

health &
development
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east asia

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edited by

**Paul
Cohen**
& John
Purcal

AUSTRALIAN DEVELOPMENT
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Health & development in South East Asia



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the political economy of health & development in South East Asia

John Purcal and Paul T. Cohen

South East Asia is now regarded as one of the most dynamic regions of the world in terms of economic growth and development. This impression of the region should apply strictly to the six nations comprising the Association of Southeast Asian Nations (ASEAN) where average rates of economic growth were over 7 per cent in the 1970s. In the 1980s there was a general slowing down in the region, but still the average rate of economic growth was over 5 per cent. Even in the dynamic ASEAN, some nations like the Philippines lagged far behind the average rate of growth of 7.8 per cent achieved by Thailand in the years since 1970. In the Philippines economic growth slowed to an average of 1 per cent in the 1980s but is currently over 4 per cent. Compared to the economic performance of the ASEAN, economic growth was slow in the non-ASEAN countries. These economies—Myanmar, Laos, Cambodia and Vietnam—are grouped together as true transitional economies of South East Asia moving from centralised control to more open market economies. While Vietnam has shown greater promise in its transition with deregulation, less controls and attractive foreign investment laws in recent years, Cambodia and Myanmar are making their way slowly because of civil conflicts. Vietnam's transition and openness under *doi moi* has attracted huge investments from a number of countries including Australia, and the economy is currently growing at 8 per cent per annum.

Structural changes in the economies

During the last 30 years the structure of all economies in South East Asia has changed from agriculture based to more industry and services based economies. In non-ASEAN transitional economies, structural changes have been slow, except for Vietnam. Even there, industrial development has been much slower than in ASEAN countries. Today around 25 per cent of Vietnam's total output comes from the industrial sector, and agriculture accounts for about 38 per cent of the total output in (ADB 1993:263). In the other three non-ASEAN economies, Myanmar, Laos and Cambodia, agriculture accounts for between 48 and 60 per cent of the total output. In these economies, industrial development is taking place very slowly, and output from industries accounts

for between 14 and 17 per cent of the total output, with Cambodia and Myanmar being the least industrialised.

In ASEAN economies, rapid growth and development brought about substantial structural changes. Most have transformed from agricultural economies of the 1960s to industrial economies of the 1980s and 1990s where industrial output now accounts for between 35 and 44 per cent of total output (ADB 1993:263). In the Philippines the pace of structural change has been slower than in other countries. There the agricultural contribution to total output was more than 20 per cent of the total output. In Indonesia, agricultural output was reduced by almost half between 1970 and 1990 from 35 to 17.9 per cent. In Thailand the pace of change was faster, with agricultural output being reduced to 13 per cent of the total output in 1990. In Malaysia too there were dramatic changes, with agricultural output falling from 23 per cent in 1980 to 16 per cent in 1990. These changes have induced movement of people from rural to urban areas throughout South East Asia. The pace of urbanisation has increased in recent years, and the impact of this will be discussed in a separate chapter in this book.

The nations of South East Asia have a total population of around 460 million and an average per capita income of less than US\$1000. Today these nations exhibit patterns of economic growth ranging from close to 10 per cent in Singapore to virtual stagnation in Cambodia. With such differential growth rates and incomes, South East Asia represents a microcosm of the world, with countries like Singapore and Brunei enjoying a standard of living of the developed world, while others like Cambodia and Laos are among the low-income countries of the world. With economic growth, disease patterns of the regions are changing from vector borne (and water and airborne) infectious diseases to diseases like cancer, cerebrovascular and heart diseases. Where economic growth is slower, infectious diseases are more prevalent, as in most transitional economies.

Health development

The differential economic growth rates among the ten nations of the region are clearly reflected in the health status of their population, with a few enjoying the health status of the developed world, while others' health status vary from that of the middle income countries to that of low income countries of the world. Health status of the population is one of the most important indicators of economic development. It shows the success or failure of the nation in meeting the basic needs of the population, ranging from food and shelter to sanitation and education. Health is also a form of human capital which plays a crucial role in economic development. Better health increases the supply and productivity of the labour force. It also improves the enrolment and performance of children in school. Further, better health reduces infant and child mortality and thus has a significant influence on reducing fertility rates. This in turn slows population growth rates and improves economic development prospects.

Infant mortality

Infant mortality is a good indicator of socio-economic development in this microcosm of the world. Infant mortality decreases as per capita income increases in South East Asia. The only nation that does not conform to this pattern is Vietnam (see Table 1). Vietnam, though a low income country, has an infant mortality rate of middle income countries. In Vietnam, there was a substantial reduction in mortality among infants below the age of one year between 1960 and 1992, despite its slow economic growth. Vietnam was able to achieve this striking result, despite its low per capita income, by resorting to primary health care as the vehicle of delivering care with emphasis on access and equity. Brunei also performed better than others in South East Asia by matching an 87 per cent reduction (for the years 1960 to 1992) achieved by Japan, the country with the lowest infant mortality in the world. Brunei succeeded by providing medical and health services at no cost to the consumer, thanks to the strong financial position of Brunei from oil revenues (Tjun Ling Ta 1992:115-24). Generally in the countries of South East Asia improvements in standard of living and education and improved provision of health services, especially by the public sector, were the main factors that brought about a reduction in infant mortality since the 1960s. Thailand, with the fastest economic growth in South East Asia over the years since 1960, was able to

Table 1
Infant mortality rates

	Per capita GNP (\$US) ^a	Infant mortality rate		Change (per cent)
		1960	1992	
ASEAN countries				
Singapore	15,730	31	6	-80.6
Brunei	11,990	63	8	-87.3
Malaysia	2,790	73	14	-80.8
Thailand	1,840	101	27	-73.3
Philippines	770	73	46	-37.0
Indonesia	670	127	71	-44.1
Non-ASEAN countries				
Myanmar	220	158	83	-19.9
Vietnam	240	147	37	-74.8
Laos	250	155	98	-36.8
Cambodia	200	146	117	-19.9
Australia	17,260	20	7	-65.0
New Zealand	12,300	22	8	-63.6
Japan	28,190	31	4	-87.1
USA	23,240	26	9	-65.4

^a Most recent estimate 1987-92.

Source: UNICEF 1994; World Bank 1994.

reduce infant mortality by 73 per cent between 1960 and 1992, largely through improved income and educational development, whereas Malaysia and Singapore managed to achieve an 81 per cent reduction during the same period by combining better distribution of health resources among the population with improved standard of living and education.

All the ASEAN countries, except Indonesia and the Philippines, were able to achieve a faster reduction in infant mortality during the years 1960 to 1992 than the average 65 per cent reduction achieved by Australia, New Zealand and the USA during the period. Singapore and Brunei rank high on the ladder of success in reduction of infant mortality in the world, with Singapore improving its rank between 1960 and 1992, whereas Australia's rank slipped from 4 to 9 in the table published by the United Nations Children's Fund (UNICEF).

Life expectancy

The health indicator of life expectancy also emphasises the strong interrelationship between health and economic development. Life expectancy varied from 74 years in Brunei and Singapore to 51 years in Laos and Cambodia (see Table 2). Vietnam's life expectancy was again an outlier in this general pattern. With an annual per capita income of less than \$300, Vietnam has a life expectancy of 64 years—very close to life expectancy of the Philippines, which had a per capita income of \$770 in 1992.

The middle income countries of ASEAN with significant growth rates—Thailand, Indonesia and Malaysia—were able to add over 17 to 21 years since 1960. Those nations that had a low starting life expectancy in 1960 gained more with comparable growth rates. Laos and Cambodia, despite starting from a low base of 40 to 42 years in 1960, with their poor economic performance were only able to add between 9 and 11 years by 1992. Both Singapore and Brunei made substantial improvements and have life expectancies just 5 years less than the highest life expectancy of 79 years achieved by Japan in 1992.

Life expectancy of females was consistently 6 per cent higher than that of males in most countries of South East Asia in 1992. The two exceptions were the most rapidly growing countries of Singapore and Thailand. In these two countries the life expectancy of females in 1992 was 8 per cent higher than that of males, as in Australia and other economically advanced countries.

Child mortality

This indicator is defined as the probability of dying before reaching the age of five years per 1000 live births, and it has a number of advantages over other indicators by focusing on one of the end results of economic and human development. This indicator is the final result of various inputs ranging from nutritional intake, availability of maternal and child health care, sanitation and potable water to health knowledge of the mother and income and food

Table 2
Life expectancy at birth

	GNP per capita, annual growth rate (per cent)		Life expectancy		Life expectancy of females as a percentage of males
	1965-80	1980-91	1960	1992	
ASEAN countries					
Singapore	8.3	5.3	64	74	108
Brunei	n.a.	n.a.	n.a.	74	n.a.
Malaysia	4.7	2.9	54	71	106
Thailand	4.4	5.9	52	69	108
Philippines	3.2	-1.2	53	65	106
Indonesia	5.2	3.9	41	62	106
Non-ASEAN countries					
Myanmar	1.6	b.a.	44	57	106
Vietnam	n.a.	n.a.	44	64	106
Laos	n.a.	1.2	40	51	106
Cambodia	n.a.	n.a.	42	51	106
Australia	2.2	1.6	71	77	109
New Zealand	1.7	0.7	71	76	108
Japan	5.1	3.6	68	79	108
USA	1.8	1.7	70	76	109

Source: UNICEF, 1994.

availability within the family. Moreover, the indicator does not suffer from the averaging process which others like the per capita GNP are susceptible to. For example, child mortality is hardly affected by the presence of a small proportion of high income families in the economy, whereas other indicators like per capita income are heavily affected by the presence of such a group. For these reasons, UNICEF uses child mortality as a principal indicator of economic and human development (UNICEF 1994:79-81).

These child mortality indicators for South East Asian countries show a close relationship with economic growth in most countries. The rate of child mortality varied from 40 in Singapore in 1960 to over 200 in Indonesia and in the four transitional economies of South East Asia in 1960 (see Table 3). Since then there has been very rapid reduction of child mortality rates in the fast growing economies of Singapore, Brunei, Malaysia and Thailand, with Singapore achieving the same rate as Australia in 1975. In all other countries there were reductions, albeit rather slow ones with the only exception being Cambodia where the child mortality rate increased from 217 in 1960 to 239 in 1975, followed by a substantial increase to 330 in 1980 mirroring the atrocities committed by the Khmer Rouge in the late 1970s. Since 1960 all ASEAN countries, except the Philippines and Indonesia, performed very well in

Table 3
Child mortality rates

	1960	1980	1992	Average annual rate of reduction (per cent)	
				1960-80	1980-92
ASEAN countries					
Singapore	40	13	7	5.6	5.2
Brunei	87	n.a.	10		
Malaysia	105	42	19	4.6	6.6
Thailand	146	61	33	4.4	5.1
Philippines	102	70	60	1.9	1.2
Indonesia	216	128	111	2.6	1.2
Non-ASEAN countries					
Myanmar	237	146	113	2.4	2.1
Vietnam	219	105	49	3.7	6.3
Laos	233	190	145	1.0	2.3
Cambodia	217	330	184	-2.1	4.9
Australia	24	13	9	3.0	3.8
New Zealand	26	16	10	2.5	3.7
Japan	40	11	6	6.6	4.5

Source: UNICEF 1994.

reducing child mortality since with their average annual rate of reduction matching closely the average increase in per capita income. In the Philippines and Indonesia, the annual rate of reduction was much slower than the rate of income growth.

In the non-ASEAN countries, Vietnam's performance in child mortality reduction was much faster than others. Despite its low level of income, the performance of Vietnam since 1960 is better than that of the Philippines and Indonesia, with Vietnam having a child mortality rate lower than both these middle level income countries in 1992. Four countries in South East Asia—Indonesia, Myanmar, Laos and Cambodia—have child mortality rates over 100, with Cambodia having the highest rate of 184. Of the others, Singapore and Brunei have rates similar to the most developed countries of the world. The remaining countries—Malaysia, Thailand and the Philippines—have mortality rates varying from 19 in Malaysia to 60 in the Philippines. Of the three, Malaysia shows potential of reaching developed country status in child mortality by the year 2000.

Burden of mortality

All the indicators discussed so far—life expectancy, infant and child mortality rates—show a strong correlation between health and economic growth in

Table 4
Years of life lost per 1000 population, 1990

ASEAN countries		Non-ASEAN countries	
Singapore	6	Myanmar	n.a.
Malaysia	15	Vietnam	36
Thailand	22	Laos	93
Philippines	27	Cambodia	n.a.
Indonesia	36	Australia	8
		New Zealand	9
		Japan	5

Source: World Bank 1993: 292-3.

South East Asia. The burden of mortality shows a similar pattern. This indicator is the sum of years lost to premature death per 1000 population, and it tends to decrease as the country's economy grows and per capita income increases. In the region, the burden varied from 9 years in Singapore to 93 years per 1000 population in Laos (see Table 4). This loss of life due to premature death conveys the burden in absolute terms. Again, as we have seen elsewhere, Vietnam's health status according to this indicator is good despite its poverty. The burden of mortality in Vietnam was similar to that in Indonesia, despite Vietnam having a per capita income of one third of Indonesia. Singapore has the least burden of mortality in South East Asia, a burden lower than that of Australia. On this indicator, Singapore is among the top four nations in the world, with only Japan having a lower one than Singapore in 1990. For the region as a whole, the burden of mortality, on the average, decreases by 3.5 years of life lost for every \$US1000 increase in per capita income.

Health expenditures in South East Asia

Health spending and the manner in which that spending is distributed among the population also influence health status. There are considerable differences in the distribution of health spending nationally and internationally most particularly between developed and developing countries. Of the total global health spending of US\$1700 billion in 1990, around 87 per cent was spent in developed industrial countries where 15 per cent of the world population lived. In the developing world, with 78 per cent of the population, the total health spending came to US\$170 billion or 10 per cent of the total global spending on health (World Bank 1993: 52). The share of the developing countries of South East Asia with about 8 per cent of the world population came to just over 1 per cent of global spending.

Similar imbalances in health expenditures are also seen in the allocation of expenditure between emerging industrial countries and developing low-income countries of South East Asia. Annual health spending per capita

Table 5
Health expenditure

	Health expenditure as per cent of GDP 1990	Per capita health spending 1990 (\$US)	Per cent of central government expenditure (1986-92)	
			Health	Defence
ASEAN countries				
Singapore	1.9 (3.1)	219 (502)	5	24
Brunei	2.0	n.a. (324)	(4)	n.a.
Malaysia	3.0	67	5	12
Thailand	5.0	73	7	17
Philippines	2.0	14	4	11
Indonesia	2.0	12	2	8
Non-ASEAN countries				
Myanmar	n.a.	n.a.	7	22
Vietnam	2.1	2	n.a.	n.a.
Laos	2.5	5	n.a.	n.a.
Australia	7.7	1331	13	9
New Zealand	7.2	925	12	4
Japan	6.5	1538	n.a.	n.a.
USA	12.7	2763	14	22

Note: Figures in brackets are for 1992 in Singapore and for 1987 in Brunei.

Source: World Bank 1993; UNICEF 1994; and others.

varied from less than US\$5 in Vietnam and Laos to US\$219 in Singapore in 1990. To a great extent these differences reflect variations in per capita incomes, as all these countries spend between 2 and 3 per cent of their GNP on health, with the exception of Thailand. In absolute terms the highest per capita spending in the region of \$502 in Singapore in 1992 was only a fraction of that spent on health in the developed industrial countries of the world. All countries in South East Asia spend more on defence than on health. In Singapore, defence expenditure as a proportion of central government expenditure is almost five times that on health. Generally, the South East Asian countries spend less on health, as compared to defence, as a proportion of their central government expenditures than Australia and New Zealand (see Table 5).

As a proportion of GDP, health spending in South East Asia varied from 2 per cent in Indonesia and the Philippines to 5 per cent in Thailand in 1990. On the average, the nations in the region spent about 3 per cent of their GDP on health, which was considerably lower than the average of 8 per cent spent in the industrially advanced countries. The health indicators for most South East Asian economies should be worse off than stated in the Tables we have discussed. But some countries in the region enjoy better health despite their

lower spending. For example, Singapore spent full 10 per cent points of GDP less than USA or close to 5 per cent less than Australia in 1992, yet health status in terms of life expectancy, infant and child mortality is quite comparable. Similarly Vietnam, despite its lower spending of 2.1 per cent of its GDP in 1990, has health outcomes significantly higher than nations at the same level of development.

In both Vietnam and Singapore, the public sector is very prominent in the delivery of health care. Public sector policies in both countries emphasised equity in the distribution of health resources. Their health investment in the poor has reduced poverty in both these countries. Malaysia has also reduced the problem of poverty through more egalitarian distribution of health services, especially among the poor living in rural areas. In all these countries, the public sector was able to achieve economies of scale both in the production and distribution of health services, and this was a significant factor in keeping health costs down. In Singapore a number of health measures were effective in containing costs of medical and health services (Purcal 1989:132-34).

While some of the policies and measures were keeping costs down, others operated within the system to send costs up. Generally in the region, there was a trend for health costs to grow faster than incomes. The growing number of doctors and specialists, increased personnel costs, and use of costly technology and drugs are raising the costs of health care. The problem of costs is exacerbated by rising expectations and the demand for better medical and health services and the misallocation and inefficiency inherent within the health systems. In the region wastage is clearly noticed in the inefficient deployment of health workers and in the use of expensive drugs and technology, especially in the rapidly growing economies of Malaysia and Thailand. Misallocation is also a feature of the public sector services with their centralised decision-making and emphasis on curative care in the hospitals rather than cost effective preventive measures and intervention in lower cost facilities.

The preeminence of the public sector in the region has eroded in some countries in recent years. For example, the private sector has become the leading player in Thailand accounting for 3.9 per cent of GDP, as against 1.1 per cent of health spending in the public sector in 1990. In Malaysia and Indonesia, the role of the public sector in providing health care has dwindled, with the private sector health spending exceeding that of the public sector. In Singapore the government is encouraging the private sector to play a greater role in the production and delivery of health services. In Vietnam, with the dynamic effect of *doi moi*, the private sector is emerging with a vengeance.

In the transitional economies of South East Asia there is considerable emphasis on primary health care as the vehicle of delivery of health care, whereas in the ASEAN countries, despite their commitment to the principles and philosophy of primary health care, the emphasis is on the provision of basic medical and health services. The primary health care approach before the onset of *doi moi*, as mentioned earlier, made it possible for people to have access to

affordable health care by relying on intersectoral cooperation, community participation and greater equity in the delivery of health services.

Health facilities and services

Health infrastructure, facilities and services available within a nation depend on the level of health spending, and if they are well distributed, most of the population would have access to these facilities and services, provided they have means to take advantage of them. In South East Asia the supply of health facilities and services vary from nation to nation. Generally there seems to be a strong positive correlation between the supply of these facilities and services and the level of economic development. In the relatively advanced economy of Singapore modern facilities and services, including specialist services, seem adequate to meet the needs of the population. In the small nation of Brunei with relatively high income, health facilities and services including maternal and child clinics are available in all districts. Some specialist services are lacking, and when Bruneians need specialised treatment, they are sent abroad at government expense. In 1965 Brunei instituted flying medical services to remote areas not accessible by land and water. In contrast, in the relatively poor countries of the region, health facilities and services are both lacking and badly distributed.

The supply of medical doctors and their services is adequate to meet the needs of Singapore, but it is woefully short in Myanmar and is even worse in Cambodia. In Singapore, according to the latest Ministry of Health estimate (1992), there was one doctor for 800 people as against 450 in Australia, while in Cambodia there was one for 25,000 (see Table 6). In Malaysia, efforts are made to redress imbalance in the supply of doctors by recruiting medical practitioners from abroad. In spite of these efforts, the ratio of doctor to population is 1:2500. In other middle-income countries, the doctor-population ratio was worse. The worst ratio was in the Philippines where over the last three decades doctors and nurses left the country to work and settle abroad. Malaysia and Thailand had similar problems but on a much smaller scale. Some countries, especially the non-ASEAN nations, have attempted to mitigate inadequate supply of doctors by having more nurses or other health workers per doctor (see Table 6).

Urban health services as a whole are substantially better than rural. However, for the urban poor there are problems in some cities. The health services available to them lack co-ordination, and are of poor quality.

In the non-ASEAN countries, Vietnam has a doctor-population ratio similar to that of Malaysia, while Laos has a ratio similar to that of its neighbour Thailand. In the other two countries, Myanmar and Cambodia, the shortage of doctors is critical, with Myanmar having a doctor-population ratio of 1:12 500, while in Cambodia the population per doctor, as stated earlier, is almost double that of Myanmar.

Table 6
Health infrastructure and services

	Doctors per 1000 population 1988-92	Nurses-to- doctor ratio 1988-92	Hospital beds per 1000 population 1985-90
ASEAN countries			
Singapore	1.09	3.8	3.3
Malaysia	0.37	3.9	2.4
Thailand	0.20	5.5	1.6
Philippines	0.12	3.1	1.3
Indonesia	0.14	2.8	0.7
Non-ASEAN countries			
Myanmar	0.08	4.0	0.6
Vietnam	0.35	4.9	3.3
Laos	0.23	5.9	2.5
Cambodia	0.04	8.0	2.2

Source: World Bank 1993.

Table 7
Percentage of the population with access to water, sanitation and health services

	Access to water 1988-91	Sanitation 1988-91	Health services 1985-92
ASEAN countries			
Singapore	100	99	100
Brunei	n.a.	n.a.	100 ^a
Malaysia	78	81	n.a.
Thailand	71	74	90
Philippines	82	69	75
Indonesia	51	44	80
Non-ASEAN countries			
Myanmar	32	36	48
Vietnam	92	17	91
Laos	36	21	67
Cambodia	36	14	53

^a From Tuin Ling Ta, 1992.

Source: UNICEF 1994.

The supply of facilities such as hospital beds throughout South East Asia is low when compared to that in the industrialised countries. In Singapore in 1992, there was 1 bed per 327 people as against 1:200 in Australia and 1:140 in New Zealand in 1990 (Singapore Ministry of Health 1993). Vietnam recorded a bed-to-population ratio similar to that of Singapore (see Table 6). Indonesia and Myanmar had less than one bed per 1000 population.

The health status of the population generally improves with better access to water, sanitation and health services. From Table 7 it is clear that Singapore and Brunei were able to provide access to these services to most of their citizens. In Singapore the population also benefitted from having access to clean water and sanitation. Among other nations in South East Asia, Vietnam scored well with good access to water and health services; both are available to over 90 per cent of the population. But access to sanitational facilities was poor in Vietnam, with only 17 per cent of the population having access during 1988–91. In the middle income ASEAN countries of the region, access to health services, water and sanitation was far better than in Myanmar, Laos and Cambodia, again indicating the close interrelationship between availability of these services and economic development.

Immunisation service and incidence of TB

Immunisation against TB, polio, measles and DPT is crucial to containing infant and child mortality in addition to better nutrition and access to safe water, sanitation and health services. In ASEAN countries the percentage of children under one year of age immunised against TB averaged over 95 per cent, while for other diseases the average was around 90 per cent (UNICEF 1994). In the non-ASEAN countries Vietnam was the only nation that had a record similar to that of the nations in ASEAN. For others, the percentage of children under one year of age immunised against TB was equal to 50 per cent or less. In Laos it was as low as 23 per cent. For other diseases the immunisation record was worse in Laos, Cambodia and Brunei, except for for measles in Laos (55 per cent). Childhood diseases are rampant in these three non-ASEAN countries.

Incidences of TB among the population were very high in the Philippines (280 per 10 000 population) and in both Laos and Cambodia (235 per 10,000) in 1990. In Indonesia too they were high at 220 per 10,000. The corresponding figures for Thailand, Myanmar and Vietnam varied between 165 and 190. The countries with the lowest incidences in the region were Malaysia (67) and Singapore (82), as against 6 in Australia and 10 in New Zealand (World Bank 1993:206–7).

Economic growth and poverty alleviation

Economic growth, as discussed earlier, has conferred considerable benefits to the population of the region in terms of improved income and better health and education, but it has also increased income disparities between the rich and poor. For example, in Malaysia in 1990, the highest 20 per cent of the households had more than four times the income of the bottom 40 per cent of the population. In Indonesia, the richest 10 per cent of the population received about 28 per cent of the total income of the nation, and the poorest 10 per cent had about 4 per cent of the income in 1990. Yet the nations' subsidies to health to the most well-off 10 per cent were about 3 times those which went to the

lowest 10 per cent in 1990 (World Bank 1993:4). Malaysian Deputy Prime Minister Anwar Ibrahim admitted early in 1994 that economic development in the last two decades had not benefitted some sections of the community, even in the most rapidly growing economies. He said, '...we have to admit, in all humility, that the so-called East Asian miracle is far from ideal'. He felt that the pride in economic growth had to be tempered by the presence of considerable poverty and destitution in most ASEAN economies. In the Philippines, for example, the poverty situation has worsened. Some 39.8 per cent of the population live in absolute poverty as compared to some 21 per cent in 1971. People are poorest in the rural areas where some 60 per cent of the Philippine population live. In Indonesia, nearly one third of the villages are poverty-stricken, with most of them lacking health facilities. In Singapore, it is estimated that there are over 8600 poor families requiring government assistance under the Small Families Improvement Scheme for housing, education and health maintenance (*Straits Times* 18 June 1994).

Economic growth generally reduced poverty in most ASEAN countries. In Thailand, the population with incomes below the poverty line was reduced from 57 per cent in 1962/63 to 23.7 per cent in 1985/86 (Bhongmakapat 1990:164). Yet during the recession in Thailand between 1981 and 1986, the impact in the rural areas was devastating. The percentage of the poor in the north east increased from 36.0 per cent to 48.2 per cent (Puntasen 1993:4). Economic growth was achieved at considerable cost in terms of disparities between the rich and the poor. Natural resources were depleted in the process, and there was considerable deterioration of the environment. The urban population generally benefitted at the expense of the rural population by keeping the rice price low, and agricultural exports increased at the expense of natural resources. The forest area in Thailand was reduced from 53.3 per cent in 1961 to 28 per cent in 1986. There was also considerable damage to land use and watersheds by the expansion of golf clubs and resorts for the tourists. Similar damages to the environment in terms of forest depletion is recorded in the Philippines, Malaysia and Indonesia. If the emphasis in ASEAN had been on sustainable economic growth, much of the damage to the environment and reduction in land use by the poor could have been avoided.

In countries where economic growth was slow, poverty was worse. For instance in Cambodia, poverty and insurgency made it difficult to meet the basic health needs of the population. The country faces difficulties in rebuilding its basic health structure, destroyed during the 1970s by the Khmer Rouge. Without basic health structures, epidemics like tuberculosis spread unchecked. In 1980 the government attempted to set up a health system but the spread of diseases like TB maintained their momentum. Today TB is the main killer of young adults in Cambodia with some 13,000 Cambodians dying every year from TB. In recent years the virulence of TB has been compounded by the development of its link with AIDS. The poor health situation in Cambodia will continue unless some solution is found to the ongoing conflict between the government forces and the Khmer Rouge.

The looming health crisis

There are a number of developments in the region which make it likely that health expenditure will grow faster than the economy. First, the rising affluence and rising expectations of high economic earners could swing development of health services towards high technology quality care. Secondly, the private sector of health services is showing a trend to grow faster than the public sector, and the fee for services in the private sector is likely to raise costs. Thirdly, there is a growing trend in the transitional economies to de-emphasise the primary health care approach under the increasing influence of the encroaching market economy. All these developments towards rising costs would place the poor out of reach of the services offered.

As in the industrialised countries, economic growth in the region was accompanied by rising incomes and education. This has raised the health status of the population. Birth rates and fertility rates have fallen in most countries, and people have fewer children in Singapore, Thailand, Indonesia and Vietnam. With the families in the region, especially in the rapidly growing economies, having fewer children and long life expectancies, the region is undergoing ageing at a faster rate than that experienced in the West.

This greying revolution will be clearly felt in Singapore, Thailand, Indonesia and Malaysia. In 1980, the population over 60 ranged between 5 and 7.2 per cent in these countries, whereas in the West they ranges between 12 and 30 per cent (Chen Ai Ju and Jones 1989:1). In Singapore, the ratio of the aged is set to grow dramatically from 8.7 per cent of the population in 1990 to 27 per cent by 2025. In Indonesia the number of aged will increase from around 12 million in 1990 to around 39 million in 2025. This faster growth in ageing takes place because economic growth and social change took place at a faster pace in the region than in western nations. What took place in 86 years in Britain is taking only 21 years in Singapore.

The ageing of the population will add to health costs and will place considerable burden on families, who currently care for the aged. Moreover, the work force, whose income supports the aged, is falling as a proportion of the total population with the ageing of the population.

The spread of HIV is another serious problem facing the countries of South East Asia. Some estimates give a figure of 1.5 million by mid-1992 (Mann et al. 1992:99). One estimate of the number of infections for early 1993 is 600,000 to 700,000 for Thailand alone (Sittitrai and Brown 1994). *AIDS in the World* interprets such figures as 'a sign of the dramatic velocity of the pandemic' in South East Asia (:99). Within this region the increases in reported HIV infections (for countries with fewer than 100 cumulative AIDS cases) have been highest in Malaysia, Vietnam and Cambodia. In 1993 Malaysia reported 2525 new HIV infections and Vietnam 1124, a 13-fold increase over 1992 figures (Kaldor et al. 1993:168). It is the speed of transmission which explains the frighteningly high estimate of 45 million cumulative adult HIV infections for the South East Asia region by the year 2000.

Apart from the human suffering caused, the AIDS pandemic, through its effects on savings and productivity, also poses a serious threats to economic development in the developing countries. At the macroeconomic level the negative impact of AIDS derives in part from the high cost of treatment. In Thailand, for example, the health care costs for people with AIDS have been estimated to be between \$US615 and \$1000 each per year (Mechai Viravaidya et al 1991:1). Given the low per capita income most of the burden of these costs falls on the government, diverting resources from other productive investments.

Conclusions

South East Asian nations have made remarkable progress towards economic growth and development. The growth was faster in the ASEAN countries than in the transitional economies of South East Asia. With growth, the economic structure of the nations have moved away from agriculture to industries. The fast growing countries, in the process, have managed to raise their income and health standards with countries like Singapore achieving health standards similar to that in the West. Other middle income countries of the region are progressing slowly and are likely to achieve Western standards in the coming decades provided economic growth continues into the future. What is remarkable is that these nations were able to achieve higher health standards by spending a mere fraction of the total expenditure spent by Western nations. Even in the transitional economies of South East Asia there have been improvements in health standards. The variation of health status across South East Asia reflects to a great extent the differential growth patterns of countries in the region.

In the transition to better health standards, the rapidly growing countries have demographic factors on their side, with a small proportion of their population falling into the ageing group of 60 years and over as compared to the developed industrialised nations. With growing incomes and improved living standards the nations of South East Asia were able to make substantial improvements in health. In the process they were assisted by improvements in public health and the spread of medical and health knowledge and technology from the developed countries. In spite of these improvements in overall health status, there are still substantial areas of poverty and ill health in the rural areas of the region. Even in the urban areas of the rapidly growing countries of South East Asia there are still pockets of very poor health.

In the transitional economies of the region health standards are poor as in many Third World countries. Among them, those nations that managed to distribute their health resources and income more equitably fared better, as in the case of Vietnam. Even there, some of the earlier achievements were frittered away by the fast pace of transition to market economy and privatisation.

Today economic growth is not confined to national states. Growth seems to spread across national boundaries into regions forming growth triangles. If such winds of economic growth and change sweep across from ASEAN and

East Asia into the transitional economies as it is beginning to happen in the last few years, their incomes and standards of living are likely to be raised and health standards too will be higher. Those nations that are able to maintain greater equity in the distribution of income and health resources are the most likely to succeed in the next two to three decades.

As far as the growing economies of ASEAN are concerned, their growth is likely to slow down in the near future as they approach maturity and operate at full capacity, unless there is greater efficiency in the utilisation of resources. Moreover, the coming years will see their health costs spiralling upwards with ageing of their populations, more privatisation, increased use of modern medical technology and the decline in primary health care in the delivery of health care to their people.

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urbanisation & health in South East Asia

Paul Cohen and John Purcal

Urbanisation in South East Asia

The level of urbanisation (that is the proportion of the population living in urban areas) in developing countries is low compared to industrialised countries (in 1992, 85 per cent for Australia, 76 per cent for the USA and 77 per cent for Japan (UNICEF 1994)).

United Nations figures indicate that from 1975 to 1980, 54.3 per cent of the total population increase in the developing regions was urban, and it is estimated that, in the period 1995–2000, 71.5 per cent of the increase will be in urban areas and only 28.5 per cent in rural areas (Harpham, Lusty and Vaughan 1988:11). With these increases the level of urbanisation in developing countries would grow from 31 per cent in 1985 to 39 per cent by the end of the century, and to 56 per cent by the year 2025.

In South East Asia—except for Singapore which is a city state—the levels of urbanisation are also relatively low (see Table 1) but the rates of growth (3–5 per cent per annum) are particularly high (see Table 2).

Urban growth is due to three factors: natural increase of the urban population, redefinition of city boundaries,¹ and rural–urban migration (Jones 1988:137; Jones 1993:3). Actually, natural increase has been a more significant factor than is often assumed. It was responsible for 60 per cent of urban growth in developing countries in the 1960s (and was 61 per cent in Peninsula Malaysia and slightly more in Indonesia in the period 1957–70) (Jones 1988:140). However, in South East Asia, as rates of natural increase decline and if rural–urban income disparities persist and rapid economic growth continues, the relative contribution of rural–urban migration to urban growth will increase.² In fact there was a clear trend in this direction in the 1970s with a little less than half of urban growth due to natural increase in Indonesia, only half in Peninsula Malaysia and 39 per cent in Thailand (Jones 1988:140).³

1 For example, in Indonesia the number of villages (*desa*) classified as urban almost doubled between 1980 and 1990 from about 3,500 to approximately 6,700 (Hugo 1993:47).

2 Singapore has solved the problem of rural–urban migration and attendant urban problems by not having an agricultural sector. It relinquished its agricultural sector to Malaya when it seceded from Malaysia in 1965.

3 In 1985 there were 1020 slums in Bangkok and 63.2 per cent of the population of these slums were migrants (Santhath, this volume).

Table 1
Percentage of population urbanised, 1992

Indonesia	30
Thailand	24
Philippines	44
Malaysia	45
Myanmar	25
Cambodia	12
Vietnam	20
Laos	20

Source: UNICEF 1994.

Table 2
Urban population growth rates (average annual percentage)

	1960-70	1970-80	1980-2000
Indonesia	3.81	4.90	4.00
Thailand	3.58	3.28	4.16
Philippines	3.81	3.77	3.54
Malaysia	3.49	3.30	3.72
Myanmar	3.98	4.15	4.35
Cambodia	3.73	0.92	4.86
Vietnam	4.40	2.90	3.58
Laos	4.41	5.91	5.45

Source: Jones 1988.

Jones argues that 'excessive rural-to-urban migration' is caused by the 'urban bias' of government policies. These include 'national economic policies which have the effect of changing relative prices in such as fashion as to shift the inter-sectoral terms of trade against agriculture, to widen the gap in rural-urban wage rates, and to decrease investment and technological advancement in agriculture' (Jones 1988:145).⁴

This urban bias has, however, has not generally been evident in the policies of the socialist states of South East Asia. This is consistent with the 'innate anti-urbanism of socialist societies' related to the state's goal of bringing all economic activity into public ownership, a process which requires the destruction of the urban middle class (Thrift and Forbes 1985: 284). The most extreme form of this anti-urbanism in South East Asia has been de-urbanisation, as in the case of the mass evacuation of urban residents from Phnom Penh in 1975 by the Communist regime of Democratic Kampuchea and

4 For example, the rice premium in Thailand, which provides a significant proportion of government revenue, serves to depress farm level and domestic rice prices and thus favours the interests of urban consumers over those of rice farmers (Feeney 1982:113).

the resettlement of many thousands of residents of southern cities of Vietnam into New Economic Zones between 1975 and 1980.

However, in the 1980s the pace of urbanisation in Vietnam picked up and will gather pace, especially with the opening of the economies to markets and foreign investments. The economies of Hanoi and Ho Chi Minh city are growing at the rate of 20 per cent a year while the rural areas, where over 70 per cent of the population live, grow close to 5 per cent a year. This disparity in economic growth and low productivity (where 70 per cent of the rural population produce 35 per cent of the total output) has caused a massive inflow of migrants to urban areas in recent years. Consequently the urban population of Ho Chi Minh city is growing at the rate of 7 per cent a year (*Economist*, March 1995:38). In addition Vietnam will have to cope with about 65,000 returning refugees and over 200,000 migrant workers coming back from Eastern Block countries. Most of the returnees will be looking for jobs in the urban centres (*Australian Financial Review*, 29 March 1995:12). To stem the flow of migrants the government has promoted private enterprise in agriculture and is making efforts to direct industries to the rural areas.

South East Asian urbanisation is also characterised by diffused urbanisation, that is, the blurring of urban-rural distinctions due to factors such as improvements in public transport (facilitating contact between cities and adjacent rural areas), greater availability in rural areas of educational and public health facilities, electricity, and television, and higher proportions of rural workers engaged in non-agricultural activities, either in rural areas or by commuting or circular migration to cities (Jones 1988:140; Hugo 1993:46). This blurring process is most advanced in regions surrounding the major metropolitan cities, for example, the Jakarta-Bandung corridor in Java (Jones 1993:3; Hugo 1993:47) and the five provinces of the Central Plain surrounding of Bangkok. Jones argues that these metropolitan hinterlands should be studied as a whole in order to avoid a distorted view of urbanisation. Thus, Bangkok's population increased only 2.1 per cent per annum between 1985 and 1988, but the urban population of the five hinterland provinces grew at 11.2 per cent per annum (Jones 1993:3).

Another salient characteristic of South East Asian urbanisation is urban primacy, that is, the concentration of the urban population in the largest city. In 1980 this was 41 per cent for Thailand (one of the highest concentrations in the world), 34 per cent for Vietnam, 33 per cent for the Philippines, 20 per cent for Indonesia (Jones 1988, Table 3). There is a strong desire by politicians and urban planners to contain this metropolitan growth with 'intermediate city strategies' and the like. However, as Jones argues, effective decentralisation is usually at odds with their even stronger reluctance to relinquish power and control over resources from the centre (Jones 1993:4). Consequently Jones predicts the large cities of South East Asia will continue to expand and that this will pose massive problems for provision urban infrastructure, including roads, water, sanitation, electricity and environmental problems such as air and water pollution, the lowering of water tables, etc. (Jones 1993:4).

Access to health services: urban and rural areas compared

Access to health care for the urban population has improved throughout South East Asia since the 1970s, according to estimates by UNICEF (1994: Table 3). For the ASEAN region access varied from country to country with the economically better-off nations providing greater access than others. For example, access to health care services for the total population varied from 100 per cent (all urban) in Singapore to 64 per cent in Indonesia. The estimates for access to health care for the total population for other ASEAN countries were: Brunei 96 per cent, Thailand 93 per cent, and the Philippines 75 per cent. In all these countries the urban population was better served than those in rural areas (World Bank 1994; UNICEF 1994).

In the transitional economies (of Vietnam, Cambodia, Laos, and Myanmar) access to health care by the urban population improved significantly since the 1980s. For example, in Vietnam in the 1990s most of the urban population had access to health services but only 85 per cent of the rural population. In Cambodia 80 per cent of the urban population has access as against 50 per cent of the rural population, making a total of 53 per cent access for the total population.

The distribution of safe water to the urban population has improved substantially throughout South East Asia in recent years. For example, in Thailand access to safe water supply increased from 69 per cent in 1970–75 to 87 per cent of the urban population for the period 1987–92, while in Indonesia the improvement was from 41 per cent to 65 per cent for the same periods.

Generally access improved with rising incomes, with the better-off countries providing greater access than others. In Singapore, the most advanced among the South East Asian economies, access to safe water for the urban population was 100 per cent in recent estimates, whereas in Cambodia, the least developed economy in South East Asia, it was 20 per cent for the same period.

Table 3
Access to safe water, 1987–92

	Urban population (per cent)	Rural population (per cent)	Total population (per cent)
Singapore	100	–	100
Malaysia	96	66	79
Philippines	93	72	81
Indonesia	65	32	42
Thailand	85	n.a.	72
Vietnam	70	33	50
Myanmar	43	29	32
Laos	47	25	29
Cambodia	20	12	n.a.

Source: World Bank 1994; UNICEF 1994.

Table 4
Access to adequate sanitation, 1988-91

	Urban population (per cent)	Rural population (per cent)	Total population (per cent)
Singapore	99	—	99
Malaysia	—	—	81
Thailand	80	72	74
Philippines	78	62	69
Indonesia	64	36	44
Vietnam	34	13	17
Myanmar	39	15	36
Laos	97	—	21
Cambodia	81	8	14

Source: UNICEF 1994.

In all countries the urban population had better access to safe water supply than the rural areas. For example, in Vietnam 70 per cent of the urban population had access to safe water but only a third of the rural population.

Access to adequate sanitation again improved with economic growth and development in ASEAN countries with high per capita incomes providing more adequate sanitation to both urban and rural areas. This access thus varied from 99 per cent in Singapore to 64 per cent of the urban population in Indonesia. In the rural sector generally access was poor as compared to the urban areas.

In the transitional economies access to sanitation in urban areas was more prevalent in the least developed economies of Laos and Cambodia with between 80 to 97 per cent of the urban population having access to adequate sanitation, totally neglecting the rural sector. In the other transitional economies of Vietnam and Myanmar the urban population had poor access to adequate sanitation as compared to other countries of South East Asia.

Urban poverty and health

It is important to emphasise here that the figures presented above indicate that, for South East Asia, urban populations *as a whole* are much better provided with health services than rural populations. These figures, however, tend to obscure significant differences *within* urban populations with respect to health services and health status.

Rapid population growth in the cities of South East Asia has given rise to sizeable pockets of urban poverty and to the proliferation of urban slums and squatter settlements. It is estimated that in the ASEAN region of South East Asia the urban poor in slums and squatter settlements will comprise about 25 per cent of the region's population by the year 2000.⁵ However, in some countries this proportion has already been approximated or surpassed: about

20 per cent in Bangkok by the mid-1980s (Santhat this volume), 25-30 per cent in Kuala Lumpur between the mid 1960s and 1980 (Chee Heng Leng, this volume), 38 per cent in Indonesian cities in 1981 (Osteria 1991:13), and a third of Manila's population (Osteria 1991:16). Particularly significant in terms of its implications for living conditions and health is the rapidity of this growth. For example, between 1980 and 1985 the number of slums in Bangkok increased from 448 to 1020 (Santhat, this volume);⁶ in Kuala Lumpur-Petaling Jaya there was an average annual growth rate of 9.7 per cent between 1974 and 1980 (Chee Heng Leng, this volume); Manila's squatter population has increased at an average of 12 per cent per year (Osteria 1991:16). In Vietnam slum development has been controlled in Hanoi but slums have existed in Ho Chi Minh city (formerly Saigon) since the beginning of U.S. military presence there and are likely to expand in response to the recent massive influx of migrants.⁷

As a consequence of the size, density and rapid development of these settlements living conditions are generally appalling: shanty dwellings, crowding, sewerage based largely on pit or bucket latrines, garbage disposal which is reliant mainly on burning, inadequate drainage causing water to stagnate and floodwaters to wash raw sewerage and garbage back into the communities (and exacerbated by garbage clogging sewers and drains), inadequate water supply, the location of settlements near polluting and hazardous industrial facilities, etc.

Needless to say, these physical conditions are conducive to a whole range of health problems. Stagnating water and the storage of water in drums and earthenware containers create the ideal conditions for mosquito-borne malaria and dengue haemorrhagic fever. Poor sanitation, poor housing and inadequate supply of clean water contribute to high levels of infectious and communicable diseases (e.g. worm infestations, diarrhoea, pneumonia, bronchitis, tuberculosis, cholera). Immunisation levels are low, hence a high incidence of preventable infections in children—measles, diphtheria, whooping cough and polio.⁸

Levels of malnutrition are high (Osteria 1991:15; Chee Heng Leng, this volume), and generally much higher than in rural areas. The reasons for this is that the urban poor rarely have an opportunity to grow food and, given the high cost of food in the city, have insufficient income to buy alternative forms of nutritious food. Also, women are often forced to work, full-time or part-time,

5 This phenomenon is not unique to Southeast Asia. In the 1960s and 1970s in developing world urban slums and squatter settlements represent on average 30-60 per cent of the urban population and it is estimated that by the year 2000 the urban poor will number 1 billion (Rossi-Espagnet Tabibzadeh and R. Maxwell 1989:11).

6 This estimate is higher than that of the Bangkok Metropolitan Administration which gives a figure for 1987 of 656 slum communities with 773,540 residents, comprising about 13.8 per cent of the total population of Bangkok Metropolis. The different estimates result from different definitions of slum community (Osteria 1991:10).

7 We have no comparative data on the percentage of the total urban population living in these slums or on the rate of growth of the slum population.

8 For example, in 1984 less than 20 per cent of the children from slum households in Manila had been immunised (Osteria 1991:16) and less than 30 per cent in slum households in Kuala Lumpur (*ibid.*: 14, citing a 1982 report by Yusof).

to provide supplementary income or because they are the sole providers. Consequently, women usually have less time for food preparation and wean early or reject breast-feeding altogether (Tabibzadeh, Rossi-Espagnet and Maxwell 1989:51). A 1984 survey, based on 42 developing countries, found that women breast fed for 2–6 months longer than women in urban areas; the differences for Indonesia and Thailand were even higher (nine and eleven months respectively) (Tabibzadeh et al. 1989:68). In 1972 nutrition surveys carried out in Bangkok slums revealed a relationship between high levels of malnutrition and bottle feeding by surrogate mothers and child minders (Tabibzadeh et al. 1989:51, 67).

The synergism between malnutrition and infection has been well documented, that is, malnutrition progressively enhances infection in an individual and infection often causes further malnutrition. 'Synergism between common infections and malnutrition probably accounts for more mortality, morbidity and reduced growth and development than any other combination of factors' (Taylor 1985:288).⁹

The highly pathogenic environment of urban slum and squatter settlements creates significant intra-urban and rural-urban differences in health. Urban health statistics usually make urban health conditions look better than those of rural areas, either because squatter or slum residents are not included in the statistics (as they lack legal or official status), or because their inclusion is hidden by the great differences that exist between their status and that of the middle- to high-income residents (Tabibzadeh et al. 1989:46). A small number of more discriminating studies do reveal significant intra-urban health differences. For example, Basta's 1977 study of Manila found that the level of severe malnutrition and the infant mortality rate were three times higher in the slums than in the rest of the city. The rates of tuberculosis were nine times higher, and the incidence of diarrhoea twice that of the rest of the city. Twice as many residents were discovered to be anaemic and three times as many suffered from malnutrition, compared to the rest of the city (cited in Tabibzadeh et al. 1989:47). Also, Santhat's recent research in Bangkok shows that the poor residents of slums and government flats had higher rates of illness and hospitalisation than the wealthier residents of suburban housing settlements (Santhat, this volume, Table 5).

Health care services and the urban poor

In Thailand, since the early 1980s, it has been national health policy to promote primary health care in both rural and urban areas. From 1982 a separate health development plan was formulated by the Bangkok Metropolitan Authority (BMA), though integrated with the National Health Development Plan. The stated goals of the 1987–91 BMA health plan included serving low-income

⁹ For example, measles, diarrhoea, tuberculosis, most respiratory infections, most intestinal parasites, cholera, leprosy, and herpes (Taylor 1984:308).

people and promoting peoples participation (Osteria 1991:30,33). Assistance to the urban poor comprises a low-income card system entitling qualified poor to free medical services at specified government health institutions and the provision of low-fee medical services at four general hospitals, 58 health centres and 85 health sub-centres run by the BMA (Osteria 1991:33). However, the effectiveness of these services is hampered by a number of factors. Firstly, only a small percentage of the urban poor obtain low-income cards due to complicated eligibility requirements (including proof of residency, which is difficult for recent migrants). Secondly, there is a problem of coordination both within the BMA health system and coordination between BMA and other government health services. Vertical coordination within the BMA system is impeded by the fact the hospitals mainly provided curative services whereas the health centres 'are entrusted with all the functions of preventive, promotive and curative health services through outreach services, training and referral' (Osteria 1991:34). Horizontal coordination suffers from the fact that most of the public hospitals (including centres of medical excellence and teaching hospitals) in Bangkok are controlled by other government bodies such as the Ministry of University Affairs and the Ministry of Defence. According to Santhat (this volume), there is no effective referral system between the BMA health centres and these hospitals. A third factor is the underutilisation of existing health services. Thus, Santhat (in this volume) notes that Bangkok is well supplied with government hospitals but the quality of service in them is poor, with crowding, long waiting time, and brief, impersonal consultations. Consequently, with the exception of childbirth and immunisation and serious illnesses, the urban poor rarely use government hospitals for medical treatment but instead prefer to treat themselves or visit local drug stores (see Santhat, Table 6). Again, Santhat points out that while public health centres in Bangkok are located in every district and are therefore relatively accessible, they are underutilised because of limited resources, poor quality services and an uncoordinated referral system. Bangkok is well supplied with private clinics and hospitals but these are expensive, profit-making institutions and generally beyond the financial reach of the poor.

At the end of the 1980s there were nearly 30 non-government organisations (NGOs) operating in poor communities in Bangkok but these were mostly *ad hoc* and covered only a small number of communities. There are two community development projects (focusing on health) which are supported by political parties (Thai Citizen and Democrat). These operate on a continuous basis and cover a larger number of communities. The projects emphasise peoples participation and are run by elected committees. Primary health care activities include health education, anti-rabies vaccination, nutrition, family planning, sanitation and vector control, and medical services are provided by mobile medical teams. However, all these NGO projects together cover only a small proportion of Bangkok's urban poor. Furthermore, there is no coordination between these NGOs and the BMA health authorities (Osteria 1991:31,32).

In Malaysia the government does not have a policy which specifically targets the urban poor. The latter are expected to make use of existing health facilities provided by government and non-government agencies (Osteria 1991:35). In Kuala Lumpur-Petaling Jaya the availability of both government and private health services is high (Chee Heng Leng, this volume). By contrast with Bangkok, here and in other urban areas of Peninsula Malaysia government health services are relatively effective and accessible to the poor. The poor rely more heavily on government than private health care services; nevertheless, many still utilise private services, especially for out-patient care. This is made possible by the accessibility of government health services and low fees charged, forcing the private clinics into competition to keep their charges down. However, Chee Heng Leng expresses concern that with the rapid growth of private sector medicine in Malaysia more and more doctors will be enticed to leave the government sector; this will undermine the quality of this sector, reduce competition with the private sector and encourage it to increase fees. The end result, she predicts, will be an urban poor dependent on inefficient, degraded government health services and denied access to expensive private health services.

In Jakarta the government health office has health programs for the urban poor in the areas of community health promotion, basic health services, communicable disease control and prevention, and environmental health. However, these are implemented through the normal, nation-wide system of public health centres (*puskesmas*) and integrated health posts (*posyandu*) (see papers by Corner and Raharjo, and Hull, this volume). All hospitals in Jakarta have to reserve 25 per cent of their beds for the poor. Furthermore, to increase health service coverage for the urban poor the government aims to provide one public health centre for 25,000 persons so that 40 per cent of those who seek health care can be served by these centres. The government also aims to improve the number and quality of the integrated health posts by establishing three of these for every neighbourhood unit (RW) of 600 families (Osteria 1991:40-42). However, the success of the government primary health care system in Jakarta is limited by several factors: weak intersectoral coordination, a low level of community participation in health programs, an excessive concentration on maternal and child health to the exclusion of other primary health care areas, and overly centralised health programs which allow little scope for adaptation to local needs (Osteria 1991:46-47).

A number of NGOs (religious, non-religious and international) operate in Jakarta through their own clinics and hospitals but in coordination with the public health centres and by using a primary health care approach. Among other things they assist the government to develop training manuals for volunteer workers and the training of public health centre personnel. The effectiveness of these NGOs has been constrained by lack of manpower and financial support. There is also a problem of coordination between NGOs to develop comprehensive health activities covering health, education, family, nutrition and income-generating activities (Osteria 1991:43, 46).

