How is the neighbours' health?

The Millennium Development health Goals and our region - 2007

Overview

This paper reviews the progress of Australia's developing country neighbours towards achieving the five Millennium Development Goals that focus on health.

It finds that there has been significant progress in most countries over recent years and that rapid improvements in health outcomes are possible. However, it is also clear that considerably more must be done to reduce the burden of disease in South-East Asia and the Pacific, where each year almost half a million children die from preventable causes. Of particular concern are the continuing high death rates of children and mothers in a number of countries and the growing threat of HIV and AIDS.

The Australian Government's recently released development health policy recognises that more can be done, and provides a sound framework for action based on strengthening health systems and their management. Our paper concludes with nine recommendations designed to complement the Government's new policy by identifying specific priorities for action. These actions could help save the lives of at least 100,000 children and tens of thousands of adults each year.

The key recommendations are:

- Cambodia, Laos, Myanmar, Papua New Guinea and Timor-Leste should be priority countries for significant extra support to build more effective health systems.
- As well as supporting health systems there needs to be a greater focus on the fundamentals of improving child and maternal health – most countries in the region are off track for these most basic of goals.
- Urgent action must be taken now to avert a looming HIV and AIDS disaster in Papua New Guinea.
- Improving water and sanitation access and promoting hand washing need to be given equal priority to improving medical services.
- There needs to be a significant increase in funding for health from both developing countries and donors. Australia plans to double health funding to around A$600 million per year by 2010. However, our fair share of global health aid requirements is currently A$800 million, rising to A$1000 million by 2010.

Hoih, 4, is being weighed by the doctors assistant - part of a monthly check-up for children under 5 and nutrition training program for mothers which is supported by World Vision in Quang Nam province Viet Nam

World Vision plans to update this report regularly in order to keep a spotlight on these critical development needs.

Introduction

Last year in *How are the Neighbours?* World Vision looked at whether Australia's developing country neighbours were on track to achieve the Millennium Development Goals (MDGs) that were agreed by all UN member countries in 2000. The MDGs are a compact between developing and developed nations to work together to halve the proportion of very poor people in the world, increase access to education, advance gender equity, improve health outcomes and develop sustainable environmental practices by 2015.[1] *How are the Neighbours?* found that, while there has been considerable progress, many of Australia's neighbours were off track for several of the Goals. The report recommended five actions the Australian government could take to better assist our developing country neighbours achieve the Goals.[2]

Five of the eight Millennium Development Goals have components that apply directly to heath. *How are the Neighbours?* found that several of these goals were unlikely to be achieved by multiple countries. Of these, the goals for child and maternal survival appeared most unlikely to be attained.

This paper looks more closely at how Australia's neighbours are going in relation to the health Goals and finds there is great variation in the region. By neighbours we mean the 22 developing nations closest to Australia which regularly receive Australian aid – countries with higher incomes such as Thailand and Malaysia are not included in this analysis. Some countries are striding ahead while in others progress has stalled. Some Goals are on track in almost all countries in our region, others in very few. This paper highlights where the successes and problems are and recommends several steps that Australia could take which would make a large difference for our neighbours.

Table 1 The Millennium Development health Goals - progress of Australia's neighbours[3]

	Goal 1	Goal 4	Goal 5	Goal 6			Goal 7	
Country	halve the % of population under-nourished	reduce child mortality ratio by two thirds	reduce maternal mortality ratio by three quarters	halt and reverse HIV and AIDS	halt and reverse malaria	halt and reverse TB	halve the proportion without access to clean water	halve the proportion without access to sanitation
Cambodia	X	X	X			X	X	X
Cook Islands	-		-	-	-			
Fiji					-		X	
Indonesia								
Kiribati			-	-	-			X
Laos		X	X				X	X
Marshall Islands	-		-	-	-			
Micronesia	-		-	-	-			X
Myanmar		X						
Nauru	-	-	-	-	-		-	-
Niue	-	-	-	-	-			
Palau	-		-	-	-			
Papua New Guinea		X		X	X		X	X
Philippines								
Samoa				-	-			
Solomon Islands				-	X			X
Timor-Leste		X	X	-	-	X		X
Tokelau	-	-	-	-	-			
Tonga	-		-	-	-			
Tuvalu	-		-	-	-			
Vanuatu				-	X			
Viet Nam								

on track | off track | X high absolute levels | - lack of data

Table 1 summarises progress towards the health Goals in each of our developing country neighbours. The large number of red cells indicates those countries that are currently unlikely to achieve a particular goal by the target date of 2015. This progress chart is not World Vision's assessment of progress but comes from data collected by the UN on the recent rate of progress in each country towards each goal.[4] Four things stand out from this table:

- several countries are off track for multiple health Goals
- the Goals that are most off track are: Goal 4 to reduce child mortality by two-thirds and Goal 7 to halve the proportion of people without access to clean water and adequate sanitation
- combating the major infectious diseases of AIDS, malaria and TB appears to be on track for most countries in the region, even if rates have not dropped significantly in some countries yet[5]
- given the lack of data for a large number of countries, improved monitoring is needed in a number of regional countries, particularly in the smaller Pacific states.

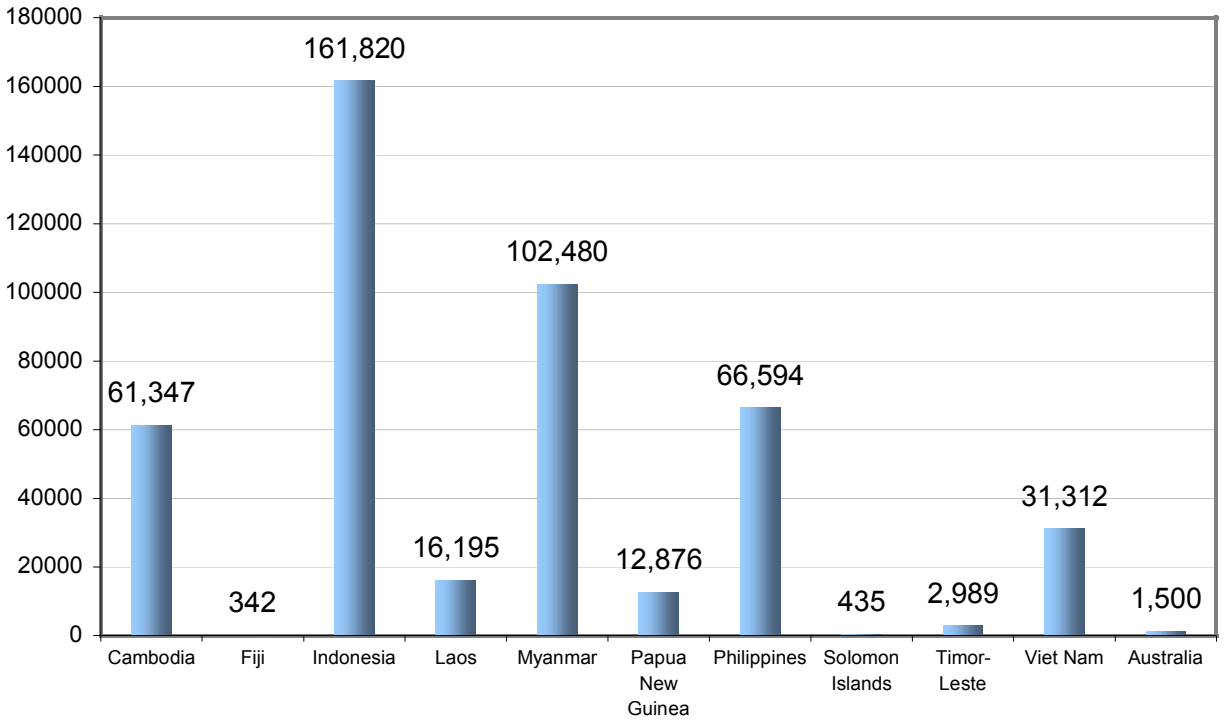
It should be noted that many of the MDGs are proportional goals, for example to reduce child mortality by two-thirds from the level in a specific country in 1990. This means that a country that is on track can have a higher absolute level of child mortality than one that is off track but started in 1990 with a much lower level of mortality. For example, Laos is on track to achieve a two-thirds reduction from 163 deaths per 1000 in 1990 to 54 per 1000 in 2015, whereas Fiji is off track to achieve its two-thirds reduction from 31 per 1000 in 1990 to 10 per 1000 in 2015. Laos may achieve the goal in 2015 but is still likely to have a child mortality rate that is much higher than Fiji's.

The rest of this paper will look in more detail at each of the Goals. To aid understanding, the analysis covers the ten most populous countries. These make up over 99% of the population and deaths in the region.

Child mortality

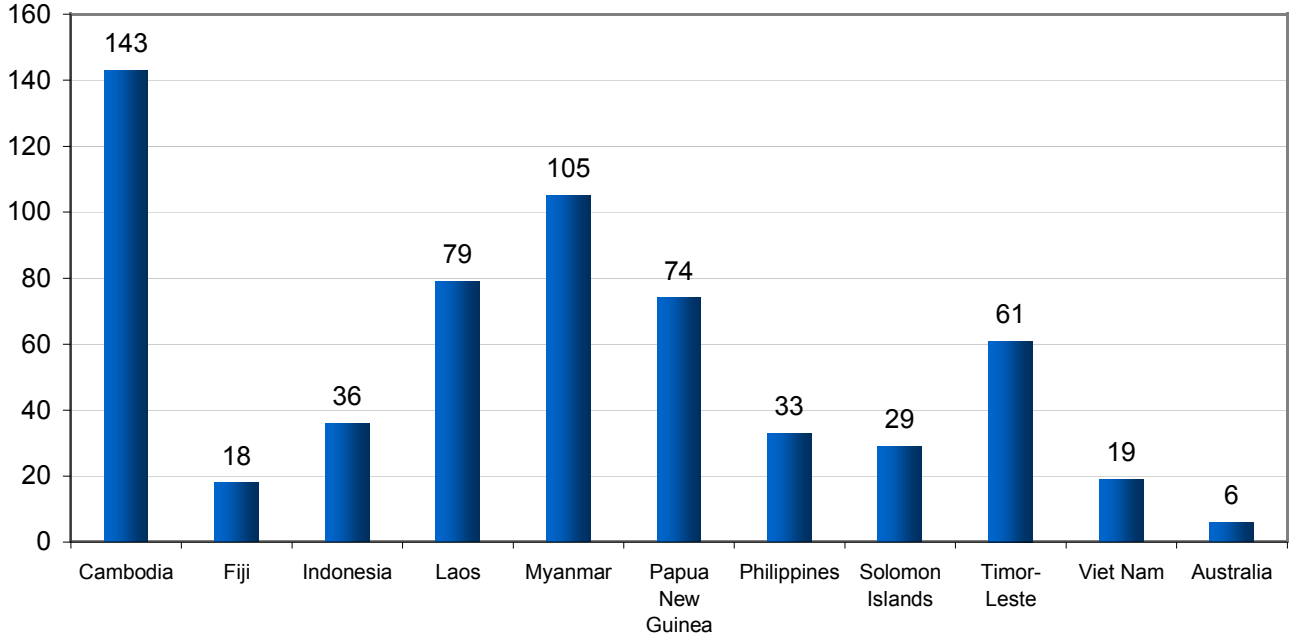
UNICEF estimates that in 2005 around 460,000 children under the age of five died in our region[6]. Figure 1 shows the countries in which these deaths occurred, the figure for Australia is included as a comparison.

