International Health

International Health in the 21st Century

Dr Uton Muchtar Rafei

Abstract

The presentation is divided into four parts. The first deals with the historical development of international health, followed by a brief explanation on some priority diseases and major public health efforts to control them. After that, I would like to share new concepts on the assessment of health systems performance. This will be followed by an analysis of health systems development in respect to three major functions. I will conclude with some policy options for Indonesia.

International Health

Let me start with the subject of International health, which has been in the limelight of public health development for the last few years. One of the reasons for this has been the globalization in knowledge, technology, communication and trade liberalization. Another reason has been the emergence and re-emergence of communicable diseases.

Historically, countries have shared their interest in protecting public health through international cooperation, international conventions and conferences. Efforts in international health cooperation started in the early 18th century, and intensified after World War II. The World Health Organization (WHO) was established in 1948 to function as the leading international and intergovernmental organization for health. It was given the mandate of directing and coordinating international health

* Regional Director, WHO South-East Asia Region. This paper is based on a presentation made at the Seminar on International Health in the 21st Century, University of Padjadjaran, Bandung, Indonesia, in July 2000.
development with the aim of reaching the universal goal of health for all.

Similarly, many other UN agencies emerged as international development agencies with specific mandates covering wide areas such as women and children, food and agriculture, trade, industry, education, socioeconomic development, environment and population. Multilateral intergovernmental development institutions like Bretton Woods institutions were also established to support the socioeconomic development of the developing countries. Since the 1950s, developed countries have established many bilateral development agencies in order to support developmental efforts, particularly in the developing world. In addition, numerous intergovernmental bodies and banks, regional associations such as the Colombo Plan, ASEAN and SAARC were established to strengthen regional economic, social and cultural cooperation. Innumerable international and national NGOs and foundations were also established rapidly, like the Rockefeller Foundation, Nippon Foundation and lately, the UN Foundation and the Bill and Melinda Gates Foundation. All these international agencies, usually known as external donors or development partners, are involved in one way or another in health development.

There is no doubt that the countries of the South and South-East Asia have achieved their development objectives to a certain extent (Fig. 1). From this comparative

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**Trends of Human Development Index among WHO-SEAR Countries**

![Diagram showing trends of Human Development Index among WHO-SEAR Countries](source: UNDP Human Development Report 2000)
analysis of the UNDP Human Development Index (HDI), we can see the different development perspectives.

While Singapore and Brunei Darussalam have achieved high HDI values, Malaysia, Thailand, Philippines, Sri Lanka, Maldives, Indonesia, Myanmar, China and India have medium HDI values. Cambodia, Laos PDR, Bhutan, Nepal and Bangladesh have low HDI values, on different time period. Some have progressed rapidly to a higher level, while some have a slower growth. This clearly reflects some differences among countries in this part of the world.

The evaluation of progress towards health for all by the year 2000 (HFA2000) also shows that there are many gaps in health status between and within the countries. Some have achieved higher levels than the global targets set for HFA2000, while others are lagging behind. The major reasons of this delay are lack of strong political commitment to HFA/PHC, weak intersectoral collaboration, as well as inadequate and inequitable distribution of health resources. Economic crises and slow economic growth in many developing countries have impeded the progress towards health for all.

WHO has been working for the last few years to develop mechanisms, methodologies and tools, for assessing health systems development, in order to make comparative analysis among and within countries. This year’s World Health Report presents the first-ever summary measures and methodologies for assessing health systems performance.

The review of infant mortality trends reveals that there is a general decline in all countries. The situation in the least developed countries in Africa
and South Asia, however, is still not very promising (Fig. 2).

In Indonesia, the national average IMR was above the world average during the 1970s, but went below the world average in the late 1990s. However, Indonesia’s IMR today is still higher compared to that of China in the early 1990s.

If we look at the next figure (Fig. 3) showing the trends of IMR in selected provinces of Indonesia, it shows an unequal distribution of IMR for various provinces. NTB, Kalsel and Jabar provinces had a higher level of IMR throughout these periods. Bali remained below the national average but was still higher than DKI and DIY.

If we compare the difference in IMR between males and females in Indonesia, as shown in the next figure, it is found that the IMR declined rapidly for both sexes in the 1970s. Thereafter, the rate slowed down with the gap between both sexes narrowing slightly. However, the inequality expressed by the gap still exists. The IMR for males is still higher than that for females.

The World Health Report 1999 attributed the rapid fall of IMR in the 70s and 80s to scientific and technological breakthroughs. Developing and applying many public health and medical interventions for prevention and control of communicable and noncommunicable diseases led to rapid reduction in mortality and morbidity during those decades.

Since health systems develop and adopt health interventions, the outcome depends upon how these
systems are properly managed. Especially in the late 1990s, IMR in most countries remained stable for many years. There is a need to identify other means to measure the performance of health systems.

Even though the trend analysis shows that noncommunicable diseases are increasing, communicable diseases remain the major killers and cripplers, especially among young children and adults in developing countries.

In 1997, the WHO South-East Asia Region accounted for almost 40% of TB cases reported globally (Fig. 4). Following India, Indonesia is a major contributor to the regional TB caseload. With the rapidly rising trends of HIV/AIDS, it is expected that TB cases will increase in the near future.

expand the coverage of the 'Directly observed Treatment - Short course (DOTS)' therapy for TB in Indonesia and elsewhere.

Compared to other geographical regions, the HIV/AIDS epidemic started a decade later in South-East Asia. While most of the other regions have reached the plateau of the epidemic curve, our Region is still showing a rising trend and may be at the peak. India, Thailand and Myanmar host a large reservoir of cases. This is alarming. If this trend is not decisively controlled now, it will increase the child and adult mortality in the coming decades.

Let me now take up the issue of health care financing. There had been a feeling earlier that the larger the

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**Figure 4. Reported Tuberculosis Cases by WHO Region, 1997**

<table>
<thead>
<tr>
<th>Region</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
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</tr>
<tr>
<td>Americas</td>
<td>7%</td>
</tr>
<tr>
<td>Eastern Mediterranean</td>
<td>4%</td>
</tr>
<tr>
<td>Africa</td>
<td>15%</td>
</tr>
<tr>
<td>Western Pacific</td>
<td>25%</td>
</tr>
<tr>
<td>South-East Asia</td>
<td>39%</td>
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</table>

Source: WHO Geneva, Global Tuberculosis Control, WHO Report 1999

Total (global) number of notified cases = 3,368,879
health expenditure, the higher the life expectancy that can be achieved. This is true to some extent but not always. The above graph (Fig. 5) shows that despite the different health resource inputs, the outcome in LE at birth seems to be much different. Most countries in our Region have DALE or Healthy Life Expectancy Years around 50 or 60 years, but the level of health spending (total health expenditure per capita in international dollars) varied widely from 41 to over 300 international dollars.

Indonesia spends the lowest percentage in total health expenditure as a percentage of GDP (around 1.7%), and is also at a lower range on total health expenditure per capita (around 56 international dollars). But it has higher DALE values as compared to others. This means that there are other non-health determinants, such as education, transport, industries, construction, agriculture, food subsidies, etc., which play an important role in determining health status.

Figure 5. Trends in Infant Mortality Rates (Males & Females), Indonesia, 1967-1996

Figure 6 shows immunization coverage with polio vaccine in countries belonging to different socio-economic groups, during the past two decades. There is still a wide variation – the least developed countries having the lowest coverage.

Note 1: IMR with Trussel indirect method, West Model of average value of q(1)
Note 2: Data for trend during intermediate years not available

The performance of health systems can usually be judged in respect to the achievement of intermediate targets such as immunization coverage. Universal Child Immunization (UCI), conducted through the extensive primary health care networks during the 1980s, has helped to eliminate or eradicate some vaccine-preventable diseases.
vaccination coverage.

How is Indonesia performing?

Indonesia reported 148 cases in 1992, 34 in 1996, and 207 in 1997. There was no laboratory-confirmed polio case in 1999. It is necessary to strengthen AFP surveillance activities so that Indonesia can be declared polio-free in the near future.

Let us look at another area of health systems, i.e. access to essential drugs. Too many people still lack access to essential drugs, and the majority live in the developing world (Fig. 7).

If we review price differentials of essential drugs, the drug prices are 20 to 40 times higher in some developed countries than in some developing countries. This situation might be reversed in the near future, as many developing industrial countries like Indonesia will have to accommodate the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS). This multilateral trade agreement is a powerful international legal instrument for protecting the intellectual property rights, but, at the same time, has many implications on the accessibility of essential drugs.

Let us look at TRIPS from another aspect. Many medicinal materials, especially plants and traditional herbs

| Percentage of infants immunized against poliomyelitis |

<table>
<thead>
<tr>
<th>Developed countries</th>
<th>Global</th>
<th>Least developed countries</th>
</tr>
</thead>
<tbody>
<tr>
<td>Routine</td>
<td>UCI</td>
<td>NID</td>
</tr>
</tbody>
</table>

originating in Third world countries have been patented in the United States for use by drug industries. Are we prepared for this? The expenditure on drugs and vaccines is the highest among the developing countries. How can we deal with the situation?

With the TRIPS agreement having come into force in many developing countries as of 1st January 2000, and in five years’ time in the least developed nations, they need to be prepared. Recent empirical studies carried out by WHO and other agencies have shown that there are several implications for policy, legal as well as service delivery implications. For example, drug prices will increase, negotiations for compulsory licensing and exclusive marketing will be tough, and pharmaceutical companies will need to be competitive. Who are the players in international health in the new global environment? Can Indonesia lead other developing countries in addressing these challenges?

Let us now take a look at health systems across the world. The Region having one-fourth of the world’s population is passing through an epidemiological transition and most countries are suffering from the double burden of diseases. The recent World Health Report 2000 indicates that Indonesia, Sri Lanka and Thailand are low child and adult mortality countries while other countries in the Region suffered high child and adult mortality. Major causes of death and disability among low mortality countries are injuries and accidents, tuberculosis and perinatal conditions. While communicable diseases are still rampant, they also have noncommunicable diseases such as

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**Challenges**

Too many people still lack access to essential drugs

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Percentage of populations and number of countries with regular access to essential drugs

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<tr>
<td>5</td>
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</table>
The main goal for the health system is to achieve the highest level of health for the people. Recently, many public health experts have been debating on the proxy indicators for measuring health status. No measure is perfect for the purpose of summing up the health of a population. Usually, Life Expectancy at Birth (LEB), which is also one of the summary measures, has been used for a century.

The introduction of a new measure, introduced in health science and now being much debated in the present World Health Report, is ‘Disability-adjusted life expectancy (DALE)’ (Fig. 8). DALE or healthy life expectancy in simple terms is most easily calculable and well understood.

DALE is estimated from the life tables for each country and adjusted with the estimates for disability and other non-fatal health outcomes. DALE, being adjusted from Life Expectancy, always has a lower value. On average, the adjustment in all countries is nearly uniform, at about seven years. Both absolutely and relatively, the adjustment is slightly less for richer, low mortality regions, despite the fact that people in those areas live longer and face a higher risk of disability.

According to WHO estimates, the global average Life Expectancy at Birth (LE) is around 64 years and the global average DALE is around 56 years. As per 1999 estimates, 24 countries, mostly from Europe and North America, Japan and Australia, have equal or exceed 70 years of
DALE. The lowest ranking 32 countries have DALE less than 40 years and except Afghanistan, all countries in this category are from sub-Saharan Africa. The rest of the 190 countries fall in-between.

Sri Lanka, Thailand and Indonesia are at the middle level with DALE around 60 years, while other SEAR countries have around 50 years of DALE.

Performance

The overall health attainment measurement can only describe how well a country has done in reaching different goals. However, it does not say how those health outcomes compare to what might have been achieved with the resources available in the country. The relative achievement measured against the resources available is the critical measure of the health system's performance.