There is some evidence that health services, government and NGO, are underutilised by the urban poor in Jakarta, due possibly to the shortcomings of the urban health services in Jakarta noted above. A study by Streatfield and Tampubolon (1991) of a neighbourhood unit in north Jakarta, near the Tanjung Priok docks, included 613 mothers who had children under five years. Of the mothers whose youngest child had experienced respiratory problems during the previous two weeks, only one in six (15.9 per cent) took their sick child directly to the formal health service; the rest treated themselves with pharmaceuticals purchased at local streetstalls or with traditional remedies. Initial self-treatment was also high for diarrhoeal disease (five out of six) and fevers (19 out of 20).

The Philippines does not have a specific national policy on urban health, though in the past the National Health Plan, the Human Settlements Policy, the Philippines Food and Nutrition Programme and the Population Programme policy included the needs of the urban poor in their draft plans. For Metropolitan Manila, an urban area comprising four cities and thirteen municipalities there is the Metro Manila Commission which acts as a central body in coordinating essential services such as transportation, flood control, drainage, water supply and sewerage, social, health and environmental services, etc. (Osteria 1991:47). Quezon City has a Health Programme comprising comprehensive health services aimed at reducing the infant mortality rate, malnutrition, common infectious diseases, etc. It emphasises preventive and promotive health programs as well as community participation. The city Health Department ran 43 health centres in 1984 (Osteria 1991:49). In the same year the Department introduced two community-based programs: the Urban Primary Health Care Programme and the Herbal Medicine Programme. One hundred and sixty one community health volunteers were trained to perform simple health tasks and health-related activities, to serve as a link between the community and various government and private organisations, and to monitor the health of local families (Osteria 1991:51). In 1986 the People Development Towards Community Development was set up to target urban poor women and children (Osteria 1991:55).

For Vietnam UNICEF reports 100 per cent access of the urban population to health services, as noted above. However, the recent mass inflow of migrants to urban areas, especially to Ho Chi Minh city, threatens to overwhelm urban health services, a problem which the trend towards the privatisation of health services is likely to exacerbate.

Political economy and the health of the urban poor

The International Conference on Primary Health Care at Alma Ata in 1978 recommended that 'governments incorporate and strengthen primary health care within the national development plans with special emphasis on rural and urban development programs' (WHO 1978). Moreover, the WHO's global strategy of Health for All by the Year 2000 explicitly mentions urbanisation and its problems.

With reference to the urban poor primary health care should not just aim to provide affordable and accessible health services, as the root cause of the poor health of the urban poor is poverty. Primary health care is a political economy approach to health and, according to Segall, the struggle against the structural causes of poverty must remain at the forefront of primary health care. Fundamental to this struggle is 'the distribution of the means to generate income; the distribution of productive wealth' and even more fundamental is 'the distribution of the means to decide on the distribution of wealth and income; the distribution of political power' (Segall 1983:30). Thus, from this perspective it can be argued that the health of the urban poor in South East Asia will depend to a great extent on achieving what Jones terms 'appropriate patterns of urbanisation'. This requires, firstly, 'appropriate macro-economic and sectoral policies, as these are likely to influence urbanisation patterns more than those policies specifically directed toward influencing urban growth' and, secondly, 'greater decentralisation of power and decision making over resource allocation'. In both cases, Jones asserts, 'broader political issues are involved, so that 'urban development strategy, in the final analysis, cannot be divorced from some of the basic issues of nation building and of political control' (1988:154).¹⁰

Conclusion

South East Asia has low levels of urbanisation compared to the industrialised world but rapid rates of growth have been experienced by urban areas in recent decades in South East Asia due largely to rural-urban migration. In socialist countries such as Vietnam this growth was restrained for many years by anti-urban policies until the restraints were loosened by economic liberalisation in the 1980s and 1990s.

While access to health care services, clean water and adequate sanitation is still generally better for urban than rural areas the rapid influx of rural migrants has created enclaves of urban poverty in the form of slums and squatter settlements, especially in the large primate cities. Here sub-standard housing, sanitation and water supply contribute to a pathogenic environment and a wide range of serious health problems.

Governments and NGOs have attempted to respond to these problems by providing affordable and accessible health services through government hospitals and PHC health centres. However, the effectiveness of these health services have in some countries been marred by problems of coordination, poor referral systems and underutilisation of existing services.

¹⁰ For example, in Thailand's 'radial polity' the urban primacy of Bangkok and the concentration of wealth in the city is, to a large extent, explained by the power of the absolute monarchy and later by a military-bureaucratic elite, both committed to highly centralist policies to preserve their power and privileges. However, during the 1980s and 1990s the growing strength of the democratic movement (parliamentary system, NGOs, farmer and labour organisations) has created political pressure in favour of decentralisation, especially by means of government encouragement (e.g. through tax incentives) of the establishment of large and small-scale industries outside Bangkok (FEER 14 April, 1994).

From our political economy perspective the fundamental cause of the poor health of the urban poor is poverty and that the solution to this poverty lies in the simultaneous development of urban and rural areas, which will require more decentralisation of economic and political power. Rural productivity and economic growth have to be enhanced and rural incomes have to grow by channelling greater resources for infrastructure and educational development at both primary and secondary levels. These, along with greater autonomy for local government, will make rural areas more attractive to investors, especially for industries based on rural products.

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the health situation of urban settlers in the metropolitan area of Kuala Lumpur–Petaling Jaya

Chee Heng Leng

Growth of urban settlements in Kuala Lumpur–Petaling Jaya

Urban settlements¹ in the metropolitan area of Kuala Lumpur–Petaling Jaya (KL–PJ)² date from at least one hundred years ago. Kampung Kerinci, an urban settlement located at the boundary between KL and PJ, for example, celebrated its 100th anniversary in April 1992 (New Straits Times, 20 February 1992).³

According to a survey undertaken in Kuala Lumpur in the late 1940s and completed in 1951, there were 34 urban settlements with a total of at least 5,620 households in the Kuala Lumpur area (Azizah 1983:72). A later survey in 1966 enumerated 20,611 urban settler families with a total of 139,967 people, that is,

- 1 In this chapter, *urban settlements* will be used in place of the conventional *urban squatter settlements*, and *urban settlers* instead of *urban squatters*. Most official definitions of squatters in Malaysia emphasise first, the illegal occupation of land, and second, the erection of a dwelling without formal approval (for example, refer to the *Essential (Clearance of Squatters) Regulations 1969*; or to Wan Abdul Halim (1982:10), a study linked to the Kuala Lumpur Master Plan Unit which drew up a register of squatters in the Federal Capital in 1978). The recently established *Jawatankuasa Sokongan Peneroka Bandar* (Support Committee for Urban Settlers), however, emphasises that most, if not all, squatter communities in Selangor and the Federal Territory of Kuala Lumpur were occupied with the consent, approval, and encouragement of the state authorities, who have provided public amenities such as roads, electricity, water, postal services, and kindergartens (Suara Peneroka Bandar, July/August 1993:10). As such, they are not illegal squatters, but licensees, persons who have been allowed entry and occupation of the land with permission.
- 2 Kuala Lumpur is the capital city of Malaysia, and Petaling Jaya is a satellite town located next to it. The metropolitan centre of KL–PJ is an area of high economic growth. In 1993, the gross domestic product (GDP) of the Federal Territory of Kuala Lumpur, at M\$10,469 per capita (1978 prices), is the highest in the country, which has an overall average GDP per capita of M\$5,275 (Malaysia 1993:41). Its mean monthly household income (M\$2,102 in 1990) is also the highest, and far exceeds the national average of M\$1,254 (Malaysia 1991:38). US\$1 = M\$2.5 approx. in late 1993. Administratively, Kuala Lumpur is governed independently as a federal territory. Petaling Jaya is situated in the district of Petaling which is in the state of Selangor. Prior to 1974, Kuala Lumpur was the capital city of the state of Selangor as well as the Federal capital. In 1974, the boundaries of Kuala Lumpur were extended and the whole area put under a separate administration.
- 3 Ironically, at the same time, the urban settlers were facing eviction and demolition to make way for the development of condominiums in the area.

30 per cent of the total population of the city at that time. These families occupied 25 per cent of the total number of dwelling units and 13 per cent of the total municipal area, which was two and a half times that in 1951.

The growth in urban settlements between the early 1950s and mid-1960s occurred despite the conception of Petaling Jaya as a town to absorb the 'overflow' of urban settlers from Kuala Lumpur. In 1952, approximately 1,200 acres along the old highway linking Kuala Lumpur to Kelang (right where Petaling Jaya is now situated) had been acquired for the purpose of resettlement (MPPJ 1984:24), and displaced urban settlers in Kuala Lumpur were offered resettlement there.

Between the mid-1960s and 1980, urban settlers have been estimated to constitute between 25 per cent to 30 per cent of the total population of Kuala Lumpur (Johnstone 1979; Azizah 1983; Sen 1979). The official estimate (DBKL 1984:115) places the number of settlements in Kuala Lumpur in 1980 at 177, comprising a total of 48,709 households and 243,200 people or 25 per cent of the population of the city.

Although Petaling Jaya has grown into a generally affluent city housing the middle to upper classes, large pockets of urban settlements are found within its boundaries and on its fringes. In 1984, the Selangor Land Office counted a total of 62 urban settlement areas with 21,581 houses in the district of Petaling (Selangor Land Office, 1984), although they were not even mentioned in the latest survey which the Municipality of Petaling Jaya commissioned (MPPJ 1984).

The growth of urban settlements after 1970 can be attributed largely to the influx of immigrants from the rural areas into KL-PJ due to the increasing employment opportunities in the cities as a result of industrialisation and the New Economic Policy.⁴ As many of the rural immigrants cannot afford conventional housing in the city, they swell the ranks of the urban settlements.

These settlements are seen by the authorities as a persistent problem, and official policies, though vacillating between soft and hard, are basically to evict and resettle the residents. In recent years, the resettlement of urban settlers, first into government-constructed wooden longhouses, and, from there, into low-cost high-rise flats, has resulted in bringing the official count of the urban settler population in KL down to 16 per cent in 1987 and 12 per cent in 1990 (DBKL 1991).

The actual magnitude of the problem is thereby obscured because a large number of the resettled population get stuck in the longhouses for years due

4 This can be seen from a cursory examination of population growth rates. The average annual growth rate of the urban settler population between 1974 and 1980 is 9.7 per cent (DBKL 1984:115). This is higher even than the 1970-80 annual growth rate for the Klang Valley (4.8 per cent), and definitely higher than the 1970-80 annual growth rate for the whole country (2.5 per cent).

The New Economic Policy, first launched in association with the Second Malaysia Plan, 1971-1975, contains two main prongs; to eradicate poverty irrespective of race, and to restructure Malaysian society to reduce and eventually eliminate the identification of race with economic function (Malaysia 1971). Accordingly, job quotas for Malays were established. At the same time, the new export orientation thrust in the industrialisation strategy led to the growth of labour-intensive industries which created a lot of jobs. Facing rural poverty, the predominantly Malay rural population was encouraged to move into the towns and cities.

to insufficient low-cost housing which they can afford; while many of the longhouse schemes are as inadequate as, if not more inadequate than, the original urban settlements in terms of basic amenities, proper drainage, and insufficient space and the lack of privacy.⁵

Urban poverty

In Malaysia, official estimates of poverty are based on an absolute poverty concept. Measuring poverty on the basis of a minimum expenditure level, or a poverty line income (PLI) of M\$350 per month for a household of 5.1 persons in Peninsular Malaysia, official estimates place the incidence of urban poverty at 8.1 per cent in 1987 (Malaysia 1989:45–47).⁶ In 1993, this dropped to 4.4 per cent, based upon a PLI of M\$405 per month for a household of 4.8 (Malaysia 1993:58).⁷

Using the official PLI of a monthly household income of M\$350 for a family of 5.14 in Peninsular Malaysia, the incidence of poverty in Kuala Lumpur in 1987 was 5.2 per cent, with a total of 12,200 households considered poor (Malaysia 1989:45). Based on Kuala Lumpur City Hall's guidelines, however, this is definitely an underestimate.

In Malaysia, urban areas are generally more affluent than the rural areas. The official PLI is based on a single poverty level for both rural and urban areas. As the cost of living is much higher in urban areas, this constitutes an under-estimation of urban poverty.

In 1979, Kuala Lumpur City Hall (DBKL 1984:23) estimated that 26,420 households (12.7 per cent) had a monthly income of less than M\$300, while 76,882 households (36.9 per cent) had less than M\$500.00. At the same time, it was estimated that M\$500 per month was necessary to sustain a family with five children at a minimal level. This level of income, however, is inadequate for basic needs if housing in the formal sector is to be included.⁸ The urban poverty line income has since been revised by Kuala Lumpur City Hall to M\$700 per household per month.⁹

5 The high-rise low cost flats have their own problems, but this will not be discussed here.

6 The Mid-Term Review of the Sixth Malaysia Plan states that 'The PLI takes into account the minimum requirements for food, clothing and shelter, and other regular expenditures that are necessary to maintain a household in decent standards of living' (Malaysia 1993:59).

7 The incidence of urban poverty dropped from 21.3 per cent in 1970, to 17.9 per cent in 1976, and then to 8.2 per cent in 1984 (Malaysia 1986:101). In 1990 it was 7.3 per cent (Malaysia 1993:58).

8 It has been pointed out, for example, that although the target group for the Government's special Low Cost Housing Program (LCHP) are households with a monthly household income of M\$750.00 and less, it is not possible to support the necessary loan repayments for a house in the LCHP with this income level as too high a proportion would have to be committed to housing (ADB/GOM 1986 (1):32). In 1984, for example, it was estimated that household incomes would have to be M\$690 or more per month if monthly payments for the M\$25,000 house in the LCHP, calculated with the assumption of 100 per cent loan financing at the subsidised interest rate of 10 per cent and 25 years maturity, did not exceed one third of household income.

9 This is cited in Khairuddin, Wong and Patrick (1988:69). Neither the household size for which this definition holds nor the documentation for this was given in this reference. Nevertheless, since this study is of a program run by the Kuala Lumpur City Hall, this figure is taken to be authentic.

Urban settlers as urban poor

In the metropolitan centre of KL-PJ, a large proportion of the urban poor live in the urban settlements as they are unable to afford the high prices of the formal housing sector in the city. It has been estimated that out of the total number of poor households in Kuala Lumpur, 80 per cent live in urban settlements (Low and Yip 1984).

Studies have shown that the majority, though not all, of the urban settlers can be considered as part of the urban poor. According to the Kuala Lumpur City Hall (DBKL 1984:122), 70 per cent of the urban settlers have a monthly household income of M\$500 or less; out of this, 68 per cent (that is, 47 per cent of urban settlers) earn M\$300 or less.¹⁰

This is substantiated by two more recent studies: Azizah et al. (1987) who report that in four urban settlement areas in Kuala Lumpur, 74 per cent of male earnings are below M\$500 per month, and Khor (1989) who reports that more than half of 71 households randomly selected from one urban settlement have incomes which are less than M\$500 per month.

Furthermore, the majority of urban settlers in the metropolitan area of KL-PJ are concentrated in unskilled and semi-skilled occupations. In the 1978 Kuala Lumpur City Hall census of urban settlement areas,¹¹ a total of 41 per cent of household heads are workers in the sales, production and transport sectors while 46 per cent are service workers. Labourers make up 26 per cent of the urban settlers.

Out of the 46 per cent who are service workers, the majority (76.6 per cent) are gardeners, office boys, stone-cutters, shoe-makers, security guards, waiters and waitresses, cleaners, and garbage collectors. Although the majority are factory workers, labourers, drivers, guards, construction workers, and petty traders, 11 per cent are in the clerical, professional, managerial, technical, and administrative category.

A more recent survey of 12 urban settlements in Kuala Lumpur which are in a development program (Khairuddin, Wong and Patrick 1988) found that 49.2 per cent of household heads and their spouses work as unskilled labourers (that is, as production workers, transport workers, equipment operators and general labourers).

In general, it may be concluded that an appraisal of the health situation of urban settlers would reflect the situation of a significant proportion of the urban poor. Likewise, it would also be pertinent to use statistics for the urban poor to describe the situation of a large proportion of urban settlers.

Finally, it should be noted that assessment of the poverty of urban settlers from the perspective of an absolute poverty concept is far from adequate. While giving PLI data, an official source cautions that:

10 At that time, M\$500 is the City Hall's PLI for Kuala Lumpur, while M\$300 is the national PLI set by the government.

11 Presented and discussed in Khairuddin (1981).

The PLI (poverty line income) has a number of inherent limitations which need to be borne in mind. It is obvious that poverty is a multi-dimensional phenomenon and, therefore, a single measurement will not be sufficient to describe it. An income-based approach towards measuring poverty needs to be supplemented by other dimensions that affect household living standards such as accessibility to basic needs as well as to opportunities for a meaningful participation in its own environment (Malaysia 1989:45-7).

Indeed, the income gap between the poor and the other residents is wider in the urban areas, indicating a greater relative poverty. The mean income of the rural poor is 26 per cent of the overall rural mean, while the mean income of the urban poor is only 16 per cent of the overall urban mean (Table 1).

In describing the relative poverty of urban settlers, Azizah et al. (1987) explains:

[I]n relation to the rest of the urban population, they [the urban settlers] see themselves as poor... The fact that a few of them may be financially better off than some other people in Kuala Lumpur... is of no consequence. They feel poor because they live in poor conditions and because they compare themselves with the urban rich.

Moreover, they point out, the urban settler lives in a perpetual state of insecurity with a constant fear of being evicted from his home. This fact should also be considered as contributing to the overall quality of life.

Table 1
Poverty and incomes in urban and rural areas, Peninsular Malaysia, 1987

	Urban	Rural	Peninsular Malaysia
Population (1990)	7,281,800	10,595,400	17,877,200
Per centage population	40.7	59.3	100.0
Incidence of poverty	8.1 (1987) 4.4 (1993)	22.4 (1987) 14.9 (1993)	17.3 (1987) 10.5 (1993)
No of poor households	82,600 (1987) 57,100 (1993)	403,200 (1987) 268,200 (1993)	485,800 (1987) 325,300 (1993)
Per centage households	16.8	83.2	100.0
Overall mean income (\$m)	1,467	853	1,074
Mean income of the poor (\$m)	228	224	225
Mean income of the poor/ overall mean income	0.16	0.26	0.21

Source: Malaysia 1989; Malaysia 1993.

The state of public health

The predominant public health problems in most urban settlements in Kuala Lumpur and Petaling Jaya are: inadequate water supply, lack of proper sewerage, poor drainage, and deficient garbage disposal services. Since urban settlements are considered illegal, households in these settlements do not automatically qualify for basic amenities.

Often, urban settlers obtain water and electricity connections by setting up local branches of ruling political parties, and then pressurising the relevant authorities through these branches. Nevertheless, there was a change of attitude on the part of the City Hall towards the end of 1979. While an eviction and resettlement program went on, it was decided that social and basic amenities be given to urban settlers who were not due for resettlement (Noordin 1989). Towards this end, the NADI program was started.¹²

Although the situation in most settlements has improved, many still lack basic amenities. As settlements are usually very crowded, this leads to an unhealthy environment. In a 1973 survey (Meade and Wegelin 1975), urban settlers themselves were asked what they considered to be problems they face in their housing environment. More than 50 per cent of the urban settlers reported the following problems: crowding inside the house (50 per cent); clogged sewers and drains (62 per cent); inadequate waste disposal (51 per cent); inadequate water supply (53 per cent); problem of mosquitos or other insects (81 per cent); problem of rats (53 per cent).

Crowding

In the same study, it was found that the average urban settler house had 3.0 rooms for 8.2 people (2.7 persons per room), comprising 1.4 households. As a comparison, urban settlers who were rehoused lived in flats, each of which had 2.4 rooms for 5.4 people (2.3 person per room), comprising 1.0 household.

On the other hand, there are other studies which found that urban settlers resettled into low-cost flats felt that they were more crowded in the flats than their houses in the urban settlements (Abraham 1979; Leong 1979).

In 1984, the Kuala Lumpur Structure Plan reported that the urban settlements in Kuala Lumpur had 5.9 persons per dwelling as compared to an average of 5.5 persons per dwelling for the whole of Kuala Lumpur. Furthermore, approximately 30 per cent of dwellings in urban settlements had only one bedroom while 32 per cent had two bedrooms.

Environment

Besides crowding in the house, urban settlements are also generally crowded in terms of houses being very close to each other. This crowding exacerbates

12 The NADI program was launched in 1980 by the Kuala Lumpur City Hall to coordinate all social projects aimed at eradicating urban poverty in the Federal Territory of Kuala Lumpur. At the same time, the San Kancil health project which had been initiated by the University of Malaya was brought under its control.

Table 2
Latrines in urban settlements, Kuala Lumpur—Petaling Jaya

Latrines	KL City Hall survey 1978 ⁽¹⁾ (per cent)	Sang Kancil survey 1988 ⁽²⁾ (per cent)	KB (PJ) 1988 ⁽³⁾ (per cent)	Kg. Kerinci (KL, 1989) ⁽⁴⁾ (per cent)
Number of households in sample (N)	3720	180	168	251
Flush/pour-flush	1.8	76.1	96.5	93.2
Pit latrine	56.4	8.3	-	6.8
Bucket latrine	22.3	6.7	-	-
Over a drain/river	7.2	3.9	3.0	-
Others	12.3	5.0	0.5	-
Total	100.0	100.0	100.0	100.0
Individual latrine		82.8	73.2	70.5
Shared latrine		17.2	26.8	29.5
Total	100.0	100.0	100.0	100.0

Sources: (1) DBKL 1979, *Census of Squatters*; (2) Khairuddin, Wong and Patrick 1988; (3) Chee 1990a; (4) Chin 1989.

many environmental and sanitation problems, the common ones being sewage disposal, garbage disposal, and drainage.

There is generally no proper sewerage in urban settlements. In the 1978 Kuala Lumpur City Hall census, 56.4 per cent of households surveyed were found to rely on pit latrines (Table 2). Where rivers (or drains) were available, toilets were built by their sides (7.2 per cent). Others relied on the bucket latrine (22.3 per cent), and only 1.8 per cent had flush toilets.

Since then, there seems to be a greater availability of pour-flush latrines. For example, in the 1988 report of the survey of 12 Sang Kancil villages,¹³ 76 per cent of the households interviewed had either pour-flush or flush latrines (Table 2).

In a study in Kampung Baiduri (Chee 1990a), a Petaling Jaya urban settlement with a total of 864 households in 1988, almost all the households surveyed had either flush or pour flush latrines (Table 2). Although a large proportion had their own latrines (73 per cent), 60 per cent of the households do not have the latrines in the house.

Although pour flush latrines are more sanitary than bucket or pit latrines, many of them flush into rivers and drains running through the settlements, contributing to an unsanitary environmental condition. This becomes a problem during heavy rains when the water in these waterways rise and flood large areas of the settlements.¹⁴

¹³ These are urban settlements in which the Sang Kancil program, a community development program which includes provision of health care delivery in the settlements, is being carried out.

¹⁴ Flooding is a common problem depending on the location of the urban settlement and the location of the houses within a particular urban settlement. For example, 23.3 per cent of urban settlers interviewed in the survey of 12 Sang Kancil villages said that floods often occur in their area (Khairuddin, Wong and Patrick 1988).

Table 3**Garbage disposal in urban settlements, Kuala Lumpur-Petaling Jaya**

	KL City Hall survey 1978 ⁽¹⁾ (per cent)	Sang Kancil survey 1988 ⁽²⁾ (per cent)	KB (PJ) 1988 ⁽³⁾ (per cent)	Kg Kerinci (KL 1989) ⁽⁴⁾ (per cent)
Garbage disposal ^a				
Public dustbins	6.1	67.9	81.0	64.5
Drain/river	-	5.0	25.0	64.5
Bury	2.8	1.1	0.6	1.2
Burn	88.1	18.3	11.9	14.3
Throw everywhere	-	0.6	1.8	-
Others	3.0	7.2	-	17.5
Number of households in sample (N)	3720	180	168	25.1

^a May include more than one method.

Sources: (1) DBKL 1979; (2) Khairuddin, Wong and Patrick 1988; (3) Chee 1990A; (4) Chin 1989.

The lack of a proper system of garbage disposal is also an environmental problem. In many urban settlements, large garbage bins serviced by the municipal council are located on the outskirts. However, these are few and the distance to them may be quite great, depending on which part of the settlement one lives.

In the 1978 Kuala Lumpur City Hall survey, it is reported that 88 per cent of households in urban settlements burn their rubbish and only 6 per cent use the proper garbage bins (Table 3). In later studies, there appears to be a greater proportion who use the municipal dustbins. Often, however, it is observed that garbage is thrown in the drains and small rivers which flow through the settlements. These become clogged with rubbish, and overflow into houses and compounds when it floods.

There has been one attempt to study the connection between the public health problem of *Aedes aegypti*, the mosquito vector of dengue haemorrhagic fever, and urban settlements. In this study (Meade and Wegelin 1975), mapping of urban settlements was found to coincide with the occurrence of this disease in 1973.

Water supply

Urban settlements are usually supplied with standpipes from which settlers connect hoses and pipes to their homes. Public standpipes used to be provided only upon demand and agitation by the urban settlers (Noordin 1989).

In the 1978 Kuala Lumpur City Hall survey, 66 per cent of households were found to rely on public standpipes, 10 per cent had individual house taps, while a large proportion (21 per cent) still relied on wells for their water supply (Table 4). For the 66 per cent who relied on public standpipes, there was only one standpipe per 150 to 250 families (Noordin 1989).

Table 4

Water supply in urban settlements, Kuala Lumpur–Petaling Jaya

	KL City Hall survey 1978 (1) (per cent)	Sang Kancil survey 1988 (2) (per cent)	KB (PJ) 1988 (3) (per cent)	Kg Kerinci (KL 1989) (4) (per cent)
Water supply				
Piped water in the house	9.7	61.1	38.8	9.7
Public stand pipe	65.6	35.6	59.5	65.6
Well water	21.4	2.2	0.6	21.4
Purchase from neighbours	-	-	1.2	-
Others	3.3	1.1	-	3.3
Number of households in sample (N)	3720	180	168	251

Sources: (1) DBKL 1979; (2) Khairuddin, Wong and Patrick 1988; (3) Chee 1990a; (4) Chin 1989.

This inadequate supply is often glossed over in official reports. Wan Halim (1982), for example, reported that the majority of urban settlements had an 'almost sufficient water supply' from standpipes even though there were sometimes as many as 100 households sharing a single standpipe.

In 1985, the City Hall of Kuala Lumpur allowed the direct connection of water supply into urban settlement homes (Noordin 1989:146). In urban settlements with the Sang Kancil health intervention project, 61 per cent of the households were able to install individual pipes, while 36 per cent relied on public standpipes, and only 3 per cent still relied on wells and water pumps (Table 4).

This improving trend is also seen in the Petaling Jaya urban settlements. In the Taman Aman settlement, for example, 95 per cent of the total of 175 households depended on wells in 1980, but in 1982, the provision of standpipes had resulted in 77 per cent (of 234 households) relying on them with only 24 per cent still relying on well water (MPPJ 1982).

A similar observation is made in Kampung Baiduri. In a 1986 survey, 94 per cent of the respondents were found to rely on public standpipes, and only 2 per cent had connected piped water in their homes. In 1988, the proportion of households with connected piped water in the house had risen to 39 per cent, although the majority (60 per cent) still depended on public standpipes (Table 4).

In 1987, the Mid-Term Review of the Fifth Malaysia Plan (Malaysia 1989) states, 73 per cent of all urban poor households had access to piped water and 87.8 per cent to electricity. In addition, it also announced that urban settlement and area upgrading (rather than eradication) programs were continuously and actively pursued in major urban areas.

It is the official policy to continue providing water, electricity, and health care under the NADI program (Malaysia 1993:59). Urban settlements which come under this program have improved access to basic amenities.¹⁵ The majority of urban settlements which have yet to be reached in this way continue

to rely on public standpipes. This becomes a problem to the extent that the number of households sharing a standpipe becomes too large.

Health status and morbidity

Community health status

Studies of urban settlements generally reflect low community health status, as indicated by a high incidence of low birth weights and perinatal deaths, as well as the prevalence of widespread mild to moderate malnutrition among the children.

Khor and George (1988) analysed birth weight data from the Sang Kancil clinic in one urban settler community between 1980–86 and found that the incidence of low birth weight was 22 per cent (compared to the national figure of 9 per cent in 1980). The incidence was highest among the Indians (43 per cent of the low birth weight cases), second highest among the Malays (24 per cent), and lowest among the Chinese (13 per cent). The 113 mothers with low birth weight infants belonged to the low income group with an average monthly income ranging from M\$360 among the Indians to M\$592 among the Chinese.

A survey of perinatal deaths in Kuala Lumpur in 1981 (Siti Norazah and Khairuddin 1986) found that 32 per cent of the perinatal deaths were from urban settlements, out of which only 18 per cent had piped water in the house, 70 per cent had electricity, and 3 per cent had flush toilets, while 18 per cent had pit or bucket latrines (Siti Norazah and Khairuddin 1986).

Current as well as chronic malnutrition have been found to be widely prevalent in two recent studies of urban settler children. In a study based on health status data collected in an ongoing community health program which runs maternal and child health clinics in urban settlements (Mohd Sham Kassim 1989), the prevalence of malnutrition among 300 children from two urban settler communities were respectively found to be 23 per cent and 20 per cent underweight, 19 per cent and 11 per cent stunted, and 13 per cent and 8 per cent wasted.¹⁶ The proportion of malnourished children was found to be low among the 0–6 month age group, but there is severe acute malnutrition among the 6–24 month age group and widespread chronic malnutrition among the 24–72 month age group.

In the Kampung Baiduri urban settlement, 19 per cent of the children were found to be underweight; while the prevalence of stunting was 14 per cent, and

15 It was admitted by the headmen of the Sang Kancil villages themselves that they had relatively good access to amenities because of improved access to the City Hall administration as a result of participation in the Sang Kancil program (Khairuddin, Wong and Patrick 1988).

16 In this study, the United States National Center for Health Statistics (NCHS) standards were used to assess malnutrition. Less than minus two standard deviations of the median weight for age is considered underweight, which is taken to indicate current malnutrition; while less than minus two standard deviations of the median height for age is considered being stunted, indicating chronic malnutrition, and less than minus two standard deviations of the median weight for height is considered being wasted, indicating current acute malnutrition.

wasting 11 per cent (Chee 1990a).¹⁷ As in Mohd Sham Kassim's study, it can be observed that more children are underweight in the toddler stage (22 per cent) as compared with those less than two years old (16 per cent). The toddler age group, from one to four years of age, is generally considered the vulnerable group because weaning takes place during this age period, and the child's nutrient intake becomes increasingly subject to environmental influences.

Worm infestation

Health and nutritional problems in urban populations are much less extensively documented than those in rural populations. The studies which have been done have mostly focussed on children. Specifically, urban settler children have been found to suffer a heavy load of worm infestation, which is aggravated by the lack of basic sanitation, inadequate housing, and poor water supply. Worm infestation is closely associated with anaemia; it also aggravates the problem of protein calorie malnutrition.¹⁸

A 1978 study (Chia et al.) of children from urban settler kindergartens found that 91 per cent were infected with one or more intestinal helminths. In another study, the prevalence of helminthic infections among urban settler children was found to be as high as 59 per cent (Kan 1982).

A survey of government schools in the city of Kuala Lumpur found worm infection to be a widespread problem. Out of the 7,682 children examined, 50 per cent suffered from helminthiasis, and out of this, more than half had mixed infections. It was found that schools close to urban settlements had high infection rates (George and Owyang 1982).

A longitudinal study of urban settler children before and after resettlement found that the proportion of pre-school urban settler children infected with soil-transmitted helminths dropped from 69 per cent to 7 per cent after they were re-housed in high rise flats. Likewise, the proportion of children infected with protozoa dropped from 83 per cent to 18 per cent (Che Ghani et al. 1989).

Accessibility to health care

Community health care projects

There are two prominent health projects in urban settlements in Kuala Lumpur. The Sang Kancil project, started in 1978, was meant to be a primary health care project, not only providing health care at the community level, but also uplifting health status through the participation of urban settlers in various other intervening activities. By 1988, this project had been set up in 15 urban settler communities all over Kuala Lumpur.

According to the most recent evaluation (Khairuddin, Wong and Patrick 1988), the health care delivery component of the project has been very

17 Standards and cut-off points used to assess malnutrition were similar to Mohd Sham Kassim's study (refer to previous note).

18 The three most common types of worms found in this country are *Ascaris lumbricoides*, *Trichuris trichiura*, and *Nectatur americanus*.

successful. In this project, clinics were set up in predominantly Malay or Indian urban settler communities, and they have been used by 37 per cent of women in these areas.

Moreover, the Sang Kancil clinics are more frequently utilised by women from households with lower incomes. This is attributed to the perception that service quality is higher in private or hospital-based settings; hence, women with financial means seek health care elsewhere (Leigh 1983). A similar observation is made in the latest evaluation (Khairuddin, Wong and Patrick 1988).

In this evaluation, 56 per cent of the households surveyed used, or are using, the maternal and child health clinic component of the project. Compared to those who do not use these clinics, the participants who do are from the lower income groups. They use the clinic for antenatal care (95 per cent), treatment of minor illnesses (93 per cent), and immunisation (75 per cent). In fact, 9 per cent of those interviewed said that they used the clinic for the same purposes as they would the government hospital. Most of them said that they used the clinic because it was nearby (97 per cent), and some said that it was because it did not cost much (20 per cent).

According to the evaluation, the Sang Kancil project has achieved success in terms of service delivery. However, as a primary health care project in the full sense of the primary health care philosophy, it still has a long way to go.

[I]f the Sang Kancil program had been conceived as a means to develop a vibrant, dynamic and self-reliant community that would eventually be responsible for and in control of its health, then the program had yet to succeed (Khairuddin, Wong and Patrick 1988:103).

The other urban settler health care project is the 'Health and Nutrition Education House' set up by the Malaysian Paediatric Association in 1979 with the aid of an American voluntary organisation, Children's Aid International. This project also runs clinics which provide immunisation and medical care for both children as well as adults in two urban settlements. The participants in this project are primarily the poor Indian and Malay families in the areas (Mohd Sham Kassim 1989).

Both these projects have been brought under the NADI program which was launched in 1980 as an integrated program (involving government as well as private and voluntary sectors) aimed at reducing urban poverty and upgrading the quality of life of the lower income communities in the city of Kuala Lumpur (NADI 1989). The extent of its success, however, has yet to be assessed.

Local health care projects are, by their very nature, small-scale. Although they consume a huge amount of resources, they only reach a relatively small number of people. For example, after a span of ten years and a total expenditure of millions of ringgit (dollars),¹⁹ the Sang Kancil project has only been

19 According to the 1988 evaluation (Khairuddin, Wong and Patrick 1988:34), the annual cost of financing the Sang Kancil program from 1978 to 1984 was M\$1 million per year; after 1984 it was M\$500,000 per year.

established in 15 urban settlements, while the 1978 City Hall squatter census enumerates 177 urban settlements in Kuala Lumpur alone (DBKL 1979). It is therefore important to evaluate the accessibility of the urban poor to health services as a whole.

Availability of health services

The formal health care system in Malaysia has two large sectors, the private and the government sectors. The availability of both private and government health services in KL-PJ is generally high. In 1986, the doctor-population ratio in Kuala Lumpur was 1:718; counting only government doctors, it was 1:1334 (Public Health Institute 1988:64). In 1991, the availability in Kuala Lumpur had increased to 1:642, compared to 1:2159 for the whole country (Ministry of Health 1991:17).²⁰

The favourable government doctor-population ratio in Kuala Lumpur is due to the presence of two government referral hospitals; while the high availability of private doctors may be attributed to the large number of private general practitioners as well as a recent mushrooming of private nursing homes and hospitals. Private services tend to concentrate in urban areas, where consumers demand and have the ability to pay for medical care.

It should be noted, however, that the doctor:population ratio for government out-patient services in the city is much lower than general availability. In 1986, this ratio was 1:66400 (Public Health Institute 1988:64).

Utilisation and accessibility

While health services may be widely available, the pertinent question is how accessible these services are to the urban poor or the urban settler communities. Utilisation rates may be used as a proxy indicator of accessibility, and it has been found that people tend to use different types of services for different purposes.

In urban areas, the use of private facilities for out-patient care is considerable (Public Health Institute 1988); in general, 52 per cent of out-patients, and in some urban areas, up to about 70 per cent of out-patients, use private facilities. If patients can afford the fees, there is a strong tendency to use private, instead of government, facilities at all levels of health care.

In a study of utilisation of health services among urban settler populations in Kuala Lumpur (Meade and Wegelin 1975), the utilisation of government hospitals and clinics was found to be high, and accessibility to private clinics and company doctors was also high (62 per cent of those interviewed used government hospitals and 19 per cent used government clinics; while 60 per cent used private clinics and 64 per cent used employer's or company's doctor). Transportation costs also did not appear to be a limiting factor as the average trip for all households only cost 20 sen and took less than half an hour by bus.

²⁰ As a comparison, this indicator is 1:2478 for Selangor, the state in which Petaling Jaya is located, but the indicator includes both urban and rural areas; and 1:4019 for Kelantan and 1:4508 for Trengganu, two predominantly rural states.

Although for out-patient care, utilisation of private services among the urban poor appears to be as high as the utilisation of government services, this is not true for personal preventive health care and in-patient care. A recent in-depth study of one urban settler community (Khor 1989) found that, out of 71 households studied, the majority used government services for immunisations (85 per cent) and ante-natal care (93 per cent). For delivery of babies, 69 per cent used government hospitals, 17 per cent used private hospitals, and 14 per cent gave birth at home.

The utilisation of government services for preventive and in-patient care is therefore high in comparison with out-patient care, where only 45 per cent used government clinics when their children were sick, while 55 per cent used private clinics. A similar pattern of health service utilisation was also found in the Kampung Baiduri urban settlement (Chee 1990a) where it was found that the majority use government facilities for in-patient care and for antenatal care and childbirth purposes.

On a country-wide basis (Public Health Institute 1988), it had also been found that, for preventive care, utilisation of government services (0.2 visits per person per year) is much higher than private services (0.09 visits per person per year). Similarly, the utilisation rate for in-patient care is much higher for government services compared to private services. In fact, 85 per cent of the in-patient care is provided by the Ministry of Health as compared to 15 per cent by non-government facilities.

In the Kampung Baiduri study (Chee 1990a:450), it was found that there is a greater reliance on government services if long-term utilisation is envisaged. Excluding those using employer-provided or employer-financed services, a greater proportion of the people who had chronic illnesses used government services in the management of their conditions. On the other hand, among those who sought medical consultation services for sporadic illnesses and common ailments, a larger proportion used private health services.

This study also tried to identify the problems faced in the utilisation of government and private services. The majority of those interviewed (42 per cent) had access to employer-provided or employer-financed medical care. Among the others, a large group do not use government services because it takes too long (34 per cent), while a small group feel that the government clinic is too far away (7 per cent). There is also a substantial proportion (17 per cent) who do not use private services because they cannot afford it.

Growth in the private sector and implications for the urban poor

Relative need and accessibility

One of the chief findings of the National Health and Morbidity Study (Public Health Institute 1988) is that both acute and chronic illnesses are more common among the lower socio-economic groups, less skilled occupational groups,

people with poor or no education, and those with unsatisfactory water supply. Although these groups shoulder a heavier burden of morbidity, they have lower health service utilisation rates relative to the higher socio-economic groups. Furthermore, the proportions of persons who did not use health services, even though they were ill and thought that medical care was necessary, were found to be higher in the lower socio-economic groups.

A similar pattern had been noted earlier by Meerman (1979) who, in an econometric study, had concluded that the higher-income groups consume a larger amount of total out-patient care than the lower income groups. These two peninsula-wide studies indicate that, on the whole, the urban poor have relatively lower access to health care services.

Despite this generally lower accessibility, nationwide data support the conclusion that the government health care services have been accessible to the poor. In an econometric study done on data obtained from a 1975 household survey in Peninsular Malaysia, Heller (1982) found that neither income nor time cost were significant barriers to the utilisation of medical care, for rural as well as urban dwellers. He concluded that the government health care delivery system had been effective in providing curative and preventive health services to the disadvantaged groups. Meerman (1979) also found that income was generally not a barrier to the use of government services.

On the other hand, private out-patient visits were directly correlated to income; that is to say, the higher-income groups used more private medical services (Meerman 1979). This conclusion is reinforced by the National Health and Morbidity Survey (Public Health Institute 1988), which reports that those with lower incomes tend to use free or inexpensive (government) services, while those with higher incomes tend to use private services.

On the whole, therefore, the lower socio-economic groups rely more heavily upon the government health care services. Nevertheless, as we have seen earlier, a substantial proportion of the urban settlers utilise private health care, primarily for acute illnesses.²¹

It is possible for them to do so because of a relatively strong government health sector with low user fees. Almost all out-patient visits to government clinics and 60 per cent of visits to government hospitals are free of charge (Public Health Institute 1988). For those who pay, the charge is nominal.

In contrast, the average payment in a private clinic is M\$12. In KL-PJ, it is in the region of M\$20 to M\$25 (Public Health Institute 1988). Accessibility of government health services, however, help to keep the charges in private services reasonable. Although there are long waiting lines at government clinics and hospitals, charges at private clinics cannot be too exorbitant because government health services are a viable alternative.

21 Acute illness is defined in this study as symptoms that 'interfered with usual activity' in the previous two weeks.

Implications of a growing private sector

The trend in the country's health care system has been toward a growing private sector, as can be seen in the increasing proportion of doctors in the private sector in comparison to the government sector (Table 5). The growth is particularly acute in the private hospital sector. Between 1980 and 1991, the proportion of private hospital facilities rose by more than 200 per cent in relation to government facilities (Table 6).

Although the urban areas have a concentration of government hospitals and doctors, it does not have an adequate primary care network in the

Table 5
Distribution of doctors between the public and private sectors, Malaysia

	No of doctors in public sector	No of doctors in private sector	Total no of doctors	Percentage doctors in the private sector
1972	1357	942	2299	41.0
1974	1388	986	2374	41.5
1976	1544	1213	2757	44.0
1978	1718	1340	3058	43.8
1980	2062	1796	3858	46.6
1982	2034	2200	4234	52.0
1984	2061	2444	4505	54.3
1986	2244	3150	5394	58.4
1988	2666	3608	6274	57.5
1991	3069	4129	7198	57.4

Sources: Ministry of Health 1980-91. *Annual Reports*.

Table 6
Growth of the private sector: number of private hospitals and bed complement, Malaysia, 1980-88

	No of private hospitals	No of maternity hospitals and nursing homes	Total no of private beds	No of acute government beds	Total no of private and government beds	Per cent private beds
1980	10	40	1171	23,665	24,836	4.7
1981	17	52	2200	21,415	23,615	9.3
1982	29	71	2658	24,592	27,250	9.8
1983 } 1984 }	32	83	3465	24,711 21,565	28,176 25,030	12.3 13.8
1985	133		3666	21,542	25,208	14.5
1986	138		4073	25,953	30,026	13.6
1987	152		4225	26,045	30,270	14.0
1988	162		4439	25,969	30,408	14.6
1991	174		4898	26,364	31,262	15.7

Sources: Ministry of Health 1980-91.

government sector. As such, a large proportion of the urban population utilise private services for primary care. This balance is being threatened by the rapid growth of the private sector. The private sector, basically propelled by a profit motive and subject to market forces, concentrates on providing low-risk curative care to those who can afford to pay.

A growing private sector will have negative consequences for the urban poor in two major ways. Firstly, it pulls health care resources, primarily doctors and specialists, away from the government sector.²² As the lower-income groups rely on the government sector for health care (in particular, personal preventive and antenatal care) this will mean poorer quality health care and even longer waiting lines for them.²³ Secondly, charges in the private sector are kept down only as long as government services are still considered effective and fairly accessible, not only in terms of costs, but also in terms of convenience. If government services are weakened, the bargaining power of the private sector will increase, and charges for private health care will rise. This will in turn lead to more and more people having to depend on a worsening government sector, giving rise to a vicious cycle which will widen the gap between, on the one hand, those who can afford to use private health care, and, on the other hand, those who cannot, among whom will be the urban poor.

Conclusion

In this chapter, I began by first describing briefly the background to urban settlements in KL–PJ and explaining why, in large part, the urban settlers might be considered the urban poor. Then, I presented data which point to their relatively poor state of public health in the midst of the urban affluence and high economic growth of KL–PJ. In addition, they may also be considered as one of the disadvantaged groups in this newly industrialising country from the point of view of their community health status, as evidenced by the relatively low nutritional status of their children.

The setting up of community health projects in urban settlements may reflect a recognition of the greater health needs of urban settlers, but even though the health delivery component of such projects are considered a success, they are generally small and expensive and do not reach sufficient numbers. As such, it is important to assess the accessibility of urban settlers to private and government health care services.

As part of the urban poor, urban settlers have relatively greater health needs but poorer access to health care services when compared with the higher

22 It is able to do this because remuneration is higher in private practice. This trend is also exacerbated by dissatisfaction with the structures of government service such as the lack of promotional prospects and training opportunities. That is to say, the more inadequate and weak the government health care organisation, the more attractive private practice will seem in comparison.

23 Heavier workloads for the remaining doctors in government service will inevitably lead to poorer quality service.

socio-economic groups in the urban areas. Although the poorer groups depend more on government health services, government out-patient care outlets are limited in the urban areas.²⁴ But government health services, by being a viable and low-cost alternative, help to keep private general practitioner charges competitive. As such, a large proportion of the urban settler group still use private services, especially for acute illnesses which do not require repeated visits or in-patient stay.

Finally, I argue that the accessibility of the urban poor to good quality health services will be increasingly eroded with the unimpeded growth of private health care.

There is an urgent need for the government to consider the interests of the urban settlers, together with other disadvantaged groups, in the health planning of the country. It is important to regulate the growth and distribution of private health care services as well as to strengthen the government health care delivery system. Among other things, this means increasing the allocation of funds for the health sector.

In 1991, Malaysia's expenditure on health is 1.79 per cent of GNP (Ministry of Health 1991:21). This is considered low and far short of the 5 per cent of GNP which WHO recommends that developing countries spend on health care.²⁵ In other words, the Malaysian government can still afford to increase the allocation from central treasury funds to the government health sector which could be used to improve government health care services, to build a better network of primary preventive and curative care in the urban as well as rural areas, and to eradicate inequalities of access to health care.

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24 The rural areas are served by a network of health centres, but not the urban areas. In the urban areas, outpatient care is generally dispensed in the general hospitals, although there are a few clinics run by the respective municipalities.

25 This does not include the spending in the private sector. But even if private spending is taken into account at an estimate of an equivalent level as government spending, this will only come up to 3.6 per cent of GNP, which is still low in comparison. The United States spends 11 per cent of GNP on health, United Kingdom 6 per cent and West Germany 7 per cent (MMA 1987).

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health & the urban poor in Bangkok

Santhat Sermsri

Like other capital cities of ASEAN, Bangkok is a primate city with a rapidly increasing population and explosive social problems, accompanied by a rapid increase in the number of slums and sub-standard housing. Adding to the complications of urban problems (such as traffic congestion, environmental pollution and poverty) the system of health care services in the city has been fragmented and has proved inadequate in promoting better health for the urban poor who are concentrated in slums under poor housing conditions. An important objective of this paper is to understand the effects of rapid urbanisation on the health of Bangkok residents, particularly the urban poor. Analysis of the health of the urban poor clearly identifies the need to improve housing conditions and restructure the current health care system for the underprivileged in urban areas.

The dominance of Bangkok and the urban poor

Although the present urban population of Thailand is a relatively low 30 per cent, it is, nevertheless, increasing rapidly (United Nations 1989; Sternstein 1986; Sermsri 1986; Goldstein and Goldstein 1978). This rapid increase has been mainly determined by the growth of the Bangkok metropolis. With an annual growth rate of 4 per cent Bangkok's population doubled within 15 years, from 2.5 million in 1965 to 4.7 million in 1980. The United Nations estimated the Bangkok population in 1990 to be 7 million. The Thai government estimated the population of the Bangkok metropolitan area and vicinity to be approximately 8 million in 1993, confirming a United Nations prediction that the Bangkok population would reach 10 million by the year 2000. This rapid growth of Bangkok's population has long dominated the urbanisation process in Thailand, that is, Bangkok has contained a large share of the urban population of the whole country (64.87 and 56.7 per cent in 1950 and 1990 respectively (Table 1)). The demographic dominance of Bangkok is exemplified by a two-city primacy index (Table 2). The population size of Bangkok ranged from 20 to 50 times larger than that of the second largest city between 1947 and 1980. From the latest figures in 1992 Bangkok still dominated the urbanisation of the country, being 45 times larger than the second largest city (Kirannadana 1985). Added to this, the highly centralised government and the lack of power,

Table 1**Thailand urbanisation: number, growth rate, and proportion of Bangkok population from 1950–2000**

Year	Total population	Total urban population	Total Bangkok population	Growth rate of Bangkok urban population	Bangkok population as % total population
1950	20,010,000	2,097,000	1,360,000	-	64.87
1955	22,760,000	2,611,000	1,710,000	4.60	65.58
1960	26,390,000	3,302,000	2,150,000	4.57	65.14
1965	30,640,000	3,941,000	2,580,000	3.67	65.59
1970	35,750,000	4,750,000	3,110,000	3.70	65.47
1975	41,360,000	6,283,000	3,840,000	4.23	61.15
1980	46,720,000	8,088,000	4,750,000	4.23	58.70
1985	51,600,000	10,211,000	5,860,000	4.21	57.39
1990	55,700,000	12,609,000	7,160,000	4.00	56.76
1995	59,610,000	15,414,000	8,630,000	3.74	55.97
2000	63,670,000	18,738,000	10,260,000	3.46	54.73

Note: Figures shown were based on the United Nations estimate and projection methods.

Source: United Nations 1989.

Table 2**Number and ratio of Thai population of the five largest cities in 1960, 1980 and 1992.**

Rank	1960		1980		1992	
	5 largest cities	Population	5 largest cities	Population number	5 largest cities	Population number
1	Bangkok	1,800,678	Bangkok	4,697,017	Bangkok	8,661,228
2	Chiangmai	66,823	Chiangmai	101,594	Korat	190,730
3	Korat	44,630	HaadYai	98,091	Chiangmai	170,269
4	HaadYai	36,197	KhonKaen	97,019	HaadYai	124,295
5	Lampang	36,002	Korat	97,009	KhonKaen	120,090
Two city primacy ratio		20.45				45.41

Sources: Kiranandana 1985; National Statistical Office, Office of the Prime Minister, 1988 and 1993

funds and resources in control of provincial administration have served to enhance Bangkok's dominance as a capital city. Selected primacy indices for Bangkok are listed in Table 3 indicating the more highly urbanised and modernised character of the capital compared to the rest of the country. For example, population density is extremely high in Bangkok and the income received by Bangkok residents has benefited greatly from national development programs over the past 30 years.

Bangkok has therefore been the prime social, economic, political, and cultural centre of the nation—better educational facilities, greater employment opportunities, and superior health care by comparison with rural areas. These

Table 3
Primacy index of Bangkok City circa 1988

Index	Bangkok	Whole Kingdom
Land area in square kilometres	1,568	542,384
Population density (in 1988)	3,644	101
Average income per household per year (1986), in Baht	83,388	43,572
Annual income per capita (1986), in Baht	21,944	10,133
Average expenditure per household per year (1986), in Baht	79,044	45,396
Annual expenditure per person per year (1986)	20,801	10,557
Population per physician (1987)	1,418	5,595
Population per hospital bed (1987)	316	718
Fuel/oil consumption per capita, kilowatts (1987)	4.1	0.8
Electricity consumption per capita, kilowatts (1987)	1,850.2	514.1
Number of deaths from heart disease per 100,000 population (1988)	84	44
Number of deaths from malignancy per 100,000 population (1988)	44	33

Source: Office of the National Culture Commission 1990.

are the push factors which have motivated rural people to move to the capital but, given their lack of skills and education and low socio-economic status, these rural migrants become the urban poor living in slum communities.