Figure 1 Deaths of children under five in our region in 2005[7]



To a degree, this pattern is the result of the different population sizes of the countries. Indonesia has the largest population and the largest number of child deaths. However, as Figure 2 shows the rate of child deaths differs considerably from country to country. The child mortality rate is the number of deaths of children under five per 1000 live births. Indonesia's rate is a relatively low 36 per 1000, much less than the figures for Cambodia, Laos, Myanmar, Papua New Guinea and Timor-Leste.

Figure 2 Child mortality rate per 1000 in our region in 2005[8]



As shown by the considerable variability, and by Australia's very low rate of 6 per 1000 births, most of the deaths of children are preventable. The main causes of these deaths are listed below in Table 2.

Table 2 Major causes of child death under five years of age by country[9]

Country	neonatal causes %	pneumonia %	diarrhoeal diseases %	measles %	malaria %	HIV and AIDS %	injuries %	other causes %	Total child deaths
Cambodia	30	21	17	2	1	2	2	26	61347
Fiji	41	9	11	<1	<1	<1	3	36	342
Indonesia	38	14	18	5	<1	<1	3	22	161820
Laos	35	19	16	6	1	<1	2	22	16195
Myanmar	39	19	21	2	9	1	2	6	102480
Papua New Guinea	35	18	15	2	1	<1	2	25	12876
Philippines	37	13	12	1	<1	<1	3	33	66594
Solomon Islands	49	9	9	1	<1	<1	3	29	435
Timor-Leste	32	20	22	3	<1	1	2	20	2989
Viet Nam	56	12	10	3	<1	1	5	12	31312
Smaller nations	42	12	13	1	<1	<1	3	30	818
Total	173202	74510	77961	14612	11181	2514	11679	91549	457208
% of total	38	16	17	3	2	1	3	20	

While the proportions of specific causes differ from country to country, the main causes of death are all preventable or treatable illnesses.

On average about one third of these children die in their first month of life, another third in months two to twelve and the final third in years one to four. In addition around the same number that die in the first month are stillborn.[10]

The main neonatal causes of death (ie deaths in the first four weeks) are prematurity, congenital abnormalities, asphyxia and tetanus. These are all linked to the health of the mother and the degree of care she receives before, at and immediately after birth.

Figure 3 below shows how the child mortality rate has changed over time for countries in the region. In every country, but one, the rates have decreased considerably and in a stepwise fashion since 1990. In the case of Cambodia, the rates have increased over time, resulting in the highest current child mortality rate in the region.

Figure 3 Child mortality rate in our region over time[11]

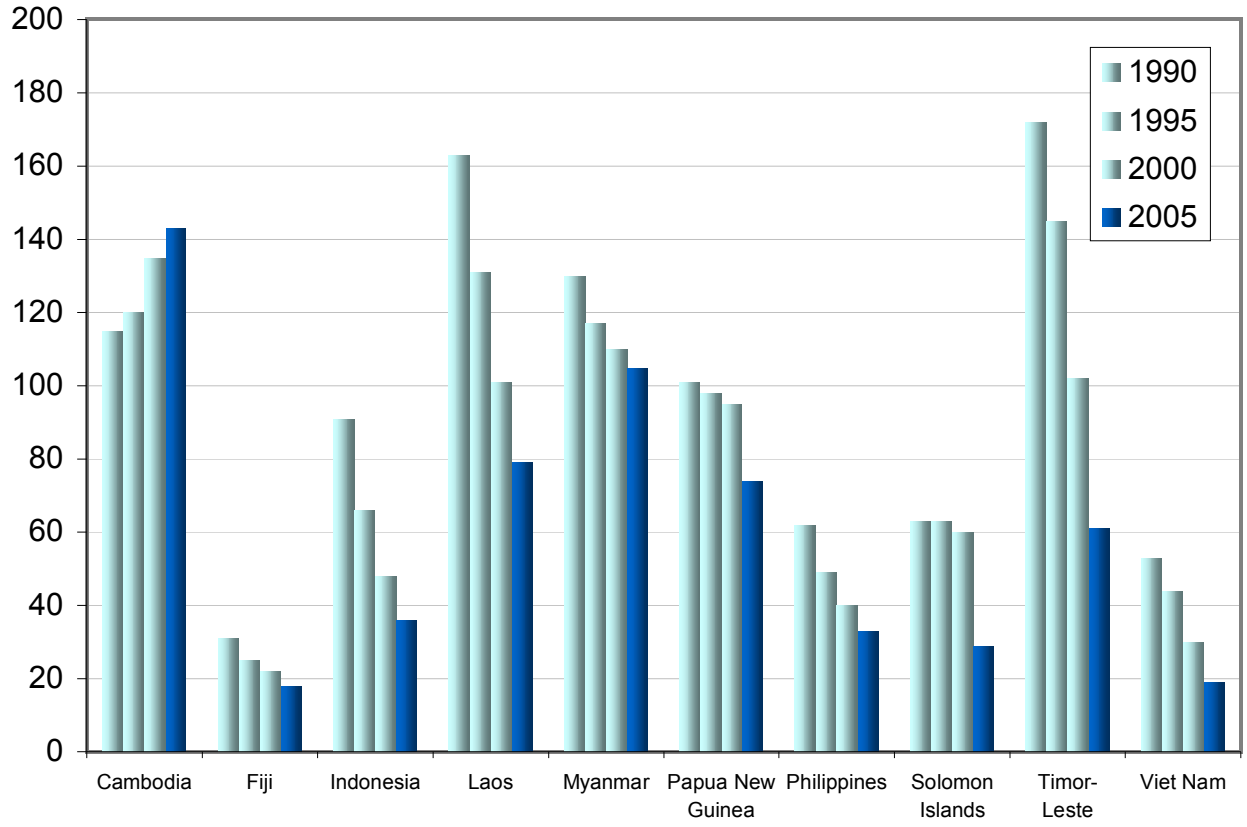


Figure 3 highlights the considerable progress in reducing child mortality in our region and shows that rapid improvement is possible, for example in Indonesia, Laos, Timor-Leste and Viet Nam. However, as Table 1 indicates, only these four countries are on track to achieve the Goal of a two-thirds reduction in child mortality by 2015. The others will all need to increase their rate of improvement if they are to achieve the Goal.

The WHO World Health Report[12] has pointed out that achieving lower child mortality requires a continuum of care from before birth, through the post natal period and into childhood. This requires adequate nutrition for mothers and children, immunisation against the major childhood diseases, adequate hygiene, access to clean water and a health system which can provide basic services to mothers and children.

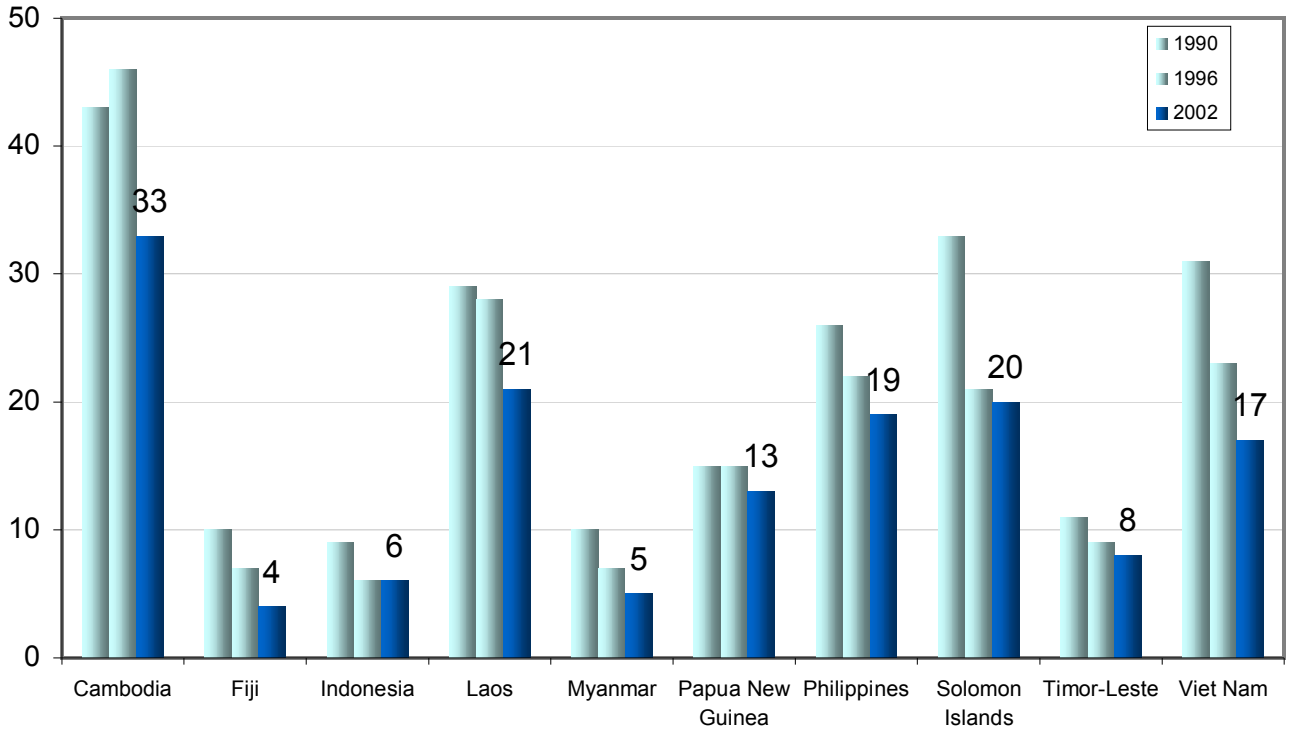
Nutrition

There is a two-way connection between adequate nutrition and disease. Lack of adequate nutrition and low birth weight increase susceptibility to disease and repeated bouts of illness (especially diarrhoea) reduce weight and can cause stunted growth and chronic malnutrition. Tens of thousands of children in our region die due to weakened immune systems which cannot adequately fight illnesses such as diarrhoea and measles. The WHO estimates that at least one in every two child deaths is related to poor nutrition.[13]

The core solutions to child malnutrition are healthy mothers, exclusive breastfeeding for the first six months of life, adequate nutrition during the transition to solid foods, sanitation and hygiene, and provision of essential micronutrients.[14]

