process.

A 2009 United Nations Population Fund (UNFPA) survey found that only four of Fiji's health facilities meet standards to provide comprehensive emergency obstetric and newborn care (EmONC) in. Findings from this survey included the recommendation to upgrade five subdivisional hospitals to provide basic EmONC standards. The survey found that 66% of births in 2008 occurred in three divisions and caesarian sections in only four hospitals. The survey also highlighted problems with recordkeeping and lost files. The competence and knowledge of staff was found to be excellent, but a shortage of obstetric doctors and midwives was noted.

Eighty percent of maternal deaths occurred in the three divisional hospitals. The major complications were prolonged or obstructed labour, haemorrhage, ectopic pregnancy and the complications of abortion.



Mothers in the waiting area of Waidina Nursing Station

The immediate causes of maternal death were ectopic pregnancy (the commonest cause), pre-eclamptic toxemia, postpartum haemorrhage, heart disease and septicaemia. The underlying causes were delayed presentation, which was often linked to poverty, low levels of education, and delayed referral.

REPRODUCTIVE HEALTH

Although fertility rates have decreased, the limited data suggest that contraceptive use has been stagnant at around 35% to 40% (against an MDG target of 56%) for the past decade. Data on contraceptive prevalence are limited to information collected from public facilities through the health information system and exclude private-sector provision. No contraceptive prevalence studies or Demographic Health Surveys have been carried out²¹. These studies normally would provide detailed data on use and nonuse and choice of contraception by socioeconomic group, as well as the level of unmet need (i.e., those who want to use contraception but are unable to access services). The UNFPA online country profile for Fiji indicates that data for unmet need and demand are not available²². While Fiji is considered a low-HIV prevalence country, reliable baseline data are lacking, but mother-to-child transmission is low²³. The prevalence of sexually transmitted infections is high, demonstrated in a survey that showed 29% of pregnant women had positive test results for chlamydia infection. The same survey found 2.6% syphilis and 1.7% gonorrhoea prevalence²⁴. Surveys show low levels of HIV knowledge, high levels of commercial sex, multiple sex partners and low condom use. The same survey showed that 50% of youths in tertiary institutions had comprehensive knowledge on HIV and those aged 20–24 were more knowledgeable than those aged 15–19 years.

Reported teenage pregnancy rates are high (38/1,000 among girls aged 15–19), although MOH hospital discharge data show a steady decrease in the number of births among girls aged 15–19, from 1,254 in 2004 to 607 in 2011. The decrease in the rate of teenage births/1,000 girls aged 15–19 years was 7.47 to 2.98 over the same period.

²⁰ Op. Cit., Asia Pacific Observatory on Health Systems and Policies. (2011).

²¹ A Demographic and Health Survey is planned in 2014.

²² www.unfpa.org/public/countries

²³ Global AIDS Progress Report 2012 Fiji Islands. www.unaids.org/en/dataanalysis/kn

[owyourresponse/countryprogressreports/2012countries/ce_FJ_Narrative_Report.pdf](http://www.unaids.org/en/dataanalysis/kn/owyourresponse/countryprogressreports/2012countries/ce_FJ_Narrative_Report.pdf)

²⁴ Secretariat of the Pacific Community. (n.d.). Pacific Regional Information System (PRISM). Available at <http://www.spc.int/prism>

Achievements and Systems Barriers That Remain To Be Addressed Post 2015

Consultation with key national stakeholders, including the Ministry of Health, identified successes in addressing systems barriers and ongoing challenges or bottlenecks, as well as innovative solutions. An analysis of the findings provided a list of recommended actions to continue to improve reproductive, maternal, newborn, child and adolescent health.

SUCCESS IN ADDRESSING SYSTEMS BARRIERS

A LONG-ESTABLISHED HEALTH SYSTEM BASED ON THE PRIMARY CARE CONCEPT

Fiji made considerable progress in improving its key health indicators up to 1990, with increases in life expectancy and major decreases in maternal and child mortality. The system predated the 1978 Alma Ata Declaration and launch of the primary health care era. It led to relatively equitable provision of basic health care across the country, with a network of community health workers at the base. Fiji had a strong community tradition and leadership and well-established informal women's networks in villages. Education levels were high, there were adequate numbers of high-quality health workers, and doctors were posted in peripheral health centers. Nurses visited women and children in their homes and the population was receptive to health advice. The major challenges were communicable diseases and nutrition.