The demographic dominance of Bangkok has also been encouraged by government subsidy of Bangkok consumers for items such as bus fares, oil and food, while at the same time heavily taxing the rural population (e.g. through the rice premium). In addition, land prices in the city have been manipulated by rich foreign and local investors and are so high that many of the middle-income class cannot afford to buy even a small house. Consequently, slums are emerging almost every day and poor housing conditions are an inevitable outcome. A 1985 report on slums (Pornchokchai 1985) estimated that there were a total of 1020 slums and squatter settlements in the area of Bangkok city.¹ This indicates a rapid increase, as there were only 448 slums in 1980 (Sermsri 1986). More than half (63.2 per cent) of the huge slum population are migrants (Niitsu and Hashimoto 1985:95; Dissaroj 1990). The poor often find it more difficult to survive in the provinces than in the capital. Many urban slums and congested communities have been assisted by urban development projects (organised by both public and non-government agencies) which provide electricity, piped water, sidewalks, health care facilities, etc., in slums. The rural poor in the provinces are left feeling isolated and unassisted. A large number of these rural poor view migration to urban slums as preferable.²

1 This estimate does not include commuters and persons living in several substandard construction sites. The slums and squatter settlements vary in size from a small slum of 35 households to a very large one, like Klongtoey with 20,000 persons (Pornchokchai 1985).

2 A good example of this phenomenon can be seen during the Thai traditional new year holidays (*songkran*) when Bangkok turns into a 'ghost town' as residents and workers return to the provinces to celebrate the new year and visit their families and relatives. Business and commercial activities stop due to the absence of employees and customers.

The causes of ill-health of the urban poor

In 1985 Bangkok was found to have the highest mortality rates from accidents, malignant neoplasms (cancer), heart and diarrhoeal diseases (IPSR 1988:111). In 1993 the persistence of poor health in Bangkok was observed (NSO 1993). For example, the injury rate of children in the 0-6 and 7-14 years age groups in the city was higher than in other urban areas in the country (see Table 4).

With respect to child health in particular, the negative effects of the rapid urbanisation of Bangkok was first observed in the early 1970s. Child mortality of the city residents was found to be higher than that of less urbanised towns (Sermisri 1986). The relative high child mortality of Bangkok was confirmed by the 1974-75 report of the National Statistical Office (NSO 1977). Rapid urbanisation elsewhere in Asia has had similar negative health outcomes (United Nations 1985,1986). The high child mortality in Bangkok was probably due to the large number of poor residents in the city, particularly migrants of poor health from rural areas, with the incidence of child mortality of the urban poor outweighing that of the rest of the child urban population.

In order to remedy the negative impact of Bangkok's rapid urbanisation measures to improve the health of the city, particularly that of the urban poor, were initiated by several government and semi-government agencies in about 1980. At this time basic minimum needs indicators for the urban poor were established (AIHD 1985; Sermisri 1986). This approach was believed to have the potential to contribute to the social development of the city and to direct public resources to the depressed slums and poor housing areas. Learning from the success of primary health care (PHC) in rural Thailand local organisation was used to stimulate participation of residents and also provided continuity of development efforts in the urban communities (as many urban health care projects run by government and semi-government institutions already existed

Table 4
Rate of injury by age groups of Thai population in Bangkok and (rural) provincial urban areas, 1991

Age group	Bangkok	Urban areas of				Whole Kingdom	
		Central	North	South	Northeast	All urban	All Rural
0-6 years	7.01	3.8	4.2	3.21	4.3	5.6	3.86
7-14 years	4.49	3.74	4.77	3.35	4.2	4.26	3.1
15-59 years	2.74	2.9	3.01	2.1	3.2	2.77	2.64
60+ years	2.20	1.93	1.8	3.1	3.6	3.4	2.86
Average	3.54	3.1	3.4	2.6	3.59	3.4	2.86
Population number	230,400	40,200	32,000	27,100	31,800	361,500	1,327,000

Note: An injured person refers to a person who has received physical harm or damage from external causes (such as: traffic accident, fighting or violence, falls, cuts, burns, playing sport, insect bites, drowning or electric shock), to the point of being in need of medical attention.

Sources: National Statistical Office 1993.

and, moreover, primary health care services were probably the best developed of social welfare services in the city). Therefore, it was assumed that the health situation of slum dwellers in Bangkok was improving. However, six years later a study of housing types and health (Sermisri et al.1991) revealed that people living in slums and poor housing areas (such as public low-income flats) had higher rates of illness and hospitalisation than those living in suburban housing developments, as indicated in Table 5. In other words, after six years of urban health care development the health status of the urban poor had improved little.

The lack of improvement in the health status of the urban poor can be explained, I believe, by the following four factors:

Pathogenic residential environment. The data in Table 5 reveal that in Bangkok slums poor health is related to poor housing conditions. Urban community development in Bangkok under the guidance of local government and universities has provided piped water, electricity and walk ways. Furthermore, many households have modern consumer goods such as T.V., refrigerators and radios. Despite these advances the physical environment remains unhygienic: overcrowding, lack of protection against extreme heat, inadequate sewerage and drainage systems, location of residences in swamps, along railway lines or canals, or near polluting and hazardous industrial facilities. That is, slum dwellers are still heavily exposed to pathogenic agents. Urban malaria, dengue haemorrhagic fever, tuberculosis are still serious problems. Proximity to dangerous and poisonous chemicals also poses a serious health risk. For example, on March 15, 1991, a fire broke out in a government chemicals warehouse located near slums causing several deaths and many cases of injuries and other illnesses requiring hospitalisation (Thai Rath 1991).

The relationship between disease and poor housing has been demonstrated for many countries. In Manila, the incidence of severe malnutrition and infant mortality was three times higher in the slums than in the rest of the city (Harpham, Lusty and Vaughan 1988:47). In the slums of Bombay the incidence of leprosy was 22 per 1000 compared to a city average of 6.9 per 1000. The incidence of hookworm, *Ascaris*, and *Trichuris*

Table 5
Percentage distribution of illness and hospitalisation by housing types,
Bangkok 1988

Housing type	Total no cases	Per cent Illness	Total no cases	Per cent hospitalisation
Slum	408	7.8	410	19.0
Flat	159	8.8	159	13.8
Mixed commercial and residential	1238	6.5	1243	17.6
Suburban housing development	202	3.0	202	13.4

Source: Sermisri, Vorakitphokhathorn, Fuller and Edwards 1991.

was 75.4 per cent in Singapore squatters, compared to 32.1 per cent in flat-dwellers (Kleevens 1966, cited in Harpham, Lusty and Vaughan 1988:47). In Panama city, of 1819 infants with diarrhoeal diseases, 45.5 per cent came from the slums, 22.5 per cent from the shanties and none from those children living in better housing (Kouray and Vasquez 1979, cited in Harpham, Lusty and Vaughan 1988:47)). In Western developed countries, rates for both communicable diseases and accidents were as much as one third higher for residents of slums than for residents of well-designed housing (Harpham et al. 1988).

Employment and education. The poor health of the urban poor of Bangkok is also related to employment and education. Most of the poor are either employed part-time or unemployed. They do not have the skills to work in the formal sector, with self-employment in the informal sector (e.g. as small vendors) their only alternative. Such employment gives them an income which is barely enough to survive. Lack of time and little or no education discourages them from improving their health through preventive care.

Deficiencies of public health care services. Inadequate public health care services are also partly responsible for the poor health of the urban poor. Firstly, community participation, which is a key to the success of primary health care, has been difficult to institute in practice. Long-term volunteers have been hard to find. The recruitment of suitable volunteers needs more supervision and monitoring as the frequency of volunteer drop-out is high. Secondly although the city populace is well supplied with government hospitals the quality of service of these hospitals is poor: crowding, long waiting time, brief and impersonal consultations. Consequently, slum dwellers tend to visit drug stores or treat themselves at the onset of illness. Figures in Table 6 indicate that the majority of the urban poor, 76 per cent, took no treatment at all when first faced with illness. Only a small proportion of residents, 6.5 per cent, visited government hospitals. Inconvenience is the weak point in the government hospital system. Nevertheless, the poor do visit government hospitals frequently when special medical skills are needed. Thus, as indicated in Table 6, a large number of poor patients received government hospital services for childbirth and immunisation (see also Sermsri 1989). Normally the poor do go to government hospitals when illnesses are serious but figures are not included in the table. Thirdly, public health centres in the city are underutilised. They are located in every district, close to the poor communities. They are supposed to be in daily contact with the poor and serve as a powerful agents for health promotion and education. However, in practice the resources of the centres are limited and the services provided are of poor quality. Many people see the health centres as places where simply medical drugs are dispensed and where unskilled 'small' doctors work. The poor then tend to by-pass the health centres in search for alternative care. Table 6 indicates that only 2.7 per cent of slum dwellers visited a health centre at the onset of their last illness. If special medical skills were required, such as vaccination, the poor did use

Table 6

Percentage distribution of health utilisation of slum dwellers in Bangkok, 1986

Health care sources	Medical treatment of last illness (per cent)	Childbirth (per cent)	Immunisation service (per cent)
No treatment	76.2	0.0	10.9
Drug store	10.8	0.0	0.0
Health centre	2.7	6.8	35.4
Government hospital	6.5	77.4	38.8
Private clinic	3.0	3.4	2.0
Private hospital	0.5	2.1	4.1
Traditional healer	0.2	0.0	0.0
Superstition	0.1	0.0	0.0
Other modern medical unit	0.0	0.0	8.8
At home	0.0	10.3	0.0
Total	100.0	100.0	100.0
Number	1757	146	147

Source: Krong Kaew, Chamratrithrong and Likitkijsonboon 1986.

the centres (35.4 per cent). But for the highly skilled services of childbirth they show a strong preference for the government hospitals (77.4 per cent compared to 6.8 per cent for the health centres). Fourthly, lack of coordination between government health authorities hinders effective referral systems. The Bangkok Metropolitan Authority (BMA) runs all health centres in the city but control only some hospitals which provide tertiary care for these centres. The government centres of medical excellence and teaching hospitals are affiliated with the Ministry of University Affairs. Only a few public hospitals, as noted above, are run by the BMA and a large number of private hospitals and clinics are under the jurisdiction of the Ministry of Health. A few government hospitals belong to the Ministry of Defence. In all these cases there is no effective referral system operative between the health centres and the hospitals.

The isolation of private health care services from the needs of the poor. Private medical care, in the form of clinics and hospitals, is highly developed in Bangkok. Statistics for 1984 indicate a total of 174 private hospitals and 7114 clinics in urban areas. More than half are run as businesses in the capital. These private, profit-seeking institutions emphasise curative care for the urban rich and leave the 30 public hospitals and 52 health centres to care for the urban poor. The private hospitals and clinics are well equipped with the latest medical technology. However, they are very commercialised and expensive, making access for the poor difficult. These hospitals usually require patients to present evidence of their financial resources before being admitted. They are essentially profit-oriented business enterprises with little humanitarian interest in the

health needs of the poor. Private hospitals and clinics mainly offer curative services to those who can afford to pay; they are not concerned with health education and prevention nor with servicing, through referral systems, public health centres. In short, interaction between the private health care sector and poor communities in Bangkok is virtually non-existent.

Improving health care for the urban poor

Urbanisation in Thailand has caused a number of problems, particularly in relation to the urban poor. The situation is likely to worsen as increasing numbers of Thai move to urban areas. The growing economic prosperity of Bangkok has combined with a lack of rural/provincial development efforts to lead to rapid urbanisation, increasing urban poverty, and worsening health care for the poor. A quarter of Bangkok inhabitants are now living in poor housing conditions and deteriorating environments.

The poor health of the Bangkok poor was first revealed at the onset of modern economic development in the 1960s. Child survival rates thirty years ago were very low among slum dwellers and those living in crowded houses. While the Government has attempted to improve the health of city residents generally development efforts are unfortunately weak and strategies have not always been suitable to addressing the conditions of the poor. Thus, the need for better housing has largely been ignored.

The health problems of the urban poor in Bangkok have been exacerbated by the inadequacy of health services. There is poor collaboration between preventive health and curative care systems in relation to the urban poor. The majority of the urban poor, although they face greater risk if disease and illness, tend to ignore public health centres even though they are distributed throughout the city and often in their communities. The main reason cited by urban residents for not using these health centres is that they are both inconvenient and offer low-quality services. Moreover, these centres have little contact with both government and private hospitals and referral systems between them are non-existent.

The urban poor, as well as other city residents in Thailand, often suffer from a lack of preventive care services. Government physicians have little time to offer preventative health care education and care. It has been suggested that the private health sector could play a more important role in providing preventive health services to the poor, as the quality of care offered by the private health sector is equal, if not superior, to that of the government (Vuthipongse 1989). To better respond to the health demands of the urban poor, the roles of public and private health sectors should certainly be redefined. An example of successful collaboration can be seen in population regulation in Thailand where the national target of population growth rates would have been difficult to achieve without the participation of private family-planning organisations.

If there is to be any improvement in the health of the urban poor of Bangkok a number of other changes will also have to be made. Firstly, health care services provided by the government and the private sector should be guided more by the principles of equity and social justice. A humanitarian concern to better the health of the urban poor should be the objective of development policies; but improved health is also a means to achieve development. Thus, the principles of equity and social justice and the goals of development should not be viewed as mutually exclusive but, rather, as mutually supportive. Secondly, an improvement in the health of the urban poor requires that the medical profession becomes more committed to health education and prevention. The present practice of very brief consultations hinders such commitment. Thirdly, dependency on the medical profession needs to be reduced. This dependency is fostered by the profession and the media and also by particular practices such as the refusal of doctors to identify prescriptions so that patients will not be able to make purchases from competitors (e.g. drugstores). Such unscrupulous practices were identified twenty years ago (Riley and Sermsri 1974) but are still prevalent. Fourthly, advanced medical technologies should be used selectively so as to reduce the cost of treatment to the urban poor.

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economic growth & social engineering in health in Singapore

John T. Purcal*

The Singapore economy has developed very rapidly over the last 30 years. During this period Singapore has transformed itself from a nation where most of the population lived in overcrowded conditions with open sewers and foul smelling drains to a clean and well ordered city with health standards similar to those of other developed nations. Since its separation from Malaysia in 1965 Singapore has maintained a high level of economic growth except for the recession years 1973 to 1974 and 1985 to 1986. With plentiful overseas investment in the manufacturing sector the value of output has increased nearly ten fold since 1965. Annual per capita income during the same period increased from less than US\$1000 to over US\$19,000. The Singapore community benefited from economic growth and increased employment rather than from any deliberate attempt to distribute income. Unemployment fell from over 10 per cent in the 1960s to around 2 per cent in recent years. In short, Singapore today is a prosperous nation and very proud of its health and other infrastructure developments.

Within the context of continued economic growth the government has made a bold attempt at restructuring the health sector, especially its financing. In the process it has reshaped the structure of the health system so that it will withstand the stress of slowing growth, as Singapore's economy matures in the coming years. This chapter discusses the social engineering process that has reshaped the health sector.

Health and development in Singapore

The health status of the population of Singapore has improved over the last 30 years. All health indicators point to the significant development of the health sector which has kept up with economic growth and development. Child mortality, a sensitive indicator which points to the end result of economic and human development, has decreased at an annual rate of over 5 per cent from 40 per 1000 live births in 1960 to 7 in 1992 as compared with an annual 3 to 4

* The author acknowledges a travel grant from Lingnan College, Hong Kong to do the research on which this chapter is based.

Table 1
Change in pattern of major causes of death in Singapore

1950	1965	1991
Tuberculosis	Cancer	Cancer
Infantile convulsions	Pneumonia	Heart diseases
Pneumonia	Diseases of the heart	Cerebrovascular diseases
Gastroenteritis	Tuberculosis	Pneumonia
Diseases of early childhood	Gastroenteritis	Injuries

Source: Government of Singapore, 1993; and others.

percent decline in Australia over the same period from 24 in 1960 to 9 in 1992 (UNICEF 1994:81).

Infant mortality rate, another good indicator of social-economic development, fell in Singapore by 80 per cent from 34.9 per 1000 live births in 1960 to 6 in 1992 as against a decrease of 65 per cent in Australia from 20 in 1960 to 7 in 1992. Life expectancy at birth increased in Singapore from 64 in 1960 to 74 in 1992. The figures for Australia for the respective years are 79 (1960) and 77 (1992). The overall burden of mortality that is the total number of years lost to premature deaths per 1000 population was 6 in Singapore in 1992 as against 8 in Australia. Maternal mortality also shows a similar decrease. It declined to 10 per 100,000 live births in Singapore, in the years 1987 to 1992, very close to the level in Australia.

Over the last 40 years the pattern of disease has changed in Singapore. Communicable diseases like tuberculosis, pneumonia and gastroenteritis, which were prevalent in the 1950s have given way to chronic degenerative diseases. Today the major causes of death in Singapore are somewhat similar to that in Australia. Table 1 outlines this change.

Immunisation against tuberculosis, polio, diphtheria, pertussis and tetanus along with universal access to health services, safe water and sanitation and better nutrition, have reduced morbidity and mortality, especially among infants and children. Between 1990 and 1992 the percentage of children immunised against diphtheria, pertussis, tetanus, polio and measles was over 85 per cent and 99 per cent of children were vaccinated against tuberculosis. Tuberculosis was a major killer in the 1950s and 1960s, but has since been brought very much under control, although its lingering effects are still being felt in Singapore. In 1990 Singapore was reported to have an incidence of 82 tuberculosis cases per 100,000 population as against 6 in Australia (World Bank, 1993:206-7).

Human resources devoted to improving health in Singapore have also increased significantly. The doctor/population ratio in Singapore has increased to 1 to 800 in 1992 as against 1 to 1265 in 1978. The ratio of consulting specialists among medically qualified persons has also increased (Singapore Government 1993: Appendix B).

Health policy

Singapore, with its population as its only resource, apart from location, set its priority in the early 1960s to emphasise the importance of having a healthy population. Both the intrinsic and instrumental roles were stressed in health maintenance. The intrinsic role of health is in meeting one of the basic needs of the population in maintaining and improving health, and preventing illness. A healthy population is able to enjoy life without the stresses and strains that come from illness. The instrumental role looks upon health as a form of human capital. In Singapore this role was in generating a healthy workforce who would work at low wages, free of absenteeism and would thus make Singapore attractive to investors. The emphasis here is on the rising productivity of the workforce through better health, and this was important for the economic development of Singapore. Another instrumental role was the reduction in the fertility rate in Singapore. Here the population policy and health policy worked hand-in hand with family planning. Family planning is very effective if the survival rate of children up to maturity is made possible. With better health, morbidity and mortality especially of infants and children decreased and the survival rate improved. This had a significant influence on the total fertility rate in Singapore. Total fertility rate declined from 5.5 in the early 1960s to 2.1 in 1970–75 and then to 1.8 between 1987–92. Better health is also important in improving enrolment rates and performance of children in schools and thus in contributing to human resource development. A healthy nation and an efficient health sector was crucial to Singapore in building itself up as a regional medical center exporting its medical and health services to the surrounding countries. This instrumental role was very much stressed in the late 1970s and early 1980s. Another role was in improving the equity in the distribution of income in Singapore. Singapore has no formal social welfare measures for improving equity, but heavy subsidies to the health sector have made hospital and medical services affordable to middle and lower income groups in the lower class wards (C, B2 and B wards) of the hospitals and this has played a part in improving the distribution of income in Singapore.

Most nations aim to achieve a set of goals through their health policies. These include the provision of health services that are accessible and affordable to all, especially the lower income groups. Other goals lead to freedom of choice to consumers and to producers of health and medical services. For consumers, the freedom to choose of the care giver, especially the medical practitioner or the specialist for consultation and during hospitalisation is important. To the producers the freedom is in organising production of their services and locating them in areas of their choice. It also means pricing their services without any restrictions or controls from the government. In most market economies, producers' freedom means fee-for-service without any barriers being placed as to pricing these services. All these goals ranging from accessible and affordable health services to freedom for consumers and producers cannot be achieved simultaneously. There is a trade-off between affordable health and medical

services and freedom of choice. In Singapore accessibility and affordability are guaranteed to all, especially the lower income groups, so long as they accept the package of goods and services made available to them in the lower class wards of the hospitals. These wards are heavily subsidised by the government, but there is no freedom of choice of the care giver in these wards. That freedom is reserved for those in the higher class wards (class A2 and A1) of the hospitals where subsidies are limited (in A2) or absent altogether (in A1). The freedom to organise production and pricing of services are again somewhat restricted in Singapore for the sake of keeping the costs of health care under control.

Health system

Singapore's health system is of a hybrid kind with both private and public sectors playing significant roles in delivering health care services. The private sector is dominant in the delivery of ambulatory and clinical specialist services, while the public sector is prominent in hospital services. Of the 3600 doctors practising in Singapore, 60 per cent are in general practice. General practitioners' clinics are spread throughout the city state and they provide primary care to 75 per cent of the ambulatory patients. The remaining 25 percent receive their care from the 16 polyclinics and outpatient departments of the government funded hospitals. Attendance at the polyclinics costs a modest sum for consultations and prescriptions. Students and senior citizens are heavily subsidised and they pay half of the regular fees. Overall the polyclinics are subsidised to the extent of 50 per cent of their total cost.

In recent years despite the lower cost, attendance at polyclinics have fallen from 3.9 million in 1980 to 2.9 million in 1992. This decline in attendance may be due to rising incomes. Many Singaporeans can now afford to go to a general practitioner's clinic for their primary care and consultations which generally means less waiting time than at the polyclinics. Health promotion in recent years has also reduced attendance at the polyclinics. For example, diabetic patients come to these clinics less frequently than in the past; they are taught to look after themselves at home through health promotion and by providing them with ample supply of medication for up to 3 months.

Hospital services are mainly provided by public hospitals. In 1992, 80 per cent of the total supply of beds in Singapore was in these hospitals as against 90 per cent in 1975. The remaining beds were in the private hospitals and they cater for the well-to-do, especially those at the top of the income pyramid. The public hospitals cater for all, especially those in middle and lower income groups. They are accommodated in the subsidised C and B2 class wards, while the well-to-do pay to go into B1 and A class wards which in recent years receive less and less subsidy. In 1980, 80 per cent of the patients in the public hospitals were accommodated in the C class wards. By 1992, the patients in C class wards had fallen to 21 per cent. This decrease resulted from two forces. One was the increasing social mobility among the population. Today with higher incomes, many Singaporeans can afford to pay for higher class ward accommodation in

hospitals. Even some lower and middle class patients go for higher class accommodation. Another factor might be the closing of a number of C class beds which has forced some to seek accommodation in the higher class wards.

In addition to the dominant formal system described above, there is an informal sector which consists of traditional healers catering to the Chinese, Malay and Indian communities. Among them the Chinese physicians are important. There are some 1800 practising in Singapore, many of whom have some basic qualifications in Chinese medicine. Most of them have learnt their trade by working within the family practice. They charge very low fees especially to the less well-to-do for consultations at their clinics. Despite the low fees attendances at their clinics have fallen in recent years.

Health philosophy

The health sector was assigned a crucial role in the development of the economy from the early 1960s. In developing the health sector, the government felt that the cost has to be shifted from the government to the private sector and the population at large. In the process, if the health costs rise faster than the growth in GDP, then the government will have the role in keeping the costs down. The health philosophy that emerged over the last two decades emphasises these aspects, especially the shifting of responsibility of health costs towards the community. Here the personal responsibility of each and every individual in maintaining good health and meeting the costs of medical expenses and hospitalisation was emphasised. Working individuals were encouraged to save a small percentage of their incomes and set aside the savings in a fund to meet their health costs.

Since the early 1980s there has been much public discussion about containing health costs, especially after the publication of the National Health Plan in 1983. From the discussions in Parliament, in various committees and among community groups, there emerged a health philosophy which basically epitomised the government's fundamental objectives. The main emphasis of the health policy was the containment of rising health costs, and this was stated in clear terms in the government White paper *Affordable Health Care* in 1993. The White paper sets out the government's plan for reshaping the health sector over the coming years. The five fundamental objectives of the government's health care policy which will influence the restructuring of the health sector are:

- To nurture a healthy nation by promoting good health;
- to promote personal responsibility for one's health and avoid over-reliance on state welfare or medical insurance;
- to provide good and affordable basic medical services to all Singaporeans;
- to rely on competition and market forces to improve service and raise efficiency; and
- to intervene directly in the health care sector, when necessary, where the market fails to keep the health care costs down. (Singapore Government 1993:2)

The first objective emphasises both the intrinsic and instrumental roles of health. Within a healthy nation the citizens will be able to enjoy their day-to-day lives better. The fostering of a healthy workforce within such a nation would ensure rising productivity and thus the competitive edge of Singapore in the world market would not be eroded. In the second objective, the government emphasises the objectives of being lean on welfare, and the responsibility of nurturing a healthy nation is left to the people of Singapore. They are encouraged to adopt a healthy life style and generate savings to look after their own health and that of their family members. They are also exhorted to economise on their usage of health resources by keeping fit and by using low cost alternatives rather than specialist and high cost medical services.

The third objective confers a right to Singapore citizens. Here the government guarantees affordable health care services, especially to the low and middle income families. What is defined as affordable is the basic package of hospital and medical services available to people in the polyclinics and the C and B2 wards of government funded hospitals. They consist of the no-frill services; services such as heart, lung and bone marrow transplants are not included in the package. The package does not include any high cost investigation or treatment such as the usage of experimental drugs to patients in cases where cheaper or proven alternative treatments are available.

The last two objectives deal with cost control and cost effectiveness, by exposing both public and private sectors to competition in the market so as to make them more efficient. To keep costs under control the government would regulate the supply of medical practitioners and hospital beds, and restrict the number of clinical specialists that would be allowed to enter into the market to practice. The government would also intervene in the private sector if the trend of fees for medical services gets out of kilter and raises the overall cost of health care.

Financing of health services

Singapore, as mentioned earlier, has achieved substantial reductions in mortality and morbidity in the last 30 years. These gains are likely to persist with the continued delivery of affordable health services and with substantial efforts being directed towards health promotion. These developments will moderate the rise in health costs. But in Singapore there are a number of other forces that will raise the costs of health care in the future. These include the aging of the population, the heavy emphasis being placed by the community, with rising incomes, on the quality and value of life and the consequent demand for better health and medical services. Moreover, the costs are likely to go up because of the rising salaries and wages for health personnel and from greater use of costly drugs and technology.

Some of these forces have been operating in the last fifteen years or so and costs have risen, especially since the early 1980s. First the government tried to bring into the open the problem of rising costs and the subsidies being paid to

maintain the health system. There were also efforts to make the public bear an increasing share of the health costs.

Some of the costs are amenable for transfer to individuals who consume the health goods and services. There are purely private goods and they benefit only the individuals who consume them and such costs can be passed on. But the costs of purely public goods and services such as spraying to get rid of mosquitoes benefit the community at large and such costs have to be borne by the State. Then there are goods and services such as immunisation against measles and curative care for tuberculosis which not only benefit the individual who receives, but also protects others by reducing the risk arising from such illness. Some share of these costs could be passed on to the individuals who benefit directly from them.

In Singapore efforts have been made to pass on the cost of purely private health goods and services, such as the curative care in hospitals by introducing user charges. For the public to bear the brunt of these charges, even when they are subsidised for the lower and middle income groups, it was necessary to generate savings with which they could meet these charges. An ingenious plan called Medisave was introduced in 1984 and this generated the savings to meet the cost of hospitalisation.

Medisave plan

This saving scheme ensured that most Singaporeans would have the financial means to meet not only the current hospitalisation expenses, but also the heavy medical expenses during their old age. This introduced a great shift towards public cost sharing and freed government funds to meet other urgent priorities.

The Medisave plan removed the necessity for reliance on state welfare to meet health expenses, as each worker would have enough savings to look after his/her health. The plan emphasised the point that a payment had to be made at the point of delivery of medical and hospital services by the user. According to the government, this would put pressure on the individual to economise on health expenditure and to take great care in looking after his/her health. Thus Medisave plan transferred the responsibility of health care to the individual and it provided incentives for every member of the plan to remain healthy.

The Medisave plan is tied to the Central Provident Fund to which contributions are made both by employees and employers. Currently the combined contributions of both groups come to 40 per cent of the annual wages for each employee. Of this, a sum equivalent to 6 per cent of the annual wage of a worker is set aside in the Medisave Fund, up to a maximum of \$15,000. This sum is adequate, according to the Ministry of Health, to meet the hospitalisation and medical expenses of every individual making the contribution. If in the future, the sum proves insufficient, especially within the context of an ageing population, the Medisave contribution could be raised, without much fuss from the contributors. The government envisages that it

may be necessary to raise the contribution to 10 per cent (Singapore Government 1993:7)

From the beginning there were restrictions placed on usage of Medisave funds by the contributors for hospitalisations. First, the maximum amount one could draw was set equal to the charges that had to be paid by a person hospitalised in a C class ward. Later it was raised to cover the costs of fees and charges incurred in the B2 ward of a public hospital. People hospitalised in these wards are heavily subsidised and so they pay on average over 50 per cent of the full cost of their hospitalisation and medical expenses through their Medisave, while a person hospitalised in the A1 class ward has to pay the full cost of hospitalisation. With the restrictions placed on usage of Medisave, patients would have to meet part of the expenses from other sources, thus encouraging the users to economise on health expenses and stay healthy.

Medisave plan departs from the health plans and social security schemes of other industrialised countries in a number of respects. First it is not a common pool of funds under the control of the government. All these funds in other countries generally have an insurance component built into it. But the Medisave plan when introduced didn't have any insurance elements. Each individual in Medisave owned the sum in his/her account and what was not spent during one's lifetime could be bequeathed to one's close relatives. The absence of the insurance element was rectified after 6 years of operation of the Medisave Plan in 1990, by the introduction of Medishield with premiums being paid out of Medisave accounts. Again to make the individual economise on the use of health resources and stay healthy, Medishield has built in deductions and co-payments to make the user aware of the cost at the point of treatment. Second, the Medisave covers not only the individual but also his/her family members. One could draw funds from the Medisave to meet hospitalisation and other medical expenses of family members. Also, if the savings in Medisave and Medishield payments are not adequate to meet one's hospitalisation one could borrow from the Central Provident Fund to meet the expenses. Those who are financially indigent and unable to pay could apply for waivers to the government. In 1991, 2,800 patients in C and B2 wards, out of 160,000 or less than 2 per cent of the total patients in these wards applied for waivers; 98 per cent were granted waivers. In 1992, 2.2 per cent of the total patients in these wards applied for waivers. Of the 3,800 who applied, 99 per cent were granted waivers.

Medisave has some definite advantages in caring for the rapidly ageing population in the coming decades. By encouraging the currently working population to save to meet their health expenses, in their old age, through regular contributions to Medisave, there would not be any unduly heavy burden on the disproportionately decreasing working population of the coming decades. Thus an increasing share of the heavy costs of meeting the health needs of an ageing population would be met from people's savings in Medisave rather than from the uncertain taxes paid by a shrinking working population of the future.

Ageing population and health care

The rapid growth of the Singapore economy over the last three decades is unlikely to continue into the next generation. Its ageing population will act as a break on its growth process and ultimately will put a strain on the ability of the economy to cope with the health and welfare of its senior citizens.

Singapore's population is ageing faster than that of most industrialised countries. Rising standards of living, and health policies have worked well in reducing population growth. The total fertility rate, as stated earlier, has fallen from the high figure of 5.5 in 1960 to 1.8 in the years 1987 to 1992. In the early 1960s population below 15 years formed around 40 per cent of the total population. By 1990 this proportion had decreased to 23.2 per cent. Those born in the baby-boom years of the 1950s and early 1960s are living longer. Life expectancy at birth has increased by over 10 years since 1960. For males, life expectancy at birth in 1990 was 73.5 years, as compared to 73.3 years in Australia. For females, life expectancy in Singapore in 1990 was 77.9 years, as against 79.6 years in Australia.

With its faster economic growth, social change leading to lower fertility rates and longer life expectancy Singapore has compressed the time of the population's ageing process to an unprecedented extent. It took 70 to 90 years for industrial countries to move from having 10 per cent of their total population in the age bracket 60 years and over to 20 per cent of the population in the same age bracket. Singapore's time span for the same process will be just over 20 years.

In 1990 those aged over 65 and over formed 6.2 per cent of the population as compared to 15.4 per cent in the U.K. and 10.9 per cent in Australia. Their proportion in Singapore is likely to increase to 20 per cent by 2030. By then, just over 2 working persons will be supporting one aged person over 65 years, as against 7 working people supporting one aged person today.

In the past, the tax based health system provided for the elderly but with a shrinking working population it must be restructured to meet the changing needs of the coming decades. The government has realised the immensity of the task and it has set up the Medisave plan for workers to generate enough savings to meet their own health costs in their old age.

Trends in health expenditures

In the early 1960s, health was one of the top priorities of the nation. During 1960 to 1965, average growth in total expenditure on health (both public and private) grew faster than the growth of GDP, resulting in the share of health sector in GDP increasing from 3.9 per cent in 1960 to 4.5 per cent in 1965 (see Table 2).

The growth in government spending on health was a major factor in pushing expenditure to this high level. Government expenditure on health grew faster than GDP and by 1965 it had increased to a high water mark level of 2.3 percent of GDP. This high level of health spending by the government

Table 2
Health spending as a percentage of GDP

	Government expenditure on health	Private expenditure on health	Total current expenditure
1960	1.5	2.4	3.9
1965	2.3	2.2	4.5
1970	1.4	2.1	3.5
1975	1.0	1.9	2.9
1980	0.9	1.6	2.5
1985	1.1	1.8	2.9
1987	0.9	2.1	3.0
1992	0.7 ^a	0.0	3.1

^a Government subsidies amount to 0.7 per cent of GDP.

Sources: Statistics Singapore: *National Accounts of Singapore*, various years; Singapore Government 1993.

reflected the significance the government had placed on health, especially on the instrumental role of health, as stated earlier, in creating a healthy, productive and compliant workforce. It would make Singapore attractive to overseas investors. Improvement in health was also a factor in the population policy of Singapore which was aimed at reducing the fertility rate from the high levels of the 1960s.

This pattern of health spending of the early 1960s drastically changed in the next five years, with the changed priorities of the government following Singapore's separation from Malaysia. Growth in total health expenditure was dismally low and lagged far behind the growth in GDP, while the government's attention was focused on setting up structures for the defence of Singapore and on employment creation. Consequently, total health expenditure as a proportion of GDP declined to 3.5 per cent in 1970, with the government component amounting to 1.4 per cent.

This trend in the growth of government spending lagging behind that of GDP continued well into the 1970s. During this period although growth in government expenditure recovered from the poor record of the late 1960s, it was still significantly lower than that of GDP. During these years the government relied on the lower costs of running hospitals, largely as a consequence of moderate wage and salary increases during the period. Consequently government expenditure on health as a proportion of GDP decreased from 2.3 per cent of GDP in 1970 to less than 1 per cent in 1980.

Government expenditure on health not only fell as a proportion of GDP, but also declined as a proportion of total government current expenditure. It fell from 18.3 per cent in 1965 to slightly over 6 per cent of total government current expenditure in 1980 (see Table 3).

Throughout the two decades 1960 to 1980, growth in private health spending was also lower than that of GDP. Consequently the share of private

Table 3
Government expenditure on health

	Total current expenditure of government (S\$m)	Current government expenditure on health (S\$m)	Health expenditure as a per cent of total current expenditure
1960	223.4	32.7	14.6
1965	371.8	68.0	18.3
1970	982.4	81.3	8.3
1975	2223.4	138.3	6.2
1980	3651.0	223.0	6.1
1985	6678.3	419.1	6.3

Source: *National Accounts of Singapore*, various years.

health expenditure as a proportion of GDP declined from 2.4 per cent of GDP in 1960 to 1.6 per cent in 1980 (see Table 2). But as a share of total private consumption expenditure, private health spending showed a moderate increase from 2.7 per cent in 1960 to 3.2 per cent in 1980.

The decline in private health spending as a proportion of GDP was far slower than that of government spending on health. In 1965 government health expenditure was marginally higher than private health spending. But by 1980, because of its slower growth, government spending had declined to 54 per cent of private health spending. The burden of public health expenditure fell over the two decades, 1960 to 1980.

Throughout the 1960s and 1970s the elasticity of health expenditure, that is the percentage change in spending in health as a ratio of the percentage change in GDP, was generally more than one in most industrial countries. But in Singapore, with growth in total health spending not keeping up with growth in GDP, the elasticity was less than one. For over 15 years the health expenditure burden of the nation was falling within the context of a dynamically growing economy.

Changing health spending trends since the 1980s

The trend of total health spending not keeping up with growth in GDP continued until 1981, after which the picture began to change with total health costs growing at a faster rate than that of GDP for most of the years. In 1982, there was a very significant increase in government current spending in health, which far exceeded the growth in GDP. This arose mainly from salary and wage increases for health professionals and workers; wages and salaries are a significant portion of the health budget. Any increase in these items would raise health costs. In 1982, with these costs rising significantly, the share of government spending in health increased to 1.0 per cent and the national burden consequently increased to 2.5 per cent of GDP. This raised alarm in government circles and concern about rising health expenditure burden began

to drift into public arena with the publication of the National Health Plan in 1983.

For the years 1981 to 1984, despite these rising wage costs of 1982, the average growth of health expenditure was not significantly greater than its growth in GDP. However the national health expenditure burden stayed at 2.5 per cent for the three years from 1982 to 1984. Since then, the share of the health sector has gradually increased to just over 3 per cent (3.1 per cent of GDP in 1992). This creeping increase occurred for a number of reasons. First, the increase in 1985 and 1986 has to be understood within the context of the negative growth rates of the economy during these recessionary years. While the economy contracted, health expenditures continued to grow between 8 to 10 per cent a year. Rising medical and health costs combined with liberal spending by the more affluent population contributed to this growth. Health expenditure, especially the private health spending continued to grow in the second half of the 1980s because of greater spending by Singaporeans. The availability of Medisave funds to pay for hospitalisation and other medical costs contributed to this growth. Private health expenditure grew faster than public expenditure on health after the introduction of Medisave in 1984. Private health spending increased from 1.6 per cent GDP in 1984 to 2.4 per cent of GDP in 1992. As a share of total private consumption it increased from 3.2 per cent in 1980 to 5.4 per cent in 1992. In contrast government spending gradually contracted as a proportion of GDP to less than 1 per cent since 1985. The government introduced a number of economy measures to bring down its share of health costs, including reduction of subsidies to the lower class wards in the hospitals. Subsidies decreased from 90 per cent in the early 1980s to 57 per cent in 1992.

Low health spending and high health outcomes

Singapore's total current expenditure on health of 3.1 per cent of its GDP in 1992 is significantly lower than that in other developed industrial economies. Health spending has varied from 6 per cent in Japan and 7 per cent in the U.K. to 8 to 9 per cent in Australia, Germany and Canada and 14 per cent in the United States. Health expenditure in one country is not strictly comparable to that in another as the definitions of what constitutes health expenditure vary from country to country. Despite this limitation, it is generally agreed that the broad magnitude of expenditures as a proportion of GDP tends to give a good measure of the cost of health care in these countries.

In the United States health care costs are much higher because of over indulgence in defensive medicine. Medical practitioners are worried about legal suits and they conduct all sorts of tests and investigations to protect themselves from prospective legal action. In all the developed countries mentioned above, the proportion of aged population especially those above 65 years varies from 10.9 per cent in Australia and New Zealand, 11.4 per cent in Canada and 12.6 per cent in the U.S. to 15.4 per cent of the total population in

the U.K and Germany (Singapore Government 1993:21). There is also a tendency to keep patients longer in hospitals in most countries, and the generally well educated population demands modern technology and medicine in treatment procedures, and there is a proliferation of modern technology in use. With these types of practice, the cost of health care in these industrial countries goes well above 10 per cent a year, while the economy is growing between 2 to 4 per cent a year. Consequently health care costs as a proportion of GDP tend to go up in these countries.

The situation in Singapore is different. There the economy in recent years has been growing at about 10 per cent a year and health care costs are keeping close to that level of growth. Hence health spending as a proportion of GDP has stayed between 2 and 3 per cent a year for the past decade. There are a number of other reasons for the burden of health expenditure to remain at this low level. First, the population of Singapore is much younger than in most industrial countries with a median age between 29 to 30 years. The proportion of those aged 65 years and over in Singapore was around 6 per cent in 1990 as compared to about 11 per cent in Australia and New Zealand and over 15 per cent in the U.K. Second, social and cultural factors, especially strong family bonds and social ties keep the population of Singapore to a relatively low level of hospitalisation. The admission rate to hospitals in Singapore is around 125 per 1000 as against 170 in the United States. Third, the government has introduced competition into the market for health services. Private hospitals compete with public hospitals in rendering services. In the delivery of outpatient services private practitioners face unfair competition from polyclinics. Queues and waiting time are longer in polyclinics, but the costs to the ambulating patients are very low. General practitioners have to take this low cost alternative into account in setting their fees.

Fourth, costs are low because of inter-sectoral co-operation and complementary developments. There is substantial co-operation between health, environment and labour ministries, and their working together makes it easier to gain higher outcomes. Then the complementary developments in employment, nutrition, housing, sanitation, clean water supply and education make it possible to have higher outcomes than are warranted by health expenditure alone. This points to the existence of a high degree of complementarity between these sectors. Singapore enjoys almost full employment, with the unemployment level being below 2 per cent and with hardly any tariff barriers food products from neighboring countries are available at a very low cost. With adequate incomes and low cost food products being available in plentiful supply, nutrition levels are good. The housing situation has improved significantly over the last two decades, with some 90 per cent of the population reported to own their own homes. Clean water and modern sanitation are available to all the population. These, along with improved educational opportunities, have made the population keenly aware of the benefits of healthy food, physical exercises and the dangers of smoking

and overeating. All these complementary developments have contributed to raising the health status of the population at very low cost (Purcal 1989:128–29).

Fifth, Singapore being a late developer, was able to take advantage of low cost measures such as reliance on generic drugs, increased emphasis on health promotion and economies of scale in making use of modern technology and modern management practices, to reduce costs of hospital care. In a number of ways, Singapore was able by learning from the mistakes of the industrial nations of being overgenerous on welfare and of the moral hazard and adverse selection problems in the provision of health insurance, to channel its health scheme away from such costly mistakes.

The moral hazard problem arises from the fact that the insured person becomes immune to the cost of medical services. This comes from the uncoupling of the link between the premium paid and the value of services received, creating a 'free lunch' effect. The insured person has neither the incentive to go for cost effective treatment that yields best outcomes, nor voluntarily to take preventive measures to safeguard health. The government, in its insurance Medishield which covers catastrophic illness, tried to minimise the moral hazard by limiting the maximum claimable amount and by introducing deductibles and co-payments. The second problem in medical insurance is the adverse selection. This arises from low risk individuals opting out of the scheme in large numbers, thereby raising the premiums for others. In Singapore, this problem of adverse selection was avoided by encouraging every Medisave member to join the Medishield scheme when it was introduced in 1990.

Last, Singapore in its financing and its provision of infrastructure and medical equipment was able to take advantage of economies of scale and thereby reduce costs. In the financing of health, administrative costs of Medisave and related schemes are minimised by having a single operator, the Central Provident Fund. In the provision of costly medical equipment to the hospitals, the government ensures that the equipment is fully utilised and the usage of every piece of very costly equipment is shared by a number of institutions. Until the equipment is fully utilised, no further equipment for the same usage is allowed to be bought by government funded hospitals. These measures have reduced the cost of health and medical services in Singapore.

Plan for cost containment in the coming years

The Singapore economy is growing fast, but the growth is likely to slow down in the near future with the maturing of the economy and the ageing of the population. While the economy slows down, health care costs will loom large in total current expenditure as demand for health services expands with increase in incomes and the ageing of the population. The government, realising the health crisis facing the nation in the coming years, set up a Committee to review the role of the State in the provision of health care and to suggest ways to improve the health care system. The recommendations of the

Committee and the health care philosophy of the government were, as mentioned earlier, published in the government White Paper in October 1993.

The main objective of the review exercise was to contain the costs of health care in the context of growing demand for health services. Although the costs were going up in the past decade, still the government guaranteed access to affordable health care for all. Affordable health care, as stated earlier is defined as a basic medical service package with no frills. They consist of 'cost effective treatments that yield the best outcomes' (Singapore Government 1993:3) and will be subsidised. They are aimed at meeting the health needs of lower and middle income groups. For the destitute, the government has set up a scheme called 'Medifund' which defrays the cost of their hospitalisation and medical expenses.

Rising costs will be contained by emphasising the provision of primary health care and individual responsibility. Primary health care has been stressed in recent years. Currently close to 12 per cent of the total current expenditure on health is spent on primary health care. This percentage is likely to show some moderate increase in the future, with the emphasis being placed on health promotion and disease prevention programs. These programs exhort the public to follow a healthy life style by promoting the benefits of regular physical exercise and balanced diet. Anti-smoking campaigns are regularly conducted to make people aware of the danger of smoking.

In financing the health sector, as mentioned earlier, there has been a great shift towards individual responsibility. In the future, as costs increase a greater share of the costs will be passed on to individuals by raising the Medisave contribution. The Government envisages that health costs in future could partly be met by lifting the Medisave contribution rate to a maximum of 10 per cent of a working person's annual wage or salary. This will be supplemented by employers' contributions. Employers who have been providing medical benefits, will be encouraged to make Medisave contributions, tax free, in lieu of benefits.

The White Paper also emphasises the significance of privatisation, competition and government regulation in keeping costs under control. There has been an increasing trend towards privatisation of health services in the last decade. In the government funded hospitals, this began in 1984 with the restructuring of hospitals which allowed greater autonomy in their governance. Although these hospitals provide health and medical services to all Singaporeans, their main function is to provide services to the lower and middle income groups. To improve the provision of these services market competition will be introduced into the hospital sector. These publicly funded hospitals will be encouraged to reduce government subsidies by improving the efficiency of services. If fees and charges go up fast, the government will intervene through controls in pricing and other operations of the hospitals.

Privatisation also means that a greater proportion of hospital services will come from the private sector in the future. The government will encourage the development of private hospitals by releasing land for development. With

development of the private sector the proportion of acute beds in the sector would increase from 21 per cent in 1992 to 25 per cent in the year 2000 and 30 per cent in 2010. The Government funded hospitals in the meantime will decrease their supply of beds as a proportion, but will make sure that there is an adequate supply of subsidised beds. The White paper states that each of these hospitals will have at least 65 per cent of the beds in C, B2 and B2+ wards for the lower income groups. There is no restriction on their usage; people with higher incomes, if they choose could use these facilities.

To keep the price of hospital and medical services within limits, the government will encourage market competition in the production and supply of hospital and medical services. But the market for these services is often characterised by market failure and in such a situation the government will intervene to keep prices and costs under control. In the pricing of hospital services the private sector will be guided by the prices set in the A class wards of the government subsidised hospitals. The costs of medical and hospital services will also be limited by the controls on the amount above Medisave payments that can be charged to private patients using Medisave. Government controls will be minimal on private patients who do not use Medisave funds to meet their medical and hospital fees.

The main intervention of the government has been in the financing of health care through the Medisave scheme and the definition of the basic medical package. In addition to these the government determines the overall supply of medical services. In the health sector increased supply creates additional demand rather than reductions in prices. With this aspect of market failure in mind, the government will regulate the supply of doctors and specialists in Singapore. A gradual increase in supply will be allowed to improve the delivery of health services. In 1992 the ratio of population per medical practitioner stood at 800:1. This situation will be improved by reducing the population per doctor to 650 by the year 2000. Of the medical practitioners in Singapore in 1992, 40 per cent were specialists. The government believes that an increase in the supply of specialists would increase the demand for health services. Hence the number of specialists will be maintained at the level of 40 per cent in the coming years.

Other interventions are also envisaged in the White Paper. These include greater emphasis on primary health care and family medicine in medical education and training, and some restrictions on medical research conducted in Singapore. Annual health costs in Singapore were 3.1 per cent of GDP in 1992. Currently these costs are very low by world standards, but they will rise steadily in the coming years. Despite the prospect of rising costs, the government has guaranteed affordable health care for all. The rising costs are seen as a challenge by the government and it is determined to keep the costs under control through its financing mechanism, the Medisave plan and a range of other measures and interventions.

Conclusion

The health sector in the developed nations, especially those providing universal coverage for access to health care, is facing a crisis. In recent years the crisis has been exacerbated by a number of factors which are raising health care costs as a proportion of GDP. These factors include ageing of the population, rising wages of health personnel, and the increased use of costly drugs and medical technology. Medical technology is advancing rapidly and its costs seem to be growing faster than the benefits it delivers to the community. Moreover, the consumers of these expensive services are not in a position to assess the benefits of the technology and to make rational decisions as to its use. The decision in most cases is left to the provider, who under a fee-for-service system, tends to inflate costs rather than control them.

The control of health costs in the developed nations is proving extremely difficult, especially when the community accepts that a person's consumption of health services should not be restricted to his/her ability to pay. Given such a community standard, there are problems in controlling demand, generating funds for meeting the costs and distributing rising health costs across the population. In short, the health sector is a good example of market failure. Singapore, recognising this failure aspect of the market, has taken measures to soften demand and generate savings through Medisave to meet rising health costs. Within this context of savings the government was able to persuade the community to accept that an individual's health care be restricted to what he/she is able to pay for. The Medisave plan, despite being lean on equity, has the capacity to deliver adequate health care for all, including the growing percentage of aged, in the decades ahead. The foresight and planning that has gone into keeping the financial burden of delivery of health and medical services within limits, while guaranteeing accessible and affordable health is a lesson for all developing and developed nations.

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New direction in health policy in Indonesia: the need for a demand-oriented perspective

Lorraine Corner and Yulfita Raharjo

Although a considerable improvement in health performance was recorded in Indonesia during the 1970s and 1980s, the health of the population remains poor by regional standards. Past improvements probably owe more to increases in the general level of development than to the impact of the health system. However, as Indonesia moves into the twenty-first century, it is unlikely to be able to achieve its health targets unless it improves the efficiency of the health system and the effectiveness of public sector spending on health.

The general policy goals of the Indonesian health system that were established within the framework of the international move toward 'Health for All by the Year 2000' are non-controversial (Ministry of Health 1983:29-30). The specific strategies identified in the development of the National Health System during the early 1980s emphasise both equity and efficiency, while the 'main health endeavours' outlined in the National Health System stress health promotion and preventive measures.¹ Had they been successfully implemented during the 1980s, the key strategies of the Department of Health would almost certainly have reduced mortality levels well below the levels actually achieved. The failure of the health system in Indonesia does not lie in the identification of appropriate policies, but in their successful implementation.

Factors in both the external and internal policy environment will influence the ability of the health system to effectively implement policies that adequately reflect stated priorities. The share of the health sector in the government budget

1 The strategies for the achievement of policy goals during the 1980s were listed as 'strengthening of health endeavours, improvement of nutrition, promotion of environmental health, prevention and control of diseases, drug and food control, [and] promotion of occupational health', characterised as 'direct endeavours,' and 'strengthening of management and legislation, health manpower development [and] health research and development,' characterised as 'supporting endeavours' (Ministry of Health 1983: 35). Health endeavours were elaborated in terms of, first, 'improving the functioning of health centres in maternal and child welfare, family planning, nutrition, environmental health, prevention and control of diseases particularly by immunisation, health education to the community, medical treatment of diseases and injuries, school health, community health, dental health, simple laboratory services and recording and reporting' and second, of improving the distribution of health facilities at village and more local levels. Hospitals were mentioned only as the third element of 'health endeavours' (Ministry of Health, 1983: 36-37).

in Indonesia is relatively small, and unlikely to increase markedly. The tighter overall budgetary situation brought about by the oil crisis and the need for structural adjustment create an unfavourable environment for an expansion of public sector health spending. In these circumstances, limitations in the management capacity of the Ministry of Health, particularly fragmentation of funding sources and the lack of detailed and timely data on financial and other resource allocations within the health system, constitute a major obstacle to effective policy implementation. The changing epidemiological context, as the pattern of disease in more developed and urban areas begins to diverge from that in rural areas, also complicates the task of health administrators. Political pressure for costly improvements to curative, hospital-based care demanded by the urban and more affluent population will be difficult to resist. However, considerations of efficiency suggest that resources should be increasingly diverted to preventive care, particularly communicable disease control, and to rural and isolated populations with lower levels of development.

Although development of both curative and preventive services has been dominated by supply-side considerations in the past, more efficient delivery of preventive and public health care will require more attention to the role of demand and to demand creation. Demand will become an especially important focus of preventive public health programs at all levels. At the national level, public awareness of community health issues and the establishment of more effective political support for preventive health programs will be necessary if health is to gain a larger share of the national budget and access to other sources of funding. At the community level, demand for preventive health services tends to be weak, although community involvement and individual participation are essential for effective delivery of public health care. Therefore, demand creation and tailoring of programs to capture a maximum share of existing demand are both important strategies to improve the effectiveness of the health system. The special situations and needs of disadvantaged groups and populations in isolated, less developed and sparsely settled areas also indicate the need for a more demand-focused approach to service delivery. Finally, for an emerging interest in health rather than disease and in health maintenance to lead to effective policies and programs, demand must become a more prominent consideration for health policy-makers and planners.