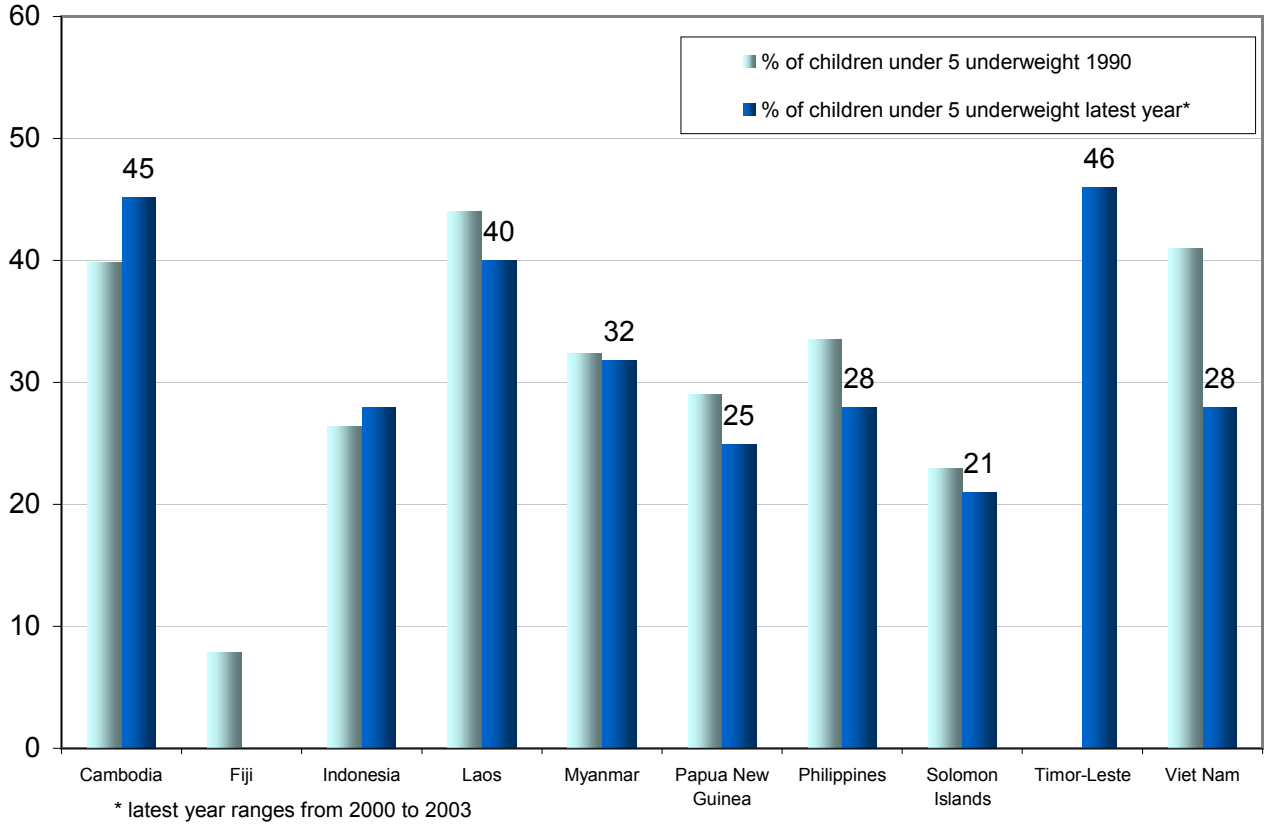
The first Millennium Development Goal includes the target of halving the proportion of people who are hungry by 2015. Figure 4 below shows that there is a very wide disparity in nutrition levels in the region ranging from one-third of people malnourished in Cambodia down to 4% in Fiji and 6% in Indonesia. All countries in the region have shown improvements in this measure since 1990, however it is concerning that five countries still have high levels of malnourishment – Cambodia, Laos, Philippines, Solomon Islands and Viet Nam.

Figure 4 Percentage of the population severely or moderately malnourished[15]



Despite these improvements there are still high proportions of underweight children in countries in our region. Figure 5 shows little improvement in the number of underweight children in our region in recent years. These results suggest that special attention needs to be focussed on the simple strategies required to ensure adequate nutrition for children.

Figure 5 Percentage of children under 5 years of age who are underweight[16]



One critical strategy is to maximise breastfeeding especially in the first six months of a baby's life. Figures in Table 3 show that the rates of exclusive breast-feeding differ greatly from country to country and that there is considerable scope for improvement in many countries.

Table 3 Percentage of children who are exclusively breast fed until 6 month of age[17]

%	Cambodia	Fiji	Indonesia	Laos	Myanmar	PNG	Philippines	Solomon Islands	Timor-Leste	Viet Nam
	12	47	40	23	15	59	34	65	31	15

Note: this data is for the most recent year available and is in the range 1996 to 2005

Beyond the first six months adequate nutrition can be significantly assisted by simple child feeding practices which ensure that the transition to solid foods is well supported and through the provision of micronutrient supplements added to staple foods or administered in regular doses. The main supplements needed are iron, iodine and folate for mothers and Vitamin A, iodine and iron for children.[18]

Approximately 40% of under five year olds have Vitamin A deficiency in the developing world. Small doses of Vitamin A significantly improve immune system effectiveness, reducing mortality rates by up to 23%. This can be achieved at low cost with just two Vitamin A doses a year at around A$3.50 per child.

Iodine deficiency can result in significant mental impairment and is also widespread – causing around 1.2 million children to be born mentally impaired in our region each year. The cost to prevent iodine deficiency is less than 70c Australian per person per year.

It is estimated that 40% to 60% of children in the developing world suffer from iron deficiency which disrupts both their physical and cognitive development. It costs A$4.20 or less to provide iron supplementation per child per year.[19]

Table 4 summarises micronutrient status in the region. Even in countries where food quantity is adequate there are often problems with food quality.

Table 4 Summary measures of micronutrient status in the region – latest years[20]

Country	Estimated % of iron deficiency anaemia in children under 5	Estimated % of iron deficiency anaemia in women aged 15-49	Estimated annual no. of children born mentally impaired due to iodine deficiency	Total Goitre Rate (% of children age 6-11) - indicating iodine deficiency	Estimated % of children under 6 with sub-clinical vitamin A deficiency
Cambodia	63	58	85,000	18	42
Fiji	-	-	-	-	-
Indonesia	48	26	445,000	10	26
Lao PDR	54	48	27,000	14	42
Myanmar	48	45	205,000	17	35
Papua New Guinea	40	43	-	-	37
Philippines	29	35	300,000	15	23
Solomon Islands	-	-	-	-	-
Timor Leste	-	-	-	-	-
Viet Nam	39	33	180,000	11	12

Immunisation

Many of the main diseases that kill children in developing countries - measles, haemohphilus influenzae, pertussis (ie whooping cough), tetanus, pneumococcus and rotavirus - can be prevented through immunisation. WHO estimates that the current level of global child deaths could be reduced by around 20-25% through more extensive immunisation programs.[21] This suggests that expanded immunisation in our region could save the lives of around 100,000 children a year.[22]

Figure 6 Immunisation coverage (%) in the region - 2005[23]

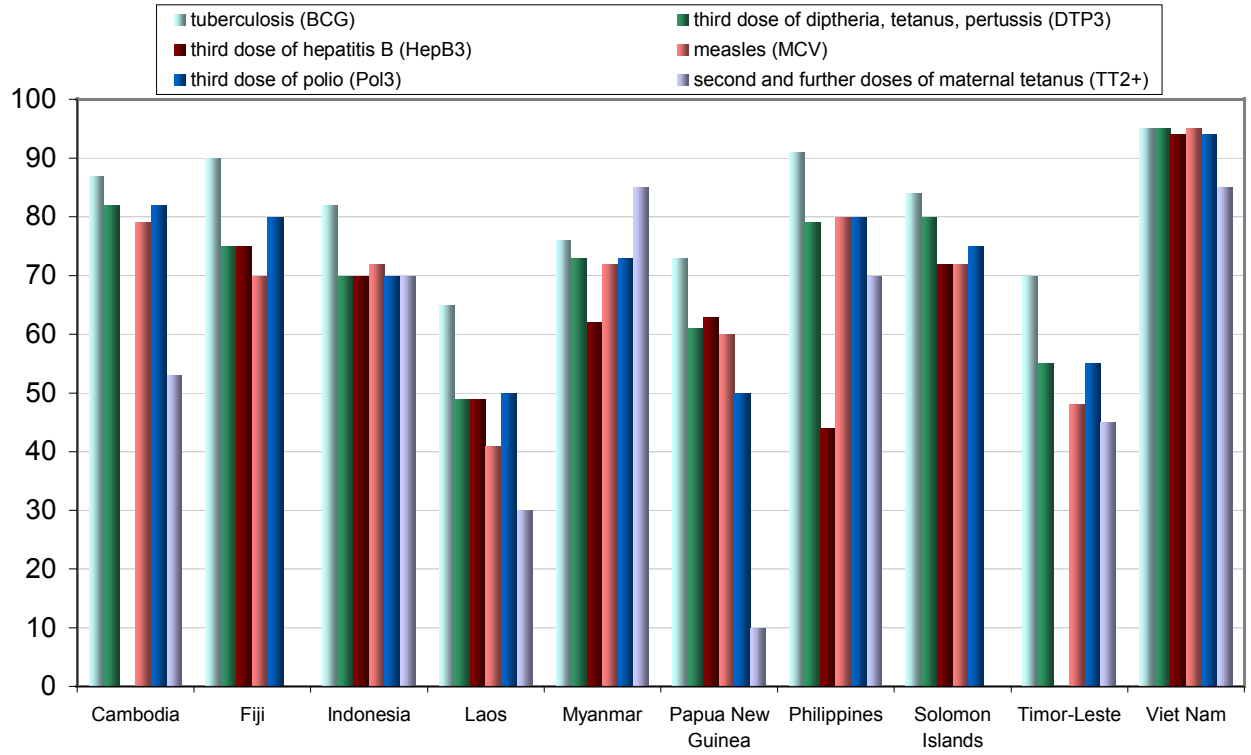
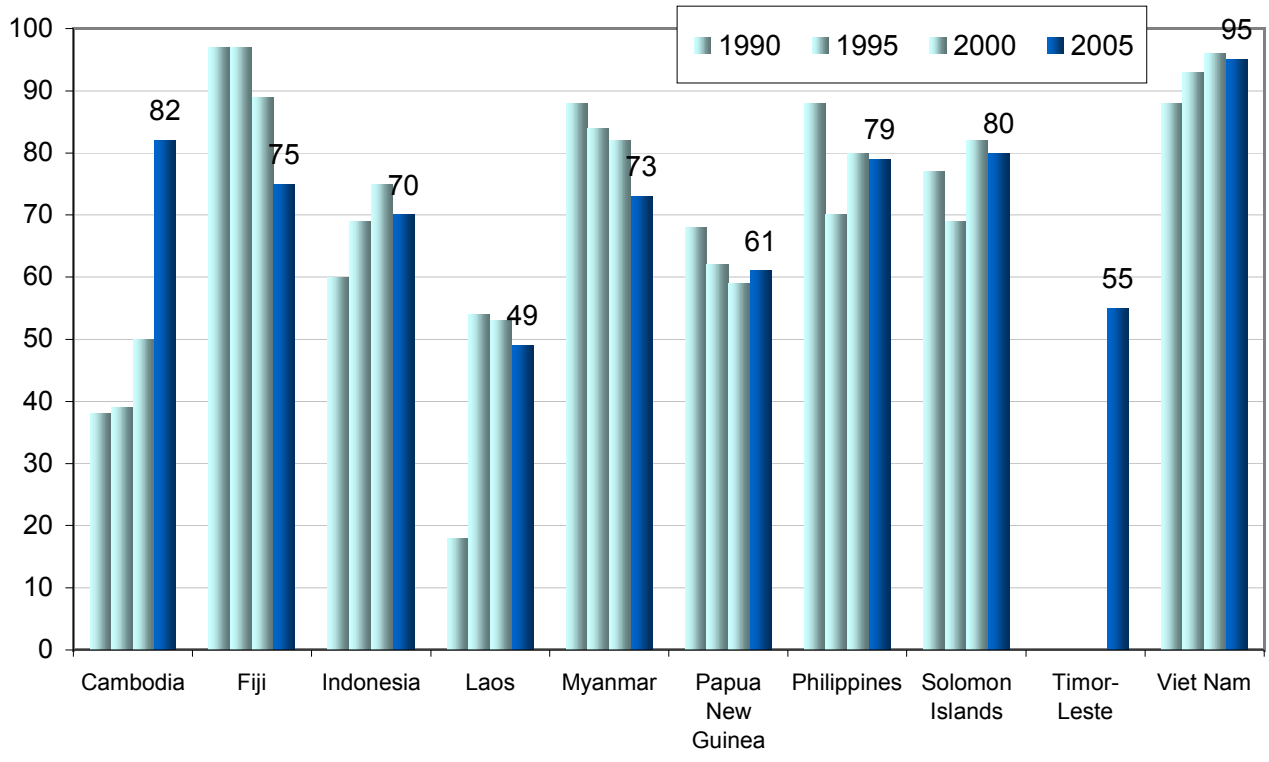