HIGH-QUALITY TRAINING OF HEALTH WORKERS

Fiji has a long tradition of strong training institutions that have educated Fiji's health workers and those of other Pacific Island states to a high standard. The training has adapted to meet identified needs (e.g., new basic nursing curriculum, postgraduate diploma in midwifery)²⁵. New approaches, such as IMCI, were incorporated early into the preservice curriculum, including through practical attachments. Deficiencies identified during reviews are being addressed through training of nurse-supervisors and attention to shortages of drugs and materials

²⁵ Australian Agency for International Development. (2008). *Fiji Health Sector Improvement Programme (FHSIP) independent completion report*. Canberra, Australia: Author.

VERY HIGH LEVELS OF COVERAGE AND USE OF SERVICES SINCE 1990

In Fiji, 99% of deliveries take place in a hospital with a skilled birth attendant²⁶ and 99% of women attend antenatal care at least once. Challenges remain, however, on the timing of the first visit, the number of subsequent visits and the quality of services. Introduction of the IMCI strategy has strengthened what was a fragmented series of vertical programmes, and a similar integrated approach has been adopted for antenatal care²⁷ (CHIPS 2011)²⁸. Immunisation coverage rates have improved from 70% (2005) to more than 95% (2010)²⁹, with no measles outbreak since 2006, and polio and tetanus have been eliminated. New and underused vaccines (human papilloma virus [HPV], pneumococcal and rotavirus vaccines) have been introduced successfully into the schedule, and uptake is high. The high coverage and use of vaccines is related to high levels of education, extensive reach of the media and telecommunications, good transport links and increasing urbanisation.

SYSTEMS BARRIERS THAT REMAIN TO BE ADDRESSED

RETENTION OF EXPERIENCED HEALTH STAFF

Emigration, retirement and budget cuts have reduced the human resource capacity in MOH. Fiji's 2.6 health workers/1,000 population is just above the WHO minimum threshold of 2.3 health workers/1,000 population. Reviews have identified a shortage of obstetricians and midwives, particularly in rural areas. MOH is reviewing the health workforce plan to ensure that training of doctors and nurses is aligned with health service requirements. A review of the various professional structures in health is being undertaken, with a focus on retaining existing staff; training nurse practitioners; employing part-time, highly skilled staff and increasing the training opportunities for health professionals. While there is a renewed focus on primary health care and rebuilding the network of community health workers, they will need to be

²⁶ A trained midwife or doctor.

²⁷ World Health Organisation. (2011). *Western Pacific country health information profiles: 2011 revision*. Geneva, Switzerland: Author.

²⁸ Ibid.

²⁹ Ministry of Health. (2009). Annual report 2009. Suva, Fiji: Author. Available at <http://www.health.gov.fj/files/reports/Annual%20Report%202009.pdf>

trained and supported by a health staff that is in short supply. Data from 2010 show continuing high levels of exits from the health service.

STAFF AND FUNDING ALLOCATIONS DO NOT MATCH WORKLOAD

The population has shifted in recent years, with gradual urbanisation, particularly in the Suva-Nausori corridor, and loss of population in the Northern Division. Patients increasingly bypass lower-level facilities and enter the health service at the divisional hospital. The relative ease of transport facilitates this trend, which adds to pressure on staff and resources in the main urban areas. To ease the pressure, the open hours of urban health centers have been extended and the open-access hospital outpatient services have been closed. Efforts are under way to increase the service capabilities of subdivisional hospitals through supply of equipment, training and mentoring programmes, although a shortage of obstetricians and midwives is a barrier to improving maternal and neonatal outcomes. The aim is to fill gaps in local services and attract patients back to using their local hospital and reduce pressure on divisional hospitals.

THE NEED TO REVITALISE THE PRIMARY HEALTH CARE CONCEPT

The network of community health workers is widely accepted and the benefits appreciated, and the need to strengthen the network is acknowledged. A new primary health care model will require a shift from the past focus on communicable diseases to one focused on a wellness agenda: health promotion, prevention of noncommunicable diseases and social determinants of health. A new model should build on lessons from the past; the limitations of volunteer health workers; the importance of regular support and supervision from the formal health service; avoidance of overburdening volunteers who have limited time; a manageable training package; and the need for strategies to retain the services of trained volunteers. Pilot activities are under way in the Northern Division. While there are needs in rural areas, poor communities in informal, periurban settlements also have significant unmet health needs.