The measurement was made keeping in mind the most that could be expected of the health system with given resources (maximum attainable level). A specific value for each country – representing the expected level of attainment of a health system at one end and the lowest that could be demanded of the health system (minimum possible level), was estimated using econometric models. With this scale, it is possible to estimate for each country how much of this potential has been realized. In other words, comparing actual attainment with potential shows how far from its own frontier of maximal performance is each country’s health system.

This concept of measurement of health system performance is illustrated on the previous page with two countries, A and B. The vertical axis shows the level of achievement with respect to the goal of the health system. The horizontal axis shows health system resources. The lower line or ‘minimum possible’ is the level of health that could be achieved with the worst health system. The higher line or ‘maximum attainable’ is the level of health that could be achieved with the best health system. Within the bounds established by the maximum and minimum, country A, despite a low level of health spending and health attainment than country B, benefits system performance equivalent to country B. In other words, performance is measured relative to what is achievable, given the resources devoted to health.

National health accounts and national health statistics provide such information for analysis. The health system performance index measures where a country stands relative to the
best it could be doing, given its resources.

This hypothetical graphic presentation, with some countries' data, tries to capture the concept of measuring performance (Fig. 9). The health achievement is shown as DALE or healthy life years and health resources input is shown as health expenditure per capita on a log scale. Within equal resources, many countries have achieved different levels of health status.

If Sweden enjoys better health than Uganda – life expectancy is almost exactly twice as high – that is in large part because it spends exactly 35 times as much per capita on its health system. But Pakistan spends almost the same amount per person as Uganda, out of an income per person that is close to Uganda’s, and yet has a life expectancy almost 25 years higher. WHY? It is health expenditure that matters, not the country’s total income.

Structure of health system

Composite measures as described earlier have been used to get a snapshot of where, for example, the country’s health system stands against its potential. They provide the background status of the effect of policy decisions being implemented over a period. After knowing the snapshot of where it lies, further in-depth analysis is required to identify factors determining health system performance. WHO has developed a framework of such analysis based around a few universal functions of the health system, namely stewardship,
Another end of the spectrum is of developed countries. The model for United Kingdom was used to make a comparison. UK, with its National Health Service scheme covers the largest population, and the Ministry of Health, with the local health authorities, are responsible for pooling and purchasing functions. A major source of revenue comes from general taxation.

The models between them were those of middle-income countries such as India, Indonesia, Thailand, Brazil, Chile, Argentina, and Egypt. Some middle-income countries like Chile have higher coverage of insurance. They have larger risk pooling through various means of social insurance.

The situation of other middle-income countries like Indonesia is similar to the situation of Egypt. It is a mixture of a health system where the Ministry of Health, other ministries and government organizations and social insurance agencies are managing health resources as well as providing health care. Moreover, a larger proportion of the population still has to pay for health care. Most of them still have to seek care from private providers at their own choice and availability.

The structure of the health system in Indonesia could be constructed using the same approach. Indonesia’s health system should focus on creating conditions for the development of the largest possible pooling arrangements. In the early stages of development, small pools or segments of population are better than pure out-of-pocket financing for all. Indonesia has rich experience on pooling of financial risk such as Dana Sehat, JPKM, and other local financial mechanisms at the community level. Indonesia may arrange to promote such pooling in as many areas as possible and, at the same time, establishing a larger pool. Necessary regulations may need to be enacted to specify a minimum size of pool for financial viability.

Challenges in Provision

What is the potential for improving a health system? Many governments are trying to reform their health system with the aim of providing better services. However, there seems to be narrow vision or a “blind eye” on private provision of care. In many developing countries there is a widespread “black market” in health. The health workers “moonlight” and engage in other illegal practices and also indulge in “informal charging”. Most governments need to regulate both public and private health care through overseeing and regulations. Appropriate incentive mechanisms should also be established. Promoting wider dissemination of public information and having frequent public debates through the mass media can enhance health performance.

The move for decentralization, which Indonesia is trying to accelerate, can remove many of the bottlenecks
in decision-making, responsibility and accountability as well as flexible control of the market. Increasing autonomy and corporatization are examples of promoting incentives. Out sourcing, unbundling or contracting some activities will improve the quality of service as well as cost efficiency.

There is a need to select the right interventions and packaging them so that the services have a wider coverage with less cost. There is a need to balance resource investments and deployment.

**Challenges in Financing**

There is no doubt that worldwide health expenditure has risen from 3% of global GDP in 1948 to 8% in 1997. However, there is a wide variation among the countries ranging from those who spend less than 100 dollars to those spending over 2000 dollars.

The one who actually pays for health system should have a say in its performance. The purpose of fair financing of health is to ensure that all individuals have access to effective public health and personal health care by reducing or eliminating the possibility that an individual will be unable to pay for such care or will be impoverished as a result of trying to do so. The main functions of financing, like revenue collection, pooling of resources and purchasing of interventions will protect the people in the fairest way possible. Out-of-pocket payment, which is the major source of health expenditures in developing countries, is regressive and impedes access to health care.

Governments should take policy orientation by enhancing public share in health care. Policy incentives should be adopted to expand prepayment schemes through public financing; mandatory or income based insurance or other risk pooling mechanisms.

The major proportion of health expenditure is being spent on high technology health interventions for a small group of the population. Strategic purchasing is a way to improve this. Governments need to review the various packages of health interventions, such as the best interventions to purchase, the best provider to purchase from, and the best payment mechanisms including contracting arrangements to pay for such interventions.

**Challenges in Stewardship**

The ultimate responsibility for improving the health system remains with the government. In accordance with the constitutional mandate, every government is responsible for the welfare of the population. The people have given them the trust and legitimacy. This stewardship function, which also applies to the health system, not only stands by itself as a main function but also influences the other functions. The government must ensure that stewardship percolates through all levels of the health system
in order to maximize the overall performance of the national health system.

One of the key roles of the Ministry of Health is to “row less and steer more”. The ministry needs to develop long and medium-term visions and directions with appropriate benchmarks. These explicit national health policy statements, developed through consensus, are the major strengths of the government to show its trustworthiness.

In many countries, many rules and regulations are missing. Even when these exist, there is a lack of capacity to monitor complaints. This function must be strengthened.

Collecting and using evidence-based information and transforming it into intelligence lead to effective decision-making. Expanding partnerships and increasing the role of the media in intelligence gathering or sharing are the best strategies.

Players

Over the last fifty years, WHO has been the main player in directing and coordinating international health. Now, it is one of the many, and no longer following traditional paths. The number and diversity of international actors in global health development has grown in the last few decades. Bilateral agencies provide 40% of international health assistance. The UN agencies provide 33%, NGOs 17% and development banks 8%. Funds flowing from multilateral development banks have grown significantly in the last decade – with the World Bank being the single largest financier of health development.

Private multinational corporations (MNCs) are also coming in as major contributors to health development. Recently, Smith Kline Beecham, a multinational drug corporation, made a commitment for a unique collaboration with WHO. It will support the global programme on elimination of lymphatic filariasis. It will donate sufficient quantities of the anti-parasitic drug, albendazole, for use in all lymphatic filariasis-endemic countries for as long as it takes to eliminate the disease. This practice is based on the experience of another multinational firm, Merck & Co., which made a similar commitment to provide another anti-parasitic drug, ivermectin, for use in control of river blindness (onchocercariasis) and for the control of lymphatic filariasis. Novertis is providing free drugs for use in the leprosy elimination campaign.

The Bill and Melinda Gates Foundation recently pledged to help improve child immunization coverage in developing countries. This is most welcome and must be properly exploited in order to meet the diverse health needs of the developing world. WHO will use this opportunity by enhancing global partnerships for health and by mobilizing greater involvement of global private industries.
in helping the developing countries reduce the burden of diseases.

**WHO's Role**

During the last few decades, WHO, together with its Member States and development partners, has been able to fulfill its role in directing and coordinating international health on many fronts. WHO has been able to reach a consensus on global policies and strategies for health for all, using primary health care as the key approach.

Countries that have extensively implemented health for all strategies provide many successful examples. During this period, WHO has strongly advocated health as being central to overall development. A few major communicable diseases, especially those preventable by immunization, have been virtually eradicated from many areas of the globe. A few are on the verge of elimination. WHO has developed norms, standards and guidelines in relation to various areas of health. This has been done through its extensive network of expertise, collaborating centers and institutions. WHO has also sponsored many international conferences. The Organization recently launched a few global health initiatives, such as the Global Vaccine Initiative, the Tobacco-free Initiative (TFI), Roll-back Malaria (RBM), Stop TB etc.

**WHO Corporate Strategy**

Recently, WHO has redefined its mission to meet the challenges of the 21st century. The original objective of achieving the highest level of health for all, as contained in its Constitution, will remain its foremost mission. WHO will continue to contribute to world health by increasing its technical, ethical, intellectual and political leadership.

WHO has recently adopted a corporate strategy, which provides its Secretariat the main directions for the next medium-term period. It focuses the technical work of the Secretariat in the following directions: Reducing excess burden of diseases; Promoting healthy lifestyles and reducing risk factors; Developing health systems that equitably improve health outcomes, and respond to people’s legitimate demands; and Developing an enabling policy and institutional environment.

**WHO’S Core Functions**

The four strategic directions are interrelated, and the challenge now is to find the right balance. Keeping this view, WHO’s core functions have been redefined. These will be:

1. Articulating ethical and evidence-based policy and advocacy;
2. Managing information, setting international health agenda and stimulating research and development;
3. Catalyzing change through technical and policy support; 
4. Negotiating and sustaining national and global partnerships; 
5. Setting, validating and monitoring norms and standards, and 
6. Stimulating the development and testing of new technologies, tools and guidelines for disease control, risk reduction, health care management and service delivery.

The new specific directions and core functions provide a clear focus for WHO’s priorities. WHO’s Governing Bodies will continue to provide guidance on the Organization’s work from time to time, especially on how to set priorities, keeping in view its own declining resources.

Conclusions

I would like to conclude by stating that, during the last fifty years, international health development has evolved with new waves of globalization. Many developing countries are still struggling with poverty, poor health and poor management of health care. There are many players in international health development. Many developing countries who received external assistance in the early days are now external donor partners. Multinational private corporations are mushrooming. They must be persuaded to join in global health development.

Indonesia, with its determined efforts to rise above the trap of poverty and ill-health can and must play a major role in international health. It can set an example by concentrating its efforts to eliminate or eradicate many global priority diseases. Indonesia needs to intensify its efforts on ways to reduce the inequities in health. It needs to find effective and efficient ways to narrow the gaps between rural and urban, between different geographical areas and population groups, especially the poor segments of society.

Indonesia requires good governance in health. Considering the increasing participation of the private sector in health development, Indonesia needs to ensure a balance between the cost of expansion of health care and the affordability, accessibility and fairness of allocations. Indonesia needs to foster partnerships both within and outside. Partnerships can be a springboard for effective health development.

Indonesia could also cooperate with other developing countries in intensifying intercountry activities for reducing major disease burden and risk factors. WHO, I can assure you, will continue to work closely with the Government of Indonesia, civil societies and development partners to fulfil the goals of health for all.
In summary, many countries are falling far short of their potential. There are many shortcomings in the performance of one or more functions in virtually all countries. The health system is not only concerned with improving health. It must be responsive to the expectations of the people and ensure fairness and financing. The ultimate responsibility lies with the government. Government should promote equity and efficiency and provide opportunities for wider participation, especially by the private health care providers and the people.

Thank you.