Figure 6 shows the rates of coverage in our region for the major immunisation types. In this landscape Viet Nam shows almost universal coverage for all types of immunisation, in significant contrast to Laos, Papua New Guinea and Timor-Leste.

To get an idea of changes over time in immunisation levels, Figure 7 shows the coverage at four points in time for DTP3 – the three doses for diphtheria, tetanus and pertussis. This has been a core component of the immunisation schedule for over thirty years.

Figure 7 Changes to DTP3 immunisation coverage (%) over time[24]

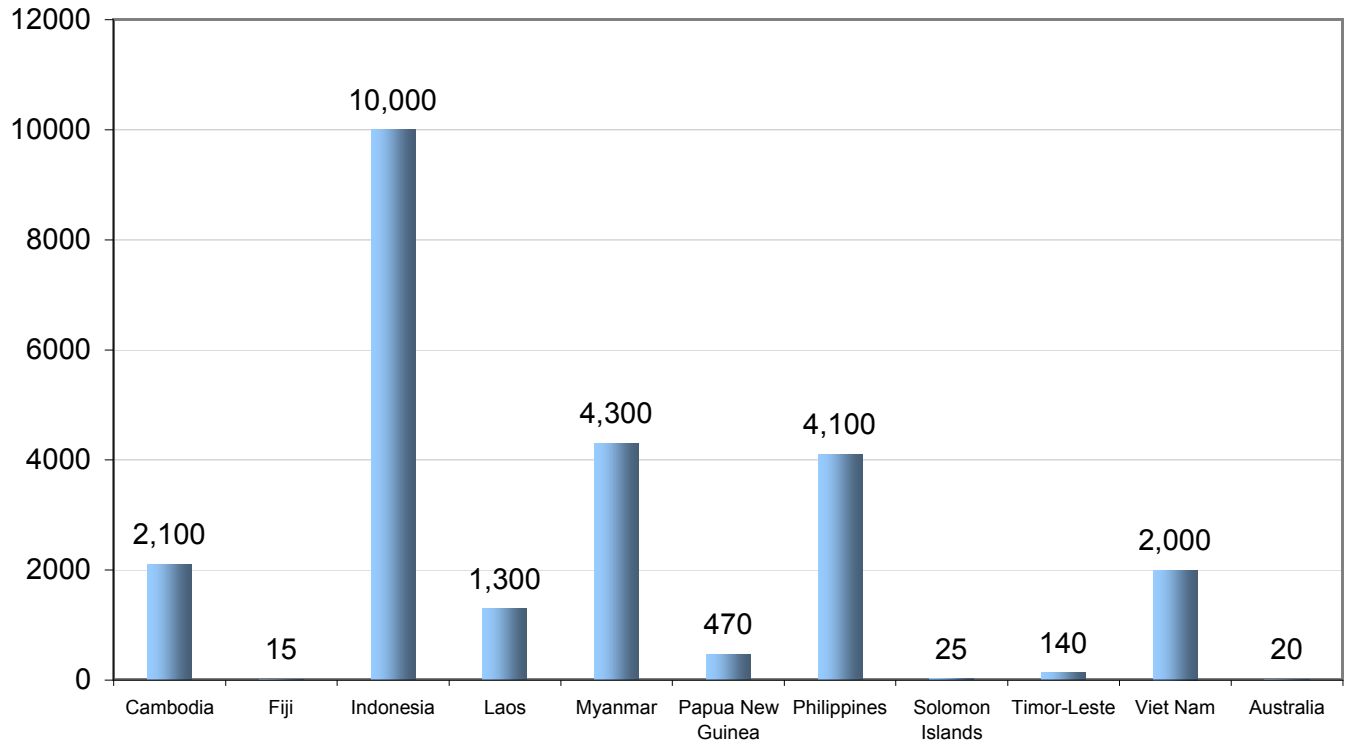


It is a significant concern that even this fundamental vaccine is not available to all children in our region and that there is no clear pattern of improving access. The Expanded Program on Immunisation was launched by the World Health Organization in 1974 to help countries ensure that the basic vaccines were available to all children. Despite the clear benefits, the low cost (around A$20 per child in our region[25]) and the well-understood strategies to reach this target, it still has not been achieved over thirty years later.

Maternal health

Goal 5 of the MDGs is to reduce maternal deaths by three-quarters. Around 500,000 women die from the complications of pregnancy and childbirth across the world each year – over 24,000 of these are in our region. Figure 8 highlights how many maternal deaths are recorded in each country. Due to weaknesses in data systems the most recent available comparative data covers the year 2000.

Figure 8 Maternal deaths in the region - 2000[26]



It is estimated that for every woman who dies, approximately twenty more suffer injuries, infection and disabilities.[27]

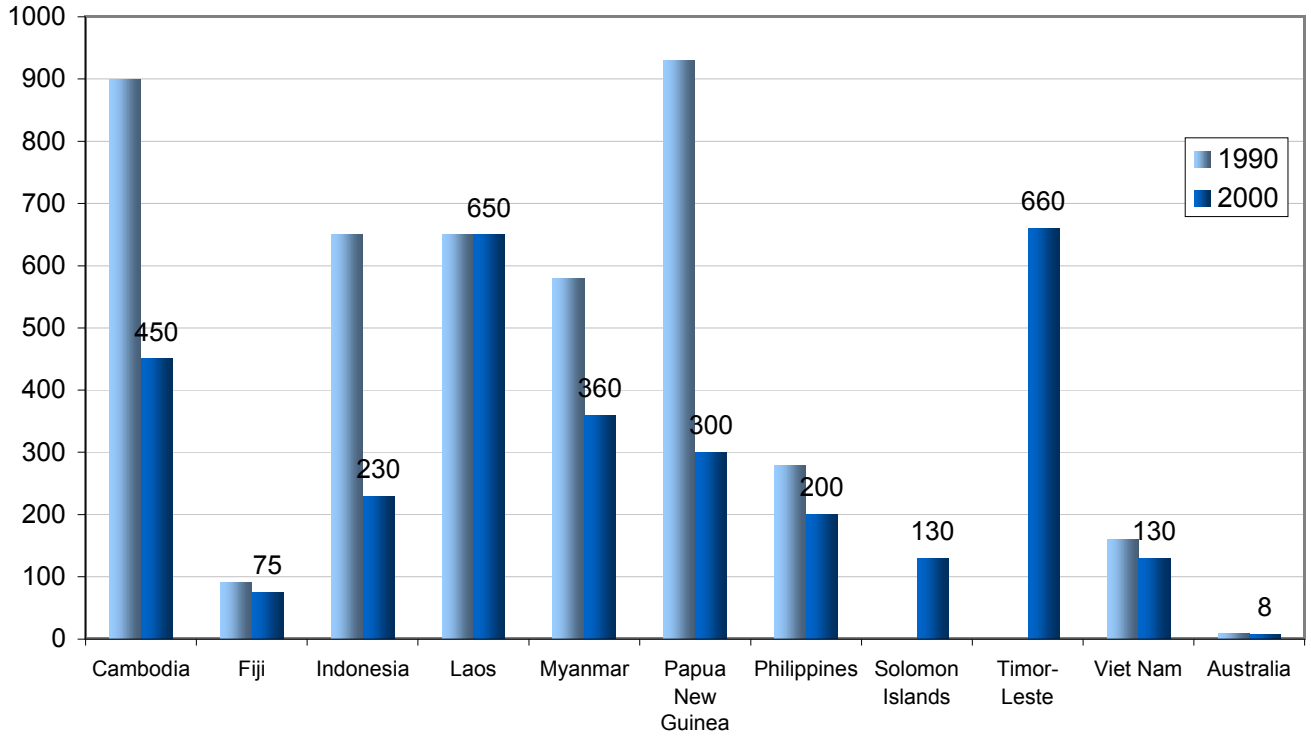
Poverty and malnutrition are major factors in maternal death and complications. This is not only because poor people have less access to adequate medical care, but also because women whose growth has been stunted by chronic malnutrition are vulnerable to obstructed labour, anaemia that increases the chance of haemorrhage and sepsis during delivery and because low birth weight babies are more likely to cause maternal hypertension.

The main causes of maternal death are severe bleeding/haemorrhage (25%), infections (13%), eclampsia (12%), obstructed labour (8%), complications of abortion (13%), other direct causes (8%), and indirect causes such as malaria, anaemia, HIV and AIDS and cardiovascular disease (20%). Almost all these factors are preventable or treatable and the treatments for most have been known since the 1950s.[28] That is why Australia records just 20 maternal deaths a year.

Understandably the number of child deaths and illness is also much greater when there are maternal health complications.

Figure 9 plots the maternal mortality rate in the countries of our region. It shows that significant progress has been made since 1990 in most countries, but that there are still very large differences between countries. For example, Cambodia has a rate that is three times that of Viet Nam, while the rates in Laos and Timor-Leste are five times higher than Viet Nam.

Figure 9 Maternal mortality rate per 100,000 live births in the region – 1990 and 2000[29]



Those countries that have successfully reduced maternal mortality have been working to ensure that women have access to adequate antenatal and postnatal care and skilled attendants present at births. Other important factors are access to family planning services and birth control.[30]

Table 5 shows the most recent data available on use of modern contraceptives and skilled birth attendants. It is clear that neither is universally available throughout the region. In particular Cambodia, Laos, Papua New Guinea and Timor-Leste appear to have very low rates for both. Four out of five women in Timor-Leste and in Laos deliver their babies without the assistance of a skilled birth attendant.