GREATER ATTENTION TO FAMILY PLANNING FOR CHILD SURVIVAL

Recent, comprehensive data are lacking on rates of contraceptive use and levels of unmet need to guide programme management. Stockouts of contraceptives were reported to be common³⁰. The increasing popularity of contraceptive implants may be threatened by restrictions on the working practice of nurses to insert the implants. Support for family planning will be a central component on UNFPA's and other partners' country programmes and repackaged as sustainable resource planning. Nurses may also act as a barrier, particularly to the young, as increasing numbers of young people access information and services through peer educators.

IMPROVED DATA FOR POLICY DEVELOPMENT AND PERFORMANCE MANAGEMENT

The MOH has identified a need for a more evidence-based approach to policy and planning. The health information system produces regular data for policy development and performance monitoring, but it has limitations. The annual report is released halfway through the following year and does not provide timely data in an accessible format that is useful for managers at the subdivisional level to monitor performance. The report is based on users of the public system only and does not provide data on the increasing private sector or on nonusers of services. The Public Health Information System will offer data to managers within 15 days of the end of each month in an accessible and useful format. A Demographic and Health Survey is planned in 2014 and will provide complementary population-based data. It will fill important gaps, particularly in areas where data are weak (e.g., family planning and health-seeking behaviour across wealth quintiles).

INADEQUATE FINANCING FOR HEALTH

The fundamental barrier to more rapid progress is long-standing inadequate financing of health services. Available funds are modest as a share of GDP and are disproportionately allocated to curative care in major hospitals in urban areas. Resources are limited for rural health services and health prevention and promotion. Inadequate funding leads to shortages of health staff because of pressure to cut costs, and skilled staff leave the service to seek better remuneration. Inadequate funding is also at the core of shortages of essential medicines, including contraceptives.

³⁰ UNFPA country adviser personal communication.

EXAMPLES OF INNOVATIVE PRACTICE

MENTORSHIP AND SUPPORT: QUALITY IMPROVEMENT PROGRAMME

The divisional hospital in Suva supports eight subdivisional hospitals. Each morning before the ward rounds, midwives in the maternity unit contact their counterparts in each hospital to identify all cases in labour and their status and to provide advice on labour management. A whiteboard in the Suva unit monitors women in labour in all maternity wards across the entire division. The process, led by nurse-midwives, seeks to improve the quality of care and reduce late referral of complications. A multidisciplinary team from Suva visits one subdivisional hospital each week to provide clinical support, continuing education and case review. At present the system is sustained by the enthusiasm of hospital staff; however, the divisional hospital is under stress from an increased workload caused by rapid urbanisation and patients who bypass lower levels of the health service. A challenge will be to resource this model so that staff can maintain the schedule of visits and extend the model to other hospitals in other divisions.

REVISED PUBLIC HEALTH INFORMATION SYSTEM

Over the past 18 months, a revised public health information system has been developed that consists of a significantly revised data collection form and a newly developed computer system. Previously, public health information in Fiji had been collected through a paper-based system. Paper forms were sent to a central database for entry, and the primary purpose and use was to produce annual reports. The system provided limited feedback to programme managers or to staff at subdivisional level and below. With the current system, nurses collect data manually in the medical areas and data are entered by the subdivisional health sisters. The system was developed through a prolonged consultation with health staff to review why past efforts were not always fully accepted and to identify their data needs to better monitor performance and manage services. Nurses and programme managers were engaged fully in deciding data requirements to meet programme indicators and developing reporting needs. National advisers, directors and senior management in MOH were also consulted. Over many months, data collection instruments were tested and prioritised and the system piloted. User manuals were developed and an extensive training

programme was rolled out across Fiji down to the lowest level of the health system. System launch was in April 2013, and acceptance is good. Data are entered at the subdivisional level on the Web-based computer system. Reports are available within 15 days of the end of the month in accessible formats. Data extraction is easy and delivered in a user-friendly format (e.g., bar charts and time-series graphs), which enables staff to readily identify areas that require attention. Users can compare their own performance with all other providers in the country. The impetus for a new system was driven by the MOH's recognition of the need. The system's launch was a culmination of the efforts of many staff and partners. Australian Agency for International Development (AusAID), through the Fiji Health Sector Support Programme, and the Global Fund for AIDS, Tuberculosis and Malaria supported the process through developing the system, providing training, supplying computers, and supporting a health information officer in each division. Doctors and nurses worked closely together throughout the process. The system was developed by local software developers at a modest cost with local capacity to maintain the system and rapidly resolve any problems.