References

Whether India is a High Health-Spending Economy

According to available estimates, India spends about 6 per cent of GDP on health care, which worked out as Rs 320 per capita in 1990-91 (it later increased to Rs 334 in 1993 – see Table 1). This is not a small proportion. For instance, the Organization for Economic Cooperation and Development (OECD) countries, including Canada, are spending between 7-8 per cent of GDP while some of our neighbouring countries, such as China, Sri Lanka, Indonesia, Philippines and Thailand are spending between 2-5 per cent of GDP. The quality of life (measured in terms of life expectancy, infant and child mortality, maternal mortality, child malnutrition, etc.) in these countries is much better. Compared to India, a person lives longer by 11 and 12 years in China and Sri Lanka, respectively. Furthermore, most of these South-East Asian countries have the same per capita income in terms of the international dollar (i.e. purchasing power parity dollar). The question therefore arises: what is wrong with India’s health sector? Despite a high health-spending economy, the progress in respect of various health outcomes in India has been sluggish. The answer to this question emerges when we closely look into the nature and pattern of health care spending.

- The government’s share in total health spending ranges between 70-90 per cent in OECD countries including Canada while in several South-East Asian countries the percentage ranges between 50-65. On the other hand, in India the government’s share is just 25 per cent and the remaining 75 per cent of spending on health care is household out-of-pocket expenditure.

- A cross-country analysis suggests that as countries get richer, they
spend more of their income on health care, and the government's share grows larger (World Bank 1993:110). In this study, India is found to be far away from the regression line. In spite of the fact that India's GDP has grown at around 6 per cent during the post-reform period, the government spending on health (as percentage of GDP as well as in relation to other sectors) has actually declined. It shows that health is not a priority sector.

Table 1. Selected Health Care Indicators for Major States in India, 1993

<table>
<thead>
<tr>
<th>State Ranked by Col. 6</th>
<th>Per Capita Annual Health Exp.</th>
<th>Share of Household Health Exp. (2 as % of 3)</th>
<th>Household Health Exp. as % of Household Income</th>
<th>Total Health Exp. as % of NSDP/NNP</th>
<th>Annual Morbidity Rate/1000 Population</th>
<th>% Use of Public Facility</th>
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<td>Govt.</td>
<td>Household</td>
<td>Total</td>
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<td>Share of Household Health Exp. (2 as % of 3)</td>
<td>Household Health Exp. as % of Household Income</td>
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<td>Gujarat</td>
<td>78</td>
<td>259</td>
<td>337</td>
<td>76.9</td>
<td>4.7</td>
<td>4.4</td>
</tr>
<tr>
<td>Madhya Pradesh</td>
<td>63</td>
<td>168</td>
<td>231</td>
<td>72.7</td>
<td>6.9</td>
<td>4.3</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>100</td>
<td>202</td>
<td>302</td>
<td>66.9</td>
<td>6.5</td>
<td>4.2</td>
</tr>
<tr>
<td>West Bengal</td>
<td>73</td>
<td>154</td>
<td>227</td>
<td>67.8</td>
<td>3.4</td>
<td>3.8</td>
</tr>
<tr>
<td>Haryana</td>
<td>83</td>
<td>267</td>
<td>350</td>
<td>76.3</td>
<td>4.1</td>
<td>3.4</td>
</tr>
<tr>
<td>Punjab</td>
<td>110</td>
<td>282</td>
<td>392</td>
<td>71.9</td>
<td>6.2</td>
<td>3.2</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>85</td>
<td>259</td>
<td>344</td>
<td>75.3</td>
<td>5.4</td>
<td>3.2</td>
</tr>
<tr>
<td>Assam</td>
<td>66</td>
<td>96</td>
<td>162</td>
<td>59.3</td>
<td>2.4</td>
<td>2.8</td>
</tr>
</tbody>
</table>

All-India              | 84    | 250       | 334   | 74.9                          | 6.0                             | 5.5                                      | 1253                          | 41.3                                 |

Note: Estimates for Jammu & Kashmir are based on the previous NCAER survey of 1990.
NSDP – Net State Domestic Product, NNP – Net National Product
Health provision and financing is considered to be a State subject. On an average, out of the total government health spending, the State's share is about 80 per cent. There is a clear demarcation between Central and State provision and financing of various health services. The State fully finances hospital services, primary health care facilities and the Employees' State Insurance Scheme (ESIS). The family welfare programmes are fully financed by the Central government. The national disease control programmes are funded on a 50:50 sharing arrangement with the states. (However, in terms of total expenditure on these programmes, the State's contribution turns out to be about 75 per cent i.e. only basic inputs are shared equally, and the State has to bear all administrative costs including salaries of staff). The Centre and States share capital investment equally. Out of the total expenditure on medical education and research, the Central government's share is little over 40 per cent. Thus, by and large, the State fully finances all curative care services.

The other major difference in the nature of health care spending with respect to South-East Asian countries is that the Indian government spends far less on preventive and promotive care. India spends only one-third on preventive and promotive health care whereas the proportion is as high as two-thirds in China and Sri Lanka. Preventive and promotive health care services include immunization; antenatal, maternal and postnatal care; contraceptives and other family planning measures; community-based services such as spraying for malaria, and health education. Moreover, out of the total curative care spending, 75 per cent is on secondary and tertiary hospitals (which are primarily located in urban areas). In this country, where the majority of population resides in rural areas, the government is spending very little on their day-to-day health care needs.

There are close relationships among per capita state domestic product, per capita state health expenditure and the health status of people. In other words, the richer states are spending higher on health care, thereby raising the health status of their people. Conversely, the per capita health care spending is very low in poorer states; they are unable to raise matching funds for the implementation of several centrally executed
public health programmes and therefore not succeeded much in improving the health status of their people.

**Nature of Health Care Use and Spending Pattern**

So far only two agencies, namely the National Sample Survey Organization (NSSO) and National Council of Applied Economic Research (NCAER) have disseminated household data on health care utilization and expenditure. The detailed data made available by the NSS pertains to 1986-87 and more recently for 1995-96, while that made available by NCAER pertains to 1990 and 1993. As per these estimates, the annual level of morbidity in the population turns out to be less than two illnesses per person; the rate is higher for the rural population. Both the surveys have recorded higher levels of morbidity in Kerala (considered to be at an advanced stage of demographic and health transition) and Punjab, and lower levels in Gujarat, Assam and Maharashtra (Gumber 1997).

The incidence of morbidity is marginally higher for females, but the gender differential is larger in urban than in rural India. Both the NSS and NCAER data reveal that the incidence of morbidity for women in the reproductive age group: 15-44 years is considerably higher than that for men. According to the NCAER survey, the rate per thousand persons was 89 and 136 per month for women aged 15-24 years and 25-34 years, respectively; the respective figures for men were 79 and 116. The NSS data suggest that the illness and hospitalization rates increase with the monthly per capita expenditure (MPCE) class. On the other hand, the NCAER data indicate that the decision to hospitalize is not significantly related to income. However, both the surveys confirm that the scheduled caste and tribe population reports lower hospitalization rate, which is largely due to their inaccessibility to health care facilities on the one hand and lack of resources on the other.

About 10 per cent of all those reporting illness may not seek treatment at all; the proportion tends to be higher in rural areas. It is revealing that the probability of not seeking treatment is higher among females, especially the elderly (aged 60 years and above), and the never-married individuals. The probability tends to be higher among the scheduled castes and tribes and those belonging to the lower MPCE quintile (Gumber 1997). Accessibility, physical proximity and financial constraints are extremely important factors which influence decisions to seek treatment. Of those who received treatment, 93 percent had received outpatient care and the remaining received inpatient care, without much inter-state variation.

Both the NSS and NCAER data confirmed that the rural and urban patients had overwhelmingly chosen public hospitals for inpatient care. The
reliance on public facilities for inpatient care is much greater in hilly and backward states, among the scheduled castes and tribes and those belonging to the lower MPCE quintile. On the other hand, the private facilities are used largely for outpatient care. Unlike public facilities, which are centrally located, private practitioners are found even in remote and backward areas. (For instance, 70 per cent of hospitals and 85 per cent of hospital beds in the public sector are located in urban areas.) The private practitioners are usually contacted first for day-to-day health care needs before seeking the distantly-located public facilities.

It is also observed that public facilities are used more often in cases of severe and catastrophic illnesses as well as for certain diseases such as tuberculosis, complications of pregnancy and childbirth, injury and STIDs, which the private practitioners are reluctant to deal with. At the same time, the most common diseases like malaria, typhoid, diarrhoea, acute respiratory infection and pneumonia, etc. are mostly treated by private health care providers. Furthermore, the poor households are spending relatively higher proportion of their incomes on health care than those better-off (Table 2). The burden of treatment is therefore unequally distributed across different population groups indicating the potential for voluntary comprehensive health insurance schemes.

Table 2. Average Annual Health Expenditure by Households According to Income Quintile, 1993

<table>
<thead>
<tr>
<th>Income Quintile</th>
<th>Health Expenditure (Rs.)</th>
<th>Health Exp. as % of Income</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>Rural</td>
</tr>
<tr>
<td>1 (Bottom 20%)</td>
<td>772</td>
<td>782</td>
</tr>
<tr>
<td>2</td>
<td>696</td>
<td>664</td>
</tr>
<tr>
<td>3</td>
<td>1210</td>
<td>1286</td>
</tr>
<tr>
<td>4</td>
<td>1084</td>
<td>1037</td>
</tr>
<tr>
<td>5 (Top 20%)</td>
<td>1657</td>
<td>1506</td>
</tr>
<tr>
<td>All</td>
<td>1052</td>
<td>973</td>
</tr>
</tbody>
</table>


According to the NCAER data, the average medical expenditure (such as fees, medicines, clinical and diagnostic tests, surgery, and hospital bed charges) per episode for inpatient care in 1993 was Rs. 850 for rural and Rs 1 065 for urban patients; the respective figures for outpatient care were Rs 70 and Rs 97. There were large inter-state variations in the cost of treatment. As expected, the cost of treatment was higher in urban than in rural areas, in the private than in public sector and for inpatient than for outpatient care. For both inpatient and outpatient care the private sector agencies, on an average, charged three to four times than the public sector agencies. Overall, the medical expenditure constituted 84 percent of the total cost of treatment; the remaining expenditure included expenses on transport, special diet, rituals, gifts and tips, etc. In most states, the proportion of indirect cost (mainly transportation) was higher for rural than for urban patients, thereby
reflecting the poor distribution of health care facilities in rural areas especially in hilly states.

On an average, an Indian household spends Rs 250 per capita per annum on health care; the figure for urban households is about 40 per cent higher than their rural counterparts. Nearly 80 per cent of the total health expenditure incurred by households is on private health care facilities. This is largely because private health care expenditures, both for inpatient and outpatient care, are considerably higher in terms of out-of-pocket payments. Even so, public health care services are not free and people do incur considerable out-of-pocket expenditure on public health care facilities. The NSS data reveal that more than two-fifths of inpatients and one-third of outpatients using public facilities have to pay for public services (Gumber 1997). Nevertheless, public facilities are relatively cheaper than private facilities.

There are large inter-state variations in both government and household spending on health care whether expressed in per capita terms or as percentage of state domestic product (SDP). The hilly states of Jammu and Kashmir and Himachal Pradesh, as well as Kerala, spend more than nine per cent of their SDP on health whereas it is around three per cent for relatively developed states of Punjab, Haryana and Maharashtra. It appears from selected health care indicators across major states that with the exception of hilly states, government spending on health among the poorer states is low and, therefore, the out-of-pocket expenditure by households in these states is relatively higher (Table 1). Also, the higher level of morbidity results in further raising the share of household expenditure in total health spending.

Structure of Health Insurance

The health insurance sector has not made much headway in India. Overall, only a small percentage (less than nine) of the Indian population is covered by some form of health insurance. Table 3 summarizes the type and coverage of important health insurance schemes. The ESIS covers only the organized industrial workforce; the General Insurance Corporation (GIC) has introduced voluntary coverage for hospitalization under mediclaim and Jan Arogya Bima policy. Also, all Central government employees are covered under the Central Government Health Scheme (CGHS) through a network of hospitals and dispensaries in large cities and state capitals.