Luu, 6 mths, with mother Bon attend a World Vision supported nutrition clinic for mothers in Viet Nam

Table 5 Use of modern contraceptives and skilled birth attendants[31]

Country	Modern contraceptive use (%) amongst married women 2001-2003	Births attended by skilled health personnel (%) 1999-2004
Cambodia	19	32
Fiji	-	99
Indonesia	57	72
Lao PDR	29	19
Myanmar	33	57
Papua New Guinea	20*	41
Philippines	33	60
Solomon Islands	-	85
Timor Leste	9	18
Viet Nam	57	85

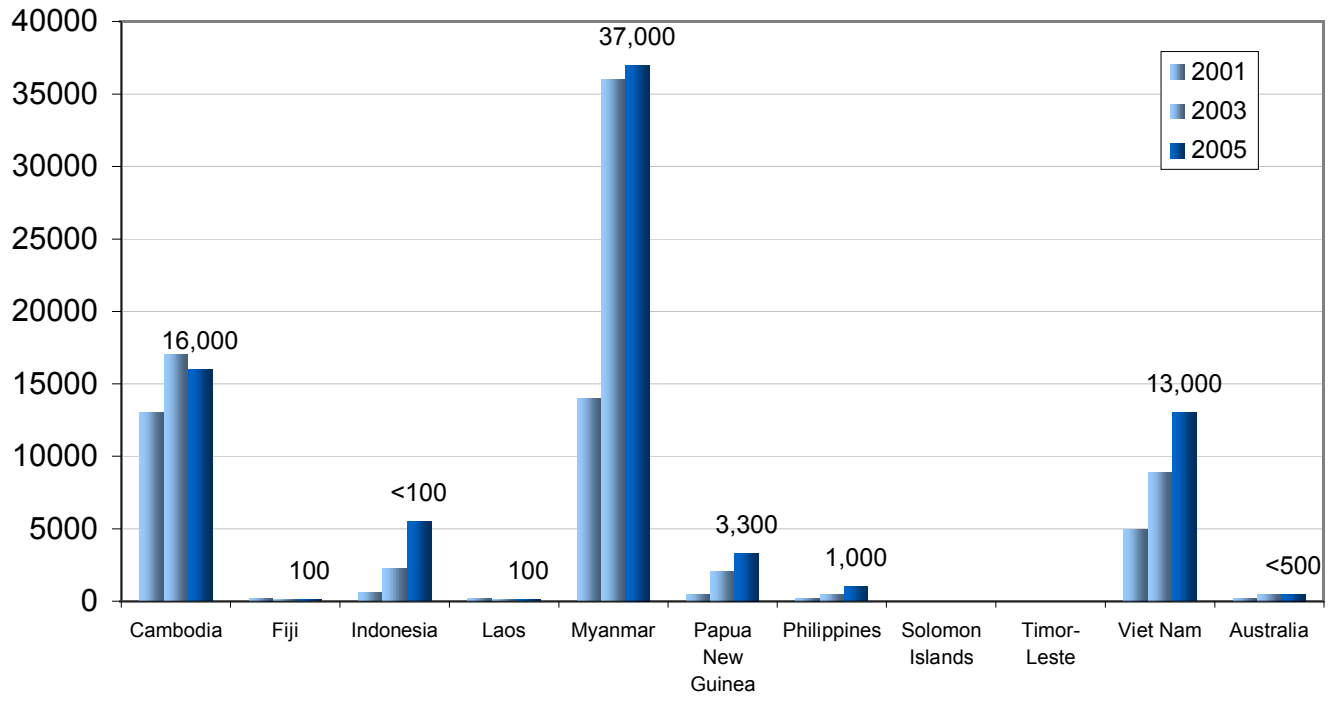
* this data is from 1996

HIV and AIDS

Around 75,000 people from our region died of AIDS in 2005[32]. This is less than 3% of global deaths from AIDS. At this stage none of the countries in the region have a high rate of HIV infection. However, this is likely to change unless several countries increase their prevention activities.

As Figure 10 shows almost half of all regional deaths from AIDS were in Myanmar – this is because it has both a large population and one of the higher prevalence rates in the region. Rapid increases in the number of AIDS deaths were also found in Indonesia, Papua New Guinea and Viet Nam.

Figure 10 Deaths from AIDS in the region[33]



Papua New Guinea is of particular concern as it now has the highest prevalence rate in the region and this is continuing to grow. In comparison Cambodia appears to have been effective in reversing the spread of the disease, mainly through successful prevention campaigns in the sex industry. Figure 11 also shows the currently low prevalence of HIV for most other regional countries.

In most regional countries infections are still largely concentrated in specific high-risk groups such as sex workers, injecting drug users and men who have sex with men.[34] For this reason well targeted prevention campaigns can be very effective in reducing future infection spread. Given the high costs of treatment, effective action now is likely to be very cost effective as well as very important in reducing future suffering. However, action will need to be quick – infection levels amongst injecting drug users are already greater than 40% in some areas of Indonesia and 14% of sex workers in Papua New Guinea's capital Port Moresby have HIV.[35]

Figure 11 Percentage of 15-49 year olds living with HIV[36]

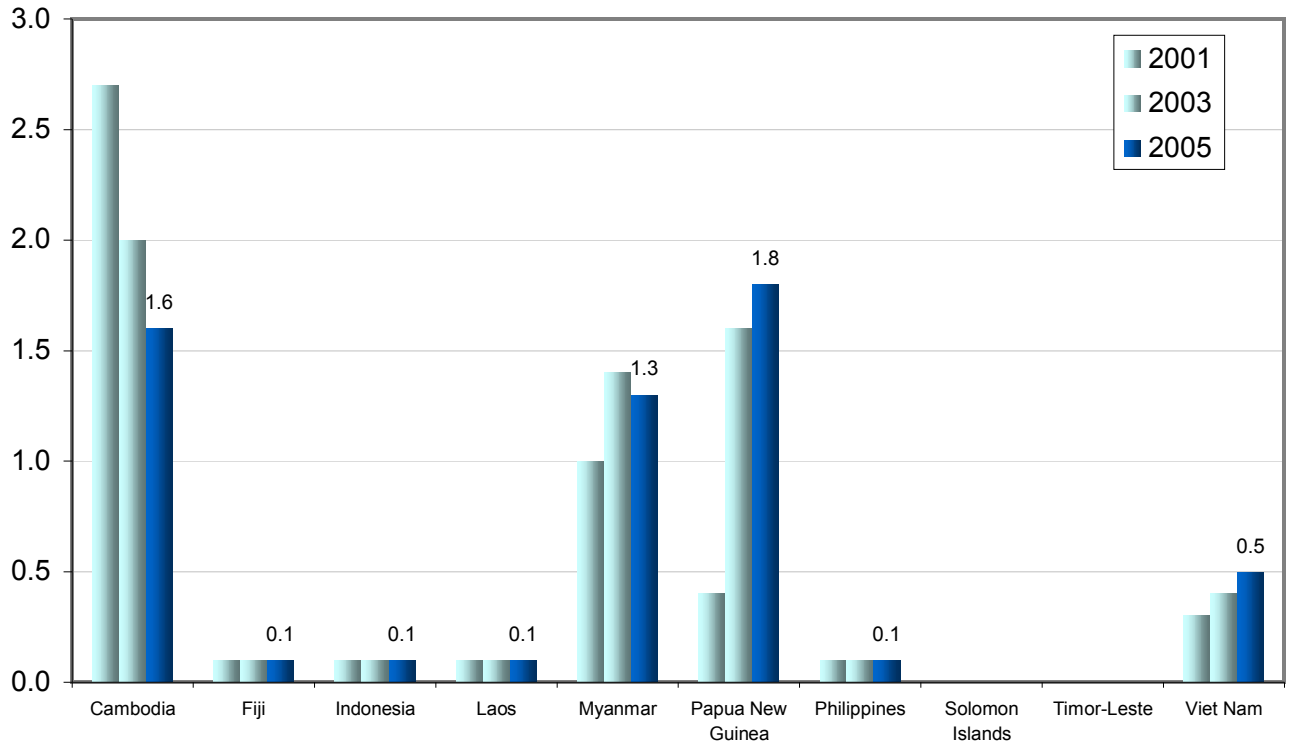


Table 6 Coverage of effective HIV and AIDS prevention and treatment programs[37]

Country	% of pregnant women with HIV given a complete course of ARV prophylaxis to reduce mother to child transmission (maximum reported in 2005)	% of young people with comprehensive HIV and AIDS knowledge 2003	% of young people who reported using a condom the last time they had sex with a non regular partner 2005	% of sex workers who reported using a condom with their most recent client 2005	% of injecting drug users that have adopted behaviours that reduce transmission of HIV 2005	estimated % anti retroviral therapy coverage Dec 2005
Cambodia	5.0	37	55	96*	-	36
Fiji	25.0	25#	-	-	-	100
Indonesia	0.7	7	-	55	19	30
Laos	2.5	-	-	83	-	49
Myanmar	2.0*	-	-	-	-	7
Papua New Guinea	<3	-	18^	-	-	15
Philippines	0.4	<40	-	-	-	5
Solomon Islands	-	-	12	-	-	
Timor-Leste	-	-	-	-	-	
Viet Nam	2.3*	46#	68	90	85	12

* data is from 2003 # data is from 2005 ^ data is from 2006

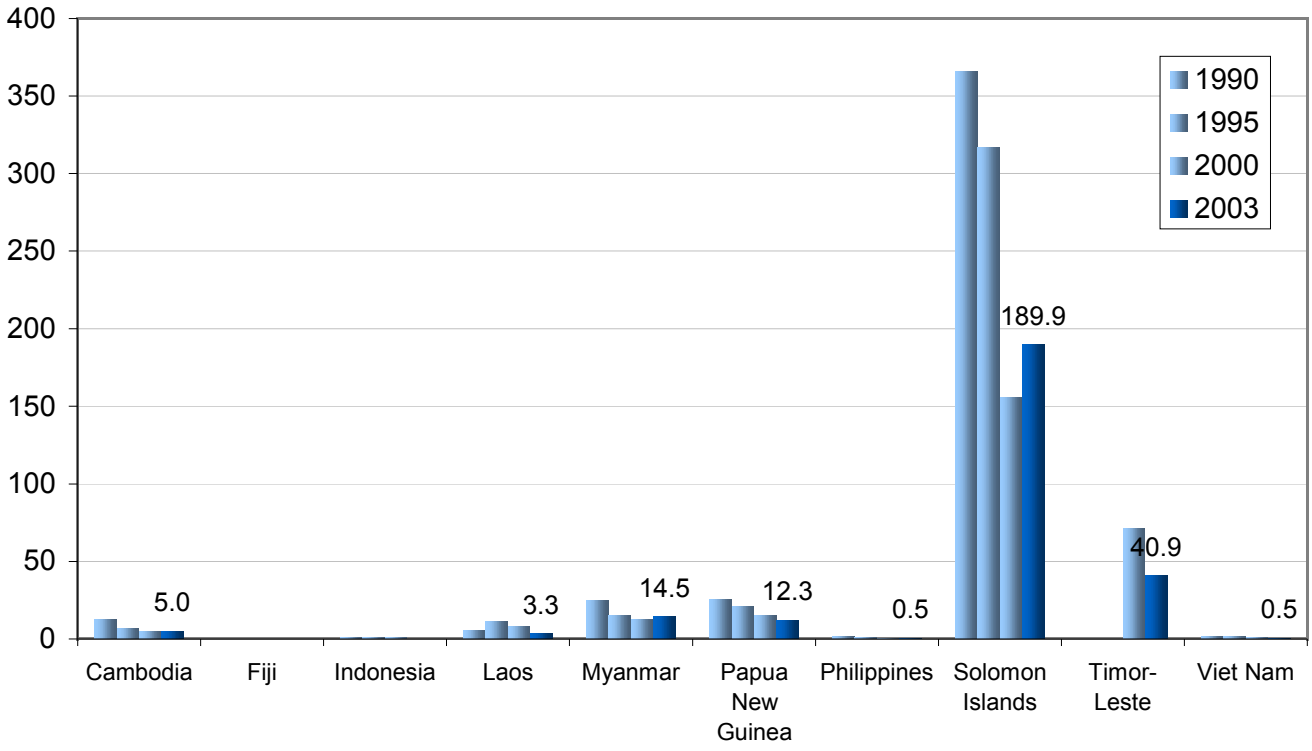
Table 6 summarises regional performance against a number of indicators of effective prevention and treatment. The poor data coverage and lack of recent indicators suggest that monitoring of HIV and AIDS prevention and treatment programs in the region needs to be significantly upgraded. It is also likely that prevalence rates are underreported even where data is collected. The data that is available suggests that, in most countries, much more can and should be done to improve prevention and treatment program quality and coverage.