This paper reviews the Indonesian health system of the 1970s and 1980s to identify limitations and inadequacies that must be overcome in order for the nation to achieve satisfactory health standards in the future. The major curative and preventive components of the health care system are also briefly reviewed, emphasising the implications for approaches to improved efficiency. The main discussion then focuses on the new directions in health policy and programming that have been identified by Indonesian policy-makers during preparations for the Second Long-term Development Plan 1993–2010. The paper argues that the role of demand and demand-creation in developing new approaches and strategies will be especially important if increased efficiency and improved health sector performance are to be attained.

Table 1
Indonesian life expectancy, 1985-90: comparison with other Asian countries

Country	GNP per capita ⁽¹⁾ 1988 (\$US)	Life expectancy (years) ⁽²⁾	
		Males	Females
Indonesia	440	58.5	62.0
Malaysia	1,940	67.5	71.6
Philippines	630	61.6	65.4
Singapore	9,070	70.8	76.4
Sri Lanka	420	68.3	72.5
Thailand	1,000	63.0	67.1
Vietnam	330	59.2	63.6

Sources: (1) World Bank 1990: Table 1; (2) United Nations 1991: ST/ESA/SER.A/120: Table 44.

Health system characteristics during the 1970s and 1980s

During the 1970s and 1980s, Indonesia achieved significant improvements in the health of the population. For example, high national mortality levels were substantially reduced: infant mortality was cut by almost half, from 132 per thousand live births in the late 1960s to about 71 in the early 1980s (World Bank 1989:1). The record of health improvement achieved over the period was thus described by the World Bank as 'solid and impressive' (World Bank 1989:1).

However, in terms of intra-provincial comparisons within Indonesia, and international comparisons within the South East Asian region, this achievement is less impressive. Within Indonesia, extremely wide regional disparities persist with infant mortality ranging from a low of 38 deaths per thousand population in the Special District of Jakarta to a high of 145 in West Nusa Tenggara (Kasto 1992:15). Within South East Asia, health indicators also suggest that Indonesia's performance lags behind that of neighbouring countries (Table 1). For example, United Nations estimates for life expectancy at birth in Indonesia 1985-1990 were similar to those for Myanmar and lower than for any other South East Asian country except Cambodia and Laos (United Nations 1991:Table 44). They were also considerably lower than those of Sri Lanka, which had a roughly comparable level of GDP. This relatively poor health performance is implicitly acknowledged by the Department of Health in the rather modest official targets set for infant and child mortality by the year 2000: an infant mortality rate of 35 per thousand live births, and under-five mortality of 9 per thousand (*Departemen Kesehatan* 1990:37). Even if achieved, these targets would still leave the Indonesian population at the end of the twentieth century with a substantially lower level of health development than that of neighbouring ASEAN countries.

The role of the health service in the modest level of health improvement achieved during the 1970s and 1980s appears to have been minimal. Access to health services in Indonesia is very poor by international standards, even among developing countries. Although publicly financed community and

Table 2

Low Levels of health service utilisation in Indonesia: international comparison and inter-provincial variation

Country/Province	Out-patient utilisation rate (visits per person per year)	Hospital utilisation rate (admissions per 1000 per year)
Indonesia (1986)	0.5 ⁽¹⁾	12.3 ⁽²⁾
Fiji (1986) ⁽¹⁾	3.1	89.2
Sri Lanka (1982) ⁽¹⁾	2.1	161.0
West Nusa Tenggara (1986)	n.a.	37.6 ⁽²⁾
Lampung (1986)	n.a.	3.6 ⁽²⁾

Sources: (1) World Bank 1989:6; (2) Departemen Kesehatan 1990: lampiran 45.

primary health care facilities expanded rapidly during the oil boom, provision of health services remained extremely limited. The World Bank described the availability of hospital beds at around 0.6 per thousand population in 1986 as 'extraordinarily low, placing Indonesia among the lowest of all developing countries regardless of income level' (World Bank 1989:29). The limited number of hospital beds is partly a result of the failure of the curative health system to keep pace with population growth, even during the oil boom period. However, on the positive side, a more rapid increase in the numbers of secondary hospitals at regency and district level reflected an 'appropriate shift of emphasis towards the lower referral levels which service the majority of the population' (World Bank 1989:30).

Despite limited availability, the level of utilisation of health services in Indonesia is extremely low compared with other Asian countries. The 1985/86 Household Health Survey (*Survei Kesehatan Rumah Tangga*), which covered seven provinces, reported an out-patient utilisation rate of only 0.5 visits per person per year and a hospital admission rate of 8.3 patients per thousand population per year.² As shown in Table 2, these rates are substantially lower than those of other developing countries in the Asia-Pacific region.

There are also substantial economic and regional disparities in the utilisation of health services within Indonesia (Table 2). Levels of service utilisation are particularly low among the poor, who are less likely to seek any kind of treatment for illness and more likely to visit traditional practitioners when they do. The 1978 socio-economic survey (SUSENAS) showed that households in the lower 40 per cent of the income distribution made only 21 per cent of health centre visits, 16 per cent of hospital visits, and 30 per cent of visits to private doctors (World Bank 1989:6). A recent study (Berman et al. 1987 cited in World Bank 1989:7) suggests that this pattern has not changed. Regional differences in utilisation rates are also substantial and do not appear to be readily explained in terms of patterns of morbidity. For example, the 1985/86 Household Health Survey reported higher treatment rates (both out-patient

2 Department of Health service statistics are slightly higher, but still low (Table 2).

and hospital admissions) in North Sulawesi than in the three Eastern Indonesian provinces (West Kalimantan, Maluku and West Nusa Tenggara), although the morbidity rate was actually lower in North Sulawesi (World Bank 1989:Table F.7).

Low utilisation rates for health services, particularly for curative health services in rural areas, are widely believed to be related to the poor quality of services offered.³ A World Bank analysis of utilisation data for 288 regency and district hospitals in 1985 found that low service quality was highly correlated with underutilisation (World Bank 1989:31–34). On the basis of that study, the Bank estimated that the addition of a specialist surgeon in a hospital that previously had no specialist would increase utilisation by a factor of 2.6 (World Bank 1989:33).

A major factor in the poor quality of services is resource constraints. Government expenditure on health in Indonesia is quite low by international standards, 'approximately half of what would be expected based on the performance of neighbouring countries' (World Bank 1989:13). International Monetary Fund figures suggest that only 2.56 per cent of the national budget was spent on health in 1985, substantially less than in other ASEAN countries (Table 3). The ratio of government health expenditure to Gross National Product is also very low:0.56 for Indonesia, compared with 1.36 for Malaysia, 0.63 for the Philippines and 1.2 for Thailand (World Bank 1989:Table 1.6). However, not all health expenditures are provided by government: in Indonesia private spending accounts for more than 60 per cent of total expenditure on health. Despite this, the share of *total* health expenditure (government and private) in Gross National Product indicates that the total volume of health spending in Indonesia is low (Table 3). A recent study found that total health expenditure in Indonesia in the late 1980s was well below the average for a group of 12 South and South East Asian countries (Griffin 1992:148–9). Thus, even when private spending is included, health expenditure in Indonesia is well below the regional average.

Public sector health finance in Indonesia is dominated by central government health expenditure. In 1985/86, more than 85 per cent of public spending on health was provided by the central government, compared with only 10 per cent from provincial governments and 5 per cent from districts (Griffin 1992:123). However, despite its large share of public health expenditure, the total volume of funding provided by the central government is small in relation to the health needs of the population. Furthermore, government health spending fails to compensate for its relatively small volume by careful targeting of areas of health not covered by private expenditure. The pattern of resource allocation heavily favours the upper income groups, partly

3 A 1984 survey of community health facilities which found low levels of utilisation of curative services also found that 63 per cent of users had travelled less than 2 kilometres to visit the centre, and 82 per cent of subcentre users had travelled less than 1.5 kilometres, suggesting that distance is also an important determinant of use (World Bank 1989:8).

Table 3

Indonesian expenditure on health is low: international comparison

Country	Percentage share of national budget spent on health ⁽¹⁾	Government spending per capita on health 1986-87 (\$US) ⁽²⁾	Total health expenditure as percentage of GNP(2)	Government expenditure on health as percentage of total health spending
Indonesia	2.56	3.90	2.4	37.04
Malaysia	4.39	44.97	3.5	76.90
Philippines	5.95	3.76	2.4	26.70
Thailand	5.69	9.94	3.8	30.30
Sri Lanka		5.32	2.3	58.00

Sources: (1) World Bank 1989: Table 6; (2) Griffin 1992: Table A12, Table A9, Table A13.

because the largest part of the national health budget is allocated to personal health services for curative, hospital-based care.

Government support of curative services is heavily biased toward the high-income group because of its relatively heavy use of hospitals. The poorest 40 per cent of the population captures about 17 per cent of curative expenditure, the middle 30 per cent captures about 31 per cent, and the wealthiest 30 per cent captures 52 per cent. Although the poorest group captures a relatively large share of expenditure in public health centres, it is more than offset by the large absolute size of hospital budgets and the extremely skewed distribution of hospital subsidies (Griffin 1992:125).

Nor is government expenditure targeted toward regions with particularly poor health performance. In fact, regional inequalities in access and utilisation are exacerbated by the regressive nature of the system of allocating central government finance, which strongly favours provinces with higher per capita income levels. For example, the rich special district of Jakarta receives twice the per capita allocation for health received by the poor province of West Nusa Tenggara, despite the more substantial local tax base of Jakarta (World Bank 1989:17).

The health system, particularly the modern, curative component, may have made only a marginal contribution to the reductions in mortality that were achieved during the 1970s and 1980s. While infectious and parasitic diseases remain the major causes of death, and infants and children and rural populations the largest groups affected by preventable mortality, the bulk of health expenditure is devoted to curative, hospital-based services and utilised by urban, middle-class households. The coverage of the health system for key groups such as mothers and young children that are major contributors to mortality is particularly poor. For example, only 43 per cent of births were attended by trained health personnel in 1988, and health department figures on immunisation coverage in 1988/89, which are probably overestimates, range from 37 per cent for tetanus immunisation for pregnant mothers to 64

Table 4
Indonesia: rising immunisation coverage levels (per cent)

Immunisation	1985/86	1988/89
BCG	65	81
DPT I	27	71
Polio (3x)	24	73
Measles	27	64

Source: Departemen Kesehatan 1990: *lampiran* 41.

per cent for measles, 73 per cent for polio and 81 per cent for BCG (*Departemen Kesehatan* 1990: *lampiran* 41 and 43).

Further reductions in infant and child mortality will depend largely on eliminating deaths due to the major communicable diseases, diarrhoea, pneumonia, infections and parasitic diseases, which together are currently responsible for approximately half of infant and child deaths and a large part of total morbidity. Immunisation and communicable disease control will therefore become particularly important. In addition, the health system must also improve its capacity to deliver effective pre-natal interventions to improve birth outcomes, and to increase the currently low level of coverage of midwifery services.

The Indonesian health care system may not have contributed significantly to health performance during the 1970s and 1980s. However, it will be crucial to the achievement of improvements in infant and child survival in Indonesia in the future. In order to successfully meet this challenge, the present system of delivering health care in Indonesia will need to undergo substantial restructuring.

Demand characteristics of the health care system

The structure and composition of a health system are important determinants of its capacity to effect health performance and potential for change. To be effective in reducing mortality, the system's priorities must be related to the major causes of death in the population. If health policies or the resource allocations that reflect actual priorities are largely independent of the demographic and epidemiological context, the system is unlikely to significantly affect health performance. In such a situation, policies and/or priorities may need to be changed. However, the burden on the budget of maintenance claims to support facilities or services created in the past may restrict the system's potential to give practical effect to different priorities in the future.

The modern health care system in most developing countries comprises two major components, the hospital-based subsector providing curative medical services, and the community and primary health care subsector, focusing more on the provision of preventive health services.⁴ These subsectors

are quite different in technologies used, levels of staffing, information requirements for planning and management, and the attributes of their main client groups. In particular, the strength and characteristics of demand for curative and preventive services differ markedly, with major implications for policy and program development.

The hospital-based medical subsector is typically characterised by heavy reliance on capital-intensive technologies, highly trained staff, a supply-sided approach to planning and limited use of information. The demand for curative services is generally strong, enabling health policy in this subsector to emphasise provision of high technology facilities and training of medical staff. In developing countries, the hospital subsector's need for information for planning and programming is quite limited. With the supply of medical services typically less than the demand, information on population size and distribution and crude assumptions about the prevailing pattern of illness are sufficient.⁵ The subsector is high cost, requiring high levels of both investment and recurrent funds, and its highly-trained personnel command comparatively high salaries. Heavily subsidised by government, it tends to serve the more affluent and those in urban areas, where most facilities are located.

By contrast, in most developing countries preventive health care is delivered through community and primary health care institutions, the majority serving the poorer segments of the population and located in rural areas. Primary health care in developing countries has focused mainly on preventive health interventions, particularly immunisation and maternal and child health services. Because of its need to target the particular diseases responsible for high morbidity and mortality, and risk groups such as under-five children, young women, pregnant women and those responsible for the care of young children, planning and programming in the preventive health care subsector make much heavier demands on information than in the curative health subsector.⁶

The greater need of the preventive health care subsector for data on disease patterns is relatively obvious, but its need for more detailed data on demand and the determinants of demand has only been realised comparatively recently. The demand characteristics of the primary health care subsector are quite different from those of the curative subsector. Although initially they were equally supply-oriented, primary health care providers have been forced by early program failures to address issues of demand creation and popular participation in preventive health care. As a result, the importance of health

4 The traditional health care system, which may provide for the health needs of a substantial proportion of the population, particularly the poor and rural residents, offers a mixture of curative and preventive care. An Indonesian socioeconomic survey in 1978 (SUSENAS) found that more than three-quarters of the health contacts made by those in the lowest income quartile were with traditional rather than modern providers (World Bank, 1989:7).

5 Detailed epidemiological data are usually not available.

6 With increasing female labour force participation rates and high levels of female migration, those primarily responsible for the care of young children are not necessarily their mothers. Grandmothers are an important target group that have often been overlooked.

education, social marketing and participation in health services delivery are gradually being recognised. Information about the characteristics of clients, particularly target groups, has therefore become an increasing concern.

At the macro level, the divisions between the curative and preventive health subsectors correspond closely with the distinction between personal health services and public health activities. Curative health services focus on individuals suffering from disease, and therefore relate to the personal level. Demand for personal health services is usually very strong because people who are suffering from disease have a strong interest in the cure of that disease and the entire benefit of the particular service is captured by the patient. By contrast, preventive health focuses on disease vectors and modes of transmission in order to eliminate the transmission of disease.⁷ Some preventive health interventions, such as immunisation, focus on individuals, while others, such as malaria control and most public health measures, focus on non-human vectors at the community level. The demand for both individual- and community-oriented preventive services tends to be weak because the benefits of preventive care are uncertain and are shared more or less equally throughout the community. For example, the motivation for an individual contemplating immunisation is weak because the benefit occurs only in the future, s/he may never be exposed to the specific disease and, if exposed, may not contract the disease. Furthermore, high general coverage levels offer some protection to those who are not immunised because general population levels of exposure are reduced. The uncertain benefits of immunisation are thus often insufficient to outweigh the impact of immediate and possibly substantial costs.

The justification for government intervention differs because of the differing characteristics and strength of demand for curative and preventive health services. In economic terms, personal health services constitute a private good, where the benefits are exclusive to the individual and thus provide adequate incentive for private expenditures. As a result, most individuals are willing to pay for curative health care. The rationale for public provision of personal health services is not willingness, but capacity to pay. Therefore public spending on curative care must be justified largely on equity grounds, to provide for individuals who may not be able to afford treatment.⁸ By contrast, public health is a classic example of a public good. Due to the weak demand for public health, individual expenditure will be less than is economically desirable, and government provision of public health can therefore be strongly justified on grounds of efficiency. With these general demand characteristics in mind, the discussion turns to the particular characteristics of the two major components of the Indonesian health sector.

7 A disease vector is an organism that carries pathogens from one host to another.

8 Other efficiency grounds for public sector involvement in personal health services arise from the peculiar characteristics of medical markets. These include the absence of consumer sovereignty (medical providers rather than consumers make the key decisions), the need for quality control, and the fact that health services cannot be traded among individuals once they have been purchased.

The curative, hospital-based subsector in Indonesia

The hospital subsector in Indonesia shares most of the characteristics of the personal health subsector, emphasising the delivery of curative medical services to individuals. A substantial share of public sector health expenditure is absorbed by this subsector. Hospitals are classified by the Indonesian Ministry of Health (MOH) in four categories, reflecting an hierarchical referral system. Class A and B hospitals, most of which are owned and operated by MOH, are the highest level of referral, provide the teaching beds for the country's 13 medical faculties, and are located in major urban centres. The lower level Class C and D hospitals are located in smaller (but still urban) centres under the control of local government, and are intended to provide the bulk of hospital care. Class C hospitals are expected to offer four basic specialists in internal medicine, surgery, paediatrics, and obstetrics and gynaecology, while Class D hospitals should (but often do not) provide X-ray and laboratory services. As elsewhere, the Indonesian hospital system, particularly the Class A and B hospitals, absorbs substantial numbers of highly trained personnel. The ratio of staff per bed is 1.35 overall and ranges from 2.85 in the MOH Class A hospitals to 0.96 in the Class D hospitals. Secondary and tertiary hospitals absorb 59 per cent of government spending on health, which is slightly higher than the mean for Asia (Griffin 1992:68).⁹ (Indonesian hospital beds are also expensive, with government expenditure per hospital bed higher than the regional average (Griffin 1992:74-5).

Despite high levels of expenditure on hospital beds, the effective demand for hospital services in Indonesia is weaker than in most other developing countries, as evidenced by the very low utilisation rates. These are particularly low for MOH Class C and D hospitals, where bed occupancy rates are as low as 58 and 42 per cent, respectively. Occupancy rates in private hospitals are also low, and regional disparities in general hospital admission rates are marked, with higher rates in the more developed provinces and extremely low rates in the least developed provinces. For example, the hospital admission rate in 1985 for Jambi was 6.7 per thousand population, compared to 32.6 for Jakarta (World Bank 1989:31).

The preventive, public-health subsector in Indonesia

In Indonesia, preventive services in community and primary health care are provided primarily through health centres (*Puskesmas*), subcentres (*Puskesmas Pembantu*) and integrated health posts (*Posyandu*). These are operated by a combination of lower level health staff (nurses, paramedics and midwives) and, in the health posts, by village volunteers. Although the health centres and subcentres are also the main providers of the modern curative services used by the rural poor, acting as referral centres to Class C and D hospitals in nearby

9 Note that this figure differs from that presented in World Bank 1989:35. The 1989 figure of 34 per cent is probably the more accurate, because it is based on a comprehensive survey of health financing in Indonesia. However, the 1990 figure is more appropriate for the comparison with other countries using data of a similar quality.

urban centres, they seem to be relatively ineffective in this role.¹⁰ It is widely acknowledged that the referral system does not operate effectively, and that the quality of curative services provided by the health centres and subcentres is very limited. Although health centres should be headed by a doctor, a significant minority, particularly outside Java, are not. In many other centres, the doctor's main curative medical activities take place in an after-hours private practice.¹¹

MOH policy toward health centres and subcentres has tended to focus on their roles in primary health care and public/community health, especially communicable disease control and preventive health services. The majority of communicable disease control activities are carried out by specialist paramedical staff, such as Tuberculosis Program Officers or Leprosy Program Officers, who are located in health centres and work under the charge of the health centre doctors. Preventive health services are mainly delivered by the health centres, subcentres and integrated health posts or *Posyandu*. Recently, the *Posyandu*, which are staffed by health volunteers and a visiting team from the health centre, have become particularly important for delivery of the five maternal and child health programs, immunisation, nutrition, diarrhoeal disease control, antenatal care and family planning.

Health centres have become the focus of rural public health provision in Indonesia, with 5,549 health centres and 12,913 subcentres operating in 1988 (*Departemen Kesehatan* 1990:37). The official target is at least one health centre per district and one per 30,000 population. The numbers of health centres per 100,000 population varies by province, but tend to be highest in provinces with smaller and more isolated populations. For example, the ratio for Jakarta in 1988 was only 3.6 compared with 8.7 in Irian Jaya and 10.0 in East Timor. The target number of subcentres is 3 or 4 per health centre, depending on the type of location to be served, and the distribution of subcentres is even more biased toward isolated and scattered populations. For example, there are no subcentres in Jakarta compared with 19.7, 19.4 and 27.9 per 100,000 population for East Timor, Maluku and Irian Jaya, respectively (*Departemen Kesehatan* 1990: *lampiran* 48). The target for *Posyandu* is one per 100 children under the age of five years. In 1987 there were a total of 185,660 *Posyandu* (*Departemen Kesehatan* 1990: *lampiran* 48), and the World Bank (1989:46) estimated that approximately 220,000 were needed to reach the government target. Health centres,

10 About 130 health centres have in-patient services (World Bank 1989:45).

11 In rural districts, particularly in small communities and poor areas, private practice necessarily competes with the doctor's official duties in the *Puskesmas*. Patients are treated for a minimal charge at the *Puskesmas* during working hours, but must pay a higher charge for essentially the same facilities and personnel after hours. The fact that so many patients willingly pay the higher charge is due to a perception (possibly accurate!) that the quality of care improves in the private practice, that the medicines prescribed are 'better' (although they are often identical), and the common experience that consultations at the *Puskesmas* during official hours are usually conducted by the nurse or paramedic, not the doctor. This may be a reflection of the burden of the doctor's other duties (which may be considerable in the larger Centres), or of conflict of interest.

particularly in their support of subcentres and *Posyandu*, will continue to be the key component of the Indonesian public health subsector in rural areas into the next century.

While utilisation rates for curative services in the health centres and subcentres are low, no major efforts having been made to increase utilisation rates for curative care, coverage of key target groups for preventive health interventions appears to be both higher and improving rapidly. However, a more aggressive approach to the delivery of preventive services has been responsible for increasing coverage rates for the main maternal and child health interventions. In particular, the more participative role of volunteers and communities in general in the activities of the integrated health posts seem to have been important. MOH figures (which are administrative figures that should be regarded with caution) suggest that the 1985/86 coverage levels for the preventive health interventions BCG, DPT I, Polio (3 doses) and measles had increased sharply by 1988/89 (Table 4).¹² A 1986 assessment of the integrated family health package found that two-thirds of child weighing activities and over half of DPT and polio immunisations were provided through *Posyandu* (World Bank 1989:49–50).

However, the proportion of government health spending allocated to the preventive and public health sector in Indonesia is rather small and has been subject to major cuts in recent years. A World Bank study found that communicable disease control (CDC) accounted for only five per cent of government health spending in 1985/86, declining to less than four per cent in 1987/88—amounting to a 72 per cent cut in real terms due to the substantial cut in the total health budget.¹³ Some CDC programs were totally eliminated in order to maintain curative services in what the World Bank described as a 'massive collapse' in central funding for CDC (Griffin 1992:127; World Bank 1989:53). Health centres, which are administered by regional governments but almost wholly dependent on central government funding (especially for recurrent expenditure), also recorded a 27 per cent decline in real spending levels from 1984/85 to 1987/88 (World Bank 1989:46, 50). Although health centres maintained their 30 per cent share of overall central government funding, and the drug subsidy actually increased, a significant cut on other non-salary recurrent expenditures such as transport and personnel incentives seriously reduced their capacity to provide outreach services (World Bank 1989:52).

The Indonesian health sector in the early 1990s thus presents a major challenge to health planners and programmers. Although health policies in the past have generally emphasised appropriate objectives, on the whole the health system has been unable to deliver the desired results. Despite significant improvements during the 1970s and 1980s, levels of infant and child mortality

12 This rise was achieved largely through a series of target-driven campaigns. It is not clear that these levels can be maintained in the absence of such campaigns.

13 Compared to 15 per cent of sectoral expenditure devoted to CDC activities in China in 1981 and 19 per cent in Thailand in 1985 (World Bank 1989:51).

remain high by international standards, and the improvements that have been recorded may owe more to the success of the general development effort than to the activities of the health sector. The overall level of government spending on health is inadequate in terms of outcomes and by international comparison, and has recently been further reduced due to the demands of structural adjustment. The pattern of allocation of an inadequate resource base for health may also be regarded as inappropriate to stated policy objectives in terms of sub-sectoral focus, and regional and social distribution. Despite a stated strong commitment to public health and preventive health care, resource allocation is biased in favour of curative hospital-based care and personal health services, and central government spending dominates total public sector spending, yet favours higher income groups and higher per capita income provinces. Thus, the Indonesian health system faces the formidable challenge of improving comparatively poor national health despite low levels of resource allocation in both the public and private sector and patterns of resource allocation that reflect neither objective need nor stated policy priorities.

Directions and priorities for health policy to the year 2010

As part of a national exercise to review development progress over the preceding 25 years and determine the shape of development policy for the Second Long-term Development Plan 1993–2010, the health sector has recently been involved in setting new directions for health system development into the twenty-first century.¹⁴ Health policies for the Second Long-term Development Plan include:

- an emphasis on preventive health care, health promotion and rehabilitation, in addition to continuing provision of curative health care;
- a gradual reallocation of resources from infants, under-five children and mothers (whose health, while remaining a priority, should improve rapidly) toward health care for youth, adults of working age, and the elderly;
- special priority to the low income group, urban slum populations and those in remote areas, particularly in Eastern Indonesia;
- priority in the hospital subsector to upgrading the referral system and, in particular, improving the facilities offered in Class C hospitals, as well as overcoming shortages of medical and paramedical personnel;
- active community participation in the provision of health services, including the involvement of private agencies (necessitated by resource constraints, this will emphasise areas of preventive care not carried out by government);
- a health insurance system to be known as *Jaminan Pemeliharaan Kesehatan Bagi Masyarakat (JPKM)*¹⁵ (also necessitated by resource

14 The workshop '*Rapat Kerja Kesehatan Nasional Tahun 1991*' in Ciloto 18–21 February 1991 was part of this exercise. Another workshop was held in Jakarta 25–26 March 1991.

15 Guaranteed Community Health Care.

constraints, this will involve both private and NGO participation, and will be supported by appropriate legislation) (Kumara Rai 1991).

To some extent, these policies and directions appear to address some of the concerns about the Indonesian health system that have been outlined in the previous sections of this paper. They seem to represent a guarded recognition of the need to emphasise preventive and public health care in the overall priorities of the health sector, a continuing concern for equity, and an attempt to deal with the effect of resource constraints through community involvement and the development of a health insurance system. The potential impact of demographic trends on the demand for health care are recognised, while the focus on improving Class C hospital facilities and services addresses both equity, since Class C and D hospitals are expected to provide hospital care to the bulk of the population, and the low utilisation hospital rate that has been widely ascribed to the poor quality of services. However, while health policies continue to emphasise appropriate priorities, it is unclear whether the pattern of resource allocation in the health sector in the next decade will reflect these new directions any better than resource allocations have reflected policies in the past.

Can health policies and priorities be implemented?

In order to successfully implement policies and priorities and attain national health goals, the Indonesian health system must both overcome fundamental weaknesses and adapt to a generally unfavourable economic and epidemiological environment. Neither task will be easy. Current fiscal and administrative arrangements do not facilitate the redirection of resources to better reflect stated policy priorities. Certain economic and political factors tend to bias the allocation of resources within the health system toward non-priority areas, and deficiencies in the administration and management capacity of the health system make it difficult to either identify or alter the priorities implied in the existing pattern of resource allocation.

Weaknesses in health system management

The complexity and fragmentation of budgetary sources for health funding in Indonesia present serious obstacles to rational planning and effective policy implementation, with at least ten different budgetary sources providing funds to the main public health system. The nation also lacks a comprehensive system of sectoral accounts that allows both an accurate assessment of the total amount of resources available to the health system, and identification of the ways in which these are disbursed. It is therefore extremely difficult for policy-makers and planners to identify the pattern of resource allocation in the health sector, and to relate this to policy priorities. For example, the World Bank has suggested that the massive and surprising cuts to the Communicable Disease Control Program may have been an unintended consequence of that program's dependence on a single source of funding, the central government Development Budget (APBN-DIP), which was heavily cut in order to effect an

otherwise appropriate overall change in priorities from capital investment to routine expenditures (World Bank 1989:23).

In addition to the problem of fragmentation, lack of data on many other aspects of health finance, particularly costs, inhibits rational resource allocation and the achievement of either efficiency or effectiveness. Health planners cannot allocate resources rationally if they do not have information on relative costs and prices. Despite a massive and complex system of administrative statistics, the health system lacks appropriate and timely information suitable for planners and programmers. While the effectiveness of some health staff in the field is prejudiced by the heavy burden of routine data collection, little of the data is actually used, partly due to cumbersome methods of compilation and distribution.

The Indonesian health system also lacks effective control over resources within the health sector. Many of the resources operating within the health system are under the control of other agencies and ministries. For example, approximately 25 per cent of all workers in MOH-supervised health facilities are non-medical workers appointed at the provincial or local level by the Ministry of Home Affairs (World Bank 1989:82). While MOH is authorised to transfer central employees whose salaries are provided from the national routine budget (APBN-DIK), staff who are paid from the provincial or district budgets (APBD1-DIK and APBD2-DIK) cannot be easily transferred between provinces.¹⁶ Vacancies created by the departure of such staff can be reassigned by the provincial governor to other departments.

Thus, the health planners and programmers in Indonesia who are responsible for the implementation of health policies must contend with serious management problems. Confronted with complex and multiple sources of funding, they often lack basic information about both supply, that is, current resource allocations, and demand, in the form of data on current health needs. In particular, they face a

nearly incapacitating lack of knowledge of how government budgets are distributed between public health activities and curative health activities (Griffin 1992:153).

Thus, they lack the information essential to effective management of demand and therefore of the aggregate allocation of resources within the health system as a whole. Finally, they do not even control a substantial volume of the public sector resources devoted to health. Thus, it should not surprise that the overall allocation of health resources often fails to reflect desired priorities.

Budgetary pressures

Budgetary pressures in the context of structural adjustment have been a major factor driving the search for new directions in health policy in Indonesia. Although health spending increased during the oil boom period, it was cut dramatically during the subsequent period of financial stringency and

16 These staff are known as *pegawai diperbantukan*.

structural adjustment. The health sector was particularly vulnerable to structural adjustment because of its heavy dependence on the declining central government budget, which provided approximately 86 per cent of total health funds in 1985/86 (World Bank 1989:13). Estimates by the World Bank indicate that direct spending by the central government on health fell in real terms by 45 per cent between 1982/3 and 1987/88.¹⁷ Sustained reductions of 48 and 65 per cent in the health sector Development Budget were also recorded by MOH figures during 1986/87 and 1987/88 (Mylius 1988:172). Real spending on health during 1987/88 was lower in aggregate terms than that of 1979/80 and even lower in per capita terms (World Bank 1989:14).

In a country such as Indonesia, where overall public sector spending on health is already low, a sectoral adjustment strategy is essential if the health sector is to achieve its objectives under conditions of financial stringency and structural adjustment. One objective of such a strategy would be to mobilise additional resources, particularly from local government sources and from selective cost recovery from users. This would be associated with equity exemptions and/or an insurance scheme to cover the population against catastrophic losses.¹⁸ The efficiency of limited public sector spending must also be increased by targeting it toward preventive public health interventions that are both effective in terms of their impact on mortality and efficient. A sectoral adjustment strategy should therefore seek an appropriate balance between capital and recurrent expenditure, and between preventive and curative services, public spending on the latter being minimised and largely justified in terms of equity.

In the absence of an appropriate sectoral adjustment strategy, the allocation of the drastic budget cuts experienced during the mid-1980s contributed to the emergence or exacerbation of inefficiencies within the health system. Serious internal efficiency problems were created by budget cuts through underfunding non-salary recurrent expenditures such as materials, transport and maintenance, thus critically reducing the effectiveness of health staff (World Bank, 1989:23). The extent of this type of budget cut is indicated by the increase in salary expenditures from 22 to 35 per cent of recurrent spending. Significant reallocations of expenditure in other areas also affected the overall efficiency of the health program. For example, resources were directed away from communicable disease control (CDC), which targeted major causes of death

17 In 1985/86, the World Bank and the Bureau of Planning in the Ministry of Health undertook a comprehensive survey of central, provincial and district government accounts for the period 1983/84 to 1985/86 to assemble complete sectoral accounts for health. The 45 per cent decline refers to the four readily accessible central budget sources, national budget allocation to Ministry of Health for routine expenditures (APDN-DIK), national budget allocation for development expenditure (APDN-DIP), non-salary grants for regional hospitals (SBBO-RSUD) and the sectoral development grant to regional government (INPRES). Together, these accounted for 60 per cent of total health sector expenditure.

18 Catastrophic losses are defined as low probability events that involve relatively large outlays. In a health system with substantial cost recovery for hospital services, hospitalisation may constitute a catastrophic loss for many.

among children, toward curative health services, which had little impact on mortality levels. CDC expenditure, which was already low, fell from 8 to 3 per cent of central spending, while spending on hospitals and health centres rose from 32 and 30 to 36 and 31 per cent, respectively, and training and administration maintained their share (World Bank 1989:Table 1.14).

The major impact of structural adjustment on the health sector is now past. However, continuing budget restraint combined with the inadequate health resource base and inappropriate patterns of resource allocation in the past necessitate a sectoral adjustment strategy. Both past adjustments and the overall impact of tight national budgets have a much greater impact on preventive and public health than on curative hospital-based services. Thus, an adjustment strategy for the health sector needs to identify new sources of funding, as well as target existing resources for possible redirection to areas of poor access and weak demand, particularly the poor and the public health subsector. The introduction of a health insurance scheme to increase the share of private spending, increased priority for preventive health care, and targeting of disadvantaged groups appear to be steps in the right direction. Whether these programs can be implemented effectively remains to be seen.

Perceptions of demographic and epidemiological change

While demographic and epidemiological conditions determine health needs, perceptions about changes in demographic structure and patterns of disease may affect the demand for health and the level of community and political support for particular programs and priorities in different ways. Concern about the health effects of demographic ageing and the epidemiological transition are largely responsible for the projected re-orientation of health resources away from infants, under-five children and mothers toward youths, working-age adults and the elderly. However, demographic and epidemiological data suggest that this move, even in the later years of the Second Long-term Development Plan, may be premature. Women's and children's health and public health programs should remain priority targets throughout the duration of the Plan. However, the political impact of an increasing divergence in the causes of ill-health and mortality between the more affluent urban population and rural residents may obstruct the efforts of MOH to re-allocate resources from curative, hospital-based care to preventive and public health programs.

Changes in demographic structure affect both the relative size of particular population subgroups and, as a consequence, the pattern of health demand. A rapid decline in fertility in Indonesia from the 1970s will contribute to rapid ageing of the population early in the twenty-first century. Population ageing has become a matter of concern to health sectors in many developing countries because the elderly typically have higher utilisation rates for medical services, and tend to suffer from chronic diseases that require more sophisticated and capital-intensive treatment. However, Griffin (1992:146-7) has suggested that this concern may be somewhat premature. Although the proportion of the elderly in the population may increase rapidly, they will remain a

comparatively small subgroup in the total population (Table 5). Conversely, despite a small percentage decrease in the numbers of under-five children, this population subgroup will remain large and therefore a more important target group than the elderly. For example, despite a rapid decline in fertility, the United Nations medium variant population projections indicate that in 2010 Indonesia will have 20.483 million under-five children compared with only 15.809 million people over the age of 64 years, and while 26 per cent of the population will be under the age of 14, only 8 per cent will be over 64 years of age (Table 5). Griffin (1992:147) points out that the immediate challenge to health policy arising out of demographic change in Asia is the huge increase in the number of women of child-bearing age in most countries as a result of past high population growth rates. This group will number around 68.510 million in 2010, or approximately 28 per cent of the total population. Furthermore, women of reproductive age and young children will outnumber the elderly, and improvements in their health will strongly affect the health of the 26 per cent of the population under age 15 in 2010 (United Nations 1991:432). In 2010, women aged 15–49 and under-five children will together account for 36 per cent of the total population, compared with a combined share of only 24 per cent for youths aged 15–24 and those over 65. Thus, the demographic and epidemiological profile of Indonesia indicates that, even in the year 2010, public health care and the health of children and women of reproductive age should continue to be the main targets of the health system.

Although the epidemiological transition in developing countries is accompanied by the increasing prominence of adult 'life-style diseases', even in the first decade of the next century infectious and parasitic diseases are likely to remain the most important causes of death in Indonesia. A 1986 survey in Indonesia reported that 47 per cent of deaths were caused by infectious and parasitic diseases,¹⁹ compared with 31. per cent by other diseases²⁰ and 22 per cent by accidents and 'other causes' (*Profil Kesehatan* 1989:12). Both demographic and epidemiological factors suggest that this dominance of infectious and parasitic diseases will continue throughout the period in question. Cause of death statistics in developing countries are less affected by changing demographic structure than suggested by a simple comparison with developed country populations because the elderly in developing countries are more likely to die of infectious and parasitic diseases than their counterparts in industrialised countries (Griffin 1992:147).

Thus, the pattern of disease and cause of death, even into the twenty-first century, suggests that public health should be the main focus of health expenditure in Indonesia at least to the year 2010. However, changes in the pattern of disease in urban areas will place MOH under strong pressure to increase spending on curative care. Urban populations, particularly the more affluent, are experiencing a changing pattern of disease, with an increase in the

19 The statistics refer to the underlying cause of death, not the direct cause.

20 Of which cardiovascular disease accounted for 10 per cent.

Table 5
Indonesia: population structure 1990–2010

Population subgroup	Share of total 1990	Share of total 2010
Children under 5 years	12.4	8.3
Children aged 5–14 years	23.3	17.8
Youth aged 15–24 years	21.0	18.1
Women aged 15–49 years	25.7	27.8
Elderly over 64 years	3.9	6.4
Total (million)	184.283	246.680

Source: United Nations 1991: ST/ESA/SER.A/120: 432, based on medium variant projections.

incidence of 'life-style' diseases requiring hospital-based medical treatment that is often technologically sophisticated and very expensive. These populations are more vocal and politically influential than the rural and less affluent populations for whom communicable diseases remain the major health problem. The strong self-interest of this group, combined with the strong career interests of highly trained, articulate and influential health professionals within the curative health system, constitutes an almost irresistible demand pressure for higher spending on curative health care and the allocation of an increased share of the total health budget to hospital development.

Political support for health expenditure

Such pressure helps to explain why, despite numerous policy pronouncements indicating a genuine desire to improve the health of the majority of the population, the Indonesian health system continues to devote its very limited health resources to non-priority expenditures on non-priority groups. The differential strength of political support for public sector expenditure in the two major health subsectors provides much of the explanation for this situation, which is not unique to Indonesia. Strong and vocal advocates for curative medicine and personal health services ensure that governments allocate a substantial proportion of the national health budget toward meeting their personal needs. For example, the most effective lobby for hospital-based care is usually to be found within the Ministry for Health itself, among the medical staff, hospital administrators and others who stand to gain the greatest direct (career) benefit from a well-resourced curative health system (Griffin 1992:156). Supporting them are the urban, more educated and more affluent members of the population, who are most likely to use personal health services and most able to exert influence on government.

By contrast, lobbyists for public health and preventive care tend to be few and weak. The benefits to any particular individual are relatively small, uncertain, and tend to be well distributed over large numbers of beneficiaries. Thus, the poor and rural populations, who make little use of curative care and are most likely to benefit from public health measures, do not perceive a

substantial benefit from preventive services, and are often reluctant participants in primary health care programs. They also have fewer resources to spend in lobbying on behalf of their interests, and are thus 'disenfranchised'. In addition, the medical establishment involved in public health also tends to be smaller and less influential because public health care tends to use intermediate technologies on a mass scale, and focus on rural rather than urban populations. It therefore does not create such a highly educated, concentrated and vocal public health medical lobby, and differential levels of political support for curative and preventive health care reinforce differential levels of demand.

Increasing resources for health: the role of the private sector and the community

Several new approaches to development strategy have emerged in the general reaction to the economic requirements of restructuring, presenting both opportunities and challenges for Indonesian health policy in the future. They offer solutions to two of the major problems: resource constraints and low utilisation rates for health services. The aggregate volume of resources devoted to health care may be improved through the introduction of privatisation, user-charging and health insurance. The consequent improvements in quality, combined with more participatory implementation strategies in the health sector, could significantly increase levels of service utilisation. However, these new approaches are likely to be most effective in the curative subsector, where demand is strong, and least effective in the public health subsector, where demand is weaker. Therefore, their usefulness in assisting the health sector to attain national health goals depends on both their effectiveness and the extent to which they can be used to release public sector resources for public health and equity target groups.

Privatisation and user-charging

Although increased private provision of health care could significantly increase the volume of resources devoted to health in Indonesia, most private resources will be directed to the curative, medical subsector. Unlike public sector activity, private sector involvement in health, whether in the provision of services for profit or the payment of user-charges for public services, is heavily dependent on demand. Profit-motivated private sector activity is most effective in the provision of curative services, where demand is strong. User-charging is also most effective and efficient for curative services, because individuals are generally *willing* to pay for medical care, and among higher income groups both willing and *able* to pay. The private sector is not attracted to the public health subsector because of weak demand, and user-charging for preventive and public health services is likely to further discourage utilisation.

Where policy initiatives involving privatisation or user-charges are primarily motivated by an immediate need to replace public sector resources removed by budget cuts, it is likely that they will be used indiscriminantly, without sufficient regard to demand conditions. For example, widespread privatisation of medical services without consideration of the health needs of

the poor would be economically and socially inefficient, and an obstacle to the attainment of national health goals. Indonesia already has considerable experience in the provision of curative care through private hospitals and private practitioners, and has endeavoured to provide protected access to the poor. However, efforts in private hospitals have not been very effective (World Bank 1989:88), and any large-scale increase in the share of the hospital sector being operated for profit or any significant increase in user-charges would certainly require a careful review of equity issues. Although it is widely claimed that protected access for the poor is generally available (World Bank 1989:88), the particularly low levels of service utilisation by the poor suggest that this is not the case, even at the currently low level of charges.

The efficiency impact of user-charges is of even greater importance, particularly for preventive and public health interventions. In order to significantly increase the volume of resources devoted to health, user-charges need to cover costs for patients who are *able* to pay, and for services for which patients are *willing* to pay. User-charges currently apply in Indonesia for medical services in public sector clinics and hospitals, although they are well below the cost of such services (World Bank 1989:86).²¹ Patients seeking immunisation, for which demand is generally weak, or treatment for communicable diseases, where demand is likely to be less than socially desirable, are officially exempted from health centre charges. However, there is little evidence to indicate the extent of such exemptions in practice, and they do not apply to a number of health services of greatest relevance to illnesses such as upper respiratory infections and diarrhoea, which are major causes of infant death and for which demand is also weak. Thus, lack of attention to demand characteristics in user-charging may further reduce utilisation rates for preventive or public health services.

In order to ensure an efficient distribution of resources across the health sector as whole and throughout the community, an increased role for the private sector requires a redistribution of public sector resources, both between subsectors and across income groups. The allocation of public sector spending is a more important determinant of its health impact than total volume. For example, China spent less per capita on health in the early 1980s than Indonesia, but achieved a better health outcome because most public sector funds were devoted to preventive and public health services. Increased private provision of curative, hospital-based care could enable the public health budget in Indonesia to be redirected toward preventive care and the public health subsector. Similarly, revenue raised through user-charges levied on the higher income groups for curative care in the public sector could be used to subsidise curative care for the poor. Selective privatisation and carefully targeted user-charges could facilitate both an increase in the total national resource allocation to health and the use of limited government health funding for public health activities where the incentives for private activity are weak. Thus, private sector provision of health services and user-charges should be viewed as a pro-active element of health policy.

21 In 1985/86 the percentage of recurrent expenditure recovered by user charges was 20 per cent for hospital services and 3 per cent for health centre services (World Bank 1989:Table 5.3).

Health insurance

Health insurance has been widely regarded in Indonesia as a potential solution to problems of both resource constraints in the health sector as a whole, and the limited access to health services of lower income groups. Viable health insurance schemes offer improved access to health services for members and, by increasing utilisation rates, may increase the aggregate volume of resources devoted to health. However, health insurance may exacerbate rather than relieve resource constraints within the government health sector because the standard health charges on which schemes are currently based are well below cost and therefore involve a substantial subsidy from the government budget.

The government is currently investigating the establishment of a *Dana Upaya Kesehatan Masyarakat* (Funds for Public Health) policy framework to cover all health insurance activities in the country.²² The principles of the framework include: universal, compulsory membership through a variety of schemes; emphasis on capitation programs covering specific populations;²³ emphasis on a family doctor as the entry point into the health system and a well-defined referral system; cross-subsidisation of lower income groups by those on higher incomes; and a combination of public and private sector activities under government regulation (Soetopo 1990:10-15).

Currently, two government-initiated health insurance schemes are in operation: the ASKES (*Asuransi Kesehatan* (Health Insurance)) scheme for government employees, and the PTKT (*Pemeliharaan Kesehatan Tenaga Kerja* (Health Care for Workers)). Both schemes provide health care to members largely in government health facilities in return for a compulsory employee contribution, in the case of ASKES, and a voluntary employer-contribution in the case of PTKT. The PTKT scheme has had only limited success in gaining members among private sector employers, and in their current forms, neither scheme seems capable of achieving the objective of relieving public sector resource constraints. Service utilisation tends to be increased because both ASKES and PTKT provide members with free coverage. However, their reimbursement rates to the health system are based on standard medical charges that are substantially less than full costs. Thus, in the absence of full cost recovery, the effect is likely to increase the need for public subsidies instead of reducing it (World Bank 1989:97).

A number of pilot schemes to cover the rural population have been trialled. Several of the papers presented to the series of health department meetings leading to the determination of health policy for the Second Long-term Development Plan reported on the success of trials conducted in three

22 A small booklet (Soetopo, 1990) *Guaranteed Health Care [Program Jaminan Pemeliharaan Kesehatan Masyarakat (JPKM)]* was issued in January 1990 (and reissued in July 1990) as an operational guide to the main principles of the Funds for Public Health scheme [*sebagai bentuk operasional pokok pemikiran Dana Upaya Kesehatan Masyarakat (DUKM)*].

23 An alternative to the fee-for-service approach, where an equal per capita payment is made to the medical provider for each patient for whom he/she is responsible. Capitation systems divorce the doctor's clinical management of a patient from the form of remuneration. While providing a control on over-servicing, a potential danger is the incentive offered to medical practitioners to maximise the numbers of patients registered and minimise the services offered.

provinces (Jakarta, Bali and East Nusa Tenggara) and among particular groups, including informal sector cooperatives of fishermen, hawkers, noodle sellers, and soya-bean curd producers (for example, Soeharto W. 1991; Subandi 1991; Lada 1991). Such schemes cover only low income groups, and consequently most experienced serious difficulties in collecting premiums, as well as significant administrative and management obstacles.²⁴ In general, health insurance does not offer a solution to public sector resource constraints unless accompanied by a general increase in health service charges.²⁵ Even if health service charges were raised to cover full costs, small individual schemes targeted to low income groups are unlikely to release public sector health resources because of their limited potential for cross-subsidisation of the poor and those with high usage rates by those with higher incomes and low usage rates.

A number of serious difficulties confront MOH efforts to implement the *Dana Upaya Kesehatan Masyarakat (DUKM)* concept at the national level in Indonesia. Administrative constraints and high collection costs are inevitable because the majority of Indonesians to be covered by DUKM do not have formal sector employment and a regular wage income from which premiums can be conveniently deducted at source. Even if a national health insurance scheme were successful, by increasing utilisation and coverage it would increase the aggregate demand for public sector resources for health.²⁶ because health service charges in Indonesia are heavily subsidised. Thus, while health insurance may be desirable on equity grounds, its feasibility remains doubtful and it is unlikely to increase the capacity of MOH to divert a greater share of public sector resources to preventive health care or to target groups.

Community participation

Community participation in the delivery of health services, particularly the activities of the *Posyandu*, has been strongly promoted by government because it is regarded as a low-cost means of providing health care at the village level. However, community participation can be not only a lower-cost, but also a more *effective* means of providing health care, especially for preventive and public health services where demand tends to be weak. The higher levels of immunisation coverage that were achieved during the late 1980s and early 1990s in the context of strong, target-driven, special programs indicate the potential of even limited community participation to improve utilisation rates, particularly for preventive services.

However, management is a critical factor in the success of community participation. Even when participation is restricted to delivery of standardised central programs, good management is essential to maintain the momentum

24 The major success, a scheme that emerged in the village of Pejaten in Bali, has been described as 'more a result of good economic fortune than of the *dana sehat* organisation itself; as a result of a favourable market position in roof tiles, the village became wealthy and was able to set up an endowment for health' (World Bank 1989:101).

25 Although coverage of members formerly exempted from charges due to poverty would marginally increase cost recovery, this would probably be more than offset by increased utilisation rates.

26 Particularly for curative health services, for which demand is strong,

of community involvement. Appropriately managed, community involvement in the delivery of health services also allows local knowledge to tailor services to the specific needs and situations of particular communities or target groups, lowering the costs of access and encouraging demand. In addition, community participation can increase knowledge and awareness about health issues, thereby helping to create demand. However, the general top-down, uniform approach to the organisation and management of *Posyandu* in Indonesia does not indicate widespread utilisation of *Posyandu* as a more demand-oriented approach to health service delivery. Serious management limitations in the health system at the local, community level, where the quantity and quality of health manpower is most limited, also suggest that the system may experience difficulties in maintaining recent performance levels. Although NGOs can provide appropriate manpower in a small number of cases, staff shortages and a lack of appropriately trained staff are serious impediments to the adoption of community participation to strengthen demand for health services or to routinely maintain current coverage levels for simple public health interventions.

In the current administrative and management environment, it seems unlikely that health insurance schemes or community participation will significantly increase the volume of resources available for health or significantly improve utilisation rates in the long term. Privatisation and user charges have significant potential to increase the total volume of resources directed toward curative care, thereby indirectly raising utilisation rates for curative services. However, whether this can be translated into an increased capacity of the health system as a whole to achieve national health objectives depends largely on whether public sector resources are subsequently redirected away from curative care and services to preventive and public health services. Management (at the central level) will again be a critical determinant.

Demand and the implementation of Indonesian health policy to 2010

Although infant and child mortality has declined significantly during the last two decades and life expectancy has correspondingly increased, by regional standards Indonesian health performance remains rather poor. The Indonesian health system has probably had limited impact on past health performance. Public and private sector spending on health is low, and the pattern of resource allocation emphasises curative, hospital-based care, which is relatively inefficient in targeting the major causes of death.

The health system's marginal effect on health outcomes cannot be attributed to inappropriate health policies, which have emphasised primary and preventive health care since the early 1980s. Nor does Indonesia lack health programs focusing on the major causes of death or the population groups which contribute most to high mortality and low life expectancy at birth. Primary health care programs have specifically targeted the high mortality population subgroups, women and children, particularly in rural areas. Rather,

the health system's lack of impact is due to failures of implementation. Inadequate resources have led to inadequate and poor quality services with low levels of utilisation, while the pattern of resource allocation does not correspond to declared priorities.

The challenge for the Indonesian health sector during the Second Long-term Development Plan 1993–2010 is to improve program implementation and deploy resources to give practical effect to stated priorities and to reach declared target groups. In the current stringent financial environment, this will require careful consideration of the implications of the demand characteristics of the curative and preventive health subsectors. Previous efforts to increase the priority for preventive care and to improve the lower levels of the hospital referral system have not been reflected in the pattern of resource allocation in health sector, which strongly favours curative care and Class A hospitals. Similarly, the share of resources received by mothers, under-five children and the poor are not commensurate with their status as current target groups. The major health issue for the period 1993–2010, the capacity of health sector management to implement policy effectively, will depend largely on appropriate management of the total national resource allocation for health, taking into account the characteristics of demand in the major subsectors.

This issue has been only indirectly addressed in preparations for the Second Long-term Development Plan. The desire to increase community participation in the provision of health services and develop a national health insurance system seem to be directed primarily toward increasing the volume of resources available for health care. However, while a national health insurance system would increase the volume of private sector resources devoted to health, in the absence of full cost recovery, it will only increase the demand for government health resources. Moreover, any additional resources that may become available will tend to be devoted to curative, hospital-based care and to non-target groups. The health system must therefore redirect public sector resources from curative care and non-target groups toward preventive, public health care and designated target groups so that the overall distribution of health resources will reflect stated priorities and enable the needs of those target groups to be met.