FINANCE FOR INTRODUCTION OF NEW VACCINES

Fiji, as a middle-income country, does not receive support from the Global Alliance of Vaccines and Immunisation (GAVI) to introduce of new and underused vaccines, nor can the country obtain vaccines at the heavily discounted prices GAVI obtains. Immunisation has been a core element of primary care for many years, and Fiji has achieved high rates of immunisation coverage. Fiji introduced the HPV vaccine in 2013 and pneumococcal and rotavirus vaccines in September 2012. MOH negotiated support from AusAID with a phased financing solution that sees the MOH increase its contribution to the new vaccine introduction over a 4-year period. In the first year AusAID covered 100% of vaccine costs. The ministry will contribute 20% in the second year, 50% in the third year, 80% in the fourth year, and fully finance the vaccines in the fifth year. The vaccines introduction is accompanied by an evaluation to monitor the effect on disease rates. Early indications are that the new vaccines have strengthened routine immunisation services, and demand has been high. The HPV vaccine has been well accepted by the community with early data showing high coverage.

Conclusions and Recommendations

Fiji made considerable progress in improving its key health indicators up to 1990, with increases in life expectancy and substantial decreases in maternal and infant mortality. Since 1990 progress has slowed, and evidence indicates that Fiji will not meet the very ambitious national targets set for MDG 4 and 5 without substantially greater efforts over the remaining time to 2015.

International consensus is that most deaths of mothers and children can be prevented through use of the existing package of interventions in Fiji. Awareness of the interventions is high on the part of health workers and the population; policies and protocols are in place (although protocols may not always be followed); and monitoring, supervision and accountability has room for improvement.

Half of under age 5 deaths occur in the first year of life, with most occurring in the first month. To improve this outcome will require greater focus on interventions that target the health of the mother during pregnancy and childbirth and the health of the child in the first year of life, particularly in the first month. Initiatives that are underway to accelerate progress on MDG 4 and 5 include support to subdivisional and divisional hospitals through training in EmONC; birth preparedness planning, including promotion of early antenatal care and supply of EmONC equipment. Other important

skills development includes IMCI and paediatric life support. A pilot programme is underway to revitalise the community health workers network. The introduction of a computerised public health information system promises better data for managers at the subdivisional level.

Many of the challenges Fiji faces are related to resourcing and performance of the health system and involve inadequate finance; shortages of trained staff, particularly in rural areas; unreliable drug supply, and inadequate use of data for managing performance. While the Fiji Government has signaled a significant future increase in the health budget, it is unlikely to have a major effect in the period to 2015.

Opportunities exist to increase coverage, ensure timely delivery of interventions (e.g., vaccinations and antenatal care) and increase the quality of interventions. Achieving this will require more effective local use of information to monitor and actively manage performance and greater targeting of resources to meet the needs of disadvantaged and high-disease-burden populations.

Many of the determinants of the burden of ill health and mortality relate to poverty, overcrowding, inadequate and unsafe drinking water, poor sanitation and hygiene, poor diet and lifestyle choices, and will require coordinated action across sectors.



Tavua Muslim Primary School students washing hands before lunch break.

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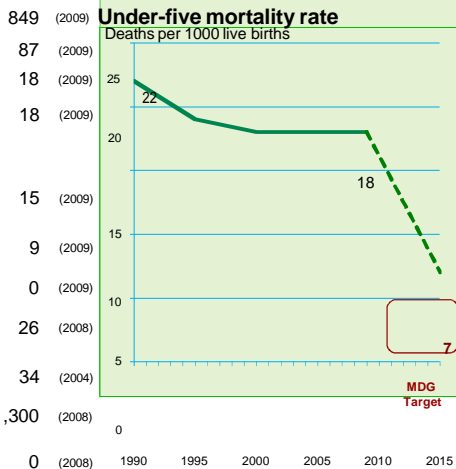
Fiji