Malaria

Most of those who die from malaria are young children who are already recorded in the child mortality section of this paper. Counting the number of malaria deaths is complicated because a number of illnesses show similar febrile symptoms and appropriate tests are required to confirm malaria as the cause. The World Health Organization estimates that around 11,000 children die directly from malaria in the region each year. On top of this a much larger number of both neonatal and maternal deaths are likely to be caused by malaria infection in mothers resulting in extreme anaemia.

The Solomon Islands has by far the highest recorded rate of malaria infections in the region and one of the highest rates in the world. Most countries in the region have recorded a gradual drop in malaria since 1990 however the situation in this region is still very serious and likely to be underestimated in the official figures. Malaria causes enormous suffering and debilitation and reduces resilience to other illnesses. Its direct and indirect effects can place great strain on weak health systems.

Figure 12 Recorded malaria cases per 1000 population[38]



Control of malaria requires effective mosquito control programs, protection of people (especially pregnant women and children) from bites while they are sleeping and appropriate use of effective drug treatments. Malaria parasites have developed strong resistance to standard treatments in a number of regions and more expensive drugs are often now required. Nonetheless, many countries have shown that the burden of malaria can be greatly reduced through thorough preventative and treatment programs. There are also a number of promising vaccines currently being tested - several of which have been developed in Australia.

At present there is inadequate monitoring of malaria treatment and control activities in the region. However, the data that does exist suggests only a small minority of those requiring treatment, insecticide-treated bed nets and other mosquito control activities have access to them. [39]

Tuberculosis

There has been considerable success in the treatment of tuberculosis (TB). The directly observed treatment, short course (DOTS) approach has proven to be a cost effective and practical therapy in developing countries. While TB is still a major killer, causing over 190,000 deaths in our region per year, the available international data indicates that both the number of people infected and the number of deaths has decreased in almost every country in the region.

However, the rates of both TB prevalence and deaths vary dramatically from one country to another in the region and there is much that can be done to decrease rates further in those countries with high prevalence such as Cambodia, Papua New Guinea, the Philippines and Timor-Leste. As can be seen in Table 7, the coverage of DOTS programs is not comprehensive throughout our region.

There are two main challenges to reducing the impact of TB – the development of drug resistant strains in many countries and the greatly increased TB mortality in people with HIV. To date neither of these factors have been major factors in our region, however this is likely to change.

Boys in the Philippines learn about TB through comics produced by World Vision and other groups

Figure 13 Tuberculosis deaths in the region 1990 and 2004[40]

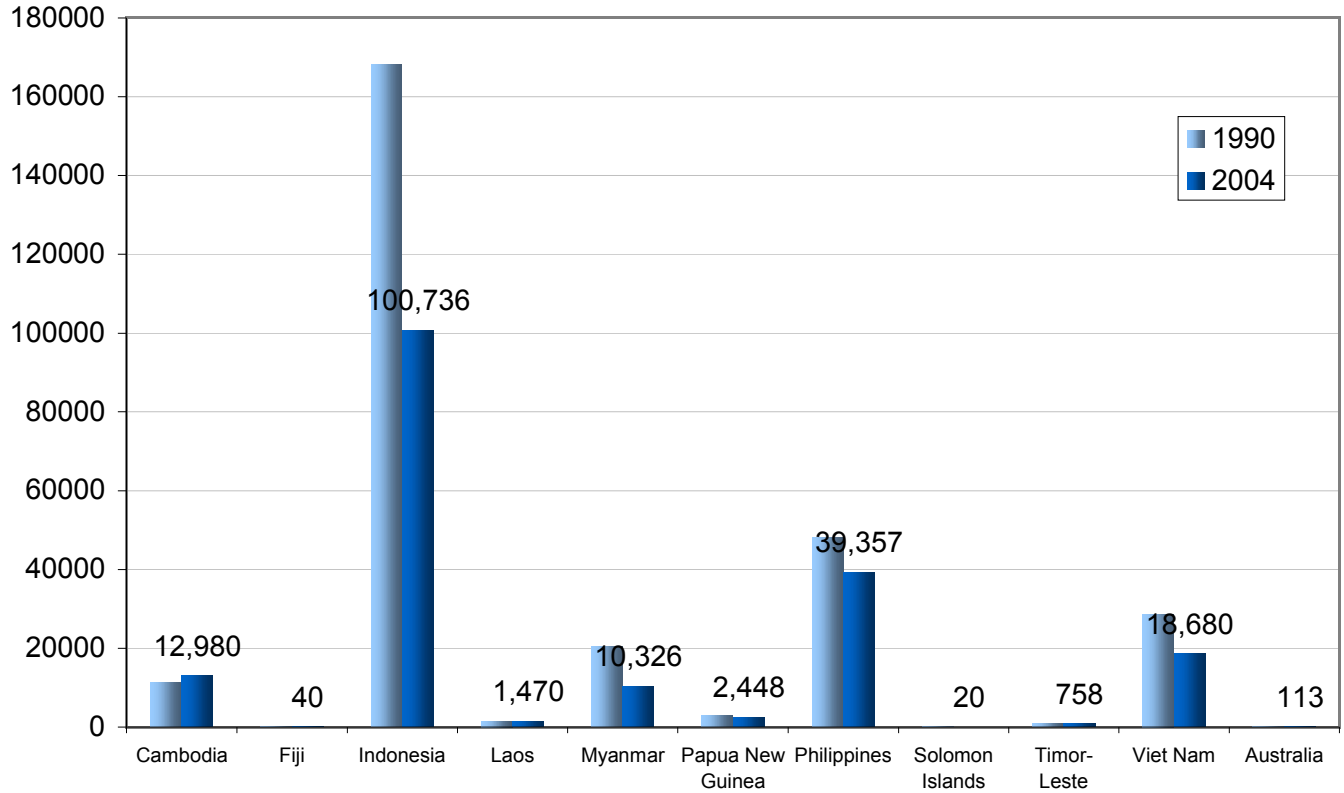


Table 7 TB prevalence, death rates and coverage of DOTS programs - 2004[41]

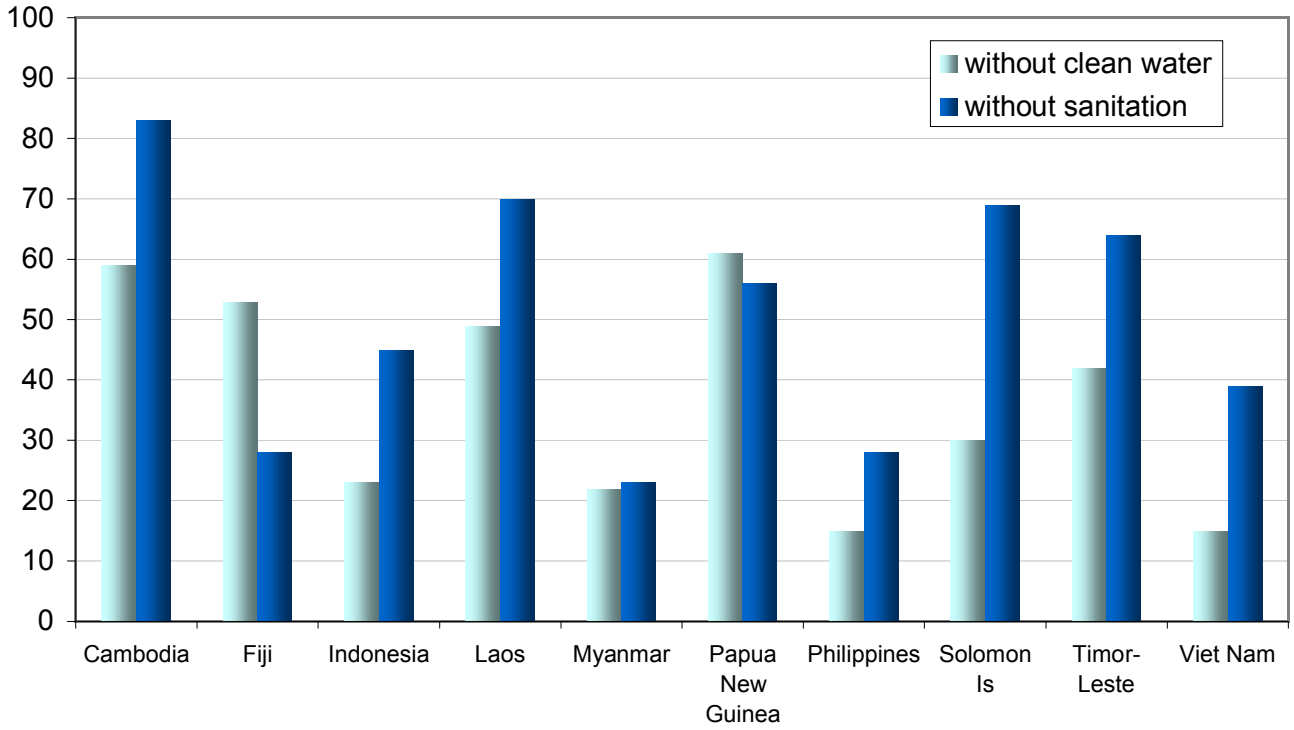
Country	Prevalence rate per 100,000	Death rate per 100,000	% of TB cases detected under DOTS[42]
Cambodia	709	94.1	61.0
Fiji	41	4.7	57.7
Indonesia	275	45.8	53.2
Laos	318	25.4	55.3
Myanmar	180	20.7	82.5
Papua New Guinea	448	42.4	19.1
Philippines	463	48.2	72.6
Solomon Islands	59	4.3	123.1
Timor-Leste	692	85.4	45.8
Viet Nam	232	22.5	88.8

Water and sanitation

Access to clean water and sanitation is critical to improved health, as is the understanding and adoption of hygienic practices. Diarrhoea results in about 80,000 child deaths a year in the region but improved water, sanitation and hand washing can reduce diarrhoeal deaths by around 90%.[43] Repeated bouts of diarrhoea also indirectly cause deaths by weakening the immune system and causing underweight births.