The low level of health insurance coverage is due to the government policy of providing free health services. In reality, however, the public health care agencies charge for their services. Furthermore, insurance companies so far have not paid much attention to voluntary medical insurance because of low profitability, high risk and lack of demand. Therefore, the financial burden of medical treatment is an important issue.
### Table 3. Salient Features of Important Health Insurance Schemes in India, 1998

<table>
<thead>
<tr>
<th>Type of Health Insurance Scheme and Commencement Year</th>
<th>Coverage Age/Sum Insured</th>
<th>Estimated Enrolment (’000)</th>
<th>Remarks</th>
</tr>
</thead>
</table>
| **1. General Insurance Corporation**  
Mediclaim, 1986 (Individual/Family/Group) | Individual aged 5-75/Family-3 months to 75 yr., Rs. 15 000-300 000 | 1 600 | Only hospitalisation coverage with exclusion of pre-existing conditions & dental coverage. |
| | | | |
| | Age group up to 70 yr., Rs. 5 000 | 400 | Same as above without group coverage benefits. |
| | Individual/spouse aged 18-55 for post-retirement benefits up to Rs 500 000 | 100 | Hospitalization coverage after the age of retirement. |
| **2. Life Insurance Corporation**  
Asha Deep II, 1995 | Individual aged 18-50, Rs 50 000-300 000 | 175 | Endowment policy with coverage of four ailments – cancer, paralytic strokes, renal failure and coronary artery disease. |
| **3. Unit Trust of India**  
Senior Citizens Unit Plan | Individual/spouse aged 18-54 for post-retirement benefits up to Rs 500 000 | 100 | Medical benefits with one time investment after the age of retirement. |
| **4. Central Government Health Scheme**  
Medical and Health Care Services | Any Central government employees (current or retired) and families, all types of medical services | 4 400 | Though provide coverage for both inpatient and outpatient care, the quality and delivery of services are poor. |
| **5. Employees’ State Insurance Scheme, 1948**  
Medical and Health Care Services along with Cash Benefits | Any employee and his/her family in an organized sector with monthly wages under Rs 6 500, both cash and medical benefits | 29 000 | Poor quality and delivery of services; delay in enrolment and disbursement of cash benefits; non-coverage of temporary workers |
It must be noted that the major part of private health expenditure is mostly recurring in nature and is expended on outpatient and primary care. There should, therefore, be mechanisms to improve the accessibility and utilization for these services in a cost-efficient manner. Improving the quality and availability of drugs alone can bring down the cost of curative care. Similarly, an effective information, education and communication (IEC) structure and provision of dependable information will reduce the cost at all levels of care - primary, secondary and tertiary. There is need to evolve community health insurance schemes on the lines of group insurance whereby the whole panchayats can be insured so that they can subsequently ensure equity in access and utilization of health care services.

Given the high incidence of disease and morbidity especially among the vulnerable and the poor, it is imperative that a hospitalization insurance system is established in India. According to a recent NCAER survey, an estimated 41 million individuals were on medication for a major sickness during 1994. A large majority of them may have already gone through hospitalization or may need it in the near future. Hospitalization insurance, therefore, can be a workable proposition if proper procedures are followed to identify and target individuals or households. The justification for health insurance protection for the poor rests on the premise that an episode of illness requiring hospitalization imposes undue economic burden on them. It cuts both ways: compels borrowing to meet heavy expenditure on treatment, and results in loss of earnings not only of the ill person but also of the member taking care of the patient. The NSS estimates also show that the proportion of the total cost of treatment to annual per capita consumer expenditure varies from 40 per cent in Kerala to 160 per cent in the poorer states. In contrast, in the case of the top 10 per cent of the population, such proportion ranges between 5 and 40 per cent (Krishnan 1996). Also, a feasible health insurance scheme can be expected to provide income protection to the poor.

Various evaluation studies have also suggested that there is an urgent need to streamline the ESIS as well as the CGHS. The response rate to an innovative voluntary health insurance scheme known as 'Jan Arogya' introduced by GIC in 1996 has remained far below the expectation due to lack of information, guidelines and managerial support. The scheme, which was especially meant for vulnerable people by covering hospitalization expenses up to Rs 5,000 per person per year at a modest premium of Rs 70, has succeeded in
protecting only 400,000 people. Further, the situation with regard to the existing Mediclaim policy is not encouraging; it is incurring losses due to collusion among insurers, doctors and hospitals (according to GIC, the rate of claims under the Mediclaim policy was as high as 130 per cent in 1995). As a result, GIC is not very keen in pursuing both the above-mentioned health insurance schemes; they would rather wait for entry of the private sector to take up and streamline these schemes.

**Entry of the Private Sector into the Health Insurance Market**

The subject of health insurance has come to the forefront following the announcement by the Union Finance Minister in his recent budget speech to open up the sector to private players. As stated earlier, only organized sector employees, forming less than nine per cent of the total workforce, are covered under some form of health insurance. A substantial segment of self-employed persons belonging to middle and higher income groups as well as professional and white-collar workers, relying on private hospitals and facilities, would be potential clients for a minimum package of health insurance. It is quite likely that an enhancement in the limit for deductible expenditure on health insurance for income tax purposes will generate additional demand for voluntary health insurance.

The decision to break the decades-old monopoly of GIC by opening up the health insurance sector has raised a whole lot of questions. Why would the new players be interested in health insurance when about two-fifths of Indian population are poor and another one-fifth are barely able to meet their day-to-day requirements? What is the relative advantage when the health market is so much segmented with respect to demand, delivery and quality of services (for instance, 83 per cent of population - over 700 million - live in 575,000 villages and 3,400 towns)? Who would be willing to take the risk when only 6 to 9 per cent of total illnesses require hospitalization and of which 60 per cent are being treated by public hospitals? Whether the new players would extend the coverage for outpatient treatment? And what characteristics should they possess in order to enter a fast-growing health market?

Let us first estimate the size of the health care market, especially the potential health insurance market. As stated earlier, the per capita annual household expenditure on curative care in 1993 was Rs 250 which amounted to a total of Rs 223 billion. Of this, Rs 179 billion were spent in using private hospitals and facilities. Although six per cent of illnesses treated in private facilities required inpatient care, nearly half of this expenditure (Rs 80 billion) was towards hospitalization. This is a conservative estimate because it does not include expenditure towards the use of private
facilities for childbirth, and medical termination of pregnancy (MTP), etc. as well as for those illnesses which remained untreated (nearly 10 per cent). Therefore, to begin with, there is an over Rs 80 billion market (or Rs 90 per capita) for hospitalization insurance coverage alone without the likely shift in demand from public to private facilities.

It has been observed from the NSS data that a majority of patients who were earlier undertaking treatment from private practitioners have switched over to public hospitals for inpatient care (Visaria and Gumber, 1994). This shift has entirely been due to the cost consideration as the treatment cost of inpatient care in private hospitals is two to three times that in public hospitals. A large section of the poor and middle-income population continues to prefer public hospitals for inpatient care. However, once the health insurance package is made available at affordable prices, there would be a shift in demand due to change in tastes and preferences of consumers towards private hospitals, which are perceived to provide better quality care. This way, the consumer would also be relieved from all sorts of hassles in getting a modicum of services offered by public hospitals. In this regard, one can at least expect a net switching over of one-fifth of patients to private hospitals, thereby raising the level of the total private health care market for hospitalization services very close to Rs 100 billion.

Now, a question arises as to who would like to capitalize on the health care market? Basically, there are three categories of private companies which can invest in this sector:

- those which are already manufacturing and delivering health care products;
- those which are delivering medical services through high-technology hospitals, such as Apollo, Batra, Hinduja and Escorts, etc., and
- those which have acquired a name in production of consumer durables, such as Tata Group, Kotak Mahindra, DCM-Shriram and Godrej, etc. and/or have become successful managerial and financial companies, such as ICICI, HDFC, First Leasing and Anagram, etc.

The first two categories of companies are already dealing with the health care market and have better distribution networks whereas the last category of companies have acquired better knowledge about the behaviour of consumers, especially those belonging to the middle- and higher-income groups. These consumers would be most willing to opt for a better health insurance package primarily covering all types of medical expenses towards major illnesses/diseases including maternity care.

Even before the opening up of the health insurance sector for "select Indian players", large-scale investments
by private corporate sector had already begun to establish hospital facilities. In 1995, according to the Centre for Monitoring Indian Economy, 11 new hospital projects in Indian metropolitan cities alone accounted for a total investment of Rs 5.7 billion. Over and above this, several American and British insurance companies now want to tie up with Indian players to offer and market superior health services, and technology, products and distribution mechanisms. They are definitely planning to enter the health insurance market in a big way through wider acceptability, low premium, higher returns and greater flexibility by converting the so-called unclaimed health insurance into household insurance. However, it is yet to be seen how the Insurance Regulatory Authority (set up in 1996) would lay down the policy guidelines to manage and regulate the health insurance sector.

References


Please note that the author himself is responsible for the figures/statistics quoted in this article.
Health Sector Reform

Health Sector Reform – Issues and Opportunities

Dr Than Sein

Abstract
Health sector reform deals with fundamental change of processes in policies and institutional arrangements of the health sector, usually guided by the government. The experience of many countries clearly shows that the success of reforms depends on how the process is applied, and by whom, rather than how the contents are formulated. Sustained information and education on health sector reform is needed to generate wider political and public understanding as well as support. Continuous monitoring and review of health systems development is also required. Research to provide valid scientific evidence for strengthening the processes and mechanisms of health sector reform is also essential.

1. Introduction

Health sector reform is a sustained process of fundamental change in policies and institutional arrangements of the health sector*, usually guided by the government. The process lays down a set of policy measures covering the four main core functions of the health system, viz., governance, provision, financing and resource generation. It is aimed at improving the functioning and performance of the health sector and, ultimately, the health status of the population.

Health sector reform deals with equity, efficiency, quality, financing, and sustainability in the provision of

* Director, Evidence and Information for Policy, WHO-SEARO, New Delhi.
** Health sector and health systems are synonymously used throughout this paper.
Health Sector Reform

health care, and also in defining the priorities, refining the policies and reforming the institutions through which policies are implemented.

Meeting the essential health needs of the people has always been the goal of all governments in the WHO South-East Asia Region (WHO SEAR). Exactly two decades after the quest for health for all was set in motion at the World Health Assembly, the Health Ministers from Member countries of WHO SEAR, at their 15th meeting in August 1997 adopted the Declaration on Health Development in the South-East Asia Region in the 21st century. In this declaration, while realizing the challenges that lie ahead and the opportunities and potential of further enhancement in health development, the Health Ministers expressed their deepest concern and unstinting commitment to ensure access to health care to all. They affirmed the principles and strategies of health-for-all while reiterating that health is central to sustainable development and wellbeing.

The Ministers noted that the foremost challenges in the Region in the 21st century and, particularly, during next few decades, were: initiating health sector reform to reduce inequities in health; creating conditions that promote health and self-reliance; ensuring basic health services to all, and upholding and enforcing health ethics. The Ministers agreed that the governments have the main responsibility to overcome these challenges in partnership with other sectors and the community. The Ministers also highlighted a few priority reform activities, including attacking priority diseases causing high morbidity, mortality and disability; providing essential health care to all; investing in women’s health and development; making appropriate application of scientific knowledge and technology; and enhancing community participation.

At its 50th session in September 1997, the Regional Committee endorsed the Regional Declaration and noted the recommendations of the technical discussions on "Health Sector Reforms". The Committee recognized that reforms in health sector were needed to attain the universal goal of health-for-all and in ensuring equity, solidarity and social justice. Rapid political and socioeconomic changes and the demographic and epidemiological transitions underway had accelerated the reform process. While some countries had initiated fundamental changes, others had initiated sequential, evolutionary, and incremental changes in the policy, organization and management of health systems. Through a resolution, the Regional Committee urged Member States to explore effective strategies for the political and administrative management of the process and content of health sector reform and to involve policy makers, providers of health services and the

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1 Resolution SEA/RC50/R3: Health Sector Reform
public in this process. The Committee also requested the Regional Director to promote exchange of experiences on health sector reform through appropriate consultations, documentation and dissemination, including the use of national and international institutions, WHO Collaborating Centres and other technical forums, with a critical assessment of all aspects of the impact of such reforms. The progress made in the area of health sector reform and their impact in the Region are analyzed, reviewed and discussed in the following paragraphs.