Maternal, Newborn & Child Survival

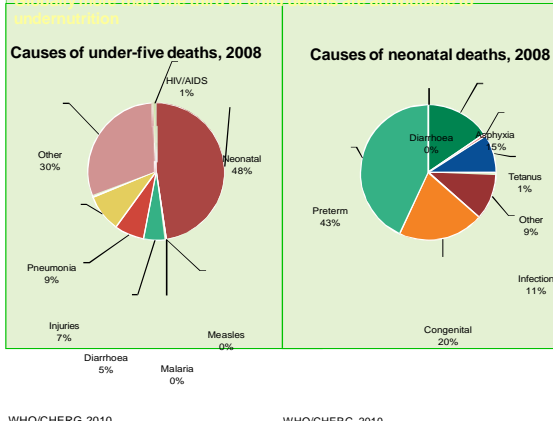
January 2011

DEMOGRAPHICS

Total population (000)	849 (2009)
Total under-five population (000)	87 (2009)
Births (000)	18 (2009)
Under-five mortality rate (per 1000 live births)	18 (2009)
Infant mortality rate (per 1000 live births)	15 (2009)
Neonatal mortality rate (per 1000 live births)	9 (2009)
Total under-five deaths (000)	0 (2009)
Maternal mortality ratio, adjusted (per 100,000 live births)	26 (2008)
Maternal mortality ratio, reported (per 100,000 live births)	34 (2004)
Lifetime risk of maternal death (1 in N)	1,300 (2008)
Total maternal deaths (number)	0 (2008)



Causes of under-five deaths



Source: IGME 2010

Note: Figures may not add to 100% due to rounding.

INTERVENTION COVERAGE FOR MOTHERS, NEWBORNS AND CHILDREN NUTRITION

Stunting prevalence (based on 2006 WHO reference population, moderate and severe, %)

Wasting prevalence (based on 2006 WHO reference population, moderate and severe, %)

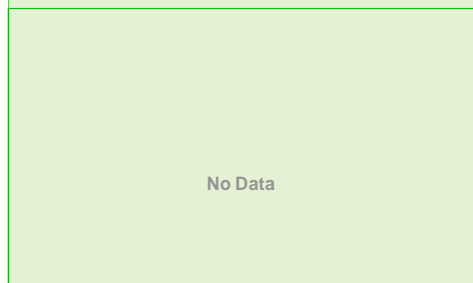
Complementary feeding rate (6-9 months, %)

Low birthweight incidence (%) 10 (2004)

Underweight prevalence

Percent children < 5 years underweight for age

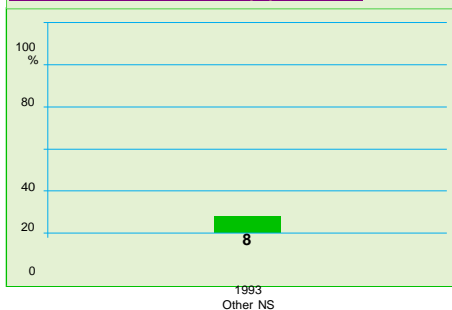
Based on 2006 WHO reference population



Underweight prevalence

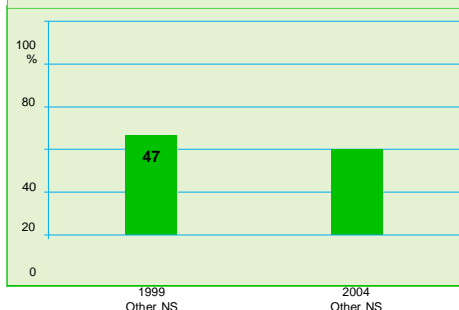
Percent children < 5 years underweight for age

Based on NCHS/WHO reference population



Exclusive breastfeeding

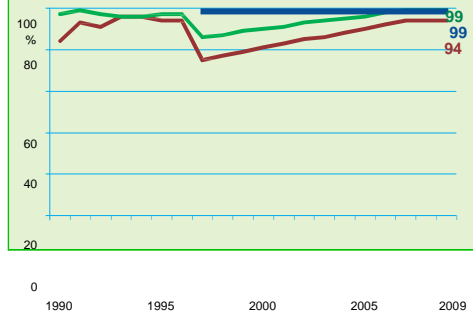
Percent infants < 6 months exclusively breastfed