Around 100 million people in our region do not have access to an improved water source and 185 million do not have adequate sanitation. This is 22% and 40% respectively of all people in the region. Figure 14 demonstrates the high proportion of people without access to these basic services in all the countries of the region, and in particular the very poor levels of access to sanitation.

Figure 14 Percentage of people with no access to an improved water source or adequate sanitation – 2004[44]



Cost benefit assessments of improved water and sanitation services show a high return on investment because of the many health, social and economic returns from these services. Better access to clean water and sanitation can reduce the overall burden of disease by 50%.[45]

As shown in Table 1 of this paper, 13 of the 22 regional countries are not likely to reach the MDG water goal on current trends while 10 are unlikely to reach the sanitation goal.

In Eltupan village, Bougainville children no longer have to scale a high cliff to obtain water which now is captured in a tank for easier access. This project was funded by AusAID and World Vision.

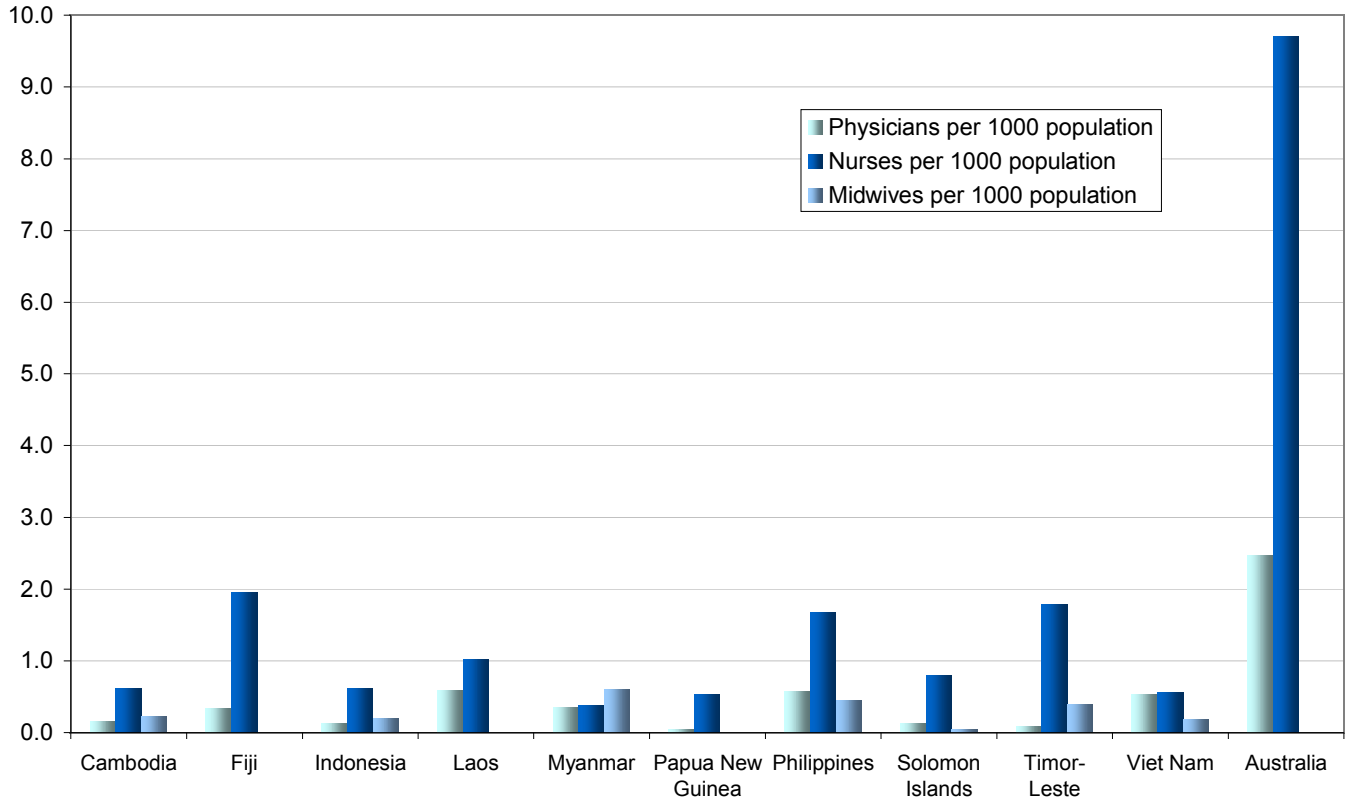
Health system staffing

Australia has much higher levels of health staffing than any of the developing countries in our region. Figure 15 highlights the differences from country to country.

It is clear from the outcomes reported elsewhere in this paper, that staffing numbers alone do not determine the effectiveness of a health system. This is also shaped by the management of the system, access to appropriate equipment and drugs, commitment and skills of staff and quality of training. It is also determined by how effectively the health resources are targeted at serving those most in need.

Nonetheless, some countries in our region have extreme staffing shortages. Australia has about 1 nurse for every 100 people and 1 doctor for every 400. In Papua New Guinea the ratio is 1 nurse for every 1,900 people and one doctor for every 19,000 people. With a quarter of Australia's population Papua New Guinea has just 275 doctors.

Figure 15 Health staff per 1000 population - latest years[46]



WHO classifies 57 countries worldwide as having a critical shortage of health workers. Research indicates that countries with less than around 2.3 health workers (doctors, nurses, midwives) per 1000 people are unlikely to be able to achieve adequate coverage of key services such as birth attendance and measles vaccination. WHO classifies Cambodia, Indonesia, Laos, Myanmar, Papua New Guinea and Solomon Islands as all having a critical shortage of staff.[47]

Financing

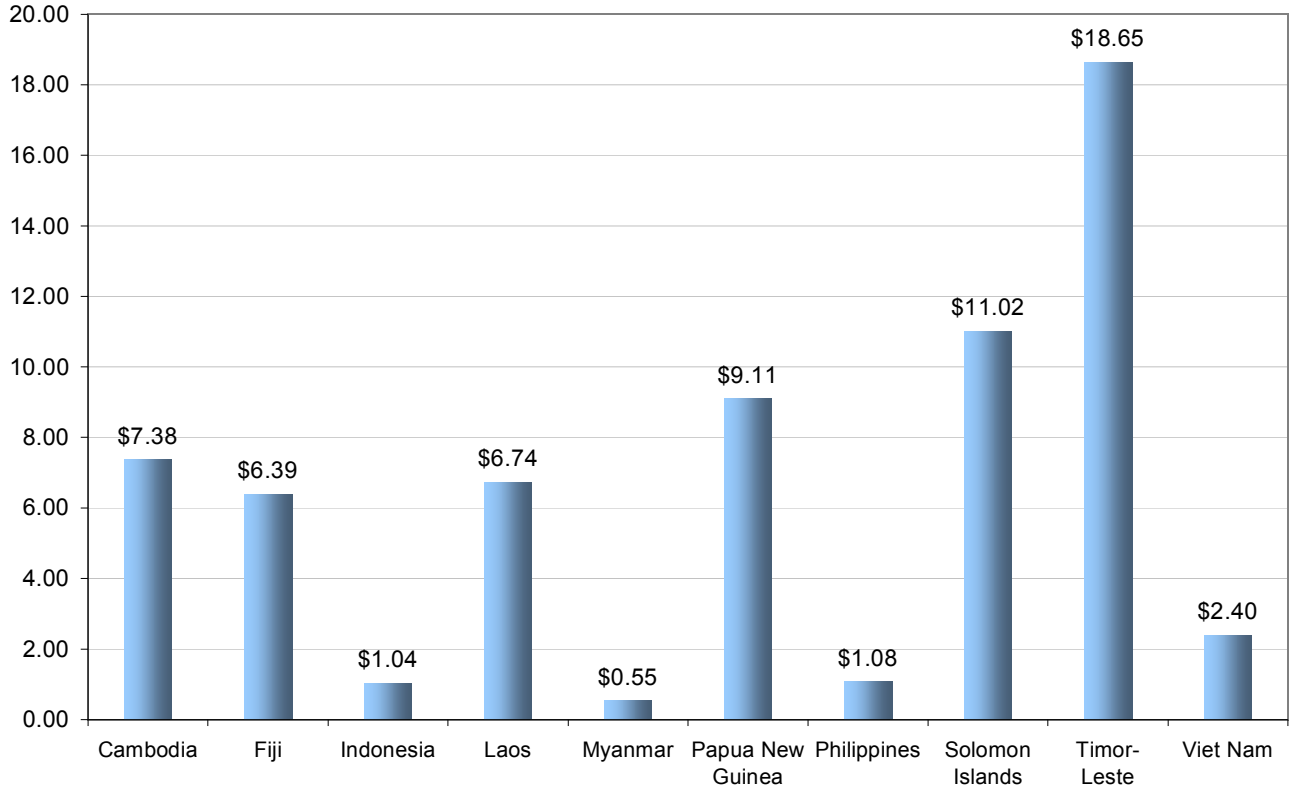
Total donor support for health has been increasing in recent years. The OECD records total donor commitments to health programmes globally rising from A$6.56 billion in 2001 to A$12.95 billion in 2005 – an average growth rate of almost 20% per year in real terms.[48]

However, the World Bank and the UN estimate that total aid required for basic health is around A$53 billion a year currently and will rise to around A$67 billion by 2010.[49] This means that current global aid for health is only around one quarter of the level required if the MDGs and other international basic health commitments are to be achieved.

Our region contains around 9% of the developing world's population and 5% of the child deaths. If we assume the midpoint of 7% for costing purposes[50] then total health aid required in the region is around A$3.7 billion rising to A$4.7 billion by 2010.

Current health aid to the region is much lower than this, totalling an annual average of just A$838 million in 2004 and 2005, or 23% of the estimated aid needed. Figure 16 shows how this aid is distributed and demonstrates the quite low levels of per capita health support being provided by donors. While the higher income countries – Fiji, Indonesia and the Philippines – should have sufficient resources to largely fund their own basic health systems, the lower income countries are likely to require significant support if they are to provide basic health services to their people. The WHO estimates that the average per capita cost of providing basic health services is around A$40-$53 per person per year and that in lower income countries more than half of this total would need to be provided from external sources.[51] This suggests that Timor-Leste is the only low income country in the region receiving anything like the level of health support from the international community required to meet people's basic needs.

Figure 16 Health aid commitments from all donors in A$ per capita – annual average for 2004 & 2005[52]



Australia's total health aid has been rising and is expected to double from its 2005 level to around $600 m by 2010.[53] In 2006-07 Australia is contributing $383m in total health aid or 13% of the aid budget. $291m of this is for basic health.[54] In comparison Australia's fair share of global health aid, commensurate with our 1.5% share of OECD donor income, is A$800 m rising to A$1.0 billion by 2010.