2. Issues in Health Sector Reform

From an analysis of health sector reform in the Region and elsewhere, it is seen that there is no consistently applied, universal package of measures that constitutes health sector reform. The process of reform is also proceeding rapidly in many countries. While considering health sector reform, new forms of relationships among the components of health systems can be developed to make complex changes and interactions. During the last few decades, most of these efforts are being spurred principally by a desire to improve equity and quality of care, to expand coverage, to decentralize health care management, and also to contain costs. The reforms sometimes are highly political and fiercely contested processes. In some countries, the reforms became more complex due to the presence of a wide range of contracting partners, including external agencies. While every reform experience is country-specific and usually based on solid evidence, there are important lessons to be learnt from comparing options, identifying common issues addressed and the tools used, and evaluating effects of various reform initiatives.

Most countries usually focus attention on the contents of the reform, rather than on the process. This focus on content runs the risk of equating health sector reform with one set of prescriptions, e.g. the introduction of market mechanisms; user charges; establishing joint management bodies with low responsibility; reducing the size of the public sector; cost-containment and redistribution of resources. The reform usually ignores the question of feasibility of implementing the change. What is needed is to increasingly understand the issues in reform processes to complement what has been learnt about the content of reforms. Such an understanding might lead to the development of strategies for publicizing or marketing reforms or identification of ways that governments can anticipate and plan for the reactions of organized interest groups.

2.1 Health care financing reforms

The most striking reform in the health sector concerns securing sustainable financing for health care. When health sector investment is analyzed, it is seen
that the situation over the past few decades has not changed with regard to low investment in health. According to recent national health accounts data as reported by WHO, the total health expenditure in most countries of the Region is around 2-8 per cent of their GDP. The proportion of government contributions as a percentage of total health expenditure in most countries ranged from 20-60 per cent, depending on the growth of private health care systems in respective countries. A worldwide study on external assistance to the health sector during 1972 to 1990 revealed that smaller and poorer countries received more funds from external assistance in health sector per capita than larger and richer countries. Around 20-30 per cent of total health expenditure of least developed countries such as Bangladesh, Bhutan and Nepal comprised of external assistance.

The national health accounts provide useful insights to governments to review how they can and should allocate public resources for health, what should be the level of public and private expenditure, and how private resources can be mobilized for public health expenditure. A careful analysis could be made to determine what types of financing strategies are to be adopted, e.g. mobilizing financial resources within the health sector, outside the health sector or improving the use of existing resources. Health care financing reforms have to be initiated in order to ensure equitable access and efficient and effective health care. An appropriate mix of private and public health care and financing mechanisms have to be established, so that the two sectors complement to each other, to yield best results.

Alternative health financing reforms such as cost-recovery and cost-sharing schemes, user fees/charges, community financing, health cards or voucher systems, subsidized payment schemes, contracting services, social insurance schemes, and private insurance, etc., are some examples of changes in financing mechanisms introduced under the umbrella of health sector reform. Most countries have concentrated on the contents of reforms in health care financing rather than on the processes resulting in failure or delays in implementation.

The fundamental principle of financing reforms is that health care funds (either for private health care or for community health prevention and promotion) are raised from the people according to their ability to pay, and not according to health need. It is also equally important that funds are spent according to health need, and not according to ability to pay. Everybody is entitled to pay an equal share of disposable income. This not only depends on the share of disposable income spent on health,
but also the methods of financing, such as general taxation, insurance, or out-of-pocket payments. Fair financing deals with whether funds are raised through a progressive collection mechanism and protection of catastrophic health costs.

Even though the level of health spending (like total health expenditure or per capita health expenditure as percentage of GDP) is important, experiences of some high-and middle-income countries show that more is not always better or always possible. What needs to be kept in mind is how far health expenditure is distributed according to health needs. The effects of good spending and utilization according to health needs are reflected in the level of inequities in health.

Many countries in the Region have introduced various financing mechanisms, including community-financing systems, particularly to protect poor families. Public-private joint venture initiatives for expansion of hospital care have been undertaken in some countries. Major investments by international and national private corporations in establishing big and medium-scale hospitals and diagnostic facilities have been made in some countries. Various forms of user charges at public health facilities have been introduced to relieve the burden of public expenditure in hospitals and health centres. Considerable evidence in developing countries, including those in WHO-SEAR has been documented on the consequences of imposing user-charges for health care, in the context of equity, efficiency and consumer satisfaction. This evidence clearly shows that price alone is insufficient to explain the effects of fee systems. Managerial and organizational factors are central determinants of the impact of this policy reform. There is also evidence of the danger that direct contribution by users to health financing leads to cuts in the State health budget.

There are a few countries where social security and health insurance schemes already cover a certain proportion of the general population (3-20%). The coverage is concentrated on the employed sector (industrial and manual labour and government employees). In some countries, various forms of community health-risk-sharing schemes have been developed through non-formal sector health insurance initiatives. A few initiatives in the Region especially in India, Indonesia and Bangladesh have been successful as they cover certain targeted groups such as poor women, low-wage labourers, and the semi-employed. Experience has shown that pooling risks for both health dangers and financial burden have increased the efficiency of health systems, creating better health outcomes. WHO conducted a global study in 1998 on "risk sharing schemes for informal sectors". The information thus provided highlighted how governments could ensure that the vast rural population in most countries is pooled for health risk in the most efficient manner.
There is a danger that rapid expansion of health insurance coverage without appropriate safeguards result in health systems moving away from these goals. The success of health insurance in achieving health reform goals is closely related to its particular institutional characteristics and managerial capacity. Usually, middle- and high-income countries, whose economy could sustain a larger force of employed labour, attempted to expand the coverage of social health insurance. They initially started with multiple agencies handling social health insurance and managing through prepaid schemes. They tended to contract out health care to as many private providers as possible. Specific arrangements for insurance, such as social health insurance, social security, commercial health insurance, community prepayment schemes, etc., vary across countries. But, ultimately it is the government that must provide subsidies for the poor and disadvantaged groups, to ensure that those who cannot afford to fully finance their own “insurance” are protected. Some countries have made detailed studies on this aspect, in collaboration with external agencies including the International Labour Organization. More information is required to study these issues comprehensively in the Region.

The promotion of competition, either between providers or, more rarely, between financiers of health care, has been used as a strategy to finance reform programmes being carried out in industrialized countries. The strategy to use government funds to buy clinical or non-clinical services from private providers is intended to increase the productivity of public resources by purchasing the gains in efficiency perceived to exist in the private sector. Service contracting is primarily to improve the quality and/or increase the quantity of services that can be made available for a given amount of government expenditure. This kind of a competitive approach has been introduced in a few countries of the Region.

Many countries have promoted or are in the process of promoting privatization efforts in the health sector with or without the active participation of health ministries. Some countries have attempted to reduce public involvement in the management and delivery of health services as part of their privatization efforts. They have introduced appropriate policies towards the private sector, and have restricted government activities to policy formulation, monitoring, coordination and regulation. This practice of encouraging the public health sector to abandon health services provision and concentrate on its normative and regulatory role has not always been accompanied by strengthening the normative role of the ministries of health. More research is required on what capacities, skill, information systems, etc., governments need to develop to play an expanded regulatory role.
While recognizing the advantage of involving the private sector and consumers in future policy-making and regulatory processes, the governments, especially ministries of health, should be proactive in dealing with issues that might adversely affect the underprivileged segments of the population. The greatest health needs are among underprivileged populations. The maximum improvement in the health status of these groups is possible, only when the most cost-effective health actions are targeted to those most at risk or most in need. While an optimal allocation of health resources is required, different mechanisms and approaches are needed to ensure sharing of both disease and financial risk. Given the complexity of the public-private mix in health care provision or financing, and the complementarities and partnerships between the public and private sectors including the efforts of civil societies, the ministries of health should improve and strengthen their capacities of studying and exploring alternative financing of health care. They should introduce appropriate reform measures and ensure quality of services, and acceptable social responsibility of, and protection for, the consumers, especially the underprivileged.

2.2 Reform in provision of health care

After the World Bank in its 1993 World Development Report highlighted the importance of adopting essential clinical and public health packages, many countries, especially those receiving substantial external financial assistance from the Bank and other bilateral and multilateral donors, tried to link their economic investment in health with a core set of essential health care packages. Most countries in the Region, with support and guidance from WHO, field-tested different sets of health care packages. These included a mother-baby package, baby-friendly hospitals, health-promoting hospitals, Integrated Management of Childhood Illnesses (IMCI), Safe Motherhood Initiative (SMI), EPI-plus, and recently, Making Pregnancy Safer. These essential health packages aimed at improving health care and increasing efficiency by making the best use of contact between health workers and concentrating on the needs of the individual rather than focusing on the single disease. There has been a rapid expansion of selective essential health care interventions in the countries of the Region, during the past few decades. These selective primary health care efforts such as disease elimination and eradication are successful due to partnerships among countries as well as with development partners. However, the situation in other public health development areas is quite different. For example, provision of safe water supply and sanitation, provision of essential medical care including essential drugs, provision of essential obstetric care for pregnancy and delivery, leave much to be desired. The trend for further expansion of coverage of essential health care, especially in the
least-developed countries, is not bright due to many uncontrollable factors (political, socioeconomic and financial). First, the external and internal resource inputs for health infrastructure expansion are scarce. Secondly, nearly 20-30% of the population, who are actually the most needy in terms of health care, is harder to reach for providing any essential health care, mainly due to economic or geographical reasons. The challenge, thus, is how to reach the unreached.

Two decades of implementing the primary health care (PHC) approach revealed a “new universalism”. It denotes a renewed PHC approach that recognizes government’s limitations but retains government’s responsibility for the leadership and financing of health systems. The new universalism recognizes that the most cost-effective health interventions in a given setting are to be provided for all, but not all possible interventions for a whole population. Each country needs to look at what type of essential public health package should be available at various levels of the health system which is universally acceptable and affordable using appropriate technology.

The debate on the two approaches - selective (vertical) and integrated health care, is still on and will continue for some years at both the national and international levels. The situation is complex and should not be over-simplified. It has to be judged according to direct policy and operational consequences. Public health interventions such as immunization, oral rehydration, multi-drug therapy, fortification or supplementation of micronutrients (like Vitamin A, iodine, iron, and other essential minerals and vitamins) for the prevention and control of communicable and non-communicable diseases, are well established. These interventions are packaged in selective or integrated health care programmes, depending upon the urgency for control, the capacity for expansion and sustainability of coverage by the existing health infrastructure. Many such programmes have mostly used the campaign approach, for prevention and control of priority diseases, for example, national immunization days or mopping-up vaccinations against polio, mass education and supply of iodized salt, multi-drug therapy for leprosy and filariasis. Specific problem reduction targets have been set and special national campaigns launched requiring considerable resource inputs to achieve the targets.

The central issue is whether such selective health programmes merely use a passive health infrastructure, or, on the other hand, the health infrastructure adopts the selective programme as its essential intrinsic function. The choice is never completely free. Many selective programmes, upon close examination, show that although the technology and programming have been
selective and meticulous, the actual performance and achievement of targets still depend upon such critical elements as the capacity of the health infrastructure, community involvement, decentralization, education and information, intra-sectoral and inter-sectoral approaches—all of which are essential and complementary support elements of primary health care. Efforts are now being geared towards organizing integrated local delivery of health care while, at the same time, ensuring the technical quality of specialized/ selective services.