A number of obstacles currently prevent the effective implementation of health policies in Indonesia and are likely to obstruct efforts to redirect public sector health resources toward priority areas and target groups. These include lack of appropriate information for management in the health sector, the health system's lack of control over total health resources, and demand pressures arising from perceptions of change in the demographic and epidemiological context. In particular, data are needed to improve the capacity of health system management to analyse current resource allocation patterns and to develop and implement changes. Better epidemiological and population-level data on morbidity and causes of mortality would also enable health planners to identify appropriate target groups on the basis of hard data rather than general and

sometimes inaccurate perceptions about the nature of epidemiological and demographic change.

The recognition of the significance of demand and demand-conditions is vital to the successful achievement of Indonesian health goals. The demand characteristics of curative and preventive care are quite different. Curative health care is essentially a private good with substantial benefits to the individual patient. Demand for private health services is generally strong, provided that individuals have the capacity to pay the monetary costs. In developing countries, the major consumers of modern curative medicine are the more affluent, urban population with longer life expectancy and modern lifestyles that tend to be associated with illnesses requiring sophisticated medical treatment. Public provision of curative, hospital-based health services is largely justified on equity grounds and can often be replaced by privately-generated resources, particularly as personal incomes grow in a developing country such as Indonesia.

By contrast, the demand for preventive health care and public health services is much weaker, although the social benefits are usually very large and often not confined to the individuals receiving the service. Those who stand to benefit most from preventive and public health services, particularly in developing countries, are poor and rural populations with high levels of infant and child mortality due to preventable and communicable diseases. Thus, public sector provision of preventive and public health services is warranted on both equity and efficiency grounds.

Measures to increase the volume of private resources being devoted to health, such as private sector provision of health care, user-charging and health insurance, will inevitably favour the curative hospital-based sub-sector where demand is strong. However, the main priority area for the health sector to the year 2010 is preventive health care. Preventive and public health measures will also have the greatest impact on the causes of high mortality among the key target groups, who also require subsidised curative care on equity grounds. In order to attain or maintain official priorities, such measures must therefore be accompanied by a significant reallocation of public sector health resources from individual and curative to public and preventive health care. This will require major improvements in health system management and recognition of the implications of the demand characteristics of the main health subsectors for health policy and health system management.

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health & development in Vietnam

Melanie Beresford

Political economy of health

a political economy approach to public health suggests that the health status of the population is primarily a social rather than a medical or biological question. While it is conceded that 'physical and chemical laws governing disease mechanisms can[not] simply be abandoned...they must be seen to operate within a social and economic context which is constantly changing' (Doyal 1979:47). The level of economic development is one important indicator of health, not only in the sense that it brings access to better medical services, but in the wider sense that development can improve nutrition standards, cleanse the environment and reduce occupational hazards. However, economic development is often rather loosely defined as growth of GNP or some other 'scoreboard' indicator. In my view, to give an adequate account of the improved standards of health that follow, economic development must incorporate

- development of the productive forces, in the sense that the economy becomes more diversified, more technologically advanced and acquires a network of supporting structures linking the different sectors together;
- development of social relations to allow more democratic control over the forces of production. This, in turn, affects the development of productive forces since it influences the way in which accumulated profits are invested.

Improving health therefore results from increasing access to and control over the means of production. In a capitalist economy, in spite of development in the productive forces, good health as well as access to the best medical care are likely to be the preserve of the wealthy minority.¹ Even under the 'welfare state', in which all members of society have gained access to medical services, studies have shown that class differences in the health of the population have not been eliminated over time (Doyal 1979:62-3). The welfare state does not

1 In the United States, for example, infant mortality among whites fell from 26.8 per 1000 live births in 1950, to 9.3 in 1985, while among non-whites the figure was 43.9 in 1950 and 18.2 in 1985. That is, the non-white rate is not only significantly worse, an indicator of class difference, but declined more slowly (Turshen 1989:76-7).

offset the impact of the systematic class division within the capitalist society on control over the means of production.

A major feature of socialist societies, on the other hand, has been their attempt to eliminate class differences by promoting social control over the means of production. This has been achieved to a greater extent in some countries than in others and is, in any case, undergoing rapid transformation with uncertain outcomes in the current phase of economic and political reforms. Even if some success has been achieved in eliminating class differences, it is still the case that economic development has been uneven, so that rural populations, for example, may be less well off than urban people.

In the context of underdeveloped countries, international organisations have focussed on the concept of Primary Health Care (PHC) since the late 1970s. PHC moves away from the dominant Western model of technologically-oriented provision of medical services, in which health care is dependent upon access to professionally trained personnel, towards the wider distribution of health care to the whole population. Following the Alma Ata declaration of 1978, international organisations such as WHO and UNICEF have launched this concept as one which stresses community participation through construction of a decentralised system of health provision, education and development of an integrated approach to health including prevention as well as cure (Palmer and Short 1989). Development of the concept was partly based on the experience of socialist countries like Vietnam and China (Worth 1987:7).

PHC programs, in stressing community participation, were designed to eliminate an aspect of early Community Development programs which had suffered from too much external political imposition of objectives. However, the nature of 'community participation' also depends crucially upon the power structure at the local level and the manner in which communities and local elites are integrated into the national power structure (Cohen and Purcal 1989:13). In much of the underdeveloped world, where the distribution of power remains highly unequal, 'community participation' can easily mean serving the interests of entrenched local elites or, if more genuinely participatory models are created, can call forth a hostile reaction from the state.

A necessary precondition for the proper implementation of the PHC concept is, therefore, a change in the distribution of political power and its underlying social relations. WHO has commented on the need for redistribution of resources and the absence of this in most underdeveloped countries (cited in Worth 1987:322), but in the case of Vietnam, the development of the health system has been accompanied by fundamental changes in both the political enfranchisement of the population and in the balance of class power since the end of World War II. These changes were brought about firstly via the overthrow of the colonial power. Secondly, the land reform in the mid-1950s destroyed the power of the landlord class, while subsequent collectivisation reintegrated the villages in a way which consolidated the power of peasants (especially middle peasants) at the local level and enfranchised women for the first time. Thirdly, at the national level, the seizure

of power by the Vietnam Workers' Party provided the link between changing class structure and political change. The Party's platform included, *inter alia*, universal franchise, mass literacy and education, amelioration of working and living conditions, agrarian reform, and creation of a decentralised health system. It also provided a 'network of guidance' for orchestrating change at the lower levels of society (Worth 1987:314). These programs were implemented by the newly independent state.

Some indication of the impact of a different set of social relations may be had from comparing data from Vietnam with those of its capitalist neighbours (Table 1). Despite considerably lower levels of economic development, measured by per capita GNP and energy consumption, than its capitalist neighbours, Vietnam has made remarkable strides in both the health status of its population and in providing access to basic health services. However, Vietnam is not significantly less developed than the three capitalist countries when it comes to those indicators which significantly affect the provision of a healthy environment, such as access to safe drinking water and literacy. Moreover, the two socialist countries in the Table, which also happen to be the two poorest in terms of per capita GNP (and Vietnam, at least, has the largest proportion of the workforce still engaged in farming), show significantly better results than their wealthier capitalist neighbours. Lest it be thought that technology and industrialisation themselves are responsible for a deterioration in health standards, the same sources from which this Table is drawn show that health indicators for Vietnam are well ahead of those for other very poor countries (such as Nepal, Burkina Faso) (World Bank 1991).

The health system in Vietnam

Among the reasons for this markedly different outcome in Vietnam compared with its capitalist neighbours, the fundamental one is the social system. This is particularly reflected in the objectives of health policy devised for the Democratic Republic of Vietnam (DRV) after 1954. These were based on four principles:

- that the health service should serve the life, production and national defence of the working people and the construction of socialism;
- that it must be based on preventive medicine;
- that western and traditional medical practices should be combined; and
- that it should be founded on popular participation (CETRI n.d.:6).

As a consequence of these objectives the Vietnamese health system has evolved as a highly decentralised one. During the three decades of war, from 1945 to 1975, this decentralisation was constantly reinforced. Local control over the health system was linked to the need for a high level of political mobilisation at the grass roots. In addition, evacuations and forced decentralisation of the economy under the impact of US bombing led to a large number of local improvisations which succeeded in controlling the spread of disease under extremely adverse conditions (Worth 1987:262-3).

Table 1

Comparisons of development indicators, health status and access to health services, selected Asian countries in 1980s^a

	Vietnam	China	Indonesia	Philippines	Thailand
Development indicators					
GNP per capita \$US	210 ⁽¹⁾	330	440	630	1000
Energy consumption per capita (kg oil equiv.)	88	570	216	241	330
Per cent workforce in agriculture ⁽²⁾	71	n.a.	55	50	68
Adult illiteracy per cent	13	31	38 ^b	14	9
Access to safe water per cent of population	46	n.a	39	52	64
Population/km ² agricultural land	958	257	519	640	258
Health and nutritional status of population					
Average life expectancy at birth	66	70	61	64	65
Infant mortality rate/1000 live births	44	31	68	44	30
Child mortality rate/1000 under 5 years	58	40	98	58	49
Babies with low birth weight/1000	18	6	14	18	12
Maternal mortality per 100,000 live births	110	44	800	80	270
Daily calorie supply per capita	2297	2630	2579	2372	2331
Daily protein supply per capita (grams)	52	63	55	54	49
Access to health services					
Population per physician	1000	1000	9460	6700	6290
Population per nurse	620	1710	1260	2740	710
Population per hospital bed	275	500	1814	600	n.a.
Immunisation (per cent age group under 1 year)					
Measles	42	77	61	68	60
DPT	51	75	69	73	80
Oral Rehydration Therapy (used in per cent of cases under 5 years)					
	50	5	72	24	30
Per cent married women aged 15-49 using contraception					
	58	74	48	44	65

^a Most recent estimate; ^b 1975.

Sources: World Bank 1990 and 1991; (1) IMF; (2) ILO 1986, TCTK 1991:13.

The most important part of the Vietnamese health service has been the commune health centres covering the 80 per cent of the population who live in the rural areas.² (In the cities, the basic units belong to the workplace.) These units are assigned nine tasks: four preventive, four therapeutic and one administrative. The four preventive tasks are (CETRI n.d.:8):

2 The commune (*xã*) is the lowest administrative level of the state in rural Vietnam. There are 8649 communes each covering several agricultural cooperatives, or an average population of about 7500.

- ecological work and cleansing the environment;
- immunisation;
- health education;
- health surveillance of all commune members.

The four therapeutic tasks are:

- first aid;
- treatment of illness, including mobile treatment of infectious diseases (malaria, tuberculosis, leprosy);
- protection of mothers and children, including family planning;
- preparation and distribution of medicines.

The health service at this level, then, is based on an integrated conception of health as being derived from a wide range of social and environmental factors as well as access to therapeutic measures.

Both Western and traditional Vietnamese medical practices are incorporated into the system. Vietnamese medicine encompasses three traditions (Marr 1987). Northern medicine (*Thuoc Bac*) was drawn from the Chinese classics; Southern medicine (*Thuoc Nam*) was an indigenous system based on popular traditions and using locally available materials. The third tradition involved dealing with a great variety of harmful spirits and has generally be consigned to the category of 'superstition' by the modern Vietnamese authorities. Northern and Southern medicine, on the other hand, were 'primarily secular and naturalistic in character, not religious or spiritual' (Marr 1987:173) and oriented towards diagnosis and provision of pharmaceutical remedies. However, the Chinese tradition had an elaborate theoretical apparatus which explained illness in terms of the balance between internal and external forces acting on the body. In this integrative approach, the individual was seen as a microcosm of the universe (Worth 1987:93). It is possible to detect continuity between this tradition and the modern Vietnamese conception of medicine with its focus on the health of individuals (CETRI n.d.:6) as the product of both internal and environmental factors. However, the modern conception represents an attempt to bring western scientific method to bear and the concepts of *yin* and *yang* on which the old theories were based are no longer present. In the DRV a great deal of effort was also expended in developing the highly empirical Southern medicine, which was based on popular traditions (as opposed to the elitism of the Northern medicine, the practice of which was reserved to those able to read Chinese). Since *Thuoc Nam* made more use of locally available plants in the preparation of remedies, it was useful in cutting the cost of treatment for many illnesses.

Each of the commune health centres has a clinic staffed by one or two assistant doctors, a midwife, two or three nurses and equipped with a dozen beds for treatment of simple illnesses and maternity cases. There is also a dispensary for both western and traditional medicines. Assistant doctors are two-year, or more recently, three-year trained according to a system initiated by the French colonists, who had established a School of Indigenous Auxiliary Doctors at Hanoi in 1902 (Marr 1987:178).³ However, in the DRV/SRV the

assistant doctors are trained in both Western and traditional medicine, a policy governed by financial necessity, given the scarcity of Western drugs, as well as belief in the efficacy of much traditional practice. The policy has been gradually to upgrade the training of all doctors.

The local centres are integrated into a system of district-level health services which provide fully qualified doctors, general hospitals, mobile hygiene, epidemiology and anti-malaria brigades, training for health workers, laboratory facilities and an inter-communal polyclinic for cases which cannot be dealt with at the commune level. More specialised services are available at the provincial towns, while the central level (comprising institutions in Hanoi and Ho Chi Minh City) provides research institutes, specialised hospitals and the faculties of medicine and pharmacy.

The Vietnamese system is highly decentralised and ensures access to basic health care to most of the population, even in remote areas. A key factor in democratising the health system in Vietnam has been the development of traditional medicine (Bui Chi Hieu 1984:80),⁴ especially that based on the Southern tradition, which necessitated close involvement of the villagers in identifying local plants and providing recipes which could be researched and refined by the research institutes at higher levels of the system. This would have done much to prevent the development of the approach, characteristic of western medicine, in which the patient is a passive recipient of treatment and is excluded from access to and control over the knowledge and equipment which form the basis of the 'cure'.⁵

Underpinning these participatory characteristics has been the emphasis of the Party leadership since the 1940s on literacy and education of the rural population. This was important, not just for the transmission of medical knowledge, but because it contributed to the formation of wider Vietnamese cultural values and political traditions which informed the direction and content of public health campaigns (Worth 1987:194-5). Literacy meant empowerment of the population.

Responsibility for the provision of these services is also highly decentralised. The commune is the administrative level responsible for construction of the health centre, remuneration of health workers and maintenance of a garden of medicinal plants. Ultimately, the financial responsibility for the whole local system, including provision of district-level services, falls on the communes.⁶ In turn, their ability to meet the costs, depends on raising funds from the cooperatives. Cooperatives are expected to set aside

3 By 1930, 240 auxiliary doctors and pharmacists had graduated, amounting to 1 per 67 000 people (Marr 1987:179). This figure does not include the many practitioners of traditional Vietnamese medicine so it does not give a true picture of the availability of health care.

4 Each village was required to devote at least one acre of land for growing medicinal plants.

5 This characteristic of Western medicine was reinforced, during the colonial period, by the use of French as the vehicle for transmission of medical knowledge (Worth 1987:193).

6 Central government expenditure on social affairs (including health, education, welfare, housing) was in the range of 10-14 per cent of the DRV budget between 1955 and 1964. In 1955 1.9 per cent went to health, rising to 3.1 per cent in 1959 (Spoor 1987:355).

Table 2
Families per septic tank, curbed well and bathroom

	1955	No. of families per unit ^a			
		1965	1975	1976	1980
Double septic tank	15	2	1.3	2.7	1.8
Curbed well	19	9	5.1	4.9	3.1
Bathroom	0	20	7.7	11.0	3.8

^a Figures for 1955–75 are for the DRV only.

Source: CETRI n.d.:26

a Social Fund equivalent to 2–3 per cent of total income to cover health, education and welfare costs. However, exemptions have been made in recent years for the poorest communes, those least able to meet both their obligations to the state and the food requirements of the population.

In some ways the objectives of the system parallel the public health concerns of nineteenth century Europe (for example, the sanitation campaigns of Chadwick in England) as they are explicitly linked to rising productivity of the workforce. One of the major achievements of the system in the DRV, for example, was the campaign to provide clean water in the villages. This involved three activities: construction of double-compartment septic tanks (which are also used to provide organic fertiliser for the fields), curbing of wells to prevent intrusion of polluting substances and the construction of bathrooms and livestock stables separate from the main dwelling. The aim was to separate sources of drinking water from its other uses for washing, sewerage and livestock and thereby to attack the widespread problem of parasitical infection (McMichael 1976:40–5). The growth in construction of these facilities is shown in Table 2, which also gives an indication of the renewal of the campaign in the South after reunification in 1976. Another major campaign which was carried out successfully in the DRV was to reduce rat infestation by constructing brick and tile housing.

Studies of community participation in these public health measures in North Vietnam show that initially the peasants resisted their introduction, opting for the solely therapeutic function of medical services as a result of their adherence to traditional conceptions (Phan Ngoc Que 1982:4; Houtart and Lemercinier 1981:139, Worth 1987:264). However, they were ultimately convinced by a process of public debate and education that public hygiene was intimately connected with increasing agricultural productivity and accepted the new system (CETRI n.d.:11). Thus although it is explicitly concerned with productivity increases, the operation of this system of health care implies a very different set of social relations from those dominating in capitalist countries since it is both participatory and appeals to peasants' collective self-interest.

However, in relying on extensive popular participation the system is also highly intrusive. Every family is expected to delegate one of its teenage children to the Red Cross Youth whose job, after 6 months training, is to encourage

health promoting practices in the household. Annual visits are made by district mobile brigades to check on the health of the population and detailed records are kept on the health status of individuals (CETRI n.d.:12). This constitutes a high level of surveillance which would not be tolerated in most Western societies. Families are also expected to grow medicinal plants in their household gardens.

Achievements of the Vietnamese health care system

Some of the major achievements of the Vietnamese health care system are shown in Table 3. This lists some of the improvements in control of previously endemic diseases, access to health care and improvements in health status of the population.

One factor which is brought out clearly in this Table is that reunification of the country in 1975 represented something of a setback in terms of these aspects of public health. Part 1 of the Table shows that availability of hospital and clinic beds fell between 1975 (when only the DRV is covered) and 1976 (which gives figures for the whole country). The number of doctors also fell relative to population, although possibly some of this effect was brought about by qualified people fleeing the South at the end of the war. The difference between socialist north and capitalist south is also reflected in Part 2, in the higher maternal and infant mortality rates for post-1976. One source put the infant mortality rate of the South in 1975 no lower than that of northern Vietnam in 1938 under the French (Worth 1987:291). In Part 3 of the Table the large differences in morbidity rates for diseases such as malaria and tuberculosis are apparent.⁷ Among the other illnesses, typhoid, dengue fever and diphtheria would seem to have been significantly worse in the southern region. At the end of the war, as many as 50 per cent of the southern population were estimated to be infected with leprosy according to WHO (Worth 1987:291).

Among the reasons for these differences are the fact that the south was much more ravaged by war than the north, with some 10 million people being uprooted from their homes between 1955 and 1975, and the poor development of health services to cope with the crisis. By 1967 the south had only 859 Vietnamese and 180 foreign doctors (1 per 15,400) (Brass 1968:18, citing RVN Ministry of Health data, and p. 21). All but 158 of the Vietnamese doctors were in the armed forces. The main focus of the medical services was on surgery, understandably perhaps given the high rate of civilian war casualties, and on dispensing drugs. In urban areas controlled by the RVN government, US aid-subsidised drugs were freely available and a drug-dependent culture

7 More recent data on malaria for the whole country show that about 0.15 per cent of the population were affected in 1986 and 0.24 per cent in 1988 and 1989 (Summary of World Broadcasts—Far East/W0099, 18 October 1989:A/10). The rise was particularly evident in the southern province of Thuan Hai, where over 5 per cent of the population were reported infected in 1988 (Summary of World Broadcasts—Far East/W0075, 3 May 1989:A/5), but also occurred in northern provinces like Bac Thai.

Table 3
Evolution of health and the health care system

Access to medical services							
	1955	1965	1975	1976	1980	1989	1991
Population/doctor	126685	11973	3816	5278	3900	2996	2609
Population/asst. doctor	20229	1950	1387	1355	1232	1394	1391
Nurses/10000	5.4	12.4	13.0	n.a.	13.8	12.2	10.1
Hospital beds/10000	10.7	16.1	27.6	20.4	24.1	19.7	17.4
Total beds/10000	11.5	37.1	44.1	33.1	36.9	34.6	30.4
Vital statistics							
	D.R.V.			S.R.V.			
	1936	1957	1965	1975	1980	1988	
Crude birth rate ^a	48.0	46.7	37.8	31.3	29.3	31.3	
Crude death rate ^a	26.0	12.2	6.7	5.5	7.0		
Maternal mortality ^a	20.0	n.a.	n.a.	0.8	1.0	n.a.	
Infant mortality ^a	300	n.a.	n.a.	32.6	34.7	44.0	
Life expectancy (in years)	34	n.a.	n.a.	58	60 ^b	66	
Morbidity rates							
Malaria							
(per cent of population)	1958	1964	1975	1976	1980		
North	5.64	0.28	0.39	0.40	0.41		
South	n.a.	n.a.	n.a.	10	2.97		
Tuberculosis (per cent)							
	1955	1965	1975	1976	1979		
North	2.5	0.8	1.06	1.1	0.7		
South	n.a.	n.a.	n.a.	3.0	2.5		
Contagious diseases per 100,000 inhabitants							
	D.R.V.			S.R.V.			
	1959	1965	1975	1978	1980 ^c		
Cholera				.004	0.12		
Plague				15.65	0.07		
Typhoid	18.26	10.37	0.52	22.97			
Dengue fever			48.05	74.67	75.2		
Diphtheria	15.90	3.24	3.17	4.75	0.43		
Measles	664 ^d	347	274	211.3	13.0		
Whooping cough	1032 ^d	550	167	148.2	27.0		
Poliomyelitis	52.16	0.61	0.75	2.31	0.25		

^a Per thousand of relevant cohort. ^b 1978. ^c First 9 months. ^d 1961.

Sources: CETRI n.d.:23, 25-8; McMichael 1976:48; World Bank 1991; TCTK 1985:199; TCTK, 1991:5-6, 141-44; TCTK 1993:9, 235, 241.

seems to have arisen. Brass (1968:33, 43) noted in 1968 a tendency to over-prescribe and to rely exclusively on treatment with drugs among Vietnamese doctors, while anecdotal evidence from post-war South Vietnam suggests that these practices have continued and perhaps spread (T. Hull, pers. comm.). Doctors were concentrated in urban areas,⁸ while a USAID-sponsored attempt to establish a system of assistant doctors in the villages was thwarted

by a combination of opposition by Vietnamese medical authorities and war exigencies (Brass 1968:20). Most people in government-controlled areas therefore had to rely on traditional medicine, which was not recognised by the authorities as having any value at all (Marr 1987:183). Since no attempt was made to examine and adapt the traditional medical practices and remedies, one can presume that a fair amount of 'quackery' prevailed.

However, the main reasons for the lesser health status of the southern population at reunification are the effects of war and the lack of interest in the American-backed regime in undertaking measures to counteract the enormous social dislocation it caused. As is well known, the southern cities became bloated with refugees during the war, leading to overcrowding in slums which lacked basic facilities. The difficulty of surviving in such conditions led many into illegal occupations including prostitution and drug running which have caused major health problems in the post-war era, although the authorities have adopted many innovative policies to deal with them. At Cho Ray hospital, the largest in the Cholon-Saigon area, malnutrition was the most common complaint during the war (Brass 1968:181). Diseases such as tuberculosis, intestinal parasites, leprosy, malaria and, after the escalation of war in the early 1960s, plague and cholera were endemic in the south (Brass 1968:19).

There appear to be few significant differences, however, in regional availability of health services in Vietnam by the late 1980s. Few data are available, while large discrepancies appear in those which do exist.⁹ Nevertheless, figures on the distribution of doctors and assistant doctors by region do not seem to indicate a significant divergence in population per physician from one region to another. Urban populations do not seem to be better served than rural ones. If anything, the main difference is once again between the north and south, with slightly more people per doctor in the south Tong Cuc Thong Ke (TCTK)(General Statistical Office)(1990:5-6, 143-44). Access to safe water is somewhat higher in the urban areas than in the rural areas (World Bank 1990:332).

There are, however, significant differences in regional nutritional status. In Vietnam, a physical subsistence minimum of staple foods is regarded as being the equivalent of 240 kg per annum of unhusked paddy. If allowance is made for seed requirements and losses in transport and storage, an output of 300 kg per capita can therefore be regarded as the minimum necessary to meet consumption requirements. While Vietnam as a whole has met this minimum since the mid-1980s, the distribution of output is very uneven and many provinces need to purchase food grains (Table 4). In fact it is only in the Mekong River delta that output has been consistently more than sufficient to meet subsistence requirements. In the Red River delta (which contains the major

8 Brass cites the case of an American in An Giang province, the only western-style doctor serving 100-150,000 people (1968:41).

9 The number of doctors given for each province adds up to some 6000 below the national total (TCTK) 1990:143-4).

Table 4
Per capita food production by region, 1984–89 (kg)

	1976	1984	1989
Northern highlands and midlands	223	240	268
Red River delta	280	251	316
North-central coastal provinces	216	245	226
South-central coastal provinces	209	272	280
Central highlands	261	298	236
South Eastern midlands	128	158	140
Mekong River delta	457	521	631
Former DRV	247 "	246	277
Former SVN	304	366	402
Total	275	304	333

Sources: TCTK 1983:56–7; TCTK 1985:14–5, 90–1; TCTK 1990:5–6, 38–9.

urban centres of Hanoi and Haiphong) output was barely enough by 1989, but all other provinces remained in deficit.

In the most southerly provinces, especially those around Ho Chi Minh City in the southeastern midlands, these local deficits have become less important with the development of trade between the city and the rice growing districts of the Mekong delta under the impact of economic reform in the 1980s. In the north, on the other hand, there has been both a lag in the development of rural infrastructure and a strong tendency to autarky among the cooperative farms established since the 1960s. This has restricted the development of domestic trade, and resulted in bouts of hunger in the northern provinces, even in the 1990s (Do Muoi 1990:B/4). Partly because of the differences in infrastructural development and partly because of the better responsiveness of southern production systems to the economic reforms introduced in the 1980s (Beresford 1989:1991), progress in southern agriculture has also been more rapid.

In March 1990 the BBC Summary of World Broadcasts carried a report that 51.5 per cent of Vietnamese children under the age of five suffer from malnutrition, while 21.7 per cent of unborn babies also have this condition (Summary of World Broadcasts—Far East)/0713, 15 March 1990:B/9). Because of the serious crisis of food production and distribution which afflicted the country during the late 1970s and 1980s the Vietnamese population is also reported to be shrinking in physical stature and, on average, people are 15–20 cm shorter and 10–15 kg lighter than their peers in the developed countries.

The better nutritional status of people in the south is likely to lead to an improving average level of health compared with northern Vietnam and will to some extent offset the lesser development of the public health care network.

The impact of economic reform since the 1980s

Given that the basis of the Vietnamese health care system lay at the commune level, the radical changes taking place in the structure and operation of collective farming since the 1980s, resulting in the widespread abandonment of the cooperative system in the 1990s, has had profound implications for the health system.

The main thrust of the reforms in agriculture has been progressively to devolve responsibility for production and investment decisions onto farm households. This has been particularly so since the passing of Resolution 10 by the Political Bureau in 1988. This extended the period of product contracts so that households were guaranteed access to a given piece of land for 15 years in order to encourage productivity-improving investments. With the passage of new land laws in 1993, land tenure has now become permanent and this has also meant that cooperatives now only function at all in the former territory of the DRV. In the southern part of the country any pretence at socialisation has been abandoned. Even where cooperatives remain, households are now also given control over decisions on what to produce and freedom to sell their output either to the state trading companies or on the open market. There are no more compulsory grain deliveries to the state, apart from taxes and, most importantly for our immediate purpose, the cooperatives themselves can decide how much to put aside for collective investment and social (health, education and welfare) funds.

Criticism has been levelled at the social funds on the grounds that they were a feature of the excessive egalitarianism of the cooperatives. It was pointed out, for example, that in many cooperatives too little was left for distribution to the peasantry for their own consumption once the requirements of the various funds and state taxes had been met (Beresford 1989:149).¹⁰ Offsetting this was the fact that provision of collective health, education and welfare could raise the overall productivity of the cooperative as well as of individual households. In addition, as White (1982:8) points out, these facilities helped the social reintegration of villages whose social fabric had been severely rent during the land reform campaigns of the 1950s. Moreover, there were many other policies restricting production in the cooperatives, such as fixed (low) state purchasing prices, the policy of local self-sufficiency in the less profitable grain crops and the workpoints system of internal distribution which in practice discouraged growth of labour productivity. With the removal, in the reformed cooperative system in the 1980s, of most of these factors, the point of much of the criticism of the social funds is lost. Instead of a revival of the decentralised health care system, however, what we have seen under the impact of reforms is its progressive collapse.

It seems that many Vietnamese peasants have reverted to their initial conception of health as a function of therapeutic medicine and, rather than fund

10 See also Nolan (1983) for a discussion of this problem in China.

a social and environmental approach with its emphasis on preventing ill-health, they have shown reluctance to continue contributing to the cooperative funds. The consequent decline is already reflected in the figures on availability of health care for 1989. Since 1980 the number of assistant doctors, nurses and hospital beds per 10,000 people has declined (Table 3). The increase in infant mortality and the rising incidence of malaria recorded towards the end of the 1980s may also be a reflection of this decline.

In the case of malaria, for example, much emphasis was placed by the commune and district health centres on measures to eliminate mosquitoes (swamp filling, spraying with DDT,¹¹ raising mosquito-eating fish in cooperative ponds) as well as encouraging the population to use mosquito nets and keep livestock away from their houses (McMichael 1976:219–30). These measures required mass participation and were accompanied by regular screening of the population. They can still be applied in areas where the cooperative system has not been completely dismantled—for example, a recent outbreak in Bac Thai province in the north was tackled by spraying and swamp-filling (Summary of World Broadcasts—Far East/W0085, 12 July 1989:A/6). But where cooperatives have either not been established, as in most of the southern part of the country, or are in the process of losing their earlier functions, this is more difficult.

Given the unwillingness of the peasants to continue to supply adequate funding levels to commune and district level health services, the survival of the system must rely increasingly on fees for service, as has already been introduced in hospitals at district level and above (Summary of World Broadcasts—Far East/0651, 1 January 1990:B/5),¹² or on aid from the central level. Widespread poverty, including in urban areas, means that services are difficult to sustain on the basis of fees paid, but at the same time contributions from the central budget have been reduced owing to the fiscal crisis of the state. The low level of salaries paid to medical workers has also led to widespread demoralisation among hospital staff and deterioration of services. This in turn has led to the spread of self-treatment, an alarming development considering the absence of controls on dispensation of pharmaceuticals. The Vietnamese government has appealed for foreign aid, but it has so far been meagre.

Although the emphasis of health policy has continued to be on preventive measures, increasing central authority over the provision of services will inevitably reduce community participation. The shift to a more centralised delivery of medicine may also be reflected in the fact that, while availability of assistant doctors and nurses declined in the 1980s, that of fully-trained doctors (who are chiefly located at the district level and upwards) increased. This in

11 I am not entering the debate here about the merits of DDT. Its continued use (Summary of World Broadcasts—Far East, /W0085, 12 July 1989:A/6) in anti-malaria campaigns in Vietnam, might indicate some rigidities in the Vietnamese health system, but none of the political economy literature I have read has offered an alternative to some kind of spraying for very underdeveloped countries. To wait for development does not seem an adequate answer.

12 The highlands are exempted in order to draw people away from 'superstitious practices'.

turn is likely to downgrade the earlier emphasis on preventive measures in favour of the professional priorities of doctors.

The impact of these developments need not be seen as wholly detrimental, but needs a more careful assessment. In urban areas, for example, a highly decentralised system may not be appropriate because of the existence of externalities. Where health services were previously concentrated at the production unit, the trend towards centralisation may therefore turn out to be very beneficial. Under the system of centralised planning of industry which prevailed prior to the reforms, there were few incentives for enterprises to clean up their environment. Machinery tended to be worked into the ground without adequate maintenance, making it both dangerous and dirty. There was a tendency to waste materials (Beresford and Fraser 1992). The industrial environment in some cases was extremely detrimental to the health of workers, the northern coal fields being a particularly well known case. It is possible that industrial reforms which give enterprises more incentive to introduce technical changes and operate more efficiently will help reduce pollution and occupational hazards. Agricultural reforms should also see the nutrition levels of industrial workers improve. The use of foreign and central government funds to tackle city-wide or region-wide problems is also likely to be an advance. UNDP, for example, is currently involved in projects jointly financed with the Vietnamese government to improve health, working environment and living conditions at the Cam Pha coal fields and to reduce toxic substances and dust in the industrial environment (Summary of World Broadcasts—Far East/W0115, 14 February 1990:A/10; FE/W0079, 31 May 1989:A/5). UNICEF has also been involved in urban water supply projects (Summary of World Broadcasts—Far East/W0115, 14 February 1990:A/10), as has the Finnish government.

In the rural areas the results are more ambiguous still. Despite its highly participatory nature, the rural health schemes have always contained a strong element of central direction and there has been little local determination of priorities. Potential areas of conflict are already evident between the priorities of foreign aid agencies and provincial governments in Vietnam. There has been at least one case where a foreign NGO proposal to allow local communities to determine what sort of services they need came up against the somewhat different conception of the provincial authorities. However, not all attempts to assist the development of community-based health programs have met such obstruction. Moreover, the emergence of new elites at the local level in association with market-oriented economic reforms and a more uneven distribution of wealth and income, can mean that it is among the locals themselves that more participatory programs are blocked.

The significance of this type of problem will, on the one hand, vary according to the extent to which external aid agencies tend to rely on priorities established by central or even external authorities rather than working with local groups and, on the other hand, reflect the changing power structure at the local level. The outcome in terms of equity of access and democratic control over health provision is therefore not yet resolved.

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health systems in Indonesia & Vietnam: transitions to uncertain futures

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In common with many Third World nations, Indonesia and Vietnam both promote the concept of Primary Health Care (PHC). As propounded by the World Health Organization in Alma Ata in 1978, PHC involves the provision of health education and basic health care at the community level to ensure adequate access to services by all citizens. Medical problems which cannot be addressed locally are referred to district hospitals, and from there to increasingly specialised facilities, on the basis of medical need rather than simply ability to pay for expensive practitioners. If implemented in this fashion PHC ensures fullest possible coverage, equity in access to services, and an appropriate balance among the various levels of service delivery.

This similarity of commitment may appear strange given the large differences in culture and political ideology in Indonesia and Vietnam. In part, this similarity is the result of both countries having colonial legacies of community based hygiene programs, histories of medical services to serve villages developed during revolutions, pressure to rehabilitate post-war health services under conditions of severe resource constraint, and the assistance and inspiration of WHO and UNICEF, both of which have directed strong support to the concept of basic health service priorities. But overlying this is the fact that the nationalist ideologies of both countries, and the medical leaders in particular, have voiced a consistent commitment to serve the poor, and the rural residents, and have codified this commitment in successive official documents, plans and regulations. Though not always apparent in central government budgets (an issue we will examine below) the socialist, nationalist aspirations for health in the 1950s have melded easily with the international calls for

* This paper has grown out of a number of projects over a long period of time, so it is neither possible nor appropriate to try to list all the people who have contributed to the data and interpretation provided here. However, we would like to acknowledge the help provided by the staff of the Health Research Centre, University of Indonesia, and particularly advice given by the director of the Centre, Dr Meiwita B. Iskandar. The figures were worked up by Sukisno, and Herna Lestari chased down some missing data for Indonesia. Ms Horry Fanggidae and Mr Diyardi Nugroho from the Ministry of Health were particularly helpful in providing data and explanations of health care delivery units in Indonesia. Of course, none of the above named can be held responsible for misinterpretations on our part.

primary health care in the 1980s. Table 1 summarises the major health, social and economic indicators accepted and utilised by multilateral organisations working in the two nations, showing some major areas of similarity and difference.

Today both countries are attempting to reform their economic, political and social systems. Indonesia's New Order government has instituted a series of financial reforms, begun the privatisation of state enterprises, and made the first hesitant steps toward a more open and democratic political system.

Vietnam's *doi moi* (renovation) involves the de-collectivisation of agriculture, financial reform, the promotion of foreign investment and trade and discussion of options for political reform. These changes affect the whole working of society, including the structure and function of health and education systems. There are signs that the impact of many of the reforms challenges the goals and structures of the primary health care strategies. As yet there has been little analysis of the actual and potential impact of reforms on health status, especially for those citizens living in poverty and isolation (but see Allman, forthcoming).

In this paper we will review the recent experiences of primary health care systems of Indonesia and Vietnam, and consider the impact of economic and political reforms. In particular we will look at the structure and provision of services at various levels of government, the financial support of health care, the distribution of personnel, and some of the major measures of service utilisation and health status.

In conclusion we will reflect on the issue of setting health care priorities in different political systems, with particular attention on the problem of promoting community participation in health care decision-making. These case studies provoke the questions: Does primary health care require a socialist ideological base to work, or is it an appropriate strategy for a variety of social and political settings? Moreover, do reforms in the basic economic system lead to improvements or problems in the coverage and efficiency of primary health care systems?

Indonesia: unity in diversity and adversity

The Primary Health Care system of Indonesia, as codified in the National Health Strategy, is one of the remarkable accomplishments of the New Order Government. Like the family planning and primary education initiatives, primary health care is largely directed by the central government, has adopted a distinctive national style designed centrally, and is the subject of continuing attempts to combine local initiatives and central direction, with the central government usually prevailing. However, since there are many weaknesses in the central bureaucracy, and little evidence that rhetorical priorities for health can ever be matched by budgetary commitments, the 'unity' of the system is at best tenuous, and at worst, illusory. Nonetheless, Indonesian mortality levels have fallen, and the government attributes this to the spread of the primary health care program.

Health & development in South East Asia

Table 1

Health, social and economic indicators utilised by multilateral agencies in Indonesia and Vietnam

Indicator	Year(s)	Indonesia	Vietnam
Human Development Index (HDI) ^a	1992	0.586	0.514
Indicators of child survival			
Mortality rate of children under 5, per 1000 births	1992	95	50
Infant Mortality Rate, per 1000 births	1992	66	37
Estimated proportion of low birthweight babies	1985-89	8	17
Percent of children aged 0-5 who are underweight	1990	38	42
Percent of births attended by trained health personnel	1985-90	44	90
Percent of one-year-olds who were immunised	1992	92	90
Morbidity rates of immunisable diseases per 100,000 population			
Poliomyelitis	1988	0.58	1.30
Tetanus	1988	0.64	3.40
Measles	1988	34.17	34.10
Diphtheria	1988	1.22	1.50
Pertussis (whooping cough)	1988	11.41	33.10
General health indicators (percentages)			
Rural households with access to clean water	1985-91	43	21
Urban households with access to clean water	1985-91	68	47
Population with access to health services	1985-91	80	90
Daily caloric requirements supplied	198-90	122	102
Health service finances			
Public expenditure on health as percent of GDP	1990	0.7	1.1
Total expenditure on health as percent of GDP	1990	2.0	2.1
Demographic indicators			
Crude Birth Rate, per 1000 population	1992	27	30
Crude Death Rate, per 1000 population	1992	9	9
Rate of natural increase, per 1000 population	1992	18	21
Expectation of life, at birth (years)	1992	62.0	63.4
Maternal mortality rate, per 100,000 births (UNICEF est.)	1980s	450	120
Total fertility rate, average number of lifetime births at current rates, per woman	1992	3.2	4.0
Percent of married women of reproductive age using contraception	1985-92	50	53
Education indicators			
Women's literacy rate (age 15 +)	1992	77	84
Young women's literacy rate (aged 15-24)	1980-89	82	94
Primary school net enrolment ratio	1990	98	na
Secondary school net enrolment ratio	1990	45	na
Economic indicators			
Real GDP per capita, purchasing power adjusted	1991	2,730	na
Per capita receipt of official development assistance (\$)	1992	11.00	8.00
Percent of people in absolute poverty	1980-90	25	54

^a The Human Development Index is a composite devised by the UNDP, based on life expectancy, literacy, mean years of schooling and GDP. The HDI for Australia is 0.926.

Sources: UNDP 1994; UNICEF 1993.

Indonesian health status and trends

In Indonesia there are limitations to any evaluation of health trends and their relation to health services. The data on health indicators, including mortality statistics, are poor. It is only possible to estimate the levels of general mortality through indirect techniques using census and survey data on the reported survivorship of infants, since general death registration is unreliable. Information on nutrition, illness and related topics is obtained from surveys which are often not comparable between time periods due to different geographic coverage or contrasting approaches. Moreover, as we shall see below, the most current data available refers to the period of the late 1980s, so that changes occurring since the large-scale implementation of village out-reach programs and the extended program on immunisation cannot yet be fully evaluated. The results of the 1990 census have largely indicated continuing declines in infant and child mortality, matched, and in part the result of declines in fertility rates through the late 1980s. On the other hand detailed studies of maternal mortality have failed to demonstrate any major decline in this most important measure of the nation's health.

Mortality levels and trends

The 1970s and 1980s have seen substantial improvement in reported mortality trends, the ultimate indicator of health conditions. However, different data sources and estimation techniques produce sometimes contradictory results. Based on the 1991 Demographic and Health Survey (DHS), infant mortality had been more than halved compared to the early 1970s, to just under 70 deaths per thousand. The UNDP, using different data sources and analytical techniques, estimated a somewhat higher infant mortality rate for 1988 of 84 per thousand compared to the rate of 75 from the 1987 Contraceptive Prevalence Survey. Regional trends also show some confusing puzzles. In the areas outside Java and Bali, and in East and Central Java the DHS results show a steady decline in infant mortality of each of the three five-year periods prior to the survey. In contrast, analysis of trends for West Java suggests that mortality may have risen from 107 to 122 in the mid 1980s, before resuming a declining trend to reach 111 per thousand in the five years immediately before 1991 (MOH 1993a:103). There is no reason to think that West Java would have had different programmatic or ecological experiences over this period.

Child mortality (death rate for children between ages 1 and 4) had declined by about 60 percent since the 1960s, to a level of around 31.7 per thousand in the late 1980s (MOH 1993a:101). This was only slightly lower than the rate estimated from a similar survey conducted in 1987, indicating the possibility of a stall in the decline of child mortality, though historical trend data from a single survey tend to show steady declines in child mortality. The 1991 DHS (MOH 1993a:101), for instance, shows rates of 32, 39, and 44 in successive five year periods before the survey.

Mortality rates remain higher in Indonesia than other countries of South East Asia, though within Indonesia there is wide variation among provinces.

The lowest infant mortality rate for 1990 of 37 in Yogyakarta, for example, is in striking contrast to the very high rate of 141 in West Nusatenggara. What is more, the gap between provinces appears to be widening, as recent mortality declines have been greater in those areas which already had lower mortality in the late 1960s. Rural-urban differences are still marked, as are differences by mother's education level. Women living in cities experience an infant mortality level around 60 per cent of the level of rural women, while the attainment of a secondary education certificate is related to a level of infant mortality of a third or less than that recorded for uneducated women. Of course these differences are not merely a matter of where women live, or how academically experienced they are, since there is a high degree of inter-correlation among all the variables of social and economic status. However education of girls *per se* has an important influence on future fertility and mortality, since educated women are able to play more rewarding roles in the economy, deal more effectively with social and health service delivery personnel, and read the instructions for medicines, nutritional and health education messages. For this reason female education is regarded as a key to rapid demographic change.

Maternal mortality is estimated at about 450 deaths per hundred thousand live births (Budiarto et al. 1987:41), though more intensive small-scale studies have found rates as high as 800, a rate sometimes cited by UNDP. The government has been surprised and disappointed to find that the maternal mortality recorded in Household Health Surveys in 1986 and 1992 showed no significant change. The latter survey produced an estimate of 420, but given the sampling procedures this must be regarded as virtually the same level as previous estimates. A level of 450 per 100,000 births, is 4.5 times higher than that of the Philippines which has the second highest maternal mortality among the ASEAN countries, and 45 times higher than the rate in Singapore (UNICEF 1994:76-77). It is also over three times the rate estimated for Vietnam.

Pattern and causes of death

Nearly half of all deaths in Indonesia occur among infants and children, and most of these are caused by infectious diseases, especially tetanus, acute respiratory infections, and diarrhoeal diseases. Four immunisable diseases alone—tetanus, measles, diphtheria and pertussis—accounted for around 30 per cent of infant deaths. Some observers have estimated that measles and tetanus alone account for 20 to 27 percent of infant deaths (GOI/UNICEF, 1989:79). While the data to support precise estimates are not available, it is clear that a high proportion of infant deaths is attributable to immunisable infectious diseases.

Infant deaths related to poor pregnancy and childbirth conditions are an underlying cause of an estimated 18 per cent of these infant deaths. These causes are particularly useful indicators of maternal-child health services, as they reflect the longer-term health and nutritional status of mothers and the coverage and quality of antenatal and childbirth services. The high rate of deaths attributed to tetanus (about one-fifth of infant deaths) is also a reflection of unsafe birthing practices (GOI/UNICEF 1989:40-41).

Finally, diseases of modernisation—cancer, cardiovascular disease, traffic accidents and others—will become an increasing proportion of the causes of illness and mortality in Indonesia as the population ages, and as changes occur in people's nutritional and lifestyle behaviour. In the 1986 Household Health Survey, cardiovascular disease already accounted for about 10 per cent of all recorded deaths of those aged 55 and over, and by 1992 this estimate had reached 31 per cent of the recorded deaths for the age group.

Nutrition indicators

Nutritional inadequacy, a major underlying cause of illness and death, also appears to have declined in Indonesia, though data are difficult to interpret due to lack of comparability between surveys. A large scale survey in 1978 found a rate of 16 per cent of children under five suffering from moderate and severe malnutrition. Recent estimates show a smaller, but still high level of 11 per cent of children in Indonesia—three million children under five—in the moderate or severe malnutrition category. Rates of malnutrition are higher in rural than urban areas, and among girls. West Nusatenggara and West Kalimantan have shown the highest provincial rates in surveys in the 1970s and 1980s.

In addition to protein-energy malnutrition, other nutritional disorders—iodine deficiency, vitamin A deficiency, and anaemia for example—are significant health problems.

Morbidity

Based on the 1986 Household Health Survey, morbidity rates—the proportion of people reporting illness in the month preceding the survey—average about 8 per cent, but are twice that level among infants and those aged 55 or older, and as high as 18 per cent among children aged 1–4. Respiratory infections are the main cause of illness over all age categories, with diarrhoea and skin disease also prominent among the young, and tuberculosis among the old. Although the 1986 Household Health Survey showed somewhat lower morbidity rates than its predecessor in 1980, the different samples and methodologies of the two surveys limit comparison.

Indonesian health policy: *Alma Ata a la Indonesia?*

Indonesian health policy documents have established an ambitious list of health objectives expressed in terms of measurable indicators. In the mid 1980s these included a targetted infant mortality rate reduction to 49.8 by 1994 and 45 by the year 2000 (USAID 1989:60). The Sixth Five-Year Plan noted that the estimated Infant Mortality Rate (IMR) for 1990 was 63 per 1000 live births, and re-calibrated the targets for reduction of IMR as follows:

- | | | |
|---------------------------|---------|----|
| 1. To end of Sixth Plan | 1998/99 | 50 |
| 2. To end of Seventh Plan | 2004/05 | 43 |
| 3. To end of Eighth Plan | 2008/09 | 37 |
| 4. To end of Ninth Plan | 2014/15 | 31 |
| 5. To end of Tenth Plan | 2018/19 | 26 |

Essentially this represents a minor increase in the implied target for the year 2000 from the previous level of 45 to just under 50—a modification which is very small when compared with the potential and actual errors of measurement common over the years and likely to continue in future. Similarly the planning documents cite five other quantitative measures for health development between the start of the Sixth Five Year Plan in April 1994 and the end of the Eighth Plan in March 2009:

1. Expectation of life at birth from 62.7 to 67.8
2. Crude death rate from 7.9 to 7.1
3. Maternal mortality rate from 425 to 143
4. Protein calorie malnutrition from 40 per cent to 16 per cent of children under 5
5. Low birth weight from 15 per cent to 8 per cent of births.

Thus, the focus of the program is on both gross measures of survivorship (such as the expectation of life at birth) and three important 'micro' issues of most concern to poor, rural and isolated communities: maternal mortality, malnutrition and low birth weight. To meet the targets the health system must be successful in providing services to poor people.

It is for this reason that the rhetoric of primary health care is so strong in official Indonesian government policy. The main policy thrust of recent decades has been primary health care, with emphasis on the decentralisation of services and administration. Indonesia's Long Range Plan for Health, released in 1982, emphasises community health, nutrition and environmental health, training of personnel, supply and quality control of drugs, and management, including emphasis on decentralisation. Government statements, including five-year development plans (Repelita), make frequent reference to the concept of community self-reliance, a basic tenet of primary health care as articulated at the WHO sponsored declaration of Alma Ata.

In the Indonesian policy context, however, the concept of 'community self-reliance' differs fundamentally from local autonomy at a village level as described by David Werner (1977) in his now classic book *Where There is No Doctor*, in which local people plan and implement health and related programs. Although the efforts of small local organisations are directed at achieving this goal in some Indonesian communities, the government attempts to devolve actual decision-making and revenue control are directed at shifting functions from the central administration in Jakarta to the provincial and *kabupaten* (regency) level rather than to sub-districts or villages.

Accompanied by efforts to develop the capacity of provincial and district officials, these moves are being promoted as efficiency measures, yet are sometimes couched in terms which link them to the Alma Ata principle of 'bottom-up planning'. At the village level, the LKMD or Village Community Self-Reliance Committee and especially the PKK or Family Welfare Movement, are meant to represent the lowest level of 'bottom-up planning', though in practice

their working style still is fairly authoritarian and heavily directed from above, particularly in Java. The main priorities of programs are still set centrally.

The support for 'local self-reliance' may be motivated more by the climate of financial stringency than by attempts to promote local autonomy. Health financing is very much on the current agenda of the central government and foreign donors, and includes discussion of user fees and health insurance schemes. A large World Bank project has been focussing on these issues, using the provinces of West Nusatenggara and East Kalimantan as pilot areas for experiments in 'user pays' principles as well as improved planning and management.

Indonesian health expenditure: harsh realities

Overall, per capita health expenditure in Indonesia is very low compared to other countries, even when all sources of health spending, public and private, are considered. Total Indonesian health expenditure—which the WHO recommends should be on the order of 5 per cent of GNP—was estimated to be only about 2.2 per cent of GNP in 1986/87, down from 2.7 per cent in 1982/83 (GOI/UNICEF 1989:29). The 1994 Human Development Report of the UNDP reported a further decline to 2.0 per cent in 1990. Total health expenditure in 1986/87 amounted to the equivalent of less than \$US9.00 per person.

The proportion of the government budget (from central and regional sources) allocated to health has remained at about 1.5–1.8 per cent since the 1970s in Indonesia; this compares with levels of nearly 5 per cent in Malaysia and the Philippines, and over 6 per cent in Thailand (World Bank 1990:198–9). In Indonesia, this translates to government spending on health of just over US\$3 annually per person.

Furthermore, public financial resources devoted to health in Indonesia declined over the 1980s. In 1987/88, real spending levels by the central government in health had declined by as much as 45 per cent over levels in their peak year of 1982/83 (World Bank 1989:14). The Ministry of Health's *Trend Assessment of Health Development in Indonesia*, published in 1993, noted that while expenditures appeared to have risen by 92 per cent between 1982 and 1992, the conversion of figures into constant rupiah values turns this into a four per cent decline, and the use of constant purchasing power dollars would reflect an even greater decline. In this light, the Ministry notes, 'Serious effort to coordinate social financing for prevention, curative [services] and promotion have not yet occurred.' (MOH 1993b:115).

Of total government health expenditure, about 36 per cent came from Central Government sources in 1986/87; a further 19 per cent from provincial governments; 13 per cent from district governments; 21 per cent from state enterprises (mainly pharmaceutical companies); 7 per cent from foreign aid, and about 5 per cent from non-Department of Health sources such as military hospitals.