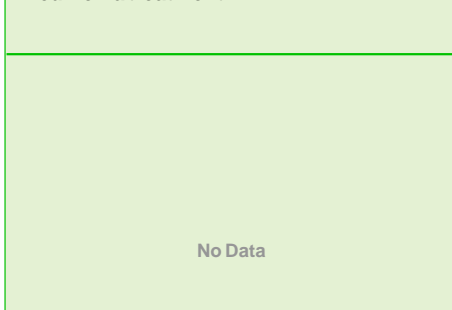
CHILD HEALTH

Immunisation

Percent of children immunised against measles
Percent of children immunised with 3 doses DPT
Percent of children immunised with 3 doses of Hib

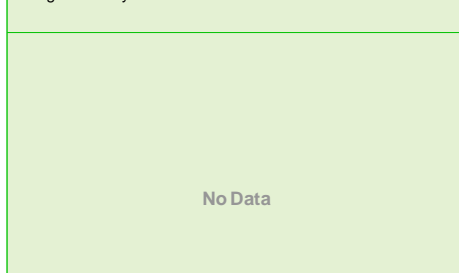


Pneumonia treatment



Vitamin A supplementation

Percent children 6-59 months receiving two doses of vitamin A during calendar year



Diarrhoeal disease treatment

Percent children < 5 years with diarrhoea receiving oral rehydration therapy (ORS, recommended homemade fluids or increased fluids), with continued feeding

No Data

Malaria treatment

Percent febrile children < 5 years using anti-malarials

No Data

Malaria prevention

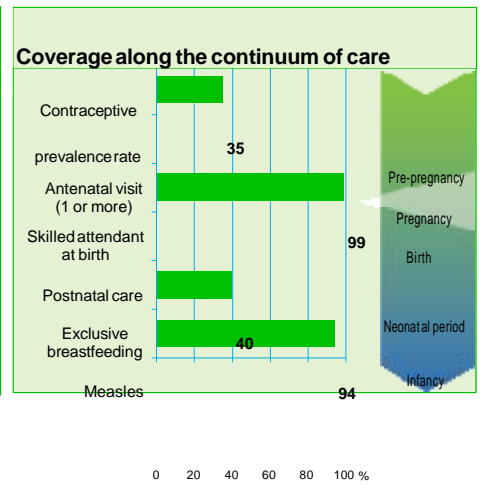
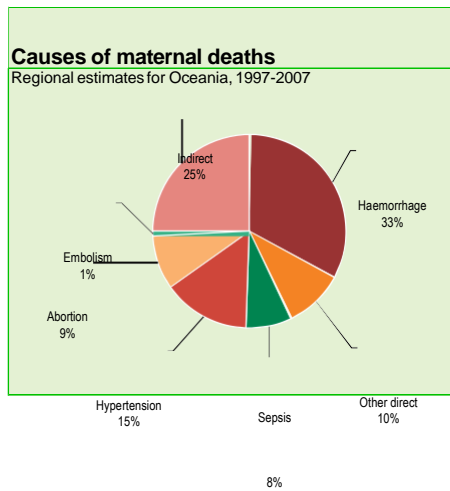
Percent children < 5 years sleeping under ITNs

No Data

Source: WHO/UNICEF

MATERNAL AND NEWBORN HEALTH

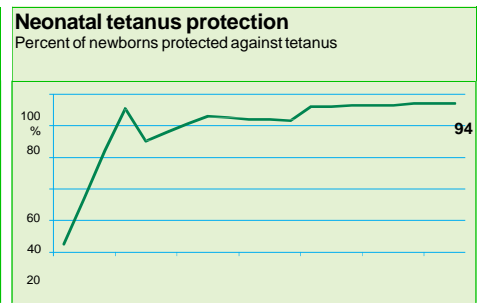
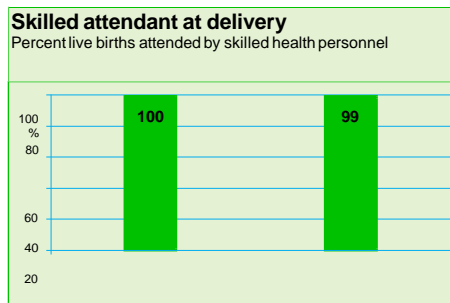
Proportion of women with low BMI (< 18.5 Kg/m ² , %)	-	-
Unmet need for family planning (%)	-	-
Total fertility rate	2.7	(2009)
Adolescent birth rate (births per 1000 woman aged 15-19 yr)	30	(2004)
Antenatal visit for woman (4 or more visits, %)	-	-
Early initiation of breastfeeding (within 1 hour of birth, %)	-	-
Institutional deliveries (%)	-	-
Postnatal visit for baby (within 2 days for home births, %)	-	-
Postnatal visit for mother (within 2 days, %)	-	-