2.3 Resource generation

Despite these reforms, there is still a large gap in people's health status as well as in the development and implementation of policies, financing, organization, management and delivery of health programmes. The quality, quantity and balance of human resources for health are the main concerns. While attempts have been made to expand training institutions as well as their production capacities, there are still shortages in most categories of health personnel in Bhutan, Maldives, Indonesia, and Nepal. Some countries like Bangladesh, India, Myanmar and Thailand, have sufficient or an excess of doctors but face shortages in other categories of health care workers. The shortage of nursing and midwifery personnel in many countries is one reason for high maternal mortality and low accessibility of essential obstetric care during pregnancy and childbirth.

Another dimension of human resources is the imbalance in deployment between rural and urban areas. A significant emerging factor, which further aggravates this situation, is the increasing competition between the public and private sectors. The people themselves are the most valuable resource for health. The principle adopted in Alma-Ata defined community involvement as a process whereby individuals, families and communities assume responsibility for their own health and welfare and develop the capacity to contribute to their own and the community's development. Many countries have successfully learned this principle through various innovations. Almost all countries consider community action for health as a political necessity and also an important and effective mechanism for planning, implementation and evaluation of health development at the local level. For effective community action, certain prerequisites are necessary, such as local leadership, decentralization, appropriate technology, sustainable mechanisms for partnerships, etc.

Increasing community awareness and creating active and effective mechanisms for community involvement have been used as the main strategies of the health and social development programmes of all countries of the Region. The successful
community health development programmes such as the Integrated Health Package Programme (Pos Pelayanan Terpadu or POSYANDU) in Indonesia; the Village Health Volunteer Schemes and the Integrated Basic Minimum Needs (BMN) programme in Thailand; and the Community Health Care Programme using a large force of health volunteers in Myanmar, are at the cross-roads due to changes in health care management with private-public partnership.

Experiences in many countries show that the conventional approach of extending health care delivery through building more public hospitals and health centres has proved inadequate. It is proving economically impossible to bear the cost of full extension and expansion of public sector health services to the entire population. It is important to expand and strengthen the role that individuals, families and communities can play in the promotion and protection of health. This approach has not been encouraged much in many of the national health programmes. The conventional (allopathic-based) health delivery system should play a positive and catalytic role so that communities can own and maintain actions for health development both individually and collectively. The traditional medical care systems should also be developed further in order to complement the expanding (allopathic-based) health care systems. Since health needs are not always perceived and are not automatically translated into demands, the health care system must assist the people to recognize their health needs and convert them into health demands, or take action for self-care where appropriate.

Social mobilization constitutes the main strategy to build on the energy, inventiveness and capacity of the people themselves. The people, instead of being objects of the development process, become real partners. Community health cooperative schemes in many countries are successful examples of such partnerships. The influential people in the community are the prime movers and HFA leaders, and they are becoming more prominent as they help to remove the obstacles and facilitate the development of action programmes which promote self-confidence, income generation and participation. Careful attention should be given to local leadership development, aimed at enhancing the ability and the effectiveness of the leaders at all levels. Leadership development should be viewed as a people-centered and issue-oriented process.

In strengthening district health systems, little attention has been paid to the relationship between primary health care activities of basic health centres with those of first and intermediate referral levels (i.e. rural and district hospitals). Another dichotomy in development of health systems in some countries is the higher investment on development of
hospital-based care at the cost of community-based care for the majority. Hence, finding an appropriate balance between primary, secondary and tertiary health care requires a clear understanding of appropriate interactions between the three levels, promotion of public and professional awareness of the need for such balance, as well as firm policy-making and policy-related budgeting. There is no doubt that an appropriate district health system is the level where integrated health development can be managed easily in response to local conditions and needs, using available infrastructure and resources.

Experience shows that creative management and real community involvement can be initiated at this level through devolution of functions and responsibilities. Many successful examples of health development can be seen in healthy districts movement, which has come to be known as "decentralized management". The competence of mid-level health managers has largely been enhanced through "learning-by-doing" and application of appropriate methodologies and technologies in real-life situations. Some of these innovations and efforts have won international recognition and have also received several international prizes, such as the Sasakawa Health Prize, HFA Medals, World No-Tobacco Day Awards, Darling Foundation Awards and Leon Bemard Foundation Awards, etc.

2.4 Governance

The reform process starts from the ministries of health, with the aim of reflecting a deliberate change in the policy of the government to improve performance. These reform efforts ensure the strengthening of policy and planning functions, setting of standards for health care provision and development of appropriate systems for monitoring performance (including quality assurance initiatives), introducing new management policies and practices, defining national and provincial disease priorities and introducing effective health interventions.

(1) Reorientation and restructuring

During the last few years, as part of health sector reform initiatives, many countries have implemented different forms of reorienting and restructuring their ministries of health. These can be categorized as follows: (a) making the ministries smaller and less hierarchical (as in most cases of decentralization efforts in Nepal, Indonesia, Sri Lanka and Thailand); (b) separating the functions of service provision and service financing to enable better performance through competitive measures (allocation of resources and financial management, e.g. expansion of health insurance coverage, service contracting, autonomous hospitals, functional groupings, integrating central health budget, setting up management boards at large public hospitals, joint ventures, etc., carried
Health Sector Reform

out in Thailand, India, Indonesia, Myanmar, and Sri Lanka); (c) shifting the mix of staff and skills from an emphasis on technical and medical training to that of management, finance, and planning of human resources for health in most countries; and (d) legislation and regulations for production and deployment of various categories of health workers including medical profession also e.g. new Health Act of Nepal, large scale contracting of village midwives and other categories of health workers in Indonesia; compulsory conscription of medical doctors in Myanmar; and the hospital accreditations in Thailand. Except in a few countries, most experiences in this area of reform have not been well documented.

The usual focus of reform by governments and, more particularly, donors has been on the reduction of the overall size of the civil service, including the health sector. Reducing the total number of health staff, introducing new pay scales, grading structure and incentive schemes, separating political and executive functions, decentralization and privatization efforts are examples of civil service reforms introduced in many countries, including those of the Region.

(2) Decentralization

As part of political and civil service reforms, decentralization is most common in almost all countries of the Region. Decentralization usually refers to three different types of processes. The first concerns the devolution of authority and responsibility from the central government to local government agencies in political and administrative areas. For example, State or Provincial or District Governments are responsible for their local development including health and other social sectors such as in India, Indonesia, Nepal and Sri Lanka. Bhutan, Myanmar and Thailand have also started their devolution process. The second process of decentralization is to deconcentrate the functions from higher to lower levels within the administrative apparatus of the countries. Many countries have introduced this process of delegation of responsibility for managing financial resources, deployment of human resources, and managing for hospitals and health centres. The third way is the delegation of responsibility and functions from central government units to other more autonomous and/or specialized types of government agencies or specialized functional agencies or parastatals in almost all countries. The establishment of national health research institutes, national nutrition centres, national and regional research and training institutes, or institute of policy studies are a few examples. In some cases, decentralization also refers to the transfer of functions from government (public responsibility) to nongovernmental organizations, including private for-profit enterprises and NGOs in the established sense of the term.
Efforts in decentralization require fulfilling a number of objectives - political, economic and managerial, which are not always compatible. Although decentralization has been used as a strategy to promote efficiency and public accountability, it is important not to overlook the role of the central authority, particularly the need to establish equitable means for allocating resources and to ensure the existence of effective mechanisms for managing the health market. Experience has shown that in the field of essential drugs, there are various central government functions that should not be decentralized, e.g. selection of drugs that the centre authorizes for circulation in the national territory (drug regulation and registration), quality of standards and drug pricing policies, etc. This example illustrates that policies concerning the decentralization of various functions, responsibilities or authority are policy tools, and not merely policy objectives. Each country has to consider or identify an appropriate mix of centralized and decentralized functions, responsibility or authority to best meet policy objectives. The issue of decentralization cannot, therefore, be viewed by ministries of health in isolation from the overall civil service and political reform.

(3) Reform related with other sectors

With the increasing participation of other sectors and agencies including the community in health development, there is a need for the health sector to create a wider base for appropriate health action. Since the Alma-Ata declaration and HFA strategies were adopted, intersectoral action and community action for health have been recognized as major strategies for health development. However, a few major constraints have hindered progress. Some deterring factors are: (a) sustaining political commitment and translating it into operational means; (b) lack of common understanding of a comprehensive health system development framework resulting in ad hoc perceptions and sporadic decisions; (c) inadequacy of analytical and action-oriented information and clear directions for action and feedback; (d) absence of appropriate mechanisms for planning, implementation and monitoring; and (e) inadequate research support to provide information on the impact of public policies on health.

There is no denying that many development programmes of other sectors can contribute to health development. There are numerous examples, such as educating people on health promotion and protection; promoting no tobacco or alcohol use; having proper nutrition; empowering women to improve their health and development; initiating poverty reduction; etc. What is more important is how the health sector maintains its leadership role. It may not be enough to indicate what the others can do for health, but to indicate what the health sector can do for others. The health sector
reforms should foster new partnerships and strengthen existing ones in order to place health at the centre of development activities.

With the globalization and liberalization of international trade, there is growing concern on the part of health decision-makers, regarding the impact of international trade on health services. The current international trade negotiations have given importance to opportunities for promotion of international trade in services, including health care. At the same time, market exploitation of international investment in health care could jeopardize national health systems, including resource allocation. Thus, countries should be aware of the impact of increased international trade in health services. They should also take full advantage of the potential benefits that can arise from agreements on regional integration such as AFTA, BIMS and APEC or from the general agreement on trade in services (GATS) and the trade-related intellectual property rights (TRIPS). The countries of the Region have varying experiences in international trade in health care. Also, there is very little information on international trade in health care. There is a need, therefore, to review the current situation in the Region and to define the main issues so that appropriate policy options could be formulated for strengthening regional technical cooperation.

3. Strategic Support for Change

3.1 Capacity building

One of the preconditions for successful reform is the national capacity to plan and manage change. Most of the external donor-assisted programmes address this well-known need. Capacity building has many dimensions. It goes beyond training to incorporate many other elements, which may also overlap with institutional development. In the area of human resources development, it is recognized that insufficient attention had been paid to the demand as opposed to the supply. At the same time, trainees were frustrated when the policy and service environment was not conducive to the implementation of research findings.

The major issue of capacity building tends to focus on the general assumption that policy and programme development are the concerns of governments and it is the latter who should be equipped. This assumption is true to some extent considering that many governments in the Region have created specific departments, institutes or units within the ministries of health, whose outputs and advice are sought or used by health policy makers. In some countries, in order to reduce the degenerative effects of bureaucratic entities leading to little dynamism and creativity, autonomous institutions and centres for policy analysis or research and development, including health, have been established as freestanding entities or as part of academic institutions or even private sector
organizations. These institutions have greater flexibility, good compensation and incentives to attract and retain competent professionals.

One of the challenges was to strengthen national capacity for managing health sector within the framework using sector-wide approaches in health policy and programme development. As decentralization efforts in many countries are being accelerated in recent years, the adoption of sector-wide approaches in health development planning and management will provide many opportunities for channeling the external resources. This move will make a step forward from development assistance programme to a comprehensive developmental process where donors and nationals agree to work on common goals and priorities. The focus of health development through sector-wide approaches moves from planning and management of individual programmes (for specific health priorities or geographical areas) to the overall policy, institutional and financial framework within which health actions are undertaken. Ultimately, there is a move progressively towards development of a more comprehensive sectoral programme with pooled resources (both internal and external). Bangladesh has started implementing its medium-term health and population sector programme (HPSP) since 1998. Nepal, Sri Lanka, Indonesia, Myanmar and Thailand are also embarking on developing medium-term health sector development programme for the next few years.