A recent study by WaterAid and World Vision found similar shortcomings with funding for water and sanitation. Australia provides around A$60m a year compared with an estimated fair share of A$350m per year.[55]

It is clear that Australia and other donor nations need to expand their health, water and sanitation funding plans if they are to adequately meet their commitments to help developing counties meet their basic health needs.

One of the mosquitos in a WV/UNICEF educational drama teaching about malaria risks in Aceh, Indonesia

Conclusion

This paper has looked in some detail at the major child, maternal health and infectious disease challenges in our region. It finds that there has been significant progress in many countries and that rapid improvement in health outcomes is possible. However, it also finds that considerably more can be done to reduce the burden of disease in our neighbouring countries.

This is also the message of AusAID's recently developed health policy which identifies "unacceptably high rates of maternal and child deaths. The majority of these deaths could be prevented by available interventions, but essential programs often do not reach those most in need."[56]

AusAID's policy recognises that Australia will need to increase its health investment and make its health aid more effective. The policy focuses on strengthening health system fundamentals, addressing the priority health needs of women and children, supporting country-specific priorities to address high-burden health problems and ensuring systems are in place to reduce regional vulnerability to HIV and AIDS and emerging infectious diseases.[57]

While World Vision welcomes these statements of intent, this paper aims to encourage greater action and commitment by the Australian Government and other countries to tackling the specific health issues facing countries in our region. World Vision plans to update this report regularly in order to keep a spotlight on these key development needs.

Recommendations

1. Cambodia, Laos, Myanmar, Papua New Guinea and Timor-Leste need extra support to build more effective and adequately staffed health systems. Issues with governance, and difficulties with intergovernmental relations, should not be reasons for people dying of easily preventable illnesses.
2. There needs to be a much greater focus on improving child and maternal health – most countries in the region are off track for these most basic of goals. Child and maternal health are intimately linked and should form the basis around which health systems are developed.
3. Improving child health requires higher rates of immunisation, more support for nutrition, food security and micronutrient programs and also improved hygiene. Higher levels of immunisation are needed particularly in Laos, Papua New Guinea and Timor-Leste and probably also in Cambodia. Nutrition requires special effort in Cambodia, Laos and Timor-Leste, but needs to be improved in most countries in the region.
4. Improving maternal health requires much greater effort in Cambodia, Laos, Myanmar, Timor-Leste and probably Papua New Guinea. All these countries need better family planning services and increased care for expectant mothers. Throughout the region the monitoring of maternal care programs needs to be improved.
5. There needs to be a massively increased effort in the region to prevent the spread of HIV and to assist people already infected. This effort needs to focus on those countries with high rates of infection such as Cambodia, Myanmar and especially Papua New Guinea as its infection rate is increasing quickly. Prevention in the region should focus on high risk groups but it is also clear that in many countries knowledge of prevention strategies needs to be improved in the general population. Low rates of antiretroviral treatment indicate that in most regional countries further work is needed to ensure universal and sustainable access.
6. Monitoring of malaria treatment and control activities needs to be improved in Papua New Guinea and Timor-Leste and greater efforts made to ensure prevention and treatment programs are available for pregnant women and children throughout the region particularly in the Solomon Islands which has very high infection rates.
7. Improving water and sanitation access and promoting hand washing needs to be given equal priority to improving medical services. Cambodia, Laos, Papua New Guinea, Solomon Islands and Timor-Leste have particularly low rates of access to clean water and sanitation.
8. There needs to be a significant increase in funding for health from both developing countries and donors. The Australian government plans to double funding for health aid by 2010, but as this paper shows, the scale of the problems indicate that health aid should be more than tripled. A major commitment and leadership by Australia is likely to attract additional support to the region from other donors as most have committed to significantly increase their overall aid volumes.
9. Monitoring and evaluation of health status and systems in the region needs to be greatly improved so that lessons can be quickly learned and appropriate action taken in a timely manner. The major indicators used in this paper should form part of a regular monitoring process which shapes AusAID strategies, health project planning and resource allocation for all countries in the region.

Notes

[1] For a full list of the Goals see www.un.org/millenniumgoals
[2] *How are the Neighbours?* is available at www.worldvision.com.au/learn/policyandreports/files/HowNeighbours.pdf
[3] This table is based on information from the UN Millennium Indicators database accessed on 3 March 2007. In this paper a country is considered to be on track if its recent rate of annual progress equals or exceeds the rate of progress now required to reach the country's target in 2015. If the recent rate is no more than 0.2% less than the rate required it is considered to be on track. This approach applies to all of the Goals that have a quantitative target. For Goal 6, which requires that the spread of a disease be halted and reversed by 2015, the Goal is considered by this paper to be on track if the incidence rate is not currently increasing.
[4] Some countries have modified the target levels for the Goals to make them more appropriate for their own development situation. The analysis in Table 1 is based on the standard Goals and not country modified targets – this is the practice adopted by the UN when summarising multi-country progress towards the Goals as it reduces the complexity of the analysis and provides a more meaningful basis for comparison.
[5] Many of the smaller Pacific countries do not have available comparable data on malaria and HIV and AIDS levels however World Vision's experience is that they are not a major problem at this stage.
[6] In this paper the term "our region" means the 22 developing countries in South East Asia and the Pacific that regularly receive aid from Australia. These countries are listed in Table 1.
[7] Data from UNICEF State of the World's Children 2007 Table 1
[8] Ibid.
[9] Causes of death from WHO Statistical Information System accessed 4 March 2007 applied to the data on number of deaths from UNICEF *State of the World's Children 2007* Table 1. It should be noted that because of the limitations in record keeping in many developing countries the figures on child deaths and their causes are estimates based on the best available data.
[10] WHO 2005 *World Health Report 2005* p80
[11] Data from UNDP Millennium Indicators database accessed 5 March 2007 and UNICEF *State of the World's Children 2007* Table 1
[12] WHO *World Health Report 2005*
[13] http://www.unicef.org/nutrition/index_33721.html accessed 4 March 2007
[14] UNICEF *Progress for Children 2006 and* World Bank 2006 *Repositioning Nutrition as Central to Development: A Strategy for Large-Scale Action*
[15] Data from UN Millennium Indicators database accessed 5 March 2007
[16] UNICEF *Progress for Children 2006* Nutrition Indicators
[17] UNICEF *State of the World's Children 2007* database accessed 6 March 2007
[18] Micronutrient Initiative and UNICEF 2004 *Vitamin and mineral deficiency: a global damage assessment report*
[19] UNICEF *Progress for Children 2006;* costs from World Bank 2006 *Repositioning Nutrition as Central to Development*
[20] Micronutrient Initiative and UNICEF 2004 *Vitamin and mineral deficiency: a global damage assessment report* and UNICEF State of the World's Children 2007 database accessed 6 March 2007. Latest years data cover the period 2000 to 2003.
[21] WHO Global Immunization Vision and Strategy group 2006 *Saving 10 million more lives through immunization: the price tag, the shortfall*
[22] For a detailed estimate of lives that could be saved by greater health investment in the region see Make Poverty History and World Vision 2006 *A Proposal for an Australian Regional Health and Education Initiative* available at www.makepovertyhistory.com.au
[23] http://www.childinfo.org/areas/immunization/countrydata.php accessed 4 March 2007
[24] http://www.who.int/vaccines/globalsummary/immunization/timeseries/tswucoveragepab.htm accessed 4 March 2007
[25] http://www.dcp2.org/pubs/DCP/20/Table/20.5 accessed 25 March 2007
[26] UNICEF Childinfo database accessed 12 March 2007
[27] WHO *World Health Report 2005*
[28] Ibid.
[29] UN Millennium Indicators database accessed 7 March 2007. Note maternal mortality data is of low quality. The figures quoted here are put together by the WHO using a number of sources including country death registrations, survey results and maternal mortality models. An example of the problems is the case of Indonesia: WHO report Indonesian MMR at 230, the Indonesian Department of Health report it at 307 and UNFPA at between 300 and 400.
[30] Save the Children 2006 *State of the World's Mothers*
[31] UN Millennium Indicators database 5 March 2007
[32] Around 3000 of these deaths would be of children under five and already included in the total death estimate in the child mortality section of this paper.
[33] UN Millennium Indicators database accessed 7 March 2007
[34] HIV and AIDS is now considered to be generalized in Myanmar and Papua New Guinea.
[35] UNAIDS Dec 2006 *AIDS Epidemic Update*
[36] UN Millennium Indicators database accessed 7 March 2007
[37] UNAIDS 2006 *Report on the Global AIDS Epidemic* Annex 3 and UNAIDS Dec 2006 *AIDS Epidemic Update*
[38] Roll Back Malaria Partnership 2005 *World Malaria Report* Table A.22
[39] Roll Back Malaria Partnership 2005 *World Malaria Report* and UN Millennium Indicators database accessed 7 March 2007
[40] WHO *Global TB Control Report 2006* Annex 2
[41] UN Millennium Indicators database accessed 8 March 2007
[42] It is possible to have a case detection rate that is greater than 100% as the detection rate is calculated by dividing the actual case detections under DOTS by a model-based estimate of the total number of new cases. If this model underestimates the number of new cases the detection rate may be exaggerated. This is a sign that better monitoring of TB is required.
[43] WaterAid and World Vision 2007 *Getting the basics right: water and sanitation in South East Asia and the Pacific*
[44] WHO/UNICEF Joint Monitoring Program database accessed 12 Feb 2007
[45] AusAID 'Connecting Communities' *Focus* September 2006
[46] WHO 2006 *World Health Report 2006* Annex Table 4. It should be noted that total country staffing rates may mask extreme differences in urban-rural staffing levels.
[47] WHO 2006 *World Health Report 2006* pp11-12. WHO data indicate that Viet Nam has low health staff levels but their health system is atypically effective.
[48] These are the total commitments for Health and Population Programmes recorded on the OECD DAC CRS database accessed 18 March 2007. The totals are in constant 2005 dollars and converted from US dollars using a 75c exchange rate with the Australian dollar. For a longer time trend analysis see OECD DAC 2006 *Recent Trends in Official Development Assistance to Health*
[49] This is the estimate for the aid required for basic and reproductive health from World Bank 2006 *Health Funding Revisited: A Practitioners Guide* and Millennium Project 2005 *Investing in Development.* More than 25% of this funding will be required to meet commitments to prevent and treat HIV and AIDS.
[50] Since health system costs are driven by both population size and the severity of health issues, amongst other factors.
[51] WHO Commission on Macroeconomics and Health 2001 *Macroeconomics and health: investing in health for economic development* p11
[52] OECD DAC CRS aid commitments from all DAC country donors and multilaterals for Health and Population Programmes in 2004 and 2005. All figures in A$2005, based on DAC deflator figures and assuming 75c exchange rate with the US dollar.
[53] AusAID 2006 *Helping health systems deliver* p2
[54] AusAID 2006 *Australia's Overseas Aid Program 2006-07*
[55] WaterAid and World Vision 2007 *Getting the Basics Right: Water and sanitation in South East Asia and the Pacific*
[56] AusAID 2006 *Helping health systems deliver*
[57] See the Summary in AusAID 2006 *Helping health systems deliver*

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