In some provinces local health resources have also been declining. There are wide variations in regional health spending, and a recent analysis has

shown that central allocations to provinces appear to further exacerbate the inequity: that is, provinces with higher local revenues are also those which receive higher central subsidies for health. Jakarta receives twice the central subsidy for health per capita compared to West Nusa Tenggara, yet it has five times the per capita local revenues.

Very importantly, in the 1980s poor financial management in the Department of Health led to gross underspending—as high as 40–50 per cent of the development budget—even compared to the meager allocations to the sector (USAID 1989: 64).

Indonesia's ambitious policy goals in health, then, are not being matched by sufficient financial resources, nor by efficient management and allocation of funds within the health system. Despite primary health care rhetoric, overall two-thirds of health expenditure goes to curative services. Moreover, the marked declines in health spending over the 1980s were particularly severe in the area of communicable disease control, a function which had always been disproportionately low compared to curative services. Biases in private health expenditure further exacerbate the imbalance: retail drug sales and hospitals together account for nearly 80 per cent of private spending on health.

The health system: the spread of services

Figure 1 shows the organisation chart of the health and family planning system in 1994. At the central level of the Indonesian health system, the Ministry of Health (and, for family planning, the newly combined Ministry of Population and National Family Planning Coordination Board, *BKKBN*) perform major policy, planning and coordination roles. Extensions of the Ministry of Health are also found at the provincial and district levels; these offices receive their budget from the central Ministry and supervise and coordinate health activities but do not have direct responsibility for health services. Direct responsibility is in the hands of provincial and district level health offices which come under the local government, through the Ministry for Home Affairs, and operate with local budgets.

In terms of infrastructure, at the top of the pyramid of services in Indonesia are the major hospitals: Class A hospitals, with highly specialised staff and equipment, and Class B hospitals with an average of 10 specialised departments (see Table 2). They perform a major role in medical education in the country. Class C hospitals are owned mainly by provincial or district governments and are designed to cover four specialist areas (internal medicine, surgery, paediatrics, and obstetrics-gynaecology). Class D hospitals, at the district level, are designed and equipped to provide general services only. They are usually very basic, lacking diagnostic support facilities such as X-ray or laboratory equipment.

Serious functional decentralisation of health services began in 1966 with the formulation of the 'Achmad Plan' which consolidated Maternal and Child Health (*BKIA*) and Dispensaries (*Balai Pengobatan*) into Community Health Centres (*Pusat Kesehatan Masyarakat* or *Puskesmas*) (Ryadi 1981: 46–50).

Figure 1 Organisation of health and population sectors, Indonesia, 1994

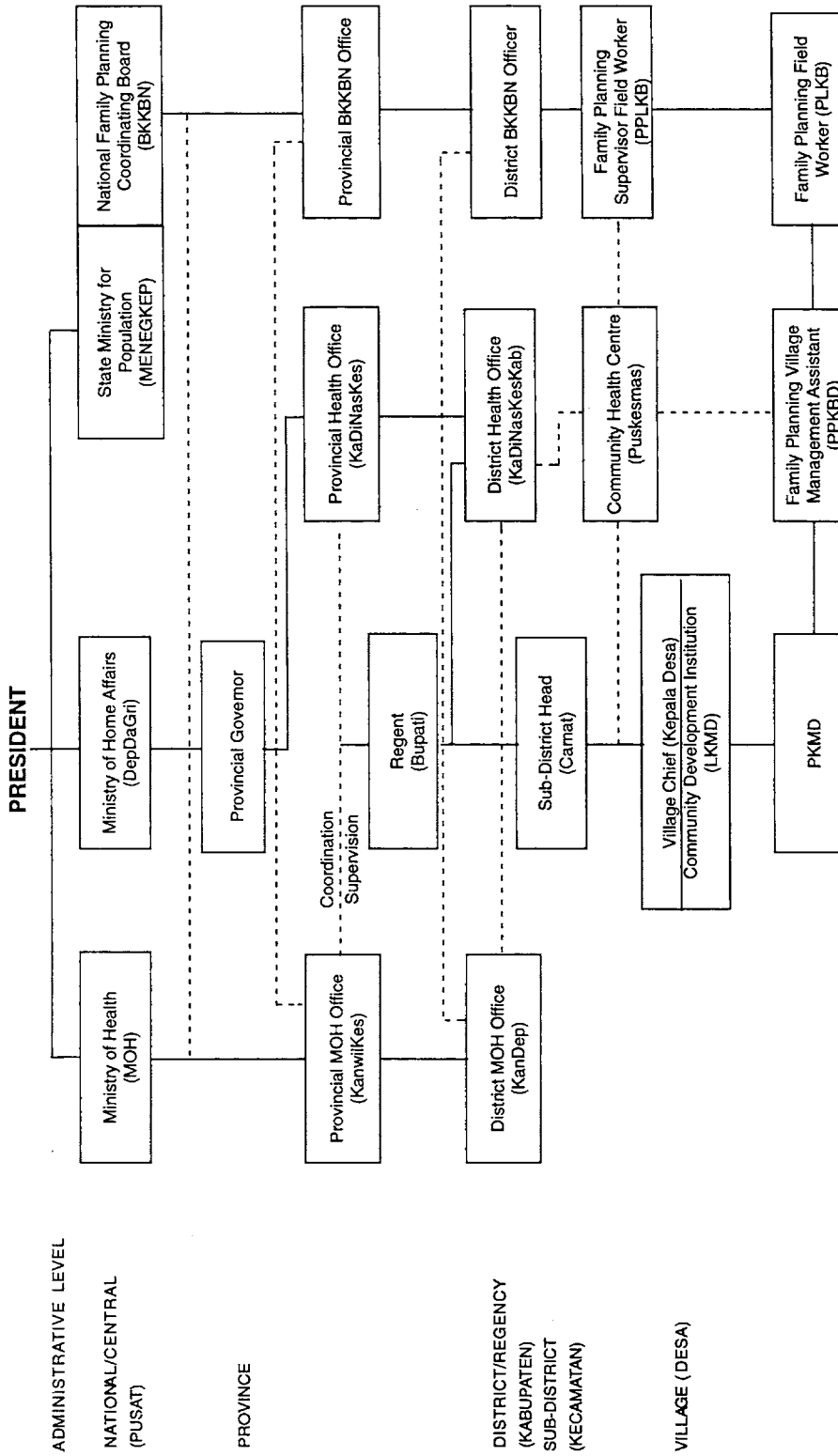


Table 2
Health infrastructure, Indonesia, 1992-93

Ministry of health managed hospitals by type of hospital and level of administration, 1993

Type of hospital	Central	Province	Regency	Total
General hospital				
Type A	3	1	-	4
Type B	11	17	5	33
Type C	2	16	150	168
Type D	-	7	125	132
Specialty hospital	44	22	7	73
Total	60	63	287	410

All hospitals by source of management and type, 1993

Source of management	General hospitals	Specialty hospitals	Total
Ministry of Health	337	73	410
Ministry of Defence	110	2	112
Other ministries	84	-	84
Private foundations	299	121	420
Total	830	196	1,026

Primary health care infrastructure, 1992

Local government level	Type of facility	Number
Sub-district (Kecamatan)	Class D hospitals	175
	<i>Puskesmas</i> (Community Health Centre)	6,224
Village (<i>Kelurahan</i>)	<i>Pustu</i> (<i>Puskesmas Pembantu</i> , Satellite clinic)	18,264
Hamlet (<i>Dusun</i>)	<i>Posyandu</i> (Integrated Service Post)	245,255

Source: Ministry of Health; *Puskesmas*, *Pustu* and *Posyandu*: Information section, Community Health Services Division; Hospitals: Information Section, Medical Services Division.

Implementation began in earnest under the First Development Plan in 1969 (*Repelita I*) when the government took the first steps in funding and extending basic health services to make them accessible to the majority of Indonesia's population, who at that time were both poor and rural. These centres serve as the major source of technical support and supplies, and function as the first level referral centre. Most *Puskesmas* have a doctor, as well as a midwife, nurse, sanitarian, and vaccinator. Health and family planning workers with field responsibilities are based at the *Puskesmas*, and refer clients back to these centres for clinical services. The number of *Puskesmas* grew rapidly in the 1970s, reaching about one per subdistrict, each serving an average of 32,000 people (UNICEF 1989:64). Then in 1987 the number of *Puskesmas* plateaued at just over five and a half thousand. After that point much of the expansion of the system was based on the extension of a network of *Puskesmas Pembantu* (*Pustu*), sub-health centres, and mobile health clinics. Only in 1990 did the numbers of

Puskesmas resume their growth, at a rate of 8 per cent in 1991 and 12 per cent in 1992, to reach over 6900 clinics in 1993.

From the early 1990s the government began to upgrade *Puskesmas* by adding beds to enhance the potential for maternity care and stabilisation of acute diarrhoea cases. In most cases four to six beds were added, but in a few places up to twenty beds were developed to make the clinic into a functioning class D hospital. It is planned that eventually the Class D hospitals will be renamed '*Puskesmas with Beds*'. This development was justified in terms of strengthening the lowest link of the curative referral system by bringing basic hospital type services closer to the primary health care doctors of the *Puskesmas*.

The decentralisation effort was reinforced in the 1980s with the establishment of village-based Integrated Service Posts (*Pos Pelayan Terpadu* or *Posyandu*). These monthly services are staffed and managed by village volunteers supported by *Puskesmas* staff, and consist of monthly clinic sessions in a local office or home. Their main objective is to integrate the delivery of child growth monitoring (through a child weighing program), immunisation, diarrhoeal disease control (through oral rehydration therapy), family planning, and maternal care. In fact most posts do not include all five services; the most widespread activities are child weighing, immunisation, and family planning. The target is for every 100 children to be served by a *Posyandu*, and although this is ambitious, the numbers of *Posyandu* have grown markedly in recent years, even ahead of projected targets (see Table 3). They now constitute a significant expansion of the reach of the *Puskesmas* into village areas. During Repelita IV, the number of *Posyandu* alone increased by 53 percent; in contrast, the number of *Puskesmas* remained virtually static. Over this plan period, the number of hospitals increased by about 3 percent (USAID 1989: 41). *Posyandu* numbers continued their rapid growth in the 1990s, with annual growth rates of as much as 18 percent, to plateau at a total of a quarter of a million monthly services nationwide in 1991.

Figures on specific outreach activities also indicate significant recent progress. Bolstered by strong political commitment, the immunisation campaign has achieved an increase in coverage from about 10 per cent in 1984/85 to about two-thirds of all children in 1987/88 (GOI-UNICEF 1989:65) to over ninety per cent coverage by 1993. The *posyandu* system has been at the heart of this dramatic achievement, with people all over the country being familiar with the poster 'Bring your child to the *Posyandu* for their shots'. The attendant coverage of childweighing/growth monitoring activities has also been impressive, however as discussed below the impact of this program may be far more limited than expected. Mothers tend to bring their children for weighing for a few months, but may lose interest in further attendance once the child has been immunised, and so long as they are not sick. In the first year of life the average number of visits is three, while ages one to four the average falls to one or fewer visits to the *Posyandu* per year. Older children are more likely to require health services when they fall sick, so their parents take them to the *Puskesmas* or *Pustu*.

Table 3
Increase in *Pustu*, *Puskesmas* and *Posyandu*, 1981-93

Financial Year	PUSTU	PUSKESMAS	POSYANDU
1981/82		4,143	
1982/3		4,206	
1983		4,574	
1984		4,732	25,000
1985		5,015	39,000
1986	12,568	5,174	133,786
1987	12,364	5,482	199,614
1988	12,894	5,549	213,617
1989	14,303	5,742	206,162
1990	15,944	5,978	244,382
1991	17,465	6,229	25,815
1992	18,816	6,588	245,255
1993	17,116	6,954	250,145

Note: The *Pustu* have a Paramedic in charge and provide ambulatory treatment and ante-natal care; *PUSKESMAS* are generally headed by a doctor, and often have beds for obstetric care; *POSYANDU* are managed by staff of the Department of Home Affairs through the PKK women's welfare organisation, and work in cooperation with the health department and family planning program.

Source: Ministry of Health.

In other areas such as water supply and sanitation facilities, progress has not been sufficient to achieve set targets. The United Nations Development Program estimated that by the end of the 1980s nationwide only 36 per cent of rural dwellers had access to safe sanitation facilities, and in West Nusatenggara about a third of rural dwellers had access to safe water and only about 20 per cent of households had access to safe sanitation facilities. The Health Department has been increasingly concerned about water quality in the largely urban piped water supply systems. Over the decade of the 1980s the proportion of the samples found to contain unacceptably high contamination by coliform rose from 20 to 50 per cent. In 1990 the proportion went as high as 58 per cent, falling in 1991 to 37 per cent but rising again in 1992 to 42 per cent. In rural areas where most drinking water comes from wells and rivers the quality of water depends on the season, pollutant run-off (eg. fertilisers, animal and human wastes) and rates of drawing on the resource. In all these dimensions environmentalists are finding deterioration of water quality. The expansion of toilets and septic facilities should assist in overcoming one source of contamination, but by 1992 only one in seven Indonesians had access to a sealed septic system, and nearly half were using fields or streams.

Unlike immunisation and family planning, where the challenge is to deliver relatively simple services on a regular basis to an easily identified sub-group of the population, hygiene programs rely on education, exhortation,

and capital works to encourage each household to invest in modifications to the house structure and substantial changes in daily behaviour of all members of the population. This challenge becomes particularly cogent in the context of limited budgets and complex overlapping of responsibilities among government departments.

The World Bank has recently encouraged the Indonesian government to consider use of private sector organisations (NGOs) in the provision of health and hygiene services. The theory is that NGOs are closer to the people, less constrained by bureaucracy, and more focussed on substantive health goals. These may be relevant considerations, but the government is mistrustful of the principle of using NGOs to deliver services which have long been the monopoly of either the government or the people directly. In 1985 a law was passed to regulate the formation and activities of NGOs and mass organisations, and since that time government representatives have frequently issued warnings against NGOs seen as being 'political' or disloyal.

Some NGO leaders are resentful of the constraints put on their actions. They have often ended up as small 'opposition' groups with little real influence and forbidden from carrying out development activities in the field. Others have chosen to work closely with the government. They sometimes receive government backing, in return for which they 'play by the rules' of a game which can include elaborate bureaucratisation of activities, and sometimes a substantial diversion of funds to 'administrative' and other fees. Critics refer to some of these organisations as GONGOs—Government-owned Non-Government Organisations. Understandably government officials reject such criticisms, pointing out that the NGOs are structurally outside the bureaucracy, often rambunctious in their social critiques, and close to the government only insofar as they build their pilot projects for later implementation on a wider scale by government programs. While these debates may provide diversion for political scientists, there seems little doubt that from the viewpoint of the average Indonesian, the government is the major supplier of health care services, followed by a rapidly growing private sector catering to the middle class, but also subsidising some services for the poor. True socially based NGOs serve only a minority of consumers.

Linking trends in health status with trends in services

Intuitively, it is felt that the dramatic increase in access to health services, including preventive programs such as immunisation, has played a role in the reduction of mortality rates in Indonesia over recent decades. However, there have been very few studies of the impact of specific health programs on communities. Such studies are notoriously difficult to implement, and those which have been undertaken have been inconclusive (Berman 1989). One study has summarised Indonesian community-based health programs as having met their objectives in terms of equity and low cost—that is, they reach the poor better than clinic-based services—but not having met objectives in terms of quality and impact (Berman et al. 1988). More recently a study of health systems

in West Nusatenggara and East Kalimantan found that over the period from 1991 to 1993 both provinces had achieved a considerable expansion in services, but there was a decline in the availability of drugs and the cleanliness and quality of the facilities (Gertler et al. 1994:157-158).

Many observers feel that improvements in Indonesian health status are due less to health services than to general increases in the standard of living, including nutrition, but once again the data are insufficient to support the claim.

One potential explanatory factor in declining infant mortality rates has been the drop in fertility. The trend toward fewer births, and especially fewer births in higher risk categories associated with short birth intervals and mothers in the very young or older age groups, has been one of the most significant changes underlying infant mortality decline. This change has in turn been the result of a combination of factors, including widespread Indonesian social change as well as the increased availability of modern contraception through government and private channels.

Constraints and challenges of the Indonesian health system

Funding. Funding levels for health will be of prime importance to future improvements in the Indonesian health system, but even in a context of underfunding it is acknowledged that much could be done to utilise existing resources more efficiently. It is a disturbing irony that such a large portion of the allocated budget to the Department of Health should remain unspent due to bureaucratic inefficiency.

Personnel. The irony of an underspent health budget is matched perhaps only by the Health Ministry's inability to absorb large numbers of doctors and paramedical personnel trained during Repelita IV, due to budgetary constraints on hiring. The potential advantages of increases in trained health personnel are also tempered by the concentration of health personnel in areas which are less needy in terms of health conditions such as major cities. Although there have been improvements over the last decade in provincial distribution of health personnel, there have been reports of 'informal' reallocation away from rural health centres to hospital or urban posts, and it was also reported that in eleven provinces, more than one-fourth of health centres lack doctors (World Bank 1989, section IV).

In 1990 the Health Department attempted to come to grips with the problem of absorbing ever-increasing numbers of health workers in the public service bureaucracy. On the one hand doctors were complaining about the obligations they had to serve in remote and difficult areas, in return for low salaries. On the other hand, they continued to want the security of 'lifetime tenure' and an eventual pension, as well as the established guarantees of advancement, inherent in a public service job. The answer was a reform by which medical graduates would no longer be obligated to join the public service, but they would be encouraged to take 'temporary' service posts in *Puskesmas*, with the salary being determined by the degree of isolation and difficulty they faced.

Originally the 'market' was meant to determine the salary, but eventually a 'semi-negotiable' package was mandated to ensure fairness across the system, and to prevent extreme levels of salary in either direction.

The first group of 924 doctors to be recruited under the scheme were placed in February 1992, with 38 per cent in 'average' areas, 39 per cent in isolated areas and 23 per cent in very isolated areas. In July and October of the same year further placements of 864 and 597 graduates took place, with the balance shifting from very isolated to average areas. By the sixth recruitment in late 1993, only 5 per cent were being placed in very isolated areas, and nearly three-quarters going to average areas. Though it might be assumed that the isolated areas would have a large, if not growing, demand for skilled personnel, this is not always the case. Following the initial placements, which are for three year terms, local officials reported that the basic personnel needs were satisfied, and further placements should be directed to the 'average' areas with more dense populations and varied health service needs. These 'locally informed' decisions became more important after the end of 1993 when the responsibility for placement and administration of pay were shifted from the central office to the provincial offices of the Department of Health. Decentralisation meant closer and more relevant administration. The temporary contract doctors found that their performance was closely monitored by the *kabupaten* doctor, who submitted a quarterly report on each doctor under his or her responsibility. At the end of their three year contract (which is not renewable) the contract doctors relied on good letters of recommendation to apply for permanent positions in the public service, or specialist training programs in universities.

The dramatic growth in the numbers of *Posyandu* has raised problems of the capacity of *Puskesmas* staff to support an increased level of activities over a large geographic area. As indicated, *Puskesmas* often already suffer from understaffing; they also have problems with inadequate transport facilities and multiple demands on their time. Other problems include inadequate training of personnel—both basic training and inservice training—as well as low worker productivity. The Department of Health is placing greater emphasis on these areas under the current *Repelita*.

Quality control. Mechanisms for evaluating the quality of services are largely lacking, though indications are that at every level serious problems exist. Efforts are being made to improve quality in the hospital sector in particular. Current discussions about an expanded role for the private sector in health provision in Indonesia will need to include attention to effective quality control mechanisms for private hospitals and practitioners.

Quality control of village-level programs is a difficult area but one which needs increased attention. There are indications that the child-weighing program in some areas is an example of 'form without substance': children are weighed and the figures recorded, but the necessary accompanying interpretation, advice and intervention are lacking. In one study, only 21 per cent of mothers received any feedback at all from cadres on the growth of their

children (Berman 1989:20). There have been supply problems for packets of oral rehydration salts, since the program in the past has relied largely on these, rather than on instruction in home-prepared solution. This is an example of providing 'services' and depending on outside resources, rather than promoting a viable self-help alternative. Moreover studies of immunisation show that the cold chains reaching out from *Puskemas* to isolated *Posyandu* are often 'brittle' with vaccines being packed in wet leaves in an effort to keep them cool in the absence of ice or cold-paks, and half used vials of vaccine being kept in workers homes overnight before returning them the next day or so to the clinic for re-refridgeration. These examples highlight the joint need of staff training, and equipment provision, to maintain activities at an acceptable standard of medical practice.

Community participation. Although the Indonesian health system has been hailed as a good example of mobilising the community in health service delivery, it is far from being an example of real community management. The key health volunteers at the village-level health post are members of the national women's movement, the *PKK*. The organisation could perhaps more correctly be called a quasi-government organisation, rather than a voluntary group. It is a hierarchical organisation headed by the wife of the Minister of Home Affairs, in which each descending level is generally headed by the wife of the corresponding senior government official. The emphasis of the organisation (as is also true of the government) is on uniformity and uniforms, rather than innovation and autonomy.

The *PKK* are formed into 'motivating teams' which supervise health cadres. They also recruit women for immunisation campaigns, for family planning, and so on. Although it does result in extension of services and it has the potential to be responsive to special community needs depending on individuals involved, in overall design it remains an example of a 'top down' approach to health development, and raises questions about its overall sustainability (Koesoebjono-Sarwono 1993). Cadre selection may be made through connections with the village elite, or under pressure from the *PKK*. Cadre training is only of one week's duration, making it difficult for them to master even the technical aspects of their work, much less communication, counselling and teaching skills. There is a high discontinuation rate. The cadres and *PKK* workers participate, but they are tools rather than decision-makers in the health system.

Achieving genuine community participation would require fundamental attitude change on the part of health administrators, clinical staff, and local government, and extensive training in methods of community organisation. In many ways it would require a change of political ideology to give reality to health policy rhetoric.

Utilisation rates. One final irony in the Indonesian health system is that despite the perceived need for continued expansion of facilities and personnel to meet the health problems of the nation, the current system remains underutilised,

particularly by poor and isolated citizens. One hypothesis is that this is related to economic factors as well as the low quality of services (GOI-UNICEF 1984:100-108). Efforts to be more responsive to local needs and situations may assist; recently a *Posyandu* in eastern Indonesia achieved dramatic increases in attendance rates by changing the time of operation from the morning to the evening. Dedicated *Puskemas* staff gave up their evening private practice, a main source of income for most clinic staff, on several evenings per month to assist in this change.

Changing health problems. One of the most difficult challenges for the Indonesian health system will be to adapt to evolving health problems. These are occurring at both ends of the health scale. On the one hand, diseases of modernisation will require health promotion efforts, carried out at a community level. On the other hand, as infectious diseases in childhood are brought under control, further declines in infant mortality will rest increasingly on the control of perinatal causes of death. There is still very limited antenatal care in Indonesia; UNICEF (1989:50) reports that only a third of women have been examined at least four times during pregnancy. And interventions need to be made long before pregnancy, for perinatal deaths also reflect long-term nutritional deprivation and health problems of the mother.

Overall, the Indonesian health system is characterised by underfunding, compounded by disproportionate spending on curative care and problems of administrative inefficiency and quality. Although the health system's budget will depend largely on Indonesia's economic growth, much could still be done within the existing structure to improve impact. Operational efficiency, better financial management, as well as improved information systems and applied research are all priorities which have been identified. Decentralisation of planning, and resource allocation which is more responsive to local needs, will assist in meeting health objectives. But even more fundamental change, involving devolution of real power and resources to local levels, would be required if Indonesia is to match the rhetoric of *Alma Ata* with genuine community-based and community directed health planning and programs.

Vietnam: toward a more unequal union

Vietnam has had a poorer, more troubled past than Indonesia, but on almost all health indicators it is more successful. Many commentators have attributed this to its strong commitment to a primary health care strategy.

Recently the Vietnamese government has made a number of important changes: shifting the basis of financing clinics, instituting fees for service, allowing private practice, opening the markets for imported medicine and welcoming expanded foreign assistance for training and equipment. A major question is whether these decisions will help or hinder the health care system.

Vietnamese health status and trends

Data on health indicators over recent years is much less readily available in Vietnam than other South East Asian countries, with major sources being the 1989 census, reports of specific Ministry of Health programs and ad hoc studies of communes and small regional health systems. With the assistance of UN organisations in particular, health data on Vietnam is becoming more accessible outside the country. Nevertheless, the quality of the data is often questionable and must be interpreted with caution.

Mortality

The 1989 Census Steering Committee estimated an infant mortality rate of around 45–50; the UNDP puts the figure for 1992 somewhat lower at 37, while UNICEF considers that a rate of around 60 should be considered for national planning purposes (UNICEF 1990). Some small-scale studies have found very low rates, though People's Committee leaders in remote mountainous regions report rates of up to 150 per thousand. The census does indicate regional differences, with higher mortality in the north. Unfortunately, comparisons over time are inhibited by the differing census methodologies used in 1979 and 1989. Under five mortality rates have been estimated at 108 for 1987 and 98 for 1988; UNDP estimates are somewhat lower at 88 for 1988 and 50 for 1993.

Data on maternal mortality are scarce, though the Ministry of Health's estimates are around 1.4 per 1000 deliveries (or about 140 per 100,000 live births) for 1988. The difficulty of validating estimates are highlighted by the 1994 Human Development Report which gives a MMR of 400 per 100,000 births in 1988. Although official figures for births attended by health personnel are very high (UNDP estimates are 90 per cent; UNICEF report Ministry of Health figures between 80–90 per cent), a Women's Health Survey conducted in 1989 found that traditional birth attendants or relatives delivered around 25 per cent of births, and several sources indicated about 50 per cent of all births still occur at home (UNICEF 1990:165). Reported trends from a common data source indicates maternal mortality falling from 2.0 in 1980 to 1.1 in 1990.

Causes of mortality and morbidity

Data on causes of death are collected from hospitals and official Ministry of Health statistics are not disaggregated by age and sex. These figures show that infectious diseases account for most deaths, with tuberculosis, malaria and diarrhoeal disease being the leading causes. Heart disease, however, is also a significant cause of death, ranking fourth overall. The major causes of morbidity are malaria, diarrhoeal disease, and respiratory infections.

Recent data from Ministry of Health indicate that morbidity rates for diphtheria, pertussis, polio and measles have declined over the 1980s, but tetanus has shown recent increases (UNICEF 1990:74). Neonatal tetanus in particular is a major problem. Comparative regional figures on morbidity rates of the major immunisable diseases indicate that despite progress of its EPI program, Vietnam's rates are quite high in comparison with other countries,

with tetanus and pertussis showing particularly high rates. The rate of polio in Vietnam is more than twice the rate in Indonesia (Table 1). Malaria remains a major cause of morbidity and mortality.

Nutrition indicators

In 1990 more than 40 per cent of children in Vietnam were more than two standard deviations below the normal weight for age, compared to an estimate of 55 per cent in 1975. Stunting or chronic malnutrition, reflected in height for age, affects more than half of all Vietnamese children between ages one and five. In addition, about one-third of children are estimated to be suffering from iron deficiency, and in the mountainous regions the proportion reaches two-thirds. Vitamin A deficiency and iodine deficiency disorders are also serious nutritional problems (UNICEF 1990).

Surveys of children from birth to age 5 undertaken by the National Institute of Nutrition over the course of the 1980s showed that the proportion of children who were malnourished fell between the early and the mid-1980s, but then rose slightly in the period between 1987 and 1989. Explanations for this pattern are hard to confirm, because differences in survey methodology and sampling variations could account for some, or even all of the observed reversal. At the same time the economic difficulties experienced by the country in the late 1980s might have had an impact on overall infant and child nutrition, though this possibility stands in contrast to the fact that 1989 saw Vietnam become the third largest exporter of rice in the world. 1988 and 1989 also saw a major upsurge in malaria cases, which can have an impact on the nutritional status of survivors of infections.

Vietnamese health policy

The main elements of Vietnamese health policy are those emphasised by the Alma-Ata declaration, but the foundations were set much earlier, in 1954, when the health plan for the Democratic Republic of Vietnam was outlined. It stressed prevention, the integration of traditional medicine, self-reliance, and community-based organisation (Djukanovic 1978: 104-6; Ladinsky and Levine 1985:259-60).

The health policy framed for the 1986-90 national plan places emphasis on prevention and control of infectious disease, strengthening of grassroots level health services, reduction of population growth, self-sufficiency in essential drugs, promotion of traditional medicine, and improvement of environmental sanitation and access to safe water.

In 1988 Vietnam promulgated a law on family planning to strengthen efforts in this area. It is based primarily on population control rather than health objectives, and includes a system of incentives, including the allocation of housing based on adherence to the government's stated goal of two children per family. This message has been repeatedly stressed by high government officials, including General Secretary Do Muoi in his address to the Fourth Party Plenum in January, 1993, which warned of the dire consequences of

failing to control population growth, and called on party members to play an 'enforcement' role in the program.

A law for the Protection of Public Health (Vietnam MOH 1991) was adopted in 1989, reviewing the rights and obligations of the State and citizens. At around the same time steps were taken to introduce fees for some services, and the government revised regulations to allow private sector involvement in general practice and in pharmacies. In his 1993 Do Muoi referred to the 'degradation' of the public health sector, which, he said, was due to the government's failure to invest in the sector, and the consequent actions of clinics and hospitals to use 'devious' market economy concepts to deal with their financial problems.

In 1989 the government announced a series of decisions which substantially altered the structure and functioning of the health care delivery system. First, in April national, provincial and district health services were changed to a fee for service system, with the fees to be substantially subsidised, and in some cases waved. Second, medical practitioners were allowed to open private practices in both urban and rural areas on either a part time or a full time basis. This meant that medical personnel in administrative jobs during the day could hold evening clinic hours, and it also meant that staff of commune clinics could give services in the evening for a fee. Previous restraints on traditional practitioners were also loosened, and they were allowed to open full-fee practices including the sale of traditional herbal medications. Third, the pharmaceutical industry was allowed to negotiate contracts for supply of modern medicines directly with hospitals and clinics, who in turn were allowed to sell a variety of medicines directly or through small agencies set up under the health service centres.

These decisions were not taken in isolation, nor out of particular concern with the health care delivery system. Rather, they were part of the whole pattern of 'renovation' (*doi moi*) carried out by the government throughout the 1980s. They follow Directive Number 10 of the Political Bureau (April 5, 1988) which formalised the decollectivisation of agriculture and the establishment of a contract system which reformed both land tenure and government financing (Le Hong Phuc 1990:32-33). Under Directive 10 agricultural taxes are to be paid in cash, rather than as a portion of the harvest. The effect of such measures was to further monetise the rural economy, but it also gives rise to hardship for farmers if the assessment procedures do not accord with realistic market prices for the amount and quality of produce sold. Some observers have also noted the problem of growing arrears in tax payments as a burden on the attempt to rationalise government financing (Fumi Idei 1990: 84-91).

As will be discussed below, in Vietnam the concept of decentralised decision-making in health was much more a reality than is the case in Indonesia. However, local control of the health centres before 1989 was in the hands of the People's Committees which can—and often do—direct scarce resources to priorities other than health. As a result clinics can be underfunded and staff demoralised, despite the apparent 'local control'. Since 1989 the People's Committees have been forced to respond to the new national system,

and they have done so in a number of sometimes contradictory ways. In Danang the Provincial People's Committee refused to introduce fees for service in 1989, arguing that the people had fought and suffered through years of revolution to guarantee free education and health care, and they should have this benefit. Ultimately such defiance was difficult to sustain as local government leaders felt the need to raise funds to pay for health care, and saw fees as a convenient tool.

Vietnamese health expenditure

The central government budget provides the source for all health personnel salaries at central and provincial levels, as well as a portion of those at the district level. The proportion of the national budget allocated to health in 1989 was 3.3 per cent, an increase from 2.1 per cent in the mid 1980s.

Provinces provide a significant proportion of health funds, and the local People's Committees provide all commune level, and part of district level, salaries. In contrast to Indonesia, in 1987 the central government budget of 1.8 billion dong was matched by provincial budgets of 13 billion dong. It is estimated that about 90 per cent of total health related expenditure is made at the central, provincial and district levels, leaving only 10 per cent as direct health expenditure on public facilities at the commune level.

Foreign donors contributed an average of about US\$20 million annually to health programs in Vietnam prior to 1990, and this was expected to rise to about US\$30 million over the subsequent few years. These contributions represent about 15 per cent of health expenditures, and just over 20 per cent of family planning expenditures in 1990.

It has been estimated that commune-level contributions account for about 10–20 per cent of the total government health budget. At the community level, the people themselves construct their local health centre as well as paying most staff salaries and purchasing drugs from government and, recently, from private sources. A major change of health expenditure policy occurred in 1989, when it was decided that, in principle, users should pay for health services and drugs, and that private doctors and pharmacists should be allowed to practice. Disadvantaged groups and civil and military personnel are exempt from government fees. Like Indonesia, the government of Vietnam has been considering the extension of a health insurance scheme and further privatisation.

The health system: decentralisation in practice

As is apparent from the expenditure profile just reviewed, the Vietnamese health system is highly decentralised, fitting into the context of a socialist structure based on People's Committees and various Party and other mass organisations, from the centre to the village level. Whereas in Indonesia the centralised mechanisms of finance and planning have resulted in a health care system which is in some ways overly 'uniform' in the face of a heterogeneous society, in Vietnam the decentralised finance is matched by a hierarchical consistency in planning, with the result that even good ideas or procedures can

founder on lack of local support or funding. Even without this structural problem, it is very difficult to evaluate the impact of decentralisation because it naturally gives rise to a variety of experiences, not all of which are comparable. Thus we need first to consider the responsibilities of each level of organisation.

At the central level, the Ministry provides overall administration of the health system, as well as overseeing the training of health workers, the manufacture and distribution of pharmaceuticals, and medical research. An interesting feature of the central level is the importance of specialty institutes which are responsible for professional training and research; which serve as tertiary care referral centres; and which provide professional direction to health care at all levels. These include institutes in areas such as Protection of Mothers and Newborn, Hygiene and Epidemiology, Traditional Medicine, Paediatrics, Tuberculosis, and others (see Figure 2).

At the provincial level, the Health Services Department coordinates a series of largely vertical programs in the treatment and prevention of malaria, tuberculosis, trachoma, leprosy and other diseases, including laboratory support. Pharmaceutical production, largely of traditional medicines, is conducted at this level. The province plays a major role in paramedical training.

The district hospitals form the focus of health services at this level, providing both curative services as well as a base for mobile teams in infectious disease, family planning, immunisation, and village water testing services. As Figure 2 shows, the organisational self-concept of the Vietnamese health care system is one of strong specialisations at each of the higher levels, linked through a central trunk structure to activities ultimately carried out at the commune level.

The commune or village-level health station is the main point of primary care. It provides health education as well as basic health care, and simple surgery. Normal deliveries attended by midwives take place here while high-risk deliveries are referred to district hospitals. The village-level stations are staffed by assistant doctors, midwives, nurses, and sometimes a pharmacist and traditional physician. Each production brigade or village hamlet should have a primary nurse who coordinates home care, carries out simple diagnosis and treatment and follow-up care, and acts as a liaison for mobile health teams and the health station. The nurse also supervises a team of part-time volunteer health workers ('Red Cross' workers) who are meant to play a role in environmental health, and provide health education and simple home care.

The impact of economic reform on the workings of this system was demonstrated in the Dien Hong Commune in the Danang area of Central Vietnam studied by the Institute of Sociology in the early 1990s. Following guidance from the provincial government, the Commune restructured the financing of the local clinic in 1989, with the establishment of a 'revolving fund' which was to be refreshed by fees for clinic visits. In January, 1990 doctors and midwives were allowed to open private practices. Average patient numbers at the clinic plummeted, from over 600 per month during 1989 to 380 per month

Figure 2 Organisation of health services delivery, Vietnam, 1989

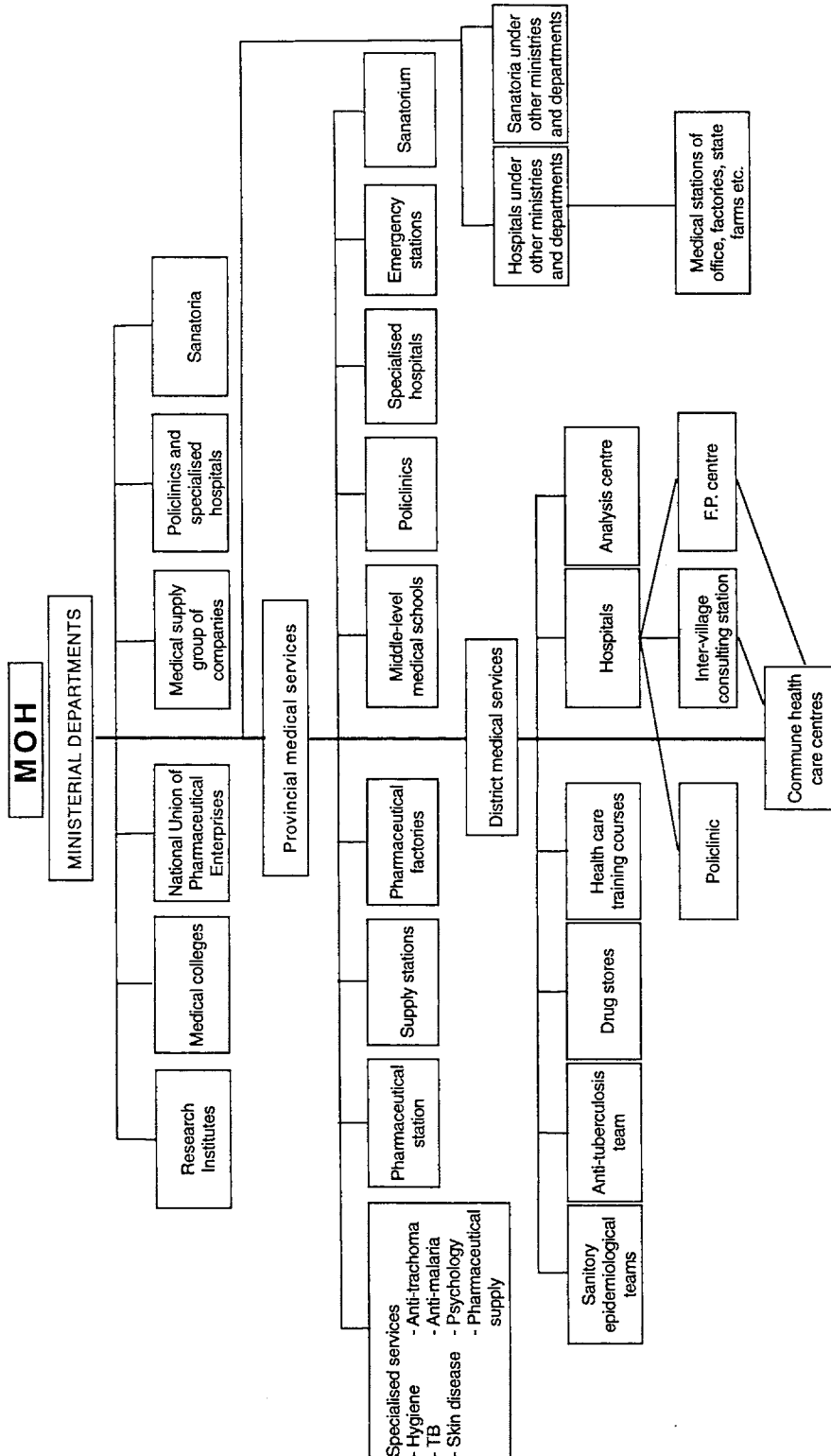


Table 4
Health infrastructure by level, Vietnam, 1989

Central/Provincial	82	General hospitals
	92	Specialised hospitals
		Specialised institutes/Medical schools
District	505	Hospitals (including polyclinics 'Preventive Health Care Centres'
District/Intercommune	676	Polyclinics
Commune	9383	Health centres

Source: UNICEF 1990:96-7.

between February and December, 1990. In response to this threat to their financial viability the clinic staff approached the People's Committee, and obtained permission to change their practices, to remain competitive. In April 1990 examination fees were dropped in favour of charges for medications. The revolving fund capital was used to buy imported drugs in the city for resale through the clinic and small 'agency pharmacies' run by the clinic. Finally, efforts were made to win back patients by stressing the superior skill of the clinic staff, and the convenience of longer opening hours. In 1991 the average patient numbers had recovered to just over 420 per month, and clinic staff were confident that they would be able to maintain their operation, and support the ten staff members on the books.

Of course, public sector staff are not totally committed to a struggle against private sector competition, because they or their close friends are involved in running private clinics after normal working hours. To a certain degree they benefit from the development of a 'two-tiered' system, serving the poor in the morning, and thus gaining a salary, access to land, and the promise of a pension, and serving the relatively well-to-do in the afternoon for lucrative fee income. The nature of the service is different, with morning patients waiting longer, or being encouraged to use cheaper medicines. The greater difference though is in the shift from a 'preventive' to a 'curative' emphasis in treatment related to the transformation of pharmaceutical sales as a major revenue earner.

The impact of restructuring was not limited to modern medicines and services. Traditional healers sprang up in the wake of privatisation, touting their own 'special' mixes, and they sold both traditional and modern preparations, often in expensive 'cocktails' of dubious therapeutic value. Deregulation in this context meant a suspension of protections as well as the suspension of control, and the public fell victim to a wide variety of over-medication.

Change and challenge in the Vietnamese health system

The decentralised structure of the health system in Vietnam meant that programs could be better tailored to local needs and situations, and could achieve a measure of self-sufficiency. However, the system was largely dependent on provincial level funding for staff salaries, and further dependent on more localised resources for buildings and equipment. Ladinsky and Levine (1985) have noted that the quality and quantity of services tends to be a function of the economic and political well-being of the province, district or village, without a means of redressing inequities. There are often problems of defining responsibility for carrying out policies and performing technical activities, to the point where in some cases 'no one is sure who is in charge' (Ladinsky and Levine 1985: 265). When 'economic reforms' are introduced into such a system, they give rise to rapid changes in operating procedures as clinic and local government staff develop various means of charging fees for service, private clinics and pharmacies, promotion of 'better' drugs and services, and limits on the availability of subsidised services.

Conclusion: primary health care dilemmas of economic reform

Indonesia and Vietnam have both embarked on paths of economic reform which include the opening up of the health care sector to private practices and the introduction of some elements of user-pays principles. At the same time both countries maintain ideological philosophies which guarantee 'health' to all citizens, and imply that people unable to afford services would have a right to socially provided resources.

In Indonesia the current gross inequity between provinces means that some regions would remain disadvantaged if policies promoting decentralisation and privatisation are not offset by some system of centrally managed subsidies to promote equity. It is made worse by regressive central funding to provinces which aggravates instead of ameliorates inequities. Similarly, in Vietnam the mechanism for ameliorating inequities through the inter-provincial transfer of resources is handicapped by the lack of central power to mobilise resources.

Though based in very different economic systems, the impact of economic reforms in each setting is directed to move the structure of health care financing from a 'tax and spend' to a 'charge and invest' model, and in both the problems of making this shift are exacerbated by conflicts among different layers and lines of governmental organisation. If the mixed goals of equity, efficiency, coverage and effectiveness are to be addressed by health care systems, much more thought will need to be directed to finding more appropriate balances between public and private, and central and local interests in the financing and management of preventive and curative services. This is a question now being pursued in the internal political debates in each country, as well as in their separate dialogues with the World Bank and other foreign donors. The resolutions they are developing are venturing far beyond the territories of

'Primary Health Care' codified in Alma Ata, in the national designs of the 1960s and 1970s, or in the rhetoric of public health. However it is yet premature to talk of this as a new paradigm, until its form is clearer, and its impact on health and survivorship is evident.

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regulation of women's fertility: perspectives from feminist & development theory

Kathy Robinson

the 'population problem' looms large in popular representations of Third World poverty. Popular discourse encompasses the notion of 'over-population' in which Third World poverty is largely attributed to unchecked population growth. Much of this thinking reflects the idea of 'spaceship earth' which developed in the 1960s. These ideas have been popularised and remain current, for example in the writings of Paul Ehrlich. In this latter-day version of Malthusian theory, high rates of population growth and population pressure are seen as a threat to the survival of our planet. The spectre of too many mouths too feed, and the consequent pressure on the world's resources ensures the issue a continued place in public debates.¹

In this model, blame is laid at the feet of the poor, for their own poverty and also for some of the conditions of environmental destruction, in particular the destruction of tropical rain forests. The discourse of 'overpopulation' obliterates the reality of the developed world as the major consumer of world resources and the structure of a global economy which ensures the resources of the Third World are exchanged on the world market at prices which do not threaten the global order. Population control through use of modern contraceptive devices is promoted as an important contribution to future Third World development. Salvation can be delivered through the adoption of modern, rational behaviour, including the utilisation of modern contraceptive techniques.

This concern with population growth is mirrored in the policies of Third World governments; almost all developing countries have some kind of policy to limit births. The most famous (or infamous) is China's One Child Policy, adopted to ensure that the benefits of economic development and consequent improvements in standard of living are not wiped out by unchecked population increase.²

1 For example, recent TV documentaries like *Dodging Doomsday*.

2 The BBC documentary *China's Child* put this neo-Malthusian argument most powerfully for Western consumption. Unlike many of the other contemporaneous documentaries on China, which 'worried' over issues of individual liberty, this film showed a highly intrusive state, but counters these images with a powerful plea for the good of the majority to prevail—the view which most accords with Western ideas. For further information on the One Child Family Policy see Croll (1985).

However, if we look at scholarly debates on the causes of, and remedies for, underdevelopment, population growth has not loomed so large as the independent variable responsible for Third World poverty. Recent public debates in Australia have focused on the question of whether population programs to reduce fertility are cost effective as poverty reduction strategies, but the evidence adduced has been in the nature of statistical relations between measures of fertility and measures of rates of economic growth (taken as a surrogate for development) (Robinson 1994). In terms of academic debates attempting to theorise the observed fact of the exponential increase in rates of population growth in most of the developing world since World War II, the understanding of the reasons for that growth and the consequent strategies for reduction in growth have been the province of demography.

The demographers' principal theory has been that of Demographic Transition. For most of human history, human beings have lived in societies characterised by high fertility and high mortality. According to their theory, in a process which has been historically replicated all over the world, a period of transition from this 'natural fertility' regime begins with a decline in mortality, while fertility remains high. Mortality decline is commonly attributed to a removal of Malthusian checks on population growth through colonial policies which saw the end of warfare, control of famines, and improvements in public health.³ This leads to an exponential growth in what had previously been a stable population, and accounts for the 'overpopulation' which we see in the poor countries of the world today. In the final stage of the transition, fertility declines to match the decline in mortality, leading to a new relatively stable rate of population growth, but with a dramatically increased population.

Demographic Transition Theory, although having the appearance of a general law, is no more than a descriptive generalisation, based on observed facts of historical development of Western industrial society. The theory assumes that the underlying mechanism of transition will be the same the world over, the experience of the developed countries being replicated in the Third World. Thus, the structure of the argument has the same form as modernisation theory in assuming the nations of the world are destined to experience the same processes of evolutionary transformation towards a common goal.

The value of this approach is that it alerts us to the fact that something is going on, that the process loosely called 'development' (which is almost always the consequence of incorporation into the global economy (see Robinson 1986 Ch. 1)) has transformations in the nature of population growth. But can we assume that the reasons for fertility growth and decline are always the same in all historical cases? Much of the debate in the context of European history has focused on the reasons for declining mortality. Is it a result of the growing technological mastery associated with the development of capitalist rationality? McKeon (1976), for example, has argued that mortality decline in

3 See for example R Woods (1982) *Theoretical Population Geography*, ch 5, for a discussion of Demographic Transition Theory.

nineteenth century Britain was primarily due to improved nutrition, not to technical know-how (such as vaccination against infectious diseases). Other studies have challenged the view that rapid population growth (the cause of 'overpopulation') is necessarily a consequence of reduced mortality. For example, Paul Alexander (1986) puts forward a compelling argument that the massive rise in population in nineteenth century Java was a consequence of increased fertility, rather than reduced mortality (his argument is looked at in greater detail below).⁴

Explanations of the 'population problem' from demography have not been integrated with general theories of the origins of Third World poverty. To the extent that Demographic Transition Theory addresses human intentionality, it mirrors the assumptions of development economics in the 1950s and 1960s (still evident in the practice of development), based on an ideal typical representation of so-called 'traditional societies'.

In this paradigm, the root causes of poverty and economic backwardness are lack of capital and technical know-how, which can be overcome by infusions of these from the developed countries. In addition these societies were seen to be static due to an attitude of mind, traditional thinking, which prevented people from acting dynamically and made them resistant to any form of change. Large families are a sign of the lack of economic rationality which is the basic cause of poverty. The assumption is that high fertility must be disadvantageous to individual families, so that high rates of population growth are a consequence of irrational behaviour on the part of peasants in the Third World, outmoded clinging to old behaviours with no functional utility in the modern world. In development discourse, the assumption is that as societies move towards economic systems based in industrial production, fertility will decline. It is further assumed that fertility decline is another gift of 'modernity' to the world: modern contraceptives can provide a mechanism for rational control of human fertility. Hence, government programs of distribution of modern technical contraception are a crucial aspect of planned development in most developing countries.

The assumption that Third World poverty is an aspect of tradition, a consequence of traditional (non-rational) thinking, has been challenged by radical critiques of the direction of development planning in the Third World. The main problem is seen as one of maldistribution of the world's resources, not as an impending absolute shortage due to too many mouths to feed, as a consequence of intransigent irrationality. These radical theories locate the origins of current-day poverty in transformations of economic and social

4 The Javanese case was brought to prominence in the now classic work of Clifford Geertz in *Agricultural Involution*, which endeavoured to address the conundrum that population had begun to increase in Java in the 1830s, some 100 years before the rest of South East Asia. Geertz was more interested in the cultural mechanisms elaborated in response to increased population; for the underlying reasons for the change, he fell back on the arguments about removal of Malthusian checks, but these assumptions have not stood up to more careful scrutiny of the historical records (see Alexander and Alexander 1980).

structures of Third World societies in the high age of European colonial expansion, and see the perpetuation of that poverty as a consequence of the continued reproduction of those exploitative social and political structures in the contemporary world economy (see Larrain 1989 for a review of theories of development).

The radical approach attempts to understand the structural bases of poverty, but fails to take into account the fact and timing of fertility decline noted in the history of developed and developing nations, a decline which has occurred irrespective of the availability of modern contraception (Caldwell 1982). The demographer Jack Caldwell says this is a general problem of theories of social change in the Third World. Caldwell's critique is concerned with 'conservative' theories of change, those sharing the assumptions of modernisation theory and neo-classical economics. The theories he reviews (all influential in the process of planned development in the newly independent states) either fail to take account of the onset of fertility decline altogether, or see it as an inevitable aspect of an evolutionary process of 'modernisation', a logical outcome of a particular kind of modern rationality (1982:302-5). The criticism can be just as readily directed at the radical critiques of these theories (for example, Frank 1969) as well as Marxist theories. These theories profess concern with the fundamental changes in social relations as a consequence of the capitalist transformation of pre-capitalist systems of production, which is the basis of development. However, in general they do not attend to the changes in human reproductive behaviour, a fundamental aspect of human social relations which is integrally bound up with relations of production. Indeed, Raymond Williams has commented:

It is very remarkable that if you look across the whole gamut of Marxism, the material-physical importance of the human reproductive process has been generally overlooked. Correct and necessary points have been made about the exploitation of women or the role of the family, but no major account of this whole area is available. Yet it is scarcely possible to doubt the absolute centrality of human reproduction and nurture and the unquestioned physicality of it (1979: 146-7).

While there has been some general theoretical discussion about reasons for changes in rates of population growth in prehistoric times, which relate the transformation to changes in systems of production (for example, Boserup 1965, 1981), the discussion about the 'population explosion' from the colonial and immediately postcolonial era is not generally discussed in these terms. 'There is no theory of fertility decline outside of demography' (Caldwell 1982:306).

Perhaps we can understand the failure of radical writers to engage with population growth as an issue as a reaction against the popular discourse of 'overpopulation' as the cause of poverty in the Third World, an eschewing of the notions of blame central to that discourse. Indeed, many Third World leaders (for example, Sukarno, Indonesia's founding President) have refused to see large and rapidly increasing populations as a problem. The real problem

as they see it is maldistribution of resources, on a national and international level. (This view was behind Third World calls for a New International Economic Order in the 1970s). Related to this is the view that improvements in social and economic well-being will create conditions for spontaneous fertility decline, rather than the view that fertility decline must precede economic growth, implied in the common practice of aid donors insisting on a national strategy for population control as a precondition of foreign aid.