3.2 Promotion of research for health sector reform

Health sector reform is itself a researchable issue. The research can be a proactive, a prospective or a retrospective activity. It contributes to the overall health development within the background of dynamic socioeconomic and political changes. Health policy analysis, both at macro- and micro-levels, also provides invaluable inputs to health sector reform. The main issue for research covering health sector reform is how to improve the health system performance rather than fact-finding or hypothesis formulation. The researchable issues are to be identified from the gaps between the desired health situation (equity, efficiency, quality and responsiveness) and what is actually happening or supposed to be happening. It is more important to monitor and evaluate the processes of change rather than looking at the contents of change.

In the process of reform, it is essential that the initiatives include health policy and health systems research as an integral part of the reform agenda. The policy and organizational changes and managerial reorientation of ministries of health and their related sectors (institutional reforms), as mentioned above, are the means to an end. The development of health policy analysis and health systems research lags far
behind the epidemiological, demographic and economic research studies. Thus, continuous and simultaneous monitoring, review and research on health systems are necessary to keep track of changes and to make appropriate improvements. The understanding of the consequences of reforms to health sector financing and organization has improved tremendously over the years. But, there is much more to be learned. There is a need for better systems and mechanisms to enable planners to analyze different approaches to policy and institutional changes in the health sector. Continuous monitoring and evaluation of health financing reforms must, of necessity, involve analysis and understanding of institutional and organizational changes taking place in the health sector as a whole.

In March 2000, the Global Forum for Health Research (GFHR) in collaboration with WHO and several other institutional and donor partners launched the Alliance for Health Policy and Systems Research initiative. The aim of the Alliance is to contribute to health systems development and the efficiency and equity of health systems through research on and for policy. Countries should take advantage of the Alliance to strengthen their research capabilities.

### 3.3 Exchange of information and learning-by-doing

All countries have provided documentary evidence on the steady progress made with various reform initiatives, especially on health care financing. In addition, important insights have emerged with respect to the major content of health sector reform. One such insight was that there are many advantages of a strong linkage of the decision-making processes with those related to health systems research.

Certain core values and operational principles have surfaced, such as equity, efficiency, effectiveness, and quality. Consumers’ choice and rights as responsiveness of every health system have to be respected. There are several examples of mechanisms and processes to promote research for health sector reforms at national, regional and global levels. In each country, the national research promotion and development councils or analogous bodies are responsible for research promotion and strategy coordination. The same applies to the importance of regional bodies such as the regional health research advisory bodies (ACHR), which provide policy guidance and coordination. However, it is also recognized that there are some gaps between the production of research studies and the use of these products in the policy formulation and decision-making processes. Some countries have attempted to make use of research results in decision-making by involving the decision-makers at the start of research, and advocating results at various forums including information to consumers. It is also recognized that the resources for research and development of reform is
not a major issue. Both internal and external resources could be made available provided that the research agenda fits in with the needs of policy and decision-makers.

It should also be realized that there is a need to document various health sector reform initiatives. There is an attempt by WHO, in collaboration with Member countries and institutions, to conduct a critical comparative review of health systems development in various parts of the world using a common framework. An appropriate country protocol or profile format has been used so that the countries can record health sector reform initiatives systematically. It would also further facilitate the processes of reform as well as help in identification of research agenda, and also enable them to make critical reviews and comparative analysis.

3.4 Role of WHO and international agencies

WHO, through its various collaborative programmes, involves itself in capacity building in Member Countries to help take care of the evolving reforms in the health sector. In order to support health sector reform, a series of publications, both at the regional and global levels, have been issued. WHO-SEARO, along with interested institutions, has established a regional forum on health sector reform, as part of the “Asia-Pacific Health Systems and Health Policy Research Network”.

WHO continues to provide technical and financial support to the countries for research and development in the area of health sector reform. WHO also works closely with WHO Collaborating Centres (WHO CCs) and other relevant national and international institutions, in order to make the health sector more productive, efficient and effective in achieving the goals of health for all. WHO is strengthening its role as clearing-house to disseminate information on research and development on health sector reform. Informatics technology is appropriately being exploited for promoting the exchange of information. Existing regional and global mechanisms such as global and regional ACHR, the ASEAN Health Ministers’ forum, the SAARC Health Committee and the meeting of the health focal points for Non-aligned Movement, etc., should be used for advocating and sharing information on health sector reform. Furthermore, the meetings of such regional and global bodies could include research and development issues related to health sector reform on their agendas.

4. Conclusion and Points for Consideration

"Health sector reform" is a political and dynamic process. Reforms should take place as sustained processes of fundamental change in the context of health policy and health institutional arrangements. They are not sequential
or incremental processes. The issue is: "Can analysis of the political process of health sector reform be put on the research agenda, so that more can be learned about managing change?"

In general, improvements in the functioning of the public sector and civil service systems will occur in parallel with, and sometimes in response to, other aspects of institutional reform, such as increasing privatization. In some cases, the reforms are limited to the public sector. Leaving the private sector entirely to market forces may mean giving up equity considerations. Experiences of many countries, within and outside the Region, clearly confirm that the success of reforms lies with how the process is to be applied and by whom, rather than on how the contents are formulated. There is a need for better understanding of the "process" issues to complement what has been learned about the "contents".

Research might involve, for example, (a) strategies for publicizing or marketing reforms to policy makers, providers and the general population; and (b) ways that government can anticipate and plan for the reactions of organized interest groups. The major research issue may be to deal with the political process - what are the effective strategies for the political management of the reform process?

Sustained information and education on health sector reform is needed to generate wider political and public understanding and support. In order to promote regional exchange of experience and information and to create a pool of expertise, there is an urgent need to strengthen the regional scientists' forum on health sector reform. This forum will provide an opportunity to review and share the experience of reform initiatives; develop tools and methodologies; and provide support for capacity building. The issue that remains to be addressed is what are the practical and sustained national mechanisms to promote research on health sector reform together with built-in monitoring system and feedback of outcome of research? It is acknowledged that countries of the Region have considerable experience in health sector reform. However, they must continue to debate on identifiable research issues relevant to the processes and mechanisms of health sector reform and on ways of dealing with such issues.

Suggested further reading:

Issues and Opportunities


15. WHO-EURO. European Health Care Reforms: Analysis of Current Strategies
- **Summary.** In: Proceeding of the WHO Conference on European Health Care Reforms, held at Ljubljana, Slovenia, June 1996. Copenhagen: WHO Regional Office for Europe; 1998. (Document EUR/ICP/CARE 01 02 01)


Health Systems Reform

Triangle that moves the Mountain and Health Systems Reform Movement in Thailand

Prof. Pravase Wasi, M.D.*

1. Focus on Member Countries

The organizational structure of the World Health Organization (WHO) is potentially a very good structure. It comprises Headquarters (HQ), the Regional Offices (ROs) and Member Countries. If all the components work well in an interactive manner, the structure can be a dynamic interconnected network vibrant with knowledge generation, and learning and development - benefiting the health and well-being of mankind around the world.

WHO’s greatest strength lies in it being a highly prestigious organization and in its unlimited access to expertise around the world. HQ and ROs have generated and collected a lot of concepts and methods, but the most difficult part is to implement those concepts and methods in Member Countries. For knowledge-based health development to be implemented successfully in Member Countries, it is important that the concepts and methods are tested through real practice in Member Countries and appropriate feedback provided. This will enable the structure to remain interactive and vibrant. Thus, more attention should be focused on Member Countries: How can they implement knowledge-based health development successfully is the crucial issue.

2. Triangle that moves The Mountain

Thailand, like many other countries, has been facing extremely difficult problems - political, economic, social,
cultural and environmental, culminating recently in the phenomenon of social crisis, severely affecting health. The problems are inter-connected, complex and extremely difficult to solve. In fact, some feel that they are too big and too difficult, and that their solution is beyond imagination. But we have to find ways and means to get out of the crisis in order to be able to move forward positively. In Thailand, an increasingly well-known approach called “Triangle that Moves the Mountain” is being practiced. Here, the mountain stands for a big and a very difficult problem, usually unmovable. The Triangle, as illustrated in Figure 1, comprises: (1) Creation of relevant knowledge through research; (2) Social movement or social learning, and (3) Political involvement.

Figure 1. Triangle that Moves the Mountain

1. Creation of relevant knowledge
2. Social movement
3. Political involvement

Creation of relevant knowledge through research is very crucial, but not adequate by itself; it must interact with social movement or social learning. Without relevant knowledge, social movement cannot become very strong and may even deviate from its rightful path. Knowledge derived from research must be translated into forms and languages that can empower the public. Many academicians shun politicians, thinking that they are bad people and do not wish to do anything with them. But politicians have authority over the utilization of state resources and in law promulgation, which are very often needed in development. Thus without political involvement the working structure is not complete. Politics without knowledge and social movement will not do. In developing countries, and sometimes even in developed countries, the lack of this “triad” leads to failure in solving difficult problems.

In Thailand this triangular approach has been used successfully to move a few “mountains”. The most difficult part was to rewrite the Constitution for political reform. This type of political reform is usually undertaken when a country either loses a war or finds itself at the brink of a civil war. No political party really wanted to undertake the reform because the new Constitution would limit their power. The writer was responsible for recommending that Thailand needed to write a new Constitution for political reform. When he was appointed Chairman of the Democracy Development Committee which recommended political reform, the Committee implemented the “Triangle” approach. Research results were used to empower public movement which turned the New Constitution for political reform into a political issue that was unstoppable.
and which finally led to the promulgation of the New Constitution in 1997. The triangular approach has also been used in drawing up the Eighth National Economic and Social Development Plan, which has been reoriented from economy-dominated development to human centred development. In 1999 the National Education Act for education reform was enacted. Again, this very difficult task was made successful through the application of the “Triangle” approach.

The “Triangle that Moves the Mountain” approach is now being applied in health systems reform – another mountain that needs to be moved. This is briefly described as follows.

3. Health Systems Reform Movement in Thailand

The Crisis

Thailand has a relatively good health care service infrastructure with hospitals in all its 76 provinces and over 700 districts, and health stations in all its 7,000 sub-districts or tambons. It has done well in communicable disease control; plague, smallpox, cholera, leprosy, diptheria, pertussis, yaws, poliomyelitis have either disappeared or are very much reduced in prevalence. However, if looked at from a system dimension the Thai health system is in crisis. The National health expenditure this year amounts to nearly 300,000 million Bhats, increasing at a rate of over 10 per cent annually since the past several years. The excess of the increase in the rate of health expenditure over that of income indicates that the system is running into crisis, i.e. the country will run out of money even as many people continue to be ill or continue to die of diseases or conditions which are preventable, such as heart diseases, cancer, accidents, HIV/AIDS and drug addiction. This means that both access and quality of health care are not good enough, and that people are not satisfied, while the health personnel are over-worked. In brief, the system is not cost-effective and is in need of reform.

Need

The passive “ill-health-oriented” system needs to be reformed into a “good-health-oriented” system. For this, the health promotion system needs to be fully developed. Also, the disease control and prevention system must be reformed to be fully efficient. Health care finance must be developed to guarantee access to adequate and quality health care for all. Consumers must be adequately protected and empowered. Furthermore, health personnel development needs to be reformed as do the technology, the information and the research systems. Under the reformed health systems, the responsibility for good health will not lie solely with the Ministry of Public Health, but will all sectors of society – All for Health. Thus there is a need for a body to coordinate health policies for
all sectors. And a good part of the reform components also need to be put into law. Thus a National Health Act is needed. All these are extremely difficult or next to impossible. Much knowledge needs to be generated, and social participation as well as political commitment are crucial to the process.

**Research and Development**

At this point the writer wishes to give credit to WHO. The involvement of the writer as well as other Thai nationals with WHO in various capacities has been a source inspiration, and has led to a variety of health research and development activities in Thailand. The non-smoking campaign, health economics capacity-building, and the idea for health systems reform, for example, can all be traced to WHO-led inspiration.