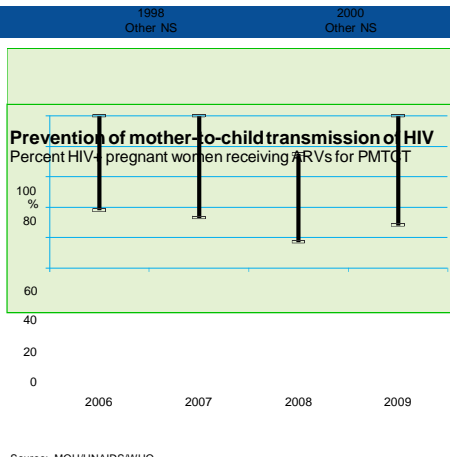
Antenatal care

Percent women aged 15-49 years attended at least once by a skilled health provider during pregnancy

No Data

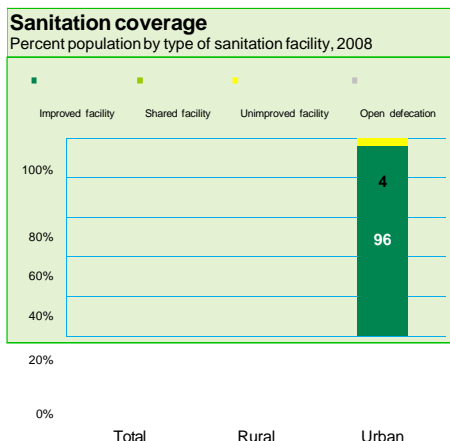
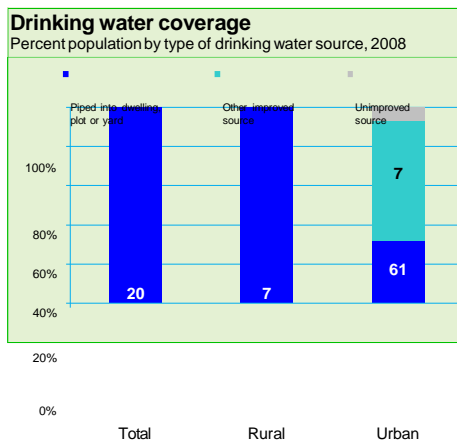


HIV prevalence among young women (15-24 yrs.%)	0.1	(2009)
HIV prevalence among young men (15-24 yrs.%)	0.1	(2009)
HIV+ children receiving ART (%)	[20 - >95]	(2009)
Orphan school attendance ratio	-	-



Survival rate to last grade of primary school (% administrative data)	95	(2007)
Survival rate to last grade of primary school (% survey data)	-	-
Primary school net enrolment or attendance ratio (% total)	90	(2008)
Primary school net enrolment or attendance ratio (% male)	90	(2008)
Primary school net enrolment or attendance ratio (% female)	89	(2008)

WATER AND SANITATION



Source: WHO/UNICEF JMP, 2010

Source: WHO/UNICEF JMP, 2010

CHILD PROTECTION

Women aged 20-24 years who were married or in union by age 18 (%)	-	-
Birth registration (%)	-	-
Female genital mutilation/cutting (%)	-	-

POLICIES *(being updated)*

International Code of Marketing of Breastmilk Substitutes	-	-
New ORS formula and zinc for management of diarrhoea	-	-
Community treatment of pneumonia with antibiotics	-	-
IMCI adapted to cover newborns 0-1 week of age	-	-
Costed implementation plan(s) for maternal, newborn and child health available	-	-
Midwives to be authorised to administer a core set of life saving interventions	-	-
Maternity protection in accordance with ILO Convention 183	-	-
Specific notification of maternal deaths	-	-