The economic rationalism of the modernisation approach is still dominant in development practice. However, the assumption that high fertility is a sign of traditional peasant irrationality has been challenged by the work of Mamdani (1972) and others writing in the 'Value of Children' model. On the basis of empirical studies in Third World communities, these writers have shown that for individual peasant households, high fertility can confer an economic advantage, as children can contribute to household income from an early age. They also provide security in old age for people in societies which do not have state-sponsored provision for the aged. Although these critiques challenge assumptions of peasant irrationality which are central to the discourse of 'overpopulation', they still locate fertility within the province of decision-making of 'homo economicus'. The human subject is given more dignity than in the 'modernisation' paradigm, but that dignity is based on the 'discovery' of the rationality of their behaviour. An example of this is White's (1976) work on nineteenth century Java which elides the question of intentionality but increased fertility has the appearance of a creative solution by Javanese peasants to meet the increased demands on their labour from the Dutch colonial regime. Fertility and its regulation are not placed in a cultural context.

In a significant body of work, Caldwell has attempted to grapple more thoroughly with the reasons for fertility decline, and has developed the notion of 'intergenerational wealth flows'; reduced fertility comes about when the flow of resources across generations shows a net deficit downwards. He has tied much of this change to the introduction of education (see, for example, 1978, n.d). It still implies a rational calculus which does not seem to me to encompass our experience of how people (in our own and other cultures) make decisions about their fertility. The discussion of fertility decline is not linked to an understanding of the cultural construction of sexuality and fertility. Fertility and reproduction are highly culturally elaborated, usually more than practices surrounding production. In many societies, birth spacing has been achieved through control of sexuality-delayed marriage, abstention, non-coital sex and other practices which avoided impregnation. In many cases, modern contraceptives have substituted for traditional practices which spaced or limited births.

Alexander's (1986) discussion of population growth in nineteenth century Java provides us with a model explanation which incorporates the biological, the cultural, the political, and the economic. Going beyond the presumption of homo economicus in the Value of Children studies, he argues for a connection

between population growth and increased labour demands under the Cultivation System, the form of colonial exploitation in nineteenth century Java, with peasants being forced to grow cash crops in lieu of taxes, in addition to the production of food for subsistence. The response of peasant households was to rearrange household work schedules, so that infants were delivered more quickly into the hands of a caretaker which freed the mother to contribute her more productive adult labour to agricultural production. This interfered with breast feeding, which is still the most significant limit on fertility in the world (WHO/NRC 1983).⁵ His analysis suggests not that this is the universal reason for the 'population explosion' but that the causes of rapid population growth are, at least in some cases, related to fertility increase, not mortality decline. His analysis also gives us reason to think that the causes of rapid population growth may not be the same the world over. This an excellent case to reflect on the specificity of changes in population growth rates—in this case, a disruption of the social and cultural mechanisms which surround fertility regulation. Human fertility is not just a biological fact but is highly culturally elaborated. This case study shows that the connections between changes in production and reproduction are mediated in subtle ways.

In order to understand why capitalist development is usually accompanied by changes in rates of population growth we need more complex ways to integrate the biological, social, economic and cultural factors surrounding fertility and reproduction. Also, we need to be more suspicious of historical 'meta-narratives' which assume commonality of historical transformation and attend more to the local responses, conditioned by particular social, economic and cultural configurations, to the overarching processes of capitalist transformation.

Government campaigns to regulate human fertility tend to be directed at women.⁶ However, issues of population, fertility and its regulation are not at the centre of Women in Development debates. Looking at the classic texts, Boserup (1970) (surprisingly, given that her earlier work is about population) does not give fertility and population issues central place in her formulation of the effects of development on women. She gives primacy to the economic forces unleashed by colonial and neo-colonial domination. Rogers book (1980), ten years later, makes even less of fertility and population issues. The rhetoric surrounding International Women's Year and the International Decade similarly foregrounded the economic issues of women's work force participation. The 1975 Conference, for example relegated population to specific and dedicated sessions. That the development process which marginalises women also has historically been associated with increased population growth is not taken on

5 The inroads of modern contraceptives have often gone hand-in-hand with the marketing of another modern product: infant formulas which have effects on women's fertility.

6 Even though women cannot procreate alone, most contraceptives are for female use and government programs target women. For example, in the Indonesian program, the targets are identified as PUS, fertile married couples, but in the everyday discourse of family planning workers, women are referred to by the acronym, PUS.

board as central to the argument of the Women in Development theorists.⁷ That is, the development process is seen to marginalise women, but the question of changing fertility and/or mortality as part of the development process is not raised in the theoretical debates about the gender specific effects of development.

This 'sidelining' of the issue of fertility is at odds with the trends of western feminist debates of the same period (1970s) which were centrally concerned with the issue of women's fertility as fundamental to understanding the social position of women. Indeed, several theorists (in particular, Shulamith Firestone (1970)) identified women's role in reproduction as *the* cause of women's oppression. In a similar vein, Mary O'Brien (1981) saw 'the contraceptive revolution' as the principle change heralding the possibilities for female revolution.

In an illuminating article, Bandarage (1984) has characterised the 'streams' of Women in Development debates. The Women in Development (WID) paradigm attempts to identify links between the process of development and women's changing (usually worsening) social position. Within the liberal feminist critique (where Bandarage locates Boserup (1970), Rogers (1980) and the activities surrounding International Women's Year) there is not a critique of the development process per se, and the nature of the economic reordering it engenders but rather a criticism that women are confined to the domestic sphere as a consequence of development, and are not participating in the public sphere as equals of men. Strategies for change focus on increasing women's economic participation, overcoming their marginalisation.

Contemporary debates and policy prescriptions often link women's status and family planning (see, for example, the Bruntland report (WCED 1987)) but the interest arises because of correlations between factors such as women's education and literacy and fertility, isolated from the broader Women in Development debates, the analysis of the development process and the way in which it affects women. This gives an instrumentalist edge to policy initiatives concerning women: the value of literacy programmes, etc., depends on the argument of the contribution they can make to fertility decline, not their inherent value in enhancing the quality of women's lives.

Socialist feminist critiques of development take more issue with the assumption that a better deal for women is simply one of redistribution of benefits: they want to argue that processes of capitalist development fundamentally transform gender relations as part of the process of refashioning exploitative relations on a capitalist model. Both of these models are economistic in their orientation and modes of explanation, as Bandarage (1984) points out, and fail to take account of cultural aspects of gender relations. To the extent that women's fertility is taken into account in these models, it is as an aspect of women's social contribution. The solutions to women's disadvantage in the development process are sought by economic means. Problems of Third World societies, and women's particular disadvantage, are

7 If we look at the contents of major texts, they are silent on the issue of population (paralleling the Marxist development critiques).

related overwhelmingly to economic factors. Like the mainstream development theories which they critique, these theories don't address fertility (and its regulation) as fundamental to the discursive practices of gender.

The major Women in Development debates reflect the assumptions of the broader development debates and hence have failed to focus on population. But given that Women in Development debates have often been debates in western feminism, the omission needs further scrutiny. Second Wave feminism has been centrally concerned with women's reproductive capacities, and their association with the 'private' realm of the family as fundamental to women's oppression. Beginning with de Beauvoir (1953), western feminists have been ambivalent about woman's connection with biological reproduction. For Firestone (1971), technological interventions in reproduction promised female liberation. For Mary O'Brien (1981) (one of the only Second Wave works dealing exclusively with reproduction) the widespread availability of modern technical contraception is the key to women's liberation.

Western feminist theory has tended to privilege patriarchy as the mode of analysis which will reveal the sources of women's oppression. There has been a hostility to the family as a prime location of patriarchal oppression (see Curthoys 1988). In elaborating the connections between the family and women's oppression, feminist theorists employed the distinction between public and private realms as being a fundamental social distinction onto which gender differences are inscribed. Hence, the family, the quintessential private sphere, the prime site of women's oppression has been subjected to approbation. Hence the strategies of the WID debates: just as the entry of women into the workforce has been seen as the essential pre-condition for women's liberation (as, for example, was proclaimed on IWY posters) in the case of Third World women it is assumed they must be restored to a central role in production. Income generating projects were taken up as a key strategy to achieve this. This reinforces an assumption of the greater social value of the public sphere, with its implicit devaluing of women's reproductive capacities and women's social role in bearing and raising children.

Ironically, as the pattern of sex segregation of the work force has changed in the Third World with new patterns of export-oriented light industrialisation which preferentially employ young women, we can question the assumption that the way forward for Third World women is for employment in the 'public' sector. For example, in Java, young women work for less than a living wage because they still live with their families. The fact that the families are 'subsidising' their wage is balanced for those households by the fact that they gain a regular cash income which enables them to meet certain kinds of regular expenses (Wolf 1984).

This example underscores the issues underlying one of the principle areas of disagreement between First and Third World feminists. For women living in the developing world, the argument that they should privilege their oppression as women, by men as a group, over the forms of oppression arising in the inequalities of the world market does not accord with their lived experience. A number of Third World writers:

maintain that Eurocentric, capitalist perspectives of Third World gender relations can be irrelevant and misleading as they seldom allow for the realities of household adaption to change, or the ways in which gender roles and relations are perceived and negotiated in Third World societies (Thomas and Skeat 1990).

Negativity towards the family has been one of the key elements in tensions between First and Third World feminists. Third World women don't necessarily share the negativity. Indeed in the context of global imperialism and poverty, the family has been lauded as a site for the salvation of humanised values (Caulfield 1974).

Childbearing and rearing have particular negative valuations in our own anti-child society. We cannot assume (as, for example, Chodorow 1978, does) that this is universal. Parenting is given high social value, and is important to attaining full 'personhood' in many societies.⁸

In the area of sexuality, western feminists also have a different agenda: ideas of sexual freedom which have historical roots in western individualism. This agenda reflects the influence of the New Left, out of which Second Wave feminism grew. For western feminists, limiting fertility is an important cornerstone of our strategy, a basis for individual liberation. Second Wave feminism has seen modern technical contraception as a significant basis for social change (see, for example, O'Brien, 1981). However, the use of modern contraceptives is not simply an aspect of personal liberation in the modernising world; most contraceptives are distributed through state sponsored programs, and so the involvement in these programs provides opportunities for surveillance and control. (China's One Child Policy well exemplifies this, but in all modern contraception there is the shadow of discipline through efficiency of the body).

O'Brien's (1981) work contains an assumption that the technology of birth control can be studied as an independent variable, divorced from its social context. When this assumption is translated to a Third World context, it fails to take account of the conditions under which contraceptives are made available. Here in an affluent society with a free market economy (and in Australia where some methods are available at rates subsidised by the state) women have a choice. Further, in a country like Australia, there is no moral pressure for women to limit their fertility. Indeed the overall thrust of government policy is pro-natalist. There is some state support for single mothers, and rewards for fertility in the form of family allowance, which increases with subsequent children for fertility.

In developing countries, for most people and particularly the poor, contraceptives are available as part of a state program, distributed in the context of anti-natalist propaganda. These countries are often forced to adopt programs for population control involving the mass distribution of

8 Indeed, the public debates around IVF programs in our own society leads one to question the simplicity of an assumption of a societal devaluing of parenting.

contraceptives, sometimes by foreign aid donors. Governments apply varying degree of moral pressure or even coercion for people to use contraceptives. At the very least, people are subject to propaganda linking fertility limitation to responsible personhood/citizenship. There have been reported cases of women (and men) being sterilised without their knowledge or consent, by governments intent on fertility regulation.

In many developing countries, state power is fragile and the idea of citizenship and loyalty to the state barely developed. In this context family-planning programs immediately provide a channel for the state into the most intimate areas of personal life, and in a general sense allow for the discipline and efficiency which Foucault has identified as integral to the 'exercise of social control of bodies in social space' (Turner 1991:157).

Modern technical contraception has not been an unequivocal advance for female autonomy in the Third World; rather, the delivery of modern contraception through state controlled programs has provided forms of state control, tied to the fashioning of a consciousness of national identity.

Indonesia has a family planning program which is regarded as one of the most successful in the world. In the case of the Indonesian mining community of Soroako (Sulawesi) capitalist development involved the establishment of wage labour relations which was accompanied by an enthusiastic embracing of modern contraception by the indigenous people.⁹ However it is clear in this community that the desire to reduce fertility is not indicative of a lesser valuing of children; children are still regarded as a precious gift. However the changed economic circumstances have had a profound effect on the ability of the household to make decisions about its fate. The dispossessed landholders could no longer control their access to productive resources (as they had in the past). These profound economic changes had their counterpart in changes in relations between men and women, in particular a greater identification of women with childrearing and housewifery. The combined effect of these changes is to transform the meanings of childbearing; women in individuated households with exclusive care of children for long hours feel harassed.¹⁰ In addition, the loss of economic autonomy challenges the assumptions of the long-term responsibilities of a parent: to provide a secure future for one's children. Hence there is the decision to space and limit the number of children (Robinson 1991).

9 The other areas of Indonesia where contraception has been enthusiastically embraced are Java and Bali, where the same kind of wholesale transformation to wage labour has not occurred. In these cases, the underlying reasons for the response must lie in particular features of the local adaptation to capitalist development: the cultural logics of parenting become transformed in an agrarian situation where parents can no longer provide for their children's basic needs through land, and where diminished subsistence sector can no longer provide economic niches for all members of rural households.

10 This tendency is exacerbated by another aspect of 'development': the trend towards universal education of children, which also denies women the customary support of older children for long periods of the day.

However, we also see in the case of Indonesia the use of state-sponsored Family Planning as an agent of disciplinary state power. The ideology of the ruling Golkar party rests on an ideology of familism, which the Family Planning Program has an important role in disseminating. In addition, the program involves a high degree of state surveillance of bodies and their reconstitution as bearers of a capitalist rationality and discipline: the notion that fertility should be under direct and conscious control, mediated by modern contraceptive technology, coupled with the idea that such fertility regulation is the moral duty of the citizen. The imperative to obey state directives, in a large nation with a new and (potentially) fragile state organisation, is brought into everyday personal life.

The changes observed in Soroako are different from what Alexander (1986) evinces as the scenario for Java, where he argues fertility increased due to changes in the organisation of production which interfered with breastfeeding regimes—a different kind of historical change. Cultural values provide the interpretive framework within which Soroakans address the issues affecting them. In particular, their response to the Family Planning Program is framed within their notion of responsibilities as a parent which is fundamental to their ideas of personhood.

Conclusion

In the development debates, the framing of the population question allows popular debates to proceed as if it's the poor who are the problem, rather than the rich, with their overutilisation of the world's resources. In current debates about sustainability, it is the poor living in the areas of the world with remaining rain forests who are being asked to forgo consumption, when one of the prime factors motivating their consumption are the imperatives of the global market. Third World discourses by contrast have focused on world trade and its role in reproducing inequality, for example the (apparently now defunct) demands for a New International Economic Order.

Liberal feminism (Bandarage 1984) has been the paradigm dominant in WID debates. It draws on many of the same assumptions as neo-classical economics, focussing on ways to deliver women a bigger 'share' of the cake. Solutions are seen as providing women with opportunities to relate to the market through initiatives such as employment creation and income generation. The discourses of Third World women do not always mirror these assumptions. Their definitions of selves are tied up with socially defined roles and responsibilities, as wives, mothers, sisters and daughters, rather than as exclusively 'economic women'. The family is not endorsed as their principal site of oppression, but can even be seen as the important haven from the ravages of development and as a site of resistance.

Population control programs in the Third World are the main means by which women gain access to modern contraception. These programs are based around ideas of national good, not individual good. Personal reasons for

desiring control of fertility are not legitimated. Fertility regulation is a cornerstone of modernist rationality in the nation state.

Rather than our theoretical understanding of population growth (and decline) assuming a single universal narrative, there is a need to integrate the understanding of fertility, social relations and broader social processes, to appreciate the different social and historical contexts of reproduction and reproductive behaviour. This involves a recognition of the dense cultural meanings surrounding these activities and attention to the way they are reformed, refashioned in the context of changing modes of exploitation.

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buddhism, health & development in Thailand from the reformist perspective of Dr Prawase Wasi

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the focus of this chapter is on the radical ideas of Dr Prawase Wasi in relation to the issues of health and development in Thailand. Dr Prawase is one of Thailand's best known doctors. He studied medicine in Thailand, the United States and England. He was appointed Professor of Medicine at Siriraj Hospital in 1976 and was Head of the Department of Medicine there between 1985 and 1987. In 1981 he won the prestigious Magsaysay Award for his research in haematology. He was Chairman of the Advisory Committee for Health Research, WHO, South East Asia between 1983 and 1987 (winning WHO awards for his work). He is currently Chairman of the National Epidemiology Board and the Thailand Health Research Institute, National Health Foundation, both non-government health organisations. In 1975 he founded the Folk Doctor Foundation (and is still Editor of the very popular Folk Doctor magazine) and the distinctively Buddhist Bare-Headed Doctor Scheme. In the 1980s he was, for a number of years, Chairman of the Coordinating Committee for Primary Health Care of Thai NGOs. He played a key role in the very successful anti-smoking campaign in Thailand which was launched in 1985 and peaked in the period 1988-91. He is also a council member of numerous universities and research institutes and a committee member of important government bodies (such as the National Education Commission, the National Cultural Commission, and the National Economic and Social Development Board), placing him in a unique and influential position to communicate and mediate between government and non-government organisations. He has long been an advocate of democracy in Thailand, was actively involved in the May 1992 political crisis and wrote extensively on politics in newspapers in 1992.

I begin this chapter by discussing the role of Buddhism in the development of early Indian medicine, the basic principles of Buddhist medical knowledge, and the synergistic relationship between Buddhist and Ayurvedic medicine. I then assess the relative influence of both Buddhist and Ayurvedic medical traditions on Thai traditional medicine and examine the relationship between Thai traditional medicine and the early growth of Western 'scientific' medicine.

I then consider Dr Prawase's ideas on public health in Thailand in relation to development, with special reference to the influence on him of Buddhist reformism, particularly that of the famous monk, Buddhadasa. Dr Prawase's

writings on public health embody a critique of Western-oriented, capitalist medicine in Thailand—its urban focus, excessive medical specialisation and dependence on Western drugs, inadequate preventive health care in rural areas, etc. I then outline his proposed solutions to these problems, especially his advocacy of the Community Culture philosophy, self-reliance in health care (including the revival of traditional medicine) and the social power development model. I finally respond to critiques of his philosophy and conclude that his ideas are fundamentally consistent with Participatory Action Research and a political economy approach to health, albeit with a uniquely Buddhist perspective.

The early Buddhist medical tradition in India

In a recently published book, *Asceticism and Healing in Ancient India*, Zysk discusses the crucial role of Buddhist monastic medicine in the development of Indian medicine. He argues that the transition from the early Vedic period, ca 1700–800 B.C., based on magico-religious healing (demon-caused diseases, use of magical rituals, charms, amulets to exorcise disease demons) to the empirico-rational medical tradition of Ayurveda, 200 B.C.–400 A.D., approximates Thomas Kuhn's revolutionary 'paradigm shifts' in Western science (1991:5).

Zysk argues that in the intervening period heterodox *sramanic* (ascetics, renunciants and mendicants), particularly Buddhists, played a crucial role in this transformation. In this period healers were denigrated by the Brahmanic hierarchy as polluting and impure and were excluded from orthodox ritual cults. However, they were readily accepted by the heterodox *sramanas*, and 'unhindered by brahmanic strictures and taboos' they developed 'an empirically and rationally based medical epistemology' (Zysk 1991:5). This medical tradition was later systematised with the growth (from sixth century B.C.) of Buddhist monasticism and monastic rules (*Vinaya*). This theory is at variance with conventional accounts of Indian medicine (i.e. teachers and authors of Ayurveda) which 'represent traditional Indian medicine as a brahmanic science from its inception' (Zysk 1991:4, 118). But Zysk claims that the medical treatises of Ayurveda (the *Caraka* and *Susruta Samhita*) represent a 'Hinduisation process' (1991:118) by which a heterodox knowledge was rendered orthodox.

According to Zysk, 'the Buddhist *sangha* (monastic community) soon became the principal vehicle for the preservation, advancement and transmission of Indian medical lore' (1991:38). A basic principle of *sangha* life was Buddha's philosophy of the Middle Way, avoiding the extremes of self-denial and over-indulgence. In this way medicine became an integral part of Buddhism 'by providing the means to maintain a healthy bodily state characterised by an equilibrium both within the organism and between the body and its environment' (Zysk:5). Buddhist medicine is typically a 'naturalistic' medical system.¹ A key factor in maintaining bodily equilibrium

is through avoidance of upsetting the three 'peccant' or 'morbid' humours (*tri-dosa*). The Buddha's eight-fold formula, in the Pali Canon, of disease causation includes the three humours (Zysk 1991:30) and Zysk suggests that the Buddhist references are possibly the earliest attested citations of the three humours outside the Ayurvedic texts (1991:119).

Medical doctrines codified in monastic rules included putrid urine as medicine as one of the four essential life resources (*nissaya*) together with the robes of rags from dustheaps, and lodging at the foot of trees (Zysk 1991:39). Under more settled monastic existence these were later replaced by the 'four possessions' (*gilana pacayabhesasajja*): robe, begging bowl, bed-and-seat, and medicine. Monks were allowed five basic medicines: clarified butter, fresh butter, oil, honey, and molasses (Zysk 1991:40). With the development of monastic rules the medicines expanded into an entire pharmacopoeia based on systematic classification of foods, similar to that in early Ayurvedic texts. The monastic rules also outline the qualities of a patient and those of the monk as nurse (Zysk 1991:41, 42).

The role of the monk healer was initially restricted to the care of fellow monks. However, by about the third century B.C. the monk-healer and the monastery provided medical care to laymen (Zysk 1991:44), probably coinciding with the spread of Buddhism during the reign of Asoka. At this time monasteries were usually built on trade routes and the provision of shelter and medical care was one way of obtaining support from travellers (Zysk 1991:44). Between the fourth and ninth centuries A.D. there is evidence of hospitals (*arogyavihara*, lit. 'health houses') in Buddhist monasteries. There is also evidence of the teaching of medicine, as one of the five sciences (*vidya*), in monasteries after the beginning of the common era and from the mid sixth century A.D. at monastic conglomerate 'universities' (*mahavihara*) (Zysk 1991:45, 47).

Buddhism and traditional Thai medicine

Traditional Thai medicine has undergone a significant revival in modern Thailand. The Association of Ancient Medicine was established in 1957 and since the mid 1970s a number of non-government organisations concerned with the promotion of Thai traditional medicine have been set up (see below), to a great extent under the guiding influence of Dr Prawase Wasi.

What is meant by 'traditional Thai medicine'? According to Mulholland, 'Thai medicine was not necessarily borrowed, as a complete system, directly from another culture. What was borrowed was almost certainly grafted onto

1 According to Foster, 'naturalistic systems explain illness in impersonal systemic terms. Disease is thought to stem from such *natural forces or conditions* as cold, heat, winds, dampness, and, above all, by an upset in the balance of the basic body elements. In naturalistic systems, health conforms to an *equilibrium* model: when the humors, the yin and yang, or the Ayurvedic *dosha* are in the balance appropriate to the age and condition of the individual, in his natural and social environment, health results' (1976:775).

an already established indigenous system...' (1979a:89). Bamber likewise claims that 'there has been a considerable amalgamation of the Indic-derived explanations with the Tai...' (n.d.:7). For example, the occurrence of *lom* (wind illness) in traditional Thai medicine 'reflects both Indian and Tai usage'. Moreover, the introduction of Indian theory was perhaps 'facilitated by the pre-existing association between wind and illness', a phenomenon which Bamber refers to as 'cultural coincidence' (Bamber n.d.:30).

There is some disagreement between Bamber and Mulholland as to the relative influence of Buddhist and Ayurvedic medicine on the Indic tradition in Thai medicine. Bamber asserts that 'Buddhist theory was more likely to have been the more pronounced influence on the medicine adopted by the Thais...' (Bamber n.d.:3); whereas Mulholland states that Thai traditional medicine 'has quite obviously been strongly influenced by the Ayurvedic system of medicine...' (1979b:30) and that it is 'largely based on Indian ayurvedic medicine' (1979c:225). However, Mulholland does acknowledge that Buddhist temples have been a source of much medical knowledge in Thailand and also that the two best-known schools of traditional medicine are located in famous Buddhist temples, namely Wat Pho Traditional Medical College and the College of Traditional Medicine at Wat Mahathat (1979a:85). She further acknowledges that the sacred knowledge embodied in the ancient texts used at these colleges has been passed down by the legendary Jivaka Komarabhacca, the personal physician of Buddha himself (Mulholland 1979a:105). Again she admits that the Thai medicine of these texts takes into account only four elements and that one reason for this could be that Buddhism generally rejects the idea of the fifth element, air (*akasa*), as one of the elements of matter (Mulholland 1979a:88). This is confirmed by Bamber (n.d.:4).

In 1870 King Chulalongkorn (Rama V) appointed a committee of court doctors to collect all known texts on Thai traditional medicine in order to check them, compare them with the originals, and then to revise them (Mulholland 1979a:83). When Thailand's first medical school was set up in 1889 at Siriraj Hospital these revised texts were included in the curriculum on an equal footing with Western 'scientific' medicine. However, the promise of a parallel, symbiotic development between the two types of medicine was not fulfilled and by 1913 the teaching of traditional medicine officially ceased. Since then traditional Thai medicine has received some state support and recognition. Legislation in 1937 and 1953 accorded to traditional practitioners the right to be registered after examination and in 1957 the Association of Ancient Medicine of Thailand, mentioned above, was officially recognised; however, as Irvine emphasises, this was on the basis of its subordination to Western medicine (1982, Ch.1). The more recent revival of traditional medicine since the mid 1970s represents a significant resistance to this subordination and, as I will discuss later, reflects the growing influence of the NGO movement and its promotion of self-reliance.

Buddhist reformism

Keyes (1989:123) speaks of a 'radical shift' in Buddhist thought in the nineteenth century and Wyatt of a 'subtle revolution'. Pre-modern Thai Buddhism was one in which one's place in both the cosmic and social hierarchy was determined by karma, that is, by moral actions in past lives. An individual's freedom was largely restricted to making merit to improve one's status in future lives. The traditional Hindu-Buddhist cosmology not only made the doctrine of karma and ritualistic merit-making meaningful but also a variety of Brahmanical and animistic beliefs and practices.

Wyatt's 'subtle revolution' was initiated by King Rama 1 (1782–1809), following the fall of Ayutthaya and the subsequent founding of the Cakkri dynasty. 'All of Rama 1's innovations...involved a change in focus that brought rational man clearly to the center of the stage of history...' (Wyatt 1982:40). One expression of this was Rama 1's systematisation of the religious, legal and literary heritage of Ayutthaya (Keyes 1989:124). The revision of traditional medical texts, noted above, represents a continuation of this process of rationalisation.

The revolution was carried on by King Mongkut (1851–68), particularly in the field of religion. Mongkut was a monk for almost thirty years before his accession to the throne. As a monk he came to think about Buddhism as a universal rather than as a Siamese religion—a religion which needed to prove itself in relation to both Christianity and Western scientific thought. To do so Buddhism had to return to fundamental religious truths, purified of the superstitious accretions of cosmological Buddhism. To achieve this reformation Mongkut established the Thammayut ('adhering to the *dhamma*') order (Keyes 1989:125).

Of more direct and immediate influence on the Buddhist thinking of Prawase Wasi has been that of Buddhadasa (1906–93), the famous founder and abbot of the Suan Mok forest temple in Chaiya, southern Thailand. He has been influential since the 1930s, particularly with liberal democratic politicians (such as the socialist-oriented Prime Minister, Pridi Panomyong). However, he only gained national prominence and popularity in the period 1973–76, following the student uprising.

Since the 1930s Buddhadasa was dedicated to religious reform. According to Jackson, two general themes characterise Buddhadasa's reinterpretation of Buddhist doctrine. The first is that Buddhism should be consistent with rational and scientific standards of argumentation and analysis. The second theme is the social relevance of Buddhism to a rapidly modernising country (1988:18). Notably, with respect to both these themes, 'Buddhadasa's reinterpretation closely parallel aspects of King Mongkut's reforms' (Jackson 1988:56).

Like Mongkut, Buddhadasa was committed to purifying Buddhism of the Brahmanical and animistic accretions which have sullied its pristine character. To do so Buddhadasa makes an important distinction between what he called *phasa khon* (conventional or literal meaning of scriptures) and *phasa tham* (spiritual or symbolic meaning which expresses transcendental insights)

(Jackson 1988:92). Through his *phasa tham* reinterpretation 'the traditional Buddhist cosmology is collapsed and brought within the range of life and mind of the individual' (Jackson 1988:98). This 'rationalist demythologisation' of Buddhist scriptures serves to sanctify the social and material world and accord religious value to the role of the layperson (Jackson 1988:102, 158).

The key concept in Buddhadasa's inner-worldly Buddhism is *cit wang* ('free mind')—a unique interpretation of the Buddhist tenet of *anatta* ('non-self'). Buddhadasa argues that *cit wang* is based on the everyday experience of mental calm and peace available to both monk and layperson and also that there is a continuity between this mental state and that of nirvana (Jackson 1988:158). 'By this theoretical development' says Jackson, 'Buddhadasa brings the Buddhist spiritual goal out of the monastery and into the stream of everyday life' (Jackson 1988:179). *Cit wang* also provides the rationale for Buddhadasa's activist philosophy, particularly in relation to work. All kinds of work can be done with a 'free mind', that is, without craving or clinging and with equanimity. Work is not only essential for social and economic development but also for religious salvation; hence Buddhadasa makes no distinction between mundane and spiritual activity (Jackson 1988:200–202).

From this standpoint Buddhadasa is highly critical of development in contemporary Thailand. People have become too materialistic as a result of the mental attitude of attachment. Excessive materialism has led to disorganisation, confusion, and complicated problems. Ultimately, all social problems are a consequence of the lack of morality in lay society. Socio-economic development is essential for spiritual attainment but it is not a sufficient condition; that is, development must be related to religious goals and religious goals must have precedence. Religious advancement in Thailand requires reforms in the educational system which is too secular and materialistic. More religious education is needed. Finally, to achieve Buddhist-oriented development along these lines Buddhists should become more involved in politics—the *dhamma* (moral law) should rule in this world (*thammatipatai*).

Here is a decidedly utopian view of the world, though not in any sense magical or apocalyptic. Rather it fits Bauman's definition of 'active utopianism'; an active utopia is an ideal society which is 'not so much bound to come as one which should come' and one that 'will not come to pass unless fostered by deliberate collective action' (1976:17).

Buddhadasa's main audience and supporters come from the 'progressive' section of the Thai elite. This is composed of the Thai intelligentsia (academics, writers, artists, students) as well as groups from the emerging middle class (administrators, business executives and managers, professionals) (Jackson 1988:68). These progressives express concern with the economic, social and cultural consequences of unrestrained capitalist growth and excessive dependence on the West and are supportive of a 'Buddhist Road to Development' (TDN, No.14:1987) in which Buddhism acts as a religious and ethical basis to social and economic development as a uniquely Thai alternative to both capitalism and communism (Jackson 1988:75). E.F. Schumacher's ideas

on Buddhist Economics (including appropriate technology) have also been influential.

Dr Prawase Wasi: Buddhism, health and development

Prawase Wasi a prominent advocate of this alternative Buddhist approach to development. Not surprisingly, as winner of the prestigious Magsaysay Award for his medical research and arguably Thailand's best known doctor, his critique of capitalist development has been predominantly from the perspective of health and medicine.

I have elsewhere argued that the interests of the Thai medical profession have been closely linked to the expansion of the capitalist sector in Thailand (Cohen 1989). As from the 1920s the Rockefeller Foundation played a central role in the development of Thai medicine and contributed significantly to the emergence of an elitist, Western and urban-oriented medical profession. The Thai medical profession generally remained unconcerned with the health problems of the rural poor and also asserted its dominance over other health practitioners either by exclusion or by subordination. From a class perspective this elitism is evidenced in the fact that the majority of doctors are recruited from the children of wealthy Chinese (or Sino-Thai) businessmen. I also pointed out that, since the early 1970s, the Thai Government has encouraged entrepreneurial medicine and there has been a rapid growth in investment in private hospitals, particularly in Bangkok. Capitalist development in Thailand has been accompanied by the growth of the pharmaceutical industry and a very high per capita consumption of drugs. Drug dependence has also been encouraged by the medical profession, especially in provincial cities and towns where doctors who run private clinics derive most of their income from the sale of drugs rather than from consultations.

The foregoing provides background for understanding Prawase Wasi's ideas on the relation between Buddhism, health and development.

Buddhist monks as healers

Buddhism has traditionally been concerned with health—its focus on human suffering, the rules of monk's conduct related to cleanliness, the fact that medicine is one of the Buddhist essential 'four possessions' (*patcai sii*) (Prawase 1985:10). Also, Buddhist monks have always had an important role in the community as healers.

Buddhism's holistic approach to health

A Buddhist approach to health is holistic. However, this holism needs to be viewed from the perspective of the broader, encompassing philosophical holism of Dr Prawase's Buddhist reformism.

A basic philosophical principle is that the Buddhist moral law (*dhamma*) and the law of nature (*thammacha*) are interchangeable and governed by the same logic. 'Dharma, the word often used in Buddhist discourse, also means nature and the law of nature. Ignorance refers to not understanding nature.

Wisdom means perfect knowledge of nature...The purpose of life is to attain perfect understanding of nature, that one is part of nature and should behave accordingly' (1990:175). Thus, understanding nature requires a holistic perspective. 'Nature is the whole—the interconnectedness of all things' (1993a:1). 'Learning to know the pieces without understanding the whole is not correct' (Prawase 1983a:3). This type of knowledge is based on 'ignorance' (*avidchaa*) and results in a way of thinking which is 'compartmentalised' (*baeb yaek pen suan*), for example, separating humans from nature, separating body and mind, etc. Knowledge which is called science views education, politics, economics, society, culture, agriculture, and the environment as separate things and this creates conflict between them because all things are interconnected. One aspect of a compartmentalised view is 'dualistic' thinking (*thawiwaat*) which divides into polar opposites (*khua*) e.g. 'we' and 'them', 'good' and 'evil' 'morality' and 'science'. When thought is divided into two opposite poles then there will be a firm belief in only one pole, resulting in conflict and turmoil (1993b:16;1993c:38–9). It follows that Dr Prawase's Buddhist approach to health assumes the integration of mind and body. The interconnectedness of the mental and the physical is emphasised in the Buddhist concept of 'the five aggregates' (*khanda*), that is, the five aspects of the physical and mental phenomena of existence (corporeality, feeling, perception, mental formation, and consciousness)(Prawase 1985:24). The body affects the mind and vice-versa. Dr Prawase rejects the scientific biomedical paradigm of the body as a machine. The body is not a machine. Machines break down but bodies recover naturally through the immune system (Prawase 1985:24–9). Belief in the defensive power of the immune system is one of the reasons for Dr Prawase's advocacy of self-reliance in health care.

A Buddhist approach to health is also holistic in the sense that the health of the individual is influenced by his social and physical environment. Buddhism teaches that humans are part of the environment, not separated from it. It is attachment to self (*atta*) which prevents people from being part of the environment. Illness arises from lack of balance not only within the body but also between the body and the environment (Prawase 1985:9,10), an equilibrium view of health which is consistent with my description above of Buddhist medicine as a naturalistic system. The natural environment is the most important cause of diseases. For example, urban dwellers are prone to diseases such as heart disease, diabetes, cancer, stomach ulcers, etc. Rural life used to be much healthier because villagers lived more in balance with nature. But now the balance has been disturbed by technological changes which have initiated a cycle of forest destruction, crop destruction by insects forced out of the forests, the use of insecticides to cope with the problem, the poisoning of water and fish, and these disturbances have had deleterious effects on health (Prawase 1985:31).²

2 Dr Prawase's views on the environment are elaborated in his paper 'Alternative Buddhist Agriculture'(1990). Here he argues that 'the old method of integrated farming' has been

Problem of health services delivery

A major public health problem in Thailand is that of the delivery of health services (Prawase 1985:43). According to Dr Prawase, the problem of delivery has two basic causes: first, the high level of demand and, second, the forms of delivery which fail to service that demand. This state of affairs is against Buddhist morality (*dhamma*) because supply and demand are not balanced, creating confusion and emotional conflict.

The high demand is caused by the inadequacy of preventive services. Prevention has been downgraded because the medical profession is profit-oriented and promotes curing. Consequently, the Thai population, particularly in rural areas, still suffers serious health problems (e.g. liver fluke, worms, malnutrition, tuberculosis, diarrhoea, malaria, typhoid) (Prawase 1985:44). High demand is also caused by dependency on doctors which has been encouraged by the medical profession through media campaigns (Prawase 1985:47-51).

The problem of health services delivery in Thailand is also related to the inequitable distribution of health resources. The following interrelated factors account for this maldistribution (Prawase 1985:51):

- The concentration of hospitals in cities. Urban public hospitals are also usually inaccessible, crowded, and chaotic;
- There are too many medical specialists and not enough general practitioners. Excessive specialisation in public hospitals forces patients to make numerous, time-consuming visits for diagnoses;
- The Thai medical profession has attempted to monopolise healing by denigrating traditional medicine and practitioners;
- There is a dependence on using overseas ('Western') drugs and a disregard for the use of traditional herbal medicines.

Inadequacy of medical education

The system of medical education in Thailand is partly responsible for the problems of public health services delivery. Dr Prawase argues that this system has a number of weaknesses (1985:66-86):

- There is an emphasis on personal gain rather than helping others. From a Buddhist point of view this is immoral (*akuson*) because it encourages greed;
- Doctors have become excessively specialised medical experts and technologists;
- There is reliance on complex medical equipment which makes it difficult for students trained in big urban hospitals to work in the community;
- The focus is on academic theory rather than on public humanitarian practice. The Buddha used to give his disciples only essential

transformed into cash-crop agriculture. Chemical fertilisers and insecticides have contributed to the destruction of the environment. Commercial farming has also bankrupted many farmers and poverty has encouraged them to destroy the environment, particularly forests. Rural poverty has caused urban migration, the growth of the urban poor, and the disappearance of community culture (see below).

knowledge. Non-essential knowledge is delusion (*moha*) and is a form of defilement (*kiled*);

- Medical students are trained to cure symptoms rather than to understand the real problems of patients (e.g. mental problems, anxiety, etc.).

Buddhist solutions to Thailand's health problems

Buddhism, according to Dr Prawase, can provide the solution to these health problems. As a theory of public health Buddhism must forget Western notions of planning and development. He also argues that public health problems cannot be understood through medical science alone. Most public health problems are social problems and require social solutions. Dr Prawase's more specific recommendations are as follows:

- There should be an emphasis on prevention rather than curing. If we live our lives according to the Buddhist Noble Path (*Ariyamagga*) there will be less disease (Prawase 1985:98);
- There should be less commercial orientation in medicine and more stress on Buddhist ethics to encourage a sense of public service (Prawase 1985:100);
- There should be less emphasis on complex and expensive technology. Expensive technology is causing medical costs in Thailand to rise. Thailand is going in the same direction as the United States where rising costs of medical services have increased production costs, reduced competitiveness in the world market resulting in unemployment and attendant social problems. However, Thailand can have 'good health at low cost' if medical experts develop the ability to do research in technology assessment which can estimate the cost-effectiveness of different methods (Prawase 1993d:63).

By the same token public health costs should be reduced by constructing smaller buildings, by minimising the use of equipment and laboratories and the promotion of herbal and other forms of traditional medicine (Prawase 1985:98).

- Doctors should have more than medical and technical expertise. They should be 'wise men' (*praad*) and moral leaders (like both doctors and teachers in the old days) who possess spirituality (*cit winyaan*) and have an understanding of society and the environment.

Buddhadasa was of the view that if Thai doctors became interested in spiritual things, gained an understanding of Buddhism and adapted Buddhism in a suitable way to modern medicine, then they would be leaders, not followers, and would raise the quality of Thai medicine above that of the West (Prawase 1993d:63).

- There should be more small community living in accordance with the community culture (*watthanatham chumchon*) philosophy (Prawase 1985:98; TDN No.14, 1987; Chatthip 1991:124). The Buddhist concept of 'the five aggregates' is normally applied to the individual. Yet the community also has five interrelated elements, namely: Buddhist ethics (*dhamma*), production for local use in agriculture through appropriate

technology, an ecologically sound agricultural system, economic self-reliance, and the development of community culture through promotion of the family, the Buddhist temple as the centre of communal life, and mutual help.³ The rural community should develop its local, popular knowledge and combine it with international knowledge.

- There should be a de-hierarchisation of the medical profession and more delegation of authority (Prawase 1985:99);
- Changes in medical education are needed with more emphasis on practice rather than theory;
- There should be less medical specialisation and more multi-purpose medical training closer to villages (Prawase 1985:100). Indeed, Dr Prawase was a key figure in setting up MESRAP (Medical Education for Students in Rural Areas). This project aims to ease the shortage of doctors in the countryside rural areas by training a select group of doctors who are trained predominantly at provincial and district hospitals and made more aware of rural health problems (Cohen 1989:174).
- Self-reliance in health care should be promoted (Prawase 1985:99). This solution warrants more detailed discussion, given its prominence in Dr Prawase's work and writing:

Self-reliance in health care

Dr Prawase asserts that Buddhism teaches self-reliance. One also detects here the influence of Ivan Illich's critique of Western medicine and the excessive dependence of patients on doctors and on drugs and his advocacy of the need for individuals to assert greater control over their health.⁴ Of course, self-reliance is, as well, one of the basic principles of WHO primary health care policy and it is noteworthy that Dr Prawase, as a former Chairman of the Coordinating Committee for Primary Health Care of Thai NGOs, is an ardent promoter of primary health care in Thailand. Furthermore, self-reliance is a fundamental principle of PAR (participatory action research) which Dr Prawase has consistently promoted in Thailand as prominent member of the NGO movement (see below).

Self-reliance includes freedom from dependence on expensive overseas drugs. Herbal medicines used to be used extensively in Thailand and should be promoted now. As an example of the successful use of traditional herbs Dr Prawase gives the example of the treatment of drug addicts at Wat Tham Krabork, a Buddhist temple in Saraburi province (Prawase 1985:61). The treatment program is run by the abbot, Phra Chamroon Parnchand, winner of the Magsaysay Award for his innovative and effective work. The three basic principles of the treatment are: a strong voluntary motivation to seek treatment, a 100-ingredient herbal concoction which is used as a purge by inducing

3 Dr Prawase cites with approval the example of Maha Yu, an ex Buddhist monk from Surin province, who introduced a now famous system of integrated farming (for rice, ducks, pigs and fish).

4 Dr Prawase acknowledges he has read Illich's book, *Medical Nemesis*, and has asked a colleague to translate it into Thai (personal communication).

vomiting and sweating, and a voluntary vow of complete drug abstinence for life made to the Buddha by religious ordeal under the guidance of a monk (Spencer and Navaratnam 1981:142). Dr Prawase praises this Buddhist program for its simplicity, its cheapness and accessibility.⁵

Another Buddhist expression of self-reliance is the 'bare-headed doctor' scheme initiated in 1975 by Dr Prawase himself and run by the Folk Doctor Association (Prawase 1985:92). This form of primary health care has obviously been modelled on the Chinese system of 'barefoot doctors'. Buddhist monks are trained intensively by top doctors, pharmacists, nutritionists, and traditional herbal doctors. The emphasis is on prevention and self-care. The slogan is: 'for the people, of the people'. The monks learn to test blood pressure, use stethoscopes, apply tourniquets and splints, treat snake bites, etc. The scheme has been successful because of the high status of Buddhist monks in the community and because, as noted above, traditionally monks had a healing role and, in particular, were expert in the use of herbal medicines.⁶

Another NGO which emphasises self-reliance through the promotion of traditional herbal medicine within the Buddhist/Ayurvedic (Indic) tradition is the Traditional Medicine for Self-Curing Project, set up in 1980. It collects information on local knowledge and Thai traditional texts, and arranges clinical and laboratory tests on herbal medicines. It has encouraged some hospitals and villages to establish herbal gardens and their own production units to prepare herbal medicines. Also, seminars are arranged for traditional herbal doctors (*mor boraan*) and exchange networks have been created based on local specialisation. This NGO supports the Ayurveda College founded in 1980 by the Foundation for the Revival and Promotion of Traditional Medicine. The College has a clinic (Boworniwet Traditional Medical Clinic) in Bangkok and a herbal farm in Chonburi province.⁷

I mentioned above that, at the end of the nineteenth century, both traditional medicine and Western medicine were introduced on an equal footing into the curriculum of the newly established Royal Medical School but that the teaching of traditional medicine was soon discontinued. This occurred, according to Irvine, 'in spite of the vigour with which Siamese doctors stood their ground' (1982:43). He explains this change in terms of the 'superior social value' accorded to Western 'scientific' medicine by medical students and

5 A four-month university study in 1976-77 found that at six months after treatment, the abstinence rate of the heroin users was approximately 30 per cent, and of opium users 60 per cent. The cost of ten-day treatment was only \$10 US (Spencer and Navaratnam 1981:142).

6 For more details see Sant Hathirat (1983) and D. Gosling (1980).

7 It is noteworthy that the Office of Primary Health Care (of the Ministry of Public Health) began, in 1983, to support the nation-wide Project for the Development of Traditional Medicine (financed by UNICEF). The Project initially included 25 hospitals and focused on 44 herbs. In 1985 the German Development Corporation took over the funding of the Project, substantially reducing it to five participating hospitals and five herbs (Le Grand et al.1993:1025). Furthermore, I have argued elsewhere that this Project from its inception was inconsistent with the government promotion of district hospitals in which the use of traditional herbal medicines has been largely ignored (Cohen 1989:169).

members of the Thai ruling elite and their evaluation of traditional medicine as inconsistent with a progressive and modern Thailand (Irvine 1982: 44, 45). Such attitudes are still prevalent and underpin the hegemonic position of Western medicine in Thailand today. The efforts of Dr Prawase and supportive NGOs to revive traditional medical knowledge represent a renewal of a struggle begun a century ago.⁸

Critiques and response

The Thai economic historian Chatthip Nartsupha describes the community culture theorists (Prawase Wasi and NGO activists Niphot Thianwihan, Bamrung Bunpanya and Apichart Thongyu) as proponents of anarchism (1991:133, 134). Chatthip claims that this anarchism is most pronounced in the case of Prawase Wasi. However, there is some uncertainty as to the character of the anarchism attributed to Prawase. Chatthip defines anarchism unorthodoxly as 'resistance to state power' (1991:134); yet Prawase's 'anarchistic ideology' is described variously as 'anti-state', the diminution of the power of the state bureaucracy with 'greater authority given to communities' (1991:124), and the dissolution of state power (1991:125). If we accept the last, normal definition of anarchism it would be misleading, I think, to label Dr Prawase's ideas as anarchistic. This would also be at variance with the political philosophy of Buddhist reformism in Thailand (including that of Buddhadasa) and elsewhere in the Buddhist world—a philosophy which envisages the moral transformation of the state rather than its dissolution.⁹ A different critique comes from Hirsch who argues that 'populist development workers and academics' of the community culture school, whom he calls 'culturalists' (1990:29), belong to a school of thought which he terms 'avoidance' and some NGO developers in Thailand label disparagingly as 'swimming against the current' (*thuan krasae*) (1987:371). This is a form of atavism which has also been criticised by Scott as 'retreatist' (1976:206, quoted in Hirsch 1990:197). Hirsch refers to the alternative NGO strategy as 'engagement' (1987:371; 1990:197) which I consider to be essentially a PAR (participatory action research) strategy.¹⁰

8 I think it could be argued that this struggle is consistent to the PAR strategy of resistance to 'knowledge production'. According to Rahman, distinctive to PAR is the concept of 'dual transformation', that is, is the need to transform oppressive structures rooted in both elite control over the means of material production and over knowledge production (1985:119,120). With respect to knowledge production 'an immediate object of PAR is to return the people to their own collectives and verification systems, which they may decide to establish themselves as fully scientific, and their right to use this knowledge but not dictated by it—as guide in their own action' (Rahman 1985:128).

9 See, for example, Buddhadasa's book on the ideal state based on 'dhammic socialism' (1986). This ideal is consistent with the Ashokan political tradition in Buddhism which views the ruler (or state) as a moral exemplar and responsible for creating the political and economic conditions necessary for Buddhism to flourish (see Sarkisyanz 1965 and Smith 1972).

10 Hirsch does not use the term 'participatory action research' but it is clear he identifies the 'engagement' strategy with that recommended by the UNRISD (United Nations Research

Dr Prawase has responded to the charge of atavism in the following words: 'I appreciate PAR and have been promoting it and do not see conflicts with Community Culture. Community building is not retreating into the past, but building a strength to cope with the social crisis and for civility for the future'(personal communication).

That Dr Prawase's philosophy is neither atavistic nor anarchistic finds further support in his more recent writing, in particular on what he terms 'the social power development model'. The social crisis of the 1990s 'consists of widening economic and social gaps leading to poverty, unemployment, social disintegration, crimes, violence, prostitution, woman and child abuses, drug addiction, spreading of AIDS, environmental destruction, mental stress and a sense of hopelessness and despair'(Prawase 1993e:2). The solution to this crisis requires the strengthening of 'civil social power' (*sangkhom somanuphaap*) as a balance against 'state power' (*rat anuphaap*) and 'economic power' (*thanaanuphaap*).

One detects here a shift in focus in Dr Prawase's writing, from public health issues in Thailand to the current multifaceted social crisis and the sickness of Thai society. Solutions to public health problems, enumerated above, it would appear, become dependent ultimately on the political struggle to vitalise civil social power. This is unmistakably a political economy approach to health.¹¹

The key to the good health of civil social power (or civility) is to promote social cooperation through community organisations, not just village based but also academic and business organisations. 'The state and economic spheres have great power because they have organisations and institutions. If an army fought battles with each man going his own way then it would always be defeated. Organisations create power, and so the social sphere must develop organisations and institutions' (Prawase 1993b:29). Social cooperation and solidarity can be promoted by means of eight 'paths' (*maag*) (1993b.:32, 33):¹²

1. Cooperative work groups for society;
2. community organisations and peoples' learning processes (that is, 'villager must be promoted and supported to learn together to be able to analyse and diagnose their own problems and to analyse alternatives and come up with right decisions'(Prawase 1992:3);
3. community environmental resources;
4. culture for society;
5. education for society;
6. religion for society;
- 7.

Institute for Social Deveopment) popular participation project in Thailand. The project 'was committed to a "participatory action research" style and methodology' (Turton 1987:4).

11 See M. Segall who argues that the political economy of health is concerned with the distribution of productive wealth which, more fundamental still, depends on the distribution of political power (1983:30).

12 Dr Prawes explicitly draws an analogy between these eight 'paths' and the Buddhist Noble Eightfold Path (*Ariyamaag*), the means of eliminating desire and suffering.

efficiency in problem solving (based on 'interactive learning through action' through networking between village communities, schools, universities, NGOs, religious institutes, government organisations, etc. (Prawase 1992:3)) and peaceful methods. Dr Prawase recognises that while social power is still weak disadvantaged people will have to struggle to give themselves 'social space'; this may result in conflict and even bloodshed though support should be given to make this struggle and conflict through peaceful means (1993b:38);

8. mass communications for society.

It is difficult to label this model of social development as either a form of 'atavism' or 'anarchism'. Rather it is arguably quite consistent with mainstream PAR philosophy—community participation, self-reliance, critical self-awareness through learning, networking, etc., and notably an active engagement with the state and capital to strengthen civil society as a counter-vailing power.¹³

Conclusion

In examining the writings and thought of Dr Prawase Wasi on health and the relationship between health and development a number of diverse influences are evident. The influence of Buddhism is clearly profound: first, in the form of the time-honoured Buddhist 'naturalistic' medical tradition and, second, in the form of the Buddhist reformist ideas of Buddhadasa which are rationalist, activist, and utopian. A second prominent influence is primary health care and its principles of self-reliance, community participation, low-cost health care, etc., derived from his long association with the World Health Organisation and from his own experience of the deficiencies of the Thai medical profession and public health system. The third major influence, as I see it, comprises a complex of democratic political ideas arising from his long-standing, personal involvement in the NGO movement and recently in the May 1992 political crisis.