SYSTEMS *Financial Flows and Human Resources (being updated)*

Per capita total expenditure on health (US\$)	-	-
General government expenditure on health as % of total government expenditure (%)	-	-
Out-of-pocket expenditure as % of total expenditure on health (%)	-	-
Density of health workers (per 10,000 population)	-	-
Official Development Assistance to child health per child (US\$)	-	-
Official Development Assistance to maternal and neonatal health per live birth (US\$)	-	-
National availability of Emergency Obstetric Care services (%)	-	-

DISPARITIES IN INTERVENTION COVERAGE ²

Indicator	Total	Gender			Residence			Wealth Quintile					Source	
		Male	Female	Ratio of Male to Female	Urban	Rural	Ratio of Urban to Rural	Poorest	Second	Middle	Fourth	Richest		Ratio of Richest to Poorest
NUTRITION ¹														
Low birthweight incidence (%)	10	-	-	-	-	-	-	-	-	-	-	-	-	Other NS 2004
Underweight prevalence (based on 2006 WHO reference population, %)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Underweight prevalence (based on NCHS/WHO reference population, %)	8	8	7	1.1	-	-	-	-	-	-	-	-	-	Other NS 1993
Stunting prevalence (based on 2006 WHO reference population, %)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wasting prevalence (based on 2006 WHO reference population, %)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Exclusive breastfeeding (0-5 months, %)	40	-	-	-	-	-	-	-	-	-	-	-	-	Other NS 2004
Complementary feeding (6-9 months, %)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
CHILD HEALTH ⁴														
Careseeking for pneumonia (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antibiotic use for pneumonia (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Diarrhoeal treatment - children receiving ORT and continued feeding (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malaria prevention - children sleeping under ITNs (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Malaria treatment - febrile children receiving antimalarial medicines (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MATERNAL AND NEWBORN HEALTH														
Proportion of women with low BMI (< 18.5 Kg/m ² , %)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antenatal care coverage at least one visit (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Antenatal care coverage (4 or more visits, %)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Skilled attendant at delivery (%)	99	-	-	-	-	-	-	-	-	-	-	-	-	Other NS 2000
Early initiation of breastfeeding (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
WATER AND SANITATION ³														
Use of improved drinking water sources (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Use of improved sanitation facilities (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EDUCATION														
Survival rate to last grade of primary school (administrative data, %)	95	-	-	-	-	-	-	-	-	-	-	-	-	UIS 2010
Survival rate to last grade of primary school (survey data, %)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Primary school net enrolment or attendance ratio	90	90	89	1.0	-	-	-	-	-	-	-	-	-	UIS 2010
CHILD PROTECTION														
Women aged 20-24 years who were married or in union by age 18 (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Birth registration (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Female genital mutilation/cutting (%)	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Note: The format for this Country Profile has been adapted from the Countdown to 2015 report. Coverage data have been largely derived from national household surveys such as the Multiple Indicator Cluster Surveys (MICS) and Demographic and Health Surveys (DHS). For the majority of coverage indicators, UNICEF global databases were used. Other organizations such as the World Health Organization, UNAIDS, United Nations Population Fund, London School of Hygiene and Tropical Medicine and Saving Newborn Lives also provided data. Details on indicators, data sources, and definitions of indicators, can be found at www.childinfo.org.

1. **Anthropometric indicators - Reference Standards for Underweight, Stunting and Wasting.** New international Child Growth Standards for infants and young children were released by WHO in 2006, replacing the older NCHS/WHO reference population. During this transition period, the Country Profile provides underweight, stunting and wasting data based on both the 2006 WHO reference population and the older NCHS/WHO reference population, where available. In using the 2006 WHO reference population, estimates generally change in the following manner: stunting is greater throughout childhood; underweight rates are higher during the first half of infancy and lower thereafter; and, wasting rates are higher during infancy.

2. **Disparities.** Disparity information is only available for data directly derived from household surveys such as MICS and DHS. Therefore, disparity data are not available for the following indicators: mortality, vitamin A supplementation, immunization, and for HIV/AIDS. In addition, neither UNICEF Global Databases nor databases from partner organizations maintain disparity data for the following indicators: total fertility rate, unmet need, institutional deliveries, contraceptive prevalence, adolescent birth rate.

3. Water and sanitation wealth quintile data are derived from MICS or DHS surveys. Urban, rural and total coverage estimates provided are for 2008 and are those published by the WHO/UNICEF Joint Monitoring Programme for Water Supply and Sanitation.

4. Child Health - All indicators in this section refer to children under 5 years of age.