A philosophy of holism underlies and unifies these various ideas, a holism which emphasises harmony and balance and ranges from assumptions of the integration of mind and body, the integration of the individual and his social and physical environment, and the integration of the three main spheres of society (civil, state, and economic). This pervasive holism in Dr Prawase's

13 Noteworthy is the similarity between Prawase's 'social power development model' and the PAR approach outlined in the Thailand UNRISD project (see note above). Under the sub-heading of 'A discourse on livelihood, social power, and dignity' the study asserts that the monopoly of power and legitimacy by the Thai state and associated institutions 'limits the development of institutions of what one might call 'civil society'. Under such conditions, legitimate or claimable 'space' for alternative, more democratic or participatory ideas and organisations has been severely restricted' (Turton 1987:114). Furthermore, the struggle for 'social power' by the rural poor has both material and cultural aspects, that is, 'in the course of organising to assert their material interests, they immediately encounter problems and constraints which are of a more cultural/ideological and political nature' (Turton 1987:120). This view is, I suggest, consistent with the PAR concept of 'dual transformation' (see note 8 above).

thinking rests ultimately on the fundamental Buddhist principle of the 'interconnectedness of all things'.

Dr Prawase Wasi provides us with a uniquely Buddhist political economy approach to health and development in Thailand; many of his ideas are arguably utopian and populist but not, in my opinion, either atavistic or anarchistic.

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sex for sale: HIV/AIDS, tourism and the sex industry in Thailand

Jennifer Gray

there can be no doubt that HIV/AIDS poses one of the greatest threats to development in Thailand. Despite recent efforts by the Thai government and by non-government organisations (NGOs), projections for infection rates by the year 2000 remain around the 4 million mark, possibly as high as 7 million. This paper is concerned with the business of commercialised sex in Thailand and its role in the transmission of HIV/AIDS. It looks at sex tourist development and the way in which the desire for the tourist dollar has led to an HIV/AIDS epidemic of immense proportion, an epidemic that could have been prevented or, at the very least, prepared for.

Tourism and economic development

The Thai economy has developed spectacularly in the last three decades, generating a growth level the envy of many nations in the world. Between 1961 and 1985 Thailand's GDP grew from 73 billion baht to 379 billion baht. This growth, in its first phase, was essentially agriculturally based. Experiencing strong economic surpluses at a time when the world's expanding population needed feeding, Thailand was able to increase production, especially of rice, by continuing to turn forest land into cultivable areas and by use of fertilisers and new varieties of rice. For more than a decade, the returns for agricultural produce were high.

During the 1970s and into the 1980s, however, there was a need to shift economic emphasis. The downturn in agricultural markets meant that Thailand had to seek new products and new markets or its economic boom would halt. More and more assistance was given to small-scale manufacturing and to the development of the service sector. Large-scale industrial enterprises such as mining and the production of oil, along the lines of Indonesian development, never took off in Thailand; nor did the development of export processing zones such as in Malaysia and the Philippines. Rather it has been tourism that has fuelled the economic growth of Thailand in the last decade.

Tourism is big business in Thailand. In 1990 some 5.2 million people visited Thailand and generated over 90 billion baht (A\$5 billion). The 1992 projections were for some 6 million tourists to visit the kingdom, generating in excess of 125 billion baht (A\$73 billion). Industry experts expect that these figures will

continue to rise and have forecast a doubling of tourist arrivals, amounting to 12 million visitors to Thailand in the year 2000. These 12 million tourists will generate, it is predicted, a massive 850 billion baht (A\$50 billion), (TDN 1991/92:15, 19, 40). This makes tourism the highest foreign-exchange earning industry, a position it has enjoyed for ten consecutive years since 1982 (TDN 1991/92:19; Somchai 1987:2).

The tourist-derived baht has been crucial to Thailand's developing economy and to its claim for NIC status. With foreign capital flowing into the country through partnership arrangements in tourist outlets (such as hotels, tour companies, bars, restaurants, and sex outlets) Thailand's economy has been able to keep expanding.

Despite the massive growth that has resulted from tourism there are numerous critics of the government's approach. Environmental degradation, massive consumption of water and electricity (with the Dusit Thani hotel in Bangkok using more power than some provinces), a further and continuing polarisation of the wealthy and the poor, extortionate increases in the price of the land, especially in the rural areas, and terrible pollution problems—are all legacies of tourist development. Inadequate government controls and the inability of the State to enforce its own legislation in the face of a powerful business community has seen Thailand become a country for sale. And this is no more the case than with sex.

Sex for sale

The year 1987 was a watershed for Thai tourism. Promoted as 'Visit Thailand Year' tourist arrivals increased dramatically within the first six months; so successful was the promotion that the 'Year' was extended to include 1988.

There can be no doubt that a significant component of tourist promotion and consequent tourist arrivals was, and remains, related to the sale of sex. A breakdown of tourist arrivals to the Kingdom since 1987 shows that more than 65 per cent of all arrivals are men, 80 per cent of whom come unaccompanied. They come from Malaysia, Japan, Taiwan, Germany, Singapore, the UK, the USA, Hong Kong and Australia, from all walks of life, and they come for paid sex.

'Slim, sunburnt and sweet, they love the white man in an erotic and devoted way', says a Swiss travel brochure (Truong 1991:178). In a similar vein a major Thai newspaper reports on the arrival of 'hungry and thirsty full-blooded American sailors' as 'the kind of boat people Thailand likes' (*The Nation* 1985). Wilke and Kleiber (1993) write: 'Especially for paedophiles, vacation in a country such as Thailand apparently often provides the only opportunity for men to realise their sexual desires'.¹

1 My paper addresses the issue of heterosexual sex tourism. Far more work has been done in this area. However, this study profiles gay men who come in search of sex in Thailand. It reveals that their average age is 40–59 years; they average 8 male sex partners during their stay; and that the majority never visit sex workers in Germany. Condom usage is higher than heterosexuals with 68 per cent always using condoms during insertive anal intercourse and 82

Sex tourism is widely regarded as an outcome of the R and R of American G.I.s during the Vietnam War. There are a number of undocumented, oral accounts of the United States Army in effect 'buying' whole villages in the northeast of Thailand to provide them with access to food, access to shelter, and access to women. Go-go bars, strip joints, and other places of prostitution were built and young women recruited to service these men.

Thanh-dam Truong (1990:161) reports that investment in sex tourism has been highly lucrative. She cites a report from the *Bangkok Bank Monthly Review* which states that during 1970 the profits from R and R leave in Thailand amounted to US\$20 million, a dramatic increase of the 1967 earnings listed at US\$5 million. The investment opportunities the Thai government made available for hoteliers and operators of entertainment places can leave no doubt of the early awareness and an active involvement in the promotion and expansion of Thailand as a sex haven for foreigners (for a fuller description of Thai Government investment-subsidies for such businesses see Thanh-dam Truong 1990:161).

Truong continues (1990:166-7) that, in the early days of the R and R, tourist activities investment and tourist numbers were erratic, resulting at times in an oversupply of accommodation and facilities. This was an oversupply of services and staff which could not easily shrink once the US war effort was over. With the help of foreign banking authorities, the Thai government integrated tourism investment and expenditure within national economic priorities, thereby averting a clash with the powerful business community, the military, foreign investors, and even other politicians. Thus, she says, 'tourism became incorporated into the export-diversification strategy in order to achieve export-led growth, a strategy which widened the R and R market to a more international market' (Truong 1990:167).

In 1986 it was estimated that the sex industry in Thailand generated 42 million baht for that year alone (TDN 4(1) 1986:11). The annual income from sex tourism now generated is said to be in the billions (baht) (AWWRP 1994:16).

The sale of sex in Thailand has been deliberate. In Germany and Tokyo it is possible to walk into a travel agent and flip through photo after photo of young Thai women for sale. In Australia men can 'mail order' potential brides and through packaged tours 'sample the merchandise'. Virgins are premium, especially for Japanese men. Girls as young as nine are abducted to service these men.

Even at high-level international meetings the importance of Thailand as a sex haven is obvious. During the much touted World Bank meeting of October 1991 a call went out to Patpong—the most famous of sex districts—for 500 'guaranteed AIDS-free girls' to service the delegates.

The outcome of this strategy has been tremendous economic growth. But it has been a tremendous economic growth only for some sectors of the population and it has come at an enormous cost. The employment of perhaps

per cent always using condoms during receptive anal intercourse.

up to one million girls and young women, and a smaller number of boys and young men, as sex workers throughout the country represents an exploitation of several generations which will scar the nation. The likelihood of massive HIV/AIDS infection stemming originally from prostitution may well cripple Thailand.

Critics of feminist analyses of sex tourism are quick to point out that Thailand had significant levels of prostitution before the introduction of international sex tourism. Certainly, prostitution did exist in Thailand prior to the presence of Japanese and U.S. armed forces. In the past there were brothels in most small towns and even in some villages, and daughters were often used as a transaction between men as a means of expressing loyalty, paying debts, sealing bargains.²

But both the scale and the nature of prostitution have changed dramatically in the last thirty years.

The domestic commercial sex industry has grown in response to both the recruitment of large numbers of young Thai women into the industry to meet international tourist demands, and the Thai economy has shifted from a subsistence-based one to a cash-based one. In the past rural men lacked the disposable income to purchase sex; now, through wage labour, they are able to pay cash for sexual services.

To the initiated, finding places for sex in Thailand is easier than finding a post office. Coffee shops, restaurants, barber shops and hairdressers are some of the fronts for prostitution. There are massage parlours, brothels and short-term hotels in every small town and brothels in villages. In 1990/91 PDA (Population and Community Development Association), Thailand's largest NGO, conducted a survey of Thai male sexual behaviour. The survey found that some 75 per cent of all men had had sex with a female sex worker; that 44 per cent of these men had had their first sexual experience with a sex worker; that 26 per cent had had multiple female sexual partners in the preceding six months.

The commercialisation of sex at a domestic level has seen paid-for sex become the major leisure past-time of Thai men. Kate Bond (1994:1) states:

Whereas sex for women in the commercial sex industry is linked to individual, family and village social and economic mobility, male sexual behaviour occurs in the context of leisure, friendship groups, entertainment and alcohol consumption (see also Gray 1994).

Sexual initiation for Thai men begins in the brothel. Surveys for the North of Thailand find that some 90 per cent of never-married, sexually experienced men not only received their sexual initiation in brothels but continue to patronise them regularly (see Van Landingham et al. 1993 and Nopkesorn et al. 1993 for further discussions).

2 For a brief history of prostitution prior to 1960 and the criminalisation of prostitution in Thailand see AWWRP 1994.

Werasit Sittitrai, from the Institute of Population Studies at Chulalongkorn University, states that Thai men believe that if they do not solicit sex workers they will be accused of being 'gay'. Changing men's attitudes would be a good solution to the transmission of HIV/AIDS but, continues Werasit, it would be difficult because men would feel their virility at stake (*Centerviews* November–December 1990:4). But it seems that changing men's attitudes is going to be the only way forward and Werasit himself (1993 International AIDS Conference, Berlin) is calling for what he terms 'appropriate sex culture norms'.

Similarly, the presence of international sex tourism, and the growth of the domestic commercial sex industry has resulted in a dramatic increase in the number of young women in Thailand being employed as sex workers. Various Thai Ministries and officials acknowledge the existence of approximately 500,000 sex workers in Thailand. Thai NGOs tend to put the figure at somewhere between 800,000 and 2 million. Other NGOs use a figure of 150,000 but when the Thai Health Minister declared in 1993 that there were only 25,000 young women working as sex workers he was universally condemned. (*The Nation*, 11 July 1993; AWWRP 1994:16).

Accurate figures are difficult to obtain given the illegality of prostitution and the reluctance on the part of the Thai government to acknowledge the extent and importance of the commercial sex industry to the Thai economy. What is clear is that recruitment of girls and young women into the sex industry is extensive and increasingly sophisticated.

Recruiters move into an area and begin locating families in need and in substantial debt. Through a series of networks kin folk are recruited to act as local agents, operating from the village. Sometimes corrupt primary school teachers are employed to act as agents within the school setting, enabling the recruiters to pick and choose amongst the school children the girls deemed 'suitable' for the sex industry. In the past offers of jobs as maids, waitresses and employees in sewing factories were made and many young women left the villages believing they would be so employed. Ten to fifteen years on the villagers are far wiser—though no better positioned to refuse the offers—and negotiations are far more direct.³

In the last five years the recruitment of Hill Tribe women (ethnically distinct groups living along the borders of Thailand, Burma and Laos), young women from the Shan State in Burma and from Yunnan in southern China, has intensified. These young women live in abject poverty, are illiterate, and are often illegal aliens within Thailand. Border police, brothel owners and agents work together along the border regions recruiting these young women in increasing numbers as the market demands younger, 'cleaner' and more exotic bodies. This is the new face of HIV/AIDS (see Gray 1993; AWWRP 1994).

Children, too, are increasingly popular. Young girls and boys, some as young as nine and ten, are to be found in the haunts of foreign tourists. Pattaya, Hua Hin and Phuket are favourite places of middle aged men seeking sex with

3 For a fuller discussion of the recruitment process see Gray 1991 and Gray 1992.

minors. Groups such as ECPAT (End Child Prostitution in Asian Tourism) estimate that there are some 200,000–300,000 children working in commercial sex establishments throughout Thailand. Up to 10,000 of these are said to be young girls from Burma, a substantial number being Hill Tribe girls.

Laying the foundations for the HIV/AIDS epidemic

The expansion of the international and domestic sex industries could not have occurred at a worse time for Thailand. The appalling conditions of work for the majority of sex workers and lack of effective and appropriate STD testing and treatment has resulted in average HIV infection rates amongst sex workers of between 25 per cent (in 'high' class establishments) and 70 per cent (in 'low class' establishments).

Distinctions are made within surveys of the sex industry by the type of 'class' of brothel, bar or parlour. At the cheapest end of the market are brothels catering to the Thai, the poorer Chinese and to itinerant migrant labourers (often from the Hill Tribes and illegal workers from Burma). These are usually classified in the literature as 'low class'. Spread throughout the country they are generally owner-managed. These 'low class' brothels range in size considerably—some with only two or three girls/young women employed as sex workers, others with in excess of two hundred. Falling into this category are the barber shops, restaurants, and coffee shops which have small rooms outback set aside for sex; the hairdressing salons, especially common in the South, where no hairstyling is ever done but are shop fronts for sex; the 'fishbowl' brothels where the young women sit on steps according to their price, wearing numbers on their breasts, behind a glass partition; the huge, cheap brothels with in excess of two hundred young women located in places like Rangsit, Bangkok—a truckie's delight; and the small village brothels. In all these places the girls/young women live on site. They have no freedom to move beyond the walls of their employment unless it is with the permission of the owner and usually then only with one of the men employed to control them. They have no opportunity to take control of their own bodies and all access to health services is dictated to by the brothel owners. Nor do they have rights to exert control over choice of clients, nor frequency of sexual contacts in a day; nor in fact do they have the right to reject accepting clients during menstruation (this is not universally the case but is so in the majority of cases). Rates for sex in these establishments generally range from 50 to 200 baht (A\$3 to A\$12) for a period of forty minutes to an hour. Longer rates can be negotiated but, with the exception of 'virgins' and little girls under 13 years of age, the figure rarely exceeds 500 baht even for overnight. The young women working in these establishments at the lower end of the market frequently have to have sex with between five and ten men a day, some as high as seventeen men in a day.

The 'higher' class places of commercial sex reportedly have a better 'class' of client and offer 'cleaner' work conditions. In these go-go bars, beer houses, cocktail lounges, massage parlours and up-market brothels the workers

generally have more freedom of movement and they fairly often live in their own place, turning up to work at a specific time and leaving at the completion of their shift, or finishing with a client 'at a time of their choosing'. Sex in these establishments is more expensive. In bars in Chiang Mai, for instance, excluding the price of drinks, sex with a young woman costs in the vicinity of 1,400 baht (A\$82). Because of a queue system that operates within many of these establishments, and because the men usually take a woman for the night, the young women working this upper end of the market invariably have sex with far fewer men than in the lower class establishments.

The contrasts that can be drawn between 'low class' establishments and 'high class' establishments on a working basis—the sex workers in the former having to accept a far larger number of clients than those in the latter—are borne out also in the statistics of HIV infection. A WHO sentinel surveillance in the northern (*Far Eastern Economic Review* 21 June 1990:25) provinces found HIV infection rates amongst sex workers varied significantly, and were correlated to the price the men paid for sex (hence class of establishment). They found a rate of 73 per cent is the very cheapest of the brothels, 31 per cent in the still 'low class' but slightly more expensive (100 baht instead of under 50 baht (A\$6 compared to A\$13), and 17 per cent in the higher class establishments. Since that surveillance in 1990, the rates for the 'low class' establishments have not decreased, but those of the 'high class' have increased markedly to a rate of around 25–30 per cent (unpublished findings of NGO groups working in Chiang Mai). My own data in brothels and STD clinics in the North confirm this. Amongst the young women working in the 'low class' brothels I have found an STD infection rate of around 65 per cent and a corresponding rate of HIV infection of 70 per cent. Before the HIV/AIDS scare became in reality an epidemic, there was very little concern for the up to one million young women working as sex workers. STD checks were irregular and often slap-dash, treatments were never supervised by brothel owners and managers, and no thought was given to Thai men donning condoms to prevent them being the vectors of gonorrhoea, syphilis, genital warts and other STDs into and out of the brothels. There still remains no action or attention to the psychological trauma, and drug addiction (mostly in the form of 'speed' and prescription drugs), experienced by the girls/young women working in the sex industry. Nor is there concern over the beatings, the torture, the imprisonments, the semi-starvation, and occasional murders that take place within brothel walls.

The children and the young women from Hill Tribe villages face enormous threat from work in the commercial sex industry. Commonly they work in the worst of the brothels Thailand has to offer. Uneducated and without official identity cards they are at the mercy of their employers and the clients. Public Health messages about safer sex and condom use rarely reach them, and are poorly explained when they do. The HIV and STD rates of young Hill Tribe sex workers average around 70–80 per cent.

The servicing the foreign sex tourists fare no better. Clients rarely, if ever, use condoms. The rationale of the foreigners is that they select young girls and young boys not only to satisfy their paedophilic fantasies but because they believe the youngsters will be free of HIV/AIDS.

The very high rates of STD infections found amongst young women working in the sex industry remain poorly addressed by Thai health workers. Attention, instead, has focussed on condom usage. In studies carried out by Thailand's largest NGO and by the Thai Army it was found that some 60 per cent of Thai men had never used condoms and that most of these men had a history of STD infections (PDA 1991; *The Nation* 19 March 1991; Taweesak 1992). Some 60–70 million condoms are distributed each year by the Ministry of Public Health in conjunction with extensive brothel-based education programs, but despite these efforts HIV rates appear not to have slowed.

Sex workers complain that drunk clients are unable to put condoms on correctly, or become violent when pushed to do so. The young uneducated Hill Tribe sex workers are possibly most disadvantaged in this situation as their Thai language skills are poor and their perceptions of personal risk of HIV infection are at odds with reality. If a client looks clean and washed he is considered free from infection.

The current official rate of HIV/AIDS infection in Thailand is 450,000 people (1993 figures). This is an official increase from the 50,000 people estimated to be infected with the virus in 1992. The dominant mode of HIV/AIDS transmission in Thailand is heterosexual and the chief initial transmission points are the places of commercial sex throughout the country that service both Thai and foreign men. The figures for those with AIDS or ARC (HIV/AIDS categories 4 and 3 in western terminology) are predominantly male. Using Chiang Rai as an example, where rates are amongst the highest in the country, we see the official figures for 1992 (B.E. 2535) indicating 14 AIDS cases and 219 ARC cases amongst men compared to 25 AIDS cases and 36 ARC cases amongst women (Chiang Rai Provincial Health Statistics 2535 (AD 1992). No figures were available for HIV seropositivity by gender for 1992 but the 1991 figures show an alarming increase in not only the numbers of young women infected by HIV/AIDS but also that their rate of infection is fast outstripping that of the men. In the 15–19 age group the figures for male HIV infection are 136, the corresponding figure for the young women in this age group is 1,556. The 20–24 age bracket shows a 840/963 ratio with the young women still making the majority. The 25–29 age group shows a 564/351 gender ratio with men having a higher prevalence, and the same pertains to the 30–34 age group—304/104, and the 35–39 year olds—115/30. There is no doubt that the vast majority of these young women are sex workers and have become infected by their male clients.

The dramatic increase in HIV rates amongst female sex workers does not mean there has been a slow down in male rates. Infection levels in male conscripts have risen to 30 per cent in the last two years. Antenatal clinics around the country are reporting HIV rates of 10 per cent or higher and in some district hospitals general ward admissions rates are reaching almost 30 per cent.

Hill Tribe villages, where both injecting drug use and the recruitment of young village women into the commercial sex industry exist, have rates of up to 15 per cent of the adult population testing HIV positive. Given the 70–80 per cent rates of HIV seroprevalence amongst the young sex workers from the Shan State, the hills of Burma will be in a similar position.

The government's response

We never thought it [tourism] would turn out this way. Then, we never thought about the high cost of living, the contradictions of tourists being able to enjoy hot baths while farmers five minutes away have no water for farming. We never thought about this extensive encroachment of public land, or the flourishing sex industry and sex crimes.

Seri Wangpaijit,
(then) Deputy-Governor of the Tourist Authority of Thailand
(TDN 1991/21:28)

The dramatic spread of HIV/AIDS has hit successive Thai governments as a huge shock. During the initial years of the epidemic in the West, Thailand ignored the warning signs and actively promoted the sale of sex. Thai governments, first under General Prem and then under General Chatichai, encouraged the promotion of sex tourism at a time when the West was not only aware of HIV/AIDS but in the process of implementing prevention strategies. To say now that 'they never thought about it'—'it' being any of the implications of the type of tourist development they embarked upon—will be cold comfort for the millions of people who may lose their lives. There is little evidence to suggest that had it not been for Mechai Viravaidya at a national level and a handful of dedicated Ministry of Public Health officials (like Dr. Chaowalit Natpratar) working at the regional level, little effort would have been made to raise awareness of the problems of international sex tourism and the implementation of HIV/AIDS prevention programs in brothels and in the community at large.

During his periods in the government Anand I (1991–92) and Anand II (1992), Mechai Viravaidya, Secretary General of PDA, was given the joint position of Minister for the Prime Minister for the Prime Minister's Office with responsibility for HIV/AIDS and Head of the Tourist Authority in Thailand (TAT). Prior to his entrance into the government, Mechai campaigned loudly amongst international groups, international organisations, with Thai business groups and within diplomatic circles for both an awareness of the magnitude of the HIV/AIDS problem facing Thailand and a need to stop international sex tourism. Curbing sex tourism, he argued, rather than costing Thailand money would actually save Thailand money. In a speech for the International Congress on AIDS, held in December 1990 (Mechai 1990) Mechai stated that PDA had calculated that foregone earnings from those who will die on AIDS related death will amount to between US\$5 billion and US\$8 billion by the Year 2000. On top of this, he says, the last earnings from international tourism will be even greater. To this end, one of his first actions as Head of TAT was to redirect the

thrust of Thai tourism away from 'suicide tours' to a Thailand of temples, natural beauty, great food, friendly people—a place for women as well as men; 1992 was made 'Women Visit Thailand Year' in honour of Her Majesty the Queen's 60th birthday.

During his brief term in this position Mechai did much to highlight the negative sides of international sex tourism in Thailand stating (in reference to Japan, Taiwan and western countries): 'How could they come up with certain men who exploit uneducated women and children?' (TDN 1991/92:18), a pertinent question but one that is never raised in Thailand with reference to Thai male sexual behaviour. And herein lies one of the problems. The Thai men who make the decisions and investments in international sex tourism in Thailand are part of a cultural system that considers commercialised sex to be a necessary part of life and male patronage not only normal but natural. At a time when boys in the West are going on their first date, boys in Thailand are going to prostitutes and throughout a man's life it appears patronage of sex workers is an essential part of masculinity.

Late in 1992 newly elected Thai Prime Minister, Chuan Leekpai, pledged to crack-down on child prostitution. He stated that 'Prostitution in Thailand, particularly child prostitution, has reached a state where it is not acceptable to both the country and the international community. The prostitution problem also leads to other problems such as international pressure not to buy goods from countries where children are exploited' (cited in ECPAT 1994).

In line with this Prime Minister Chuan ordered that all sex workers were to be aged 18 years and over; that all sex establishments serve food and/or beverages; that all sex workers carry Thai identity cards; and he empowered the police to carry out raids in sex establishments. After a series of high-profile raids business returned to normal. Almost. The old style brothels—the 'fishbowl' type where young women with numbers attached to their breasts, seated on platforms behind a glass wall—are disappearing. In their place are the Japanese-style karaoke bars where sex is offered along with music and alcohol. Under-age girls have been issued with false identity cards and brothel owners are now able to buy *en masse* Thai identity cards for the young Hill Tribe women from the mountains in the north of Thailand and those from Burma and China.

If the Thai government is unable or unwilling to actively enforce legislation prohibiting the sex trade in children and young women, foreign governments are showing an increasing willingness to punish their own nationals for sexual transgressions in Thailand.

In 1993 the Australian government, after a trip to Thailand by Deputy Prime Minister, Mr Howe, began seeking the help of the Human Rights and Equal Opportunity Commission to investigate organised sex tours to Asia. In the United Kingdom that same year (1993) the British Parliament commenced consideration of legislation to criminalise the patronage of under-age sex establishments in Thailand by British men. British MP David Alton addressed the British Parliament stating that:

...this house (parliament) is appalled at the widespread forced prostitution of women and children in Thailand and the buying and abduction of women and children from neighbouring countries such as Burma, China and Laos for use as prostitutes in Thailand, and urges the Thai government to bring to justice those who are responsible for, aid, or facilitate the above-mentioned acts of forced prostitution, including local and foreign tourists who engage the services of child and other forced prostitutes (ECPAT 1994:4).

Getting tough on international sex tourists is a start. But it is perhaps the international economic and trading pressure that could be brought to bear that would be most effective. The ill-fated coup in May 1992 by General Suchinda is evidence of this. The Thai economy could not withstand a premier widely discredited abroad. Similarly it could not withstand a trade embargo built around Human Rights issues.

The Thai government, the military and the business community openly and unreservedly went down the path of development that led to quick riches. That path was selling the bodies of its women. No heed was taken of warning signals from the West and Africa of the link between multiple sex relations and the transmission of HIV/AIDS. In fact there was active suppression by successive governments of information relating to HIV/AIDS. As late as 1992 most provincial health departments were still reluctant to begin brothel education, to supply condoms, to routinely and effectively deal with STDs. It is no exaggeration to say that Thailand has an HIV/AIDS emergency of scale that is beyond containment. And that emergency is spreading as girls and young women are recruited from the Hill Tribes of the north, and from Burma, Laos and China to service the extensive international and domestic sex industries. And through it all Thai men and foreign men remain reluctant to negotiate safer sex in their multiple sex partner lifestyle.

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toward more effective health education in AusAID projects: an example from Lombok, Indonesia

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While there are a number of ways of defining development, one aspect must surely include an improvement in basic human needs and the quality of life. The health and well-being of a population are proclaimed goals of developing countries throughout the world, for example the Repelita V program of Indonesia focuses on increasing health levels through a range of activities.

Water supply and sanitation projects go some way toward this goal; they are introduced principally to reduce high infant mortality rates and morbidity rates by providing better access to clean water and toilets. But the introduction of an improved water supply and toilets will not be effective on its own in reducing these figures sufficiently as there are many factors which contribute to water-washed and water-borne diseases (diarrhoea and dysentery for example). Existing behaviours often need to be modified as well. This is the challenge for any health-related project. As noted by Krasae (1989), people may fall victim to disease because of ignorance and inertia: 'There is a wish to change for the better, but they feel destined to be poor, illiterate and disease-prone throughout their natural lives.'

Helping people to identify a range of causes of the diseases that affect them and then helping them to tackle those causes helps them understand that disease is not necessarily inevitable. Health education, therefore, if appropriately implemented, not only has the ability to reduce morbidity and mortality but also to empower people. Many of AusAID's (formerly AIDAB) infrastructure projects now include a health education component.

Large-scale AusAID development projects in South East Asia have broadened in scope since about the mid-1980s to incorporate a range of programs that support and enhance the overall aims of the project. Health education has become a relatively small, but important, component of some

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projects, especially in those concerned with water supply and sanitation and with integrated land development schemes.

This paper argues that, by using a community-based approach, health education programs in aid projects can be more effective. The conduct of an appropriately designed and implemented applied health research program (managed and owned by the communities) is a highly effective vehicle for health education, and can also be a source of useful data for monitoring and evaluation.

Health education can, of course, take a number of forms: channelling money through local Health Departments to support their activities, the construction of clinics, the publication and distribution of posters, the training of health personnel, and the project conducting its own health education campaigns. Projects do need to ask whether their health education component is meeting their objectives or whether there may be other, more effective, ways that health education can be carried out in the communities they are working with.

When it began in 1985 the Rural Water Supply and Sanitation (RWSS) Project in Lombok, Indonesia, had in its initial design a health education component which was expressed in a number of ways. One small aspect of this was, in 1990, the conducting of a handwashing survey to ascertain whether the incidence of diarrhoea was reduced when people washed their hands with soap before handling food and after defaecation. The results of this survey were dramatic. But in the context of this discussion, the most salient feature of this study was its health education role, its effectiveness in influencing people to actually change their hygiene behaviour. There are lessons to be learnt from this survey which may be usefully applied in other contexts.

Introducing health programs into AusAID projects

Specific health projects are not new to AusAID.¹ What is relatively new is the incorporation of health and health education programs into large-scale projects. It became apparent that some projects would be better able to achieve their broad objectives if a health component existed in the project; this was particularly the case with water supply and sanitation projects.

This is the result of a better understanding of the interactive, mutually reinforcing relationship between health and other project components over time, culminating in a greater emphasis on health taking place around the mid-1980s. Evidence for this is to be found in the incorporation of a health component in new projects. For example, the design document for the RWSS project in Indonesia (which started in 1985) not only incorporated a health component but also engaged a health specialist; and considerable attention was paid to health, especially in supporting research, in the Thai-Australian

1 For example, the Acute Respiratory Infection Research Project, Bohol, Philippines, which started in 1982.

Northeast Village Water Resource Project which commenced in 1986. Some of the projects already under way did, in the Phase II stage commencing around that time, institute a health component, for example the Lignite Mines Development Project (occupational safety) in Thailand and the Highland Agricultural and Social Development Project (HASD), also in Thailand.

Initially, it was assumed that an improvement in the quality, quantity and management of drinking water would lead to improved health, even though this relationship is difficult to establish in practice (Price 1990:5). The inclusion of a health education component in water supply and sanitation projects is a response to international experience which shows that 'improvement of water supplies is unlikely to result in a reduction of disease without support programs in health education and sanitation' (Aung et al. 1988:8). Health programs in water supply and sanitation projects have, since this debate, provided scope for a range of activities aimed at achieving greater health benefits. Such activities can be quite broad, for example health education, nutrition, food hygiene, environmental sanitation and medical care (Price 1990:5).

Nowadays, it seems, all water supply and sanitation projects contain a health component; the most recent examples of this approach to tackling broader development aims under the auspices of an engineering project are the Central Visayas Water and Sanitation Project in the Philippines² and the Nusa Tenggara Barat Environmental Sanitation and Water Supply Project in Indonesia.³

Projects whose aims have a health-related focus (for example an agricultural development project whose implied aims include the nutrition of the aid recipients) yet do not have a health program, are free to put forward a proposal to AusAID for funding of such a component. Recommendations arising out of perceived community need, supported with evidence and accompanied by an outline of the proposed implementation program will, in the current climate, be viewed sympathetically by AusAID. However, where a project is nearing completion a new program cannot be introduced; this explains why some projects which were already under way by the mid-1980s did not incorporate a health education component.

There is considerable scope for consultants to identify such health needs and develop proposals to broaden the scope of their projects and thus work more effectively to reach the broad objectives of the project. Such an approach is unlikely to be entertained in projects without a long-term social scientist (a) because it is often these people who look beyond the provision of the infrastructure which is usually the crux of the project, and (b) such a program would need a social scientist, or a health specialist, to oversee its operation. It is, of course, up to AusAID to ensure that personnel with the appropriate qualifications are to be employed on such projects in the first place.

2 AIDAB 1991. Central Visayas Water and Sanitation Project, Republic of the Philippines, Health Component Design Document. Draft for circulation.

3 AIDAB 1991. Nusa Tenggara Barat Environmental Sanitation and Water Supply Project, Design Document. Vols. 1 and 2.

There is not always the scope to introduce a health component in projects. For example, the Land Titling Project in Thailand and the Eastern Islands Veterinary Services Project in Indonesia do not have objectives which can incorporate a health focus for communities.

Working with recipient governments in health components of projects

The implementation of any AusAID development project does, of course, follow upon much consultation and discussions between representatives from both the recipient country and the Australian Government. It is in these preliminary discussions that the needs of the recipient country are spelt out in order to define the parameters of the proposed project. There is sometimes conflict between these needs and the development brief of AusAID and adjustments may have to be made. For example, it might be AusAID's objective to provide an improved water supply for the rural poor, but the recipient country may wish that project to include some infrastructure for a proposed commercial tourist development site. It is clear that the needs of the recipient country may be perceived quite differently by a country's representatives and AusAID personnel.

A common request in such discussions is for institutional strengthening. On the one hand institutional strengthening often has the aim of developing capacities for *new* strategies, resources etc. On the other hand, on occasions, 'institutional strengthening' can be roughly translated as helping a particular government department to do more efficiently what it already does. This is not necessarily a bad thing. But when a project is trying to introduce some innovative programs they are often outside the parameters of institutional strengthening. For example, the priorities of health departments are overwhelmingly for curative services (Bridger 1979:244); therefore projects providing institutional strengthening to health departments can end up supporting people in curative health rather than prevention. Projects may be trapped into funding training schemes and regular services rather than instituting initiatives appropriate to the objectives of the project.

It can sometimes be difficult to introduce a health education component if the project has to work closely with a health department which does not have this as a priority or is using methods which are outdated or inefficient. Often the department has a shortage of resources, staff or funding, and is therefore reluctant to make any commitment to new programs. There are instances, however, where local departments have provided the stimulus for introducing explicit health components (for example the forthcoming Central Visayas Project) into a project design. On occasions it has been AusAID and sometimes the managing agents who have failed to give health education the emphasis local departments and/or communities have wanted.

Given that training is an important aspect of any project a close working relationship with counterparts would be seen as desirable. Sometimes,

however, it may be advantageous for the project to develop its own initiatives in health education. A project may approach a health department with a plan for introducing a specific health message as part of a health education campaign but be told that such programs are the responsibility of the department, not the project. And if the department has neither the personnel nor the funds to institute their own health education program nothing may be achieved and the whole health education program of the project is undermined. Whilst the rhetoric of pre-project discussions centres on 'working together', once the project is being implemented it can sometimes be translated to the project 'working for' a particular department and restrictions may be placed on activities independent of the department.

However, many of these problems, whilst they may exist initially, or with some personnel, can be worked through with good communication between the project and department staff. A project with the commitment to an effective health education program will strive to work alongside (if not always directly with) the appropriate department to achieve the objectives.

Health education and community workers

This paper argues that the most effective form of health education is to use health workers who are in direct contact with villagers. Between 1985 and 1991 the RWSS Project in Lombok employed community development workers to live in villages, working with the people to design and construct facilities and develop maintenance programs for those facilities instigated by the project. This pattern of work has been well documented⁴ and is the reason behind the institution of a health education handwashing survey/campaign using community workers. A project already working with, rather than for, communities has more chance of succeeding in a health education program which adopts a similar approach.

Bringing more effective health education to Central Lombok

The health education program in the RWSS project in Central Lombok took several forms. Firstly, all project personnel, from the Australian consultants to the local Indonesian staff in the project office, received some training in health and hygiene. This was to ensure that everyone was sensitive to health education issues and strategies. In addition, the project community development workers based in the villages (as well as volunteers from those villages) received training in the principles of disease transmission and hygiene, particularly those related to water supply and sanitation. Their role was to set an example to villagers and to speak to people in the field about environmental health issues whenever the opportunity arose (refer to Price 1990:11, for details). It became apparent, however, that training of Community

4 This approach was designed by Halsodel (Adelaide) and details are to be found in reports submitted to AusAID by Coffey and Partners.

Organisers (COs) and volunteers in the latter years did not always include a health education component. Part of the reason for this was that the Community Development NGO working on the project gave priority to community development and because of time constraints dropped health from the training agenda. If a health specialist had been permanently on the project to supervise the training this would not have occurred.

The project also liaised with the Health Department on the subject of health education materials with the aim of helping them to produce and disseminate health materials to villagers that would reinforce messages enabling people to maximise the benefits of an improved water supply and the introduction of sanitation. According to a report submitted by R. Mylius, the Project's Health Specialist, supplies of literature and audio visual aids and equipment in the Health Department were insufficient. Such materials are prepared in Jakarta and distributed through the system and in almost all cases these materials require adaptation to the local culture. Limited time and expertise in the Health Department at the *kabupaten* (district) level undermine this aspect of health education. Furthermore, the material generated by the Health Department conveys generalised health instruction rather than concentrates on specific messages related to, for example, water supply and sanitation.⁵

The handwashing survey

Before instigating the handwashing survey some research into conditions and villagers' knowledge, attitudes and practices in Central Lombok was conducted. It is clear that Sasak culture is complex and diverse; the villagers having strong beliefs based on ancient animist cults overlaid by conventional Islamic philosophy. Perceptions of health and ideas about how disease is acquired contrast with Western conventions. Traditional ideas and practices which influence health vary throughout the area and so do disease patterns. For various reasons some villagers will never seek help from the government curative health services and there are some infections, for example measles, which are not considered diseases remediable by conventional treatment.

The Indonesian Government is making efforts to improve the health of the villagers through curative, preventive and health education programs based at the *Puskesmas*, *Posyandu*, schools etc. Already people in quite remote villages have heard about Oral Rehydration Therapy, the importance of hygiene, the wisdom of boiling water, etc. However, people have many good reasons for living in an unhygienic environment. In many areas villagers have insufficient fuel to boil their drinking water. Others would very much like to wash more but cannot afford the soap or live far from a ready supply of water. Many would be happy to use latrines if they had the resources to build them. Traditional

5 For details of health education in Phase I of the RWSS Project refer to Coffey and Partners, 1988:6-7, 18.

perceptions may also inhibit acceptance of health education messages. Some say, for example, that diarrhoea is a natural consequence of growing up.

Most childhood deaths are due to diarrhoea but have a constellation of precipitating causes. If maternal health and nutrition is poor, problems begin while the child is still in the womb and the baby is born small with poor immunity. These are the children who are the most likely to succumb to diarrhoea, acute respiratory infections and malaria (in that order of incidence) in the first year of life. If the mother's breast milk supply is poor because of her inadequate diet and her need to do strenuous work the infant will never be able to 'catch up'. One study conducted in Lombok revealed that 8 per cent of women do not give their children colostrum, believing it not to be really milk or that it is dirty (PATH 1992:25). When such children are born into poor economic, social, educational and hygienic circumstances their nutritional status will continue to be poor, their immunity low, their susceptibility to disease high and their ability to fight infection inadequate. Recurrent illnesses, especially diarrhoea, will exacerbate this situation. Further, it is these very communities which usually have the worst access to preventive and curative health services, the poorest understanding of illness and the most inadequate sanitary and housing facilities. Reducing infant deaths therefore needs a long-term, broad approach aimed at improving nutrition in both mothers and children, reducing the incidence of communicable disease, improving water supply, sanitation and education, promoting income-generating projects and encouraging other means of supplying more and better foods. There is a strong correlation between female literacy and low infant mortality and any factors which might allow female children more schooling should contribute to improved health in the next generation.

The various interventions aimed at health improvements will contribute only to a slow, perhaps unquantifiable, fall in childhood mortality. Although dramatic improvements are only likely to be achieved via a long-term, multi-factorial approach, hygiene education alone has been shown to have a significant immediate effect on reducing the incidence of the commonest and most serious group of tropic infections: diarrhoea and dysentery (Aung and Hlaing 1989). Several studies have also shown that encouraging handwashing with soap can dramatically reduce diarrhoea incidence (Feachem 1984). This is probably the simplest, fastest and most cost-effective method of reducing the effects of the major causes of childhood death and adult morbidity in an underprivileged society.

So, during the final year of the RWSS Project in Central Lombok (1990) a handwashing survey was conducted to ascertain whether indeed the incidence of diarrhoea would be reduced significantly when people washed their hands with soap prior to eating, food preparation, and after defaecating. Two non-contiguous sub-villages in the village of Darek were selected for the survey. The intervention took place in Bale Luah whilst Tanggung Luak was the control. In each village 65 mothers of children under the age of eleven

participated in the survey. The results were dramatic, indicating that the people in Bale Luah did, indeed, change their behaviour in response to the program.

In summary, the initial survey showed that in the two months before intervention began, there were 28 episodes of diarrhoea amongst 136 children in Bale Luah and 36 episodes in 179 children in Tanggung Luak. Over the three month intervention period there were only five episodes of diarrhoea in Bale Luah children, whilst in Tanggung Luak (the control) the number of episodes of diarrhoea remained relatively constant at 31. Over the period of the study, then, there was an 89 per cent fall in diarrhoea episodes in the intervention village.⁶

In the context of health education the methods employed in this project are critical. Two community development workers were engaged on the survey, one male and one female. Over the five-month period of the survey they visited both sites frequently; in Bale Luah they conducted a series of informal discussions with small groups of survey mothers (and whoever else wanted to listen in) about how diarrhoea is transmitted. These discussions were generally held with several mothers gathering around one of the small, covered platforms dotted around a Sasak village. As the women seldom strayed far from their homes this meant about six to seven such group discussions. (It must be mentioned here that it is most unlikely many of these women could have been induced to meet in a formal setting in the village.) The women were informed that diarrhoea comes from faeces getting into the mouth by way of dirty hands, contaminated food and flies which have first landed on faeces. To prevent diarrhoea it was suggested that they should therefore

- wash their hands with soap before preparing food
- wash their hands with soap before eating
- wash their children's hands with soap before they eat
- wash their hands with soap as soon as possible after defaecation.

Each woman received a bar of 'OK' brand soap (the cheapest available locally at 50 rupiahs) and a plastic soap dish. At this point it was interesting to note that some of the women had clearly not handled soap before. (While the initial survey suggested that adults normally rinsed their hands prior to eating, they hardly ever used soap.)

Every fortnight the Community Organisers returned to Bale Luah and Tanggung Luak to monitor the incidence of disease and, in the case of Bale Luah, to hand out free replacement soap. Each time the COs spoke to respondents in Bale Luah they repeated the message, taking special care to urge mothers to encourage their children to wash their hands also, not only for their own sakes but because frequently it is elder siblings who tend to infants and toddlers during the day. This continual interest on the part of COs in the women and their hygiene and health was critical in keeping the issue alive.

6 Skin and non-water related eye diseases were also monitored and details of these results are to be found in Wilson et al. 1991 and in reports prepared by Coffey and Partners, Brisbane, the managing agents of this project for AusAID.

The survey as a health education tool

Toward the end of the monitoring period a few mothers spontaneously approached the woman CO to comment with amazement on how fat and healthy their babies were. The CO reinforced the message by responding that this was due to them washing their hands with soap which prevented diarrhoea. She explained that diarrhoea not only made their babies ill, but also weakened them thus making them more vulnerable to other diseases. (These health messages had been given out earlier but it is possible the women were not absorbing them at that point.) These mothers then affirmed that they would continue to wash their hands with soap once the survey was finished and no more free soap would be distributed. It seems that one of these women spread the message herself to other village women, holding her healthy baby up with pride as an example.

As trained community development workers these two COs were at first reluctant to be involved in a health survey, particularly in a situation where the people in the control village were denied access to a valuable health message. However, as the follow-up surveys revealed a marked drop in the incidence of diarrhoea in Bale Luah, and later they received personal comments from the village women themselves, they became very enthusiastic, even zealous in their work. One suspects that the survey had the effect of also convincing these COs of the efficacy of handwashing, a lesson they had learnt but maybe not internalised before. On several occasions when they visited the village they reported back small anecdotes indicating how some people's attitudes and behaviour had changed. Indeed, the woman CO commented that she felt pleased she had been able to do something to change people's lives.

Since the two COs were working with only 65 women in Bale Luah (plus disease episode monitoring in Tanggung Luak) they could spend an unusually large amount of time emphasizing the health message through conversation and demonstration. Once it was clear a respondent had grasped one aspect of the message it was possible to go into the subject more deeply. Amongst a largely illiterate population this must surely be the most effective health education technique. That it was effective in changing people's behaviour is evident not only from the statistics arising from the survey but also in the comments made by the respondents to the COs.⁷

It must be mentioned that at the conclusion of the survey the health message was taken to Tanggung Luak, the control village, with one of the delighted mothers from Bale Luah bringing her healthy baby along too as an example of the effectiveness of the message. Again, a series of informal discussions was held to explain the health message. For several weeks the women here were given soap and the incidence of diarrhoea was monitored as

7 During 1992 a follow-up survey was conducted to ascertain whether the respondents were still washing their hands with soap. Seventy-nine per cent of mothers were still using soap and there was a sustained reduction in diarrhoea episodes due to improved hygiene practices. A full analysis of this follow-up survey can be found in Wilson and Chandler 1994.

before. This was not done to secure more data for the survey, but rather as a means of facilitating contact to enable the CO to regularly reinforce the handwashing message on an individual face-to-face basis. At the conclusion of this exercise the women of Tanggung Luak approached one of the COs to ask for help in encouraging the children of the village to learn the message. They were advised that posters on handwashing were being prepared and that each of the respondent families in Tanggung Luak would receive one of these for their homes.⁸

The key to the acceptance of this health message is:

- Face-to-face contact on a regular basis with repetition of the handwashing message. The COs, being Sasak, always spoke in the language of the people. Many of these women would not have benefitted from conventional health education materials because most of the women were illiterate and many could not speak Indonesian. A personal approach is much more effective than posters and the electronic media in these cases. (Furthermore, experience on the project showed that most village women were reluctant to attend more formal village meetings.)
- The message was simple: wash your hands with soap after defaecation and before contact with food. Whilst there were many other messages that could have been passed on it was thought best not to complicate things by being too ambitious. The idea was to change one type of behaviour at a time.
- The distribution of free soap enabled people to find out for themselves, at no cost, that handwashing with soap could lead to a reduction in diarrhoea.

A number of posters (all pre-tested prior to publication using a social marketing approach) were subsequently developed by the project and were distributed throughout Central Lombok. Posters are effective in reinforcing a message people have already learned, already internalised. They are an effective memory jogger. With respect to introducing a new message in a largely illiterate society their effectiveness is much more limited. It is for this reason this paper advocates a community development approach to health education.

While the Health Department was not directly involved in this survey they were aware of it and impressed with the results. By the time the effectiveness of this survey as a health education tool had been demonstrated to the Health Department the project was near completion and there was no opportunity to train Health Department personnel in this type of village-based program.

Transferring the approach to other projects

Long-term aid projects are well placed to facilitate a health education campaign using this methodology. It is certainly a labour-intensive approach but, on the other hand, the labour cost of local community health workers employed on

8 If the project had not been near completion this would have been an ideal opportunity to train some of the respondents from Tanggung Luak to work with children on the importance of handwashing in preventing disease.

the project would be very low and would form a very small part of any health education budget.

The experience of the RWSS project indicates that a health education program based on surveying, monitoring, and the regular repetition of basic health messages (one at a time) would be a valuable component of any project with a health-related focus, such as sanitation and water supply or integrated area development schemes.

The steps to introducing such a program might be:

1. *Select the appropriate health message.* This will be to a large extent influenced by the nature of the project as the recipient government may be reluctant to allow projects to dabble outside their brief. Also, a health message relevant to the aims of the project can only enhance the success of that project. The message should be kept simple to avoid confusion.
2. *Selecting a team of health workers.* It is important to use people familiar with working in the environment to be targetted. The health workers must not have a superior attitude and must be comfortable working with ordinary people. Community development experience could be a more valuable background than training in health care. An insistence on formal qualifications can undermine the flow-on effect (see No. 8 below). Should the message be aimed primarily at women it is preferable to use women as health workers. The experience of RWSS was that the village women responded better to the female CO. The number selected depends on how many sites can be targetted at the same time. Depending on local conditions two people working together can handle two to three target groups concurrently. So, over a four month period these two people could reach between 150–250 families. The number of teams will depend on the capacity for supervision, the size of the target group, length of the project and the amount of money available for training and wages. It may not be wise to rely entirely on government Health Department personnel as they could be withdrawn for other duties and the program consequently collapse. Of course, where possible, it is important that some personnel be used in order to expose the Health Department to a different approach to health education.
3. *Training.* The health workers need to be trained in (a) the health education message, and (b) the methodology to be employed. In the RWSS Project the COs were urged to take an informal conversational approach to transmitting the messages.
4. *Selection of sites.* Ideally the entire project area should be covered by such a program during the life of the project. Criteria for initial site selection will vary with each project. The priority may be placed on focussing first on areas with the greatest need. The definition of need may be based on poverty, the observed level of hygiene or maybe illiteracy (as these people cannot be reached by 'conventional' health education materials). On the other hand, those locations which are difficult to reach during the wet season may be earmarked for attention

during the dry season. Ideal timing would place the health workers in a site as soon as possible after their water facilities have been upgraded or, in the case of agricultural projects, immediately after some intensive work in a particular village.

5. *Selection of respondents.* In the RWSS Project all women in one of the sub-villages with children under the age of eleven were included and then an equal number were selected in the other sub-village. It might be valuable to cover only a proportion of residents under the assumption that some of those selected will, after the program, volunteer for training and then work with the remaining villagers. Such a health education approach, though, thrives best when a large pool of villagers is involved as they can share their experiences with each other and, we would hope, reinforce the message.
6. *Conducting the campaign.* The respondents should ideally be approached in their own home environment, not be expected to meet in a community centre (even if one exists). This is particularly important in strict Moslem communities such as in Pakistan. Those willing to make such an effort are already partly committed to a health message. This campaign can be aimed at the most apathetic. We suggest using a monitoring sheet as this ensures that each participant is approached on every visit when the message can be reinforced and discussed. This approach also has the effect of focussing the attention of the respondents on the connection between behaviour and disease/health. A monitoring sheet is useful, too, in providing data for evaluation of the program. Follow-up visits need to be made on a regular basis to keep the issue alive and to facilitate the distribution of, for example, soap. The health workers should be able to answer respondents' questions on health issues relevant to the message and, if unsure on a particular point, be able to check on a matter and return to the village promptly with the information.⁹
7. *Produce and distribute posters appropriate to the health message.* The material should rely as little as possible on the wording, that wording being in the local language. Illustrations should be of the same ethnic group/s as the respondents. A part-time local artist can be employed on the project to tackle these issues. The aim of the posters is to help people to remember the message after the follow-up visits have finished. It is important to ensure that posters are displayed in places frequented by the target group, e.g. walls in the marketplace, standpipes, roadside stalls, informal meeting places. Too often such material is only to be found inside health clinics and government offices.
8. *Snowballing.* The health workers should be able to identify respondents who are capable and enthusiastic and willing to be trained to participate in the campaign. They could either act as volunteers or receive wages.

9 In an ideal world the respondent would be directed to the nearest health clinic for that information. However, experience shows that most people would be unlikely to make a special trip for such a purpose, especially if it involved a travelling cost and/or visit fee.

Such respondents could be charged with extending the campaign to those in their village not covered initially; they could (if illiterate) act as message reinforcers amongst those already involved. They could join the team to move into the next set of locations. In the longer term these trained people would be in a good position to use much the same method to pass on other health messages in the future.

9. *Reporting the results.* It is important that activities such as this be written up in reports, analysed, and recommendations made on where improvements in the process could be made. The data gathered in the process of monitoring should be useful in demonstrating to the funding body the degree of success achieved (refer, for example, to Price 1990:24).

A community which has participated in such a program has been empowered. They have learnt, and even internalised, some basic health messages which has given them a degree of power over their lives. In this respect this type of health education campaign is closely allied to community development.

The aim of such a campaign is not only to improve one facet of health in a community. It is also to demonstrate that there are several ways that health education messages can be brought to villagers.

One of the most important criteria used to assess the success of aid projects is sustainability. A health education program that uses such an approach with success has left a legacy of a healthier population and, by training people in a community approach to health education, the project leaves behind a pool of experienced personnel capable of continuing to use this approach in other locations and/or with other health messages.

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