Health research capability-building is most crucial for health systems reform. In the last two decades or so health research capability has been strengthened through different means. These include: the Tropical Diseases Research (TDR) strengthening programme, Rockefeller Foundation’s The Great Neglected Diseases of Mankind Programme, the CDC-collaborated Field Epidemiology Training programme, the Rockefeller Foundation-initiated INCLEN, setting up of the National Epidemiology Board supported by the Rockefeller Foundation, and establishment of the College of Public Health at Chulalongkorn University under the leadership of Charas Suwanwela and Chitr Sithi-amom, and with their, as well as other Thai academic leaders, involvement with the international health research movement. The Health Care Reform project under the leadership of Dr Sanguan Nitayarumphong, supported by the European Union (EU), has pioneered research and development in health care system reform.

The chronic problem in most developing countries is the lack of good research management mechanisms. In order to overcome this limitation, Thailand established two effective national research promoting and funding agencies in 1992, namely the Thailand Research Fund (TRF) and the Health Systems Research Institute (HSRI). It should be pointed out that both the TRF and the HSRI have been specially designed to be effective in research management. Both have been established by special Acts which allow them to use the government budget but be independent at the same time. They are not bureaucratic organizations, and are governed by independent boards. However, even though independent by law, as is the practice in many developing countries, the organizations may suffer from creeping bureaucratic ills and politically-motivated pressures. Therefore, having senior academics respected by politicians, bureaucrats and the media is very crucial in helping the
organizations to steer clear of such a scenario. The HSRI has been established with the intention of making it a tool for health system reform. In the past seven-and-a-half years under the able leadership of the two successive directors, Dr Somsak Chunharas (the former director), and Dr Wiput Phoolcharoen (the current director), the Institute has mobilized the creation of a good deal of health system knowledge. Although this knowledge is not yet complete, it is adequate enough to support a health system reform movement.

The Board of the HSRI has the Minister of Public Health as its Chairman, with members comprising permanent secretaries of relevant ministries and their equivalents and respected senior academics. Having the Minister of Public Health as its Chairman, the HSRI has a direct channel to the Cabinet. When the Board agreed recently that it was time for Thailand to launch a health system reform movement the matter went to the Cabinet. The Prime Minister has given whole-hearted support and has issued the Prime Minister Office’s Regulation establishing the National Health System Reform Committee. The Committee has the Prime Minister as its Chairman and the Minister of Public Health as Deputy Chairman. A National Health System Reform Office (HSRO) has been set up to catalyze the “Triangle”, i.e. research, social movement and political interaction, and to issue a National Health Act for health systems reform within three years. The Government will be providing all necessary resources for the movement. Although a national Health Act is necessary for health systems reform, not all the reform activities have to wait for the law. For example, an independent Office for Health Promotion Fund has already been established and the Ministry of Finance has sponsored a “Health Promotion Fund” Bill, to provide two per cent of excise taxes on tobacco and alcohol, amounting to 1,400 million Bahts per year, for the Office to support innovative health promotion initiatives throughout the country.

Thus we are now witnessing the long-awaited interaction between research, social participation and political support at work for health development of all Thai people - in the name of health systems reform.

4. Conclusions and Recommendations

(1) Concepts and methods for health developed at the global and international level are important, but focus should be on real actions in countries.

The results from real actions in countries and emerging needs for more knowledge will provide feedback into the global system, thus making the international networks for health research and development actively
interacting in a most creative manner.

(2) In countries special attention should be paid to the creation of functionally effective research promotion and funding mechanisms. The Thailand Research Fund (TRF) can be an example. In order to generate health systems knowledge necessary for health system reform a research institute such as the Health Systems Research Institute (HSRI) of Thailand may be necessary. The international health research promotion networks should provide political support to the creation of effective health research management mechanisms in Member Countries wherever not existing.

(3) Research is fun. But research should not just create more research and go on without end. Research should lead to development and development should lead to more research relevant to development needs. Research should not be floating or ‘go to the shelf’, but should be rested with feedback received from real applications.

(4) Health development in countries is extremely difficult. It depends on complex interactions between knowledge, culture, politics, bureaucracy, the media and society, etc. Expertise in any one particular academic field is not adequate to mobilize health development. It needs leaders possessing proper perspectives of systems and management skills with strong commitment and some charisma. Such persons are rare, if not lacking, in many societies.

(5) Thus it is recommended to the international health research and development circles to pay more attention to finding and developing health policy leaders who can mobilize resources for health development in countries. Regional or international courses in health policy leadership might be considered for providing opportunities for interactive learning through action and network-building. With this it is hoped that health research and development will really take place in countries. Interaction between countries and the international health research forum will form a vibrant global network comprising knowledge generation, learning and development to benefit the health and well-being of mankind around the world.
Where is the ‘M’ in MCH?

Dr Babu Patel, M.D.*

Despite advanced communication technology and a worldwide hunt for exciting stories, some tragedies do not attract much attention. The World Health Organization estimates that 150 million deliveries occur annually. Every year 585,000 women will die (equivalent to one every minute), 35-40 million will suffer serious or acute complications, 15-20 million will suffer serious long-term complications, as a result of pregnancy-related problems, and 10-20 million women will risk their lives every year by subjecting themselves to termination of pregnancy. Only about one-third of all births are assisted by trained attendants in Africa and South Asia, and 64% in Latin America, as opposed to 93% in East Asia and virtually 100% in North America. Over 98% maternal mortalities occur in developing countries and are frequently underestimated by 50%; the true incidence might be closer to one million per year. It is important to remember that all the above-quoted figures are conservative estimates and that maternal mortality is only the tip of the iceberg. Furthermore, it has been estimated that for every mother who dies, 15 to 20 will suffer serious long-term complications and more than 100 will suffer acute morbidity episodes.

Over the past 35 years several major improvements in global health have been achieved. Mortality among children under the age of five years has been reduced in the world by half between 1960 and 1990, from 216 per 1000 live births to 107 per 1000 live births. Globally, the average life expectancy at birth has also increased from 46 to 62 years. And, the total fertility rate has dropped from 4.9 to 2.9 and continues to fall. Maternal mortality, however, has shown no major reduction over the same period.

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Recently, India crossed the population mark of one billion (11 May 2000). Our crude birth rate has dropped from 40.8 in 1951 to 26 per 1000 live births in 1998 – target being 21 by 2000. The total fertility rate was 3% in 1998 compared to 6.1% in 1951 – target being 2.3. The target of maternal mortality by 2000 is less than 200 per 100 000 live births. It was 2 000 per 100 000 live births in 1951 and is 300 to 1500 per 100 000 live births today with an average of 430 per 100 000 live births. This amounts to 148 000 deaths per year or one in every five minutes in India only.

In 1985, Rosenfield and Maine published an article in the Lancet, which is true even today after 15 years, that the main efforts and interventions in the field of maternal and child health (MCH) care had essentially been focused on child health and had largely ignored the health care needs of women during both pregnancy and child birth. Then as they are even today, women were considered to be vehicles for the successful production of babies – perhaps orphan babies! The common causes of stillbirths are infection and birth asphyxia. The main causes of neonatal deaths are asphyxia, birth trauma, infection, prematurity and malformation. We have been successful in preventing them through simple and non-costly measures. Where syphilis is common, both screening and treatment can be effected during a single antenatal care visit. Another effective intervention is tetanus toxoid vaccination for the prevention of tetanus, which used to be responsible for 300 000 neonatal deaths annually. Immunization of women, twice during pregnancy, and clean cord care practice have helped dramatically in reducing perinatal mortality. Other measures, such as tackling malnutrition by providing all pregnant women with ground nut-enriched biscuit daily, have proved effective at some places, in reducing the low birth-weight rate by one-third. The treatment and prophylaxis of malaria and hookworm have helped reduce anaemia and improve both maternal and perinatal health. Some simple and cost-effective interventions like practicing clean delivery (including clean cord care), basic newborn resuscitation when needed, prevention of hypothermia and early and exclusive breast-feeding have further helped reduce perinatal mortality. The current challenge in perinatal and infant health is AIDS. Short-term zidovudine treatment for the prevention of mother-to-child transmission of HIV is not available to many developing countries like India. Still, the perinatal health scenario is quite positive and there are reasons to expect further improvements in coming times. However, high maternal mortality remains a bigger challenge even today, at least in India.

In 1987, a group of agencies came together to form the Safe Motherhood initiative. Since then, much has been learnt about maternal mortality including the number of
deaths which are underreported; the causes and avoidable factors, and effective and ineffective interventions, etc. Much has, thus, been learnt about ways in which it should be possible to reduce maternal mortality; it is time to put to use this knowledge. Health, and maternal health in particular, is more than the product of medical intervention. Five interlinked groups of causes affecting maternal health can be identified: poverty; low socioeconomic status of women; poor nutrition and general health of women; insufficient good quality health services, and inadequate contraceptive/ reproductive choice.

Of all the variables which influence maternal health, poverty of a nation or a family is the most important and the most difficult to tackle. Poverty of a family will reduce a woman’s ability to utilize health care, while poverty of a country can make it difficult to provide an adequate health care infrastructure. A relative lack of resources does not imply poor health. The state of Kerala in India, for example, has achieved some of the developing world’s best rates of life expectancy, literacy, and, infant and maternal mortality, despite having one of the lowest per capita incomes\(^9\). In India only 25% women deliver at an institution or a hospital. Seventy five per cent deliver at home where only 25% are cared for by trained personnel (doctors, nurses or trained midwives). Fifty per cent deliver without any help in any form\(^11\) – this is the main cause of the high mortality in India. It has been estimated that around 15% women in childbirth develop potentially life-threatening complications, and 1-3% will die in the absence of a major surgical intervention\(^12\). Meeting this challenge is therefore a major problem. Quality antenatal care improved perinatal health, but without a linkage with delivery care it cannot substantially reduce maternal mortality. Risk screening in antenatal care cannot accurately predict which woman will eventually need emergency care. It is imperative therefore that a skilled attendant be present at each delivery and health care staff possessing midwifery skills (midwives, nurses and doctors) must be available to assist in normal delivery and, if needed, to transfer the woman to the appropriate place. According to WHO, a skilled attendant at birth is one of the most effective ‘interventions’ to reduce maternal mortality.

In principle, maternal mortality, can be prevented either by avoiding pregnancy, by preventing complications during pregnancy, or by making sure that the complications that do arise are taken care of effectively. Complications of pregnancy termination are likely to be responsible for half of mortalities. It is estimated that more than 200,000 women die every year as a result of unsafe abortions. Increasing the availability of contraceptives and the related information and counseling services is a major way of reducing maternal deaths.
An effective reduction of maternal mortality requires long-term efforts as it involves the strengthening of the health care system. Countries that have been successful in reducing maternal deaths, such as Chile, China, Cuba, Iran and Sri Lanka have all developed a long-term plan, supported by a strong political will to reduce maternal mortality. Using each individual maternal death, analyzing its causes and surrounding circumstances and educating the general public, is a powerful way of catalyzing political decision-making within a society. In India time has come when every maternal death should be legally investigated like a dowry death and provision should be made for punishing those who either neglect or prevent a pregnant woman from getting adequate and timely medical help. In a study over 20 years\textsuperscript{13} it was found that the majority of deaths (95\%) comprised emergency cases, where relatives brought the pregnant women to doctors only when they were in their last stages. In Gujarat, not a single village is 5-10 km away from the hospital or a primary health care center. Despite this, patients and relatives are negligent about antenatal visits and come to the hospital only when emergency arises. Fifty per cent of women in India still deliver at home without the help of any trained birth attendant. This can be the action point for reducing mortality, as a hospital or home delivery in the presence of a trained birth attendant is the only way to reduce mortality, as has been achieved by other developing countries and by the state of Kerala in India. Women education is the main ‘intervention’ to create this awareness. The very best investment in women and children’s health is to ensure that girls receive the basic school education in this regard.

There is a great unmet need for maternal health care in the world. Good clinical standards, operational research and active professional associations, such as obstetricians and gynaecologists; midwives; nurses, and paediatricians, all can play an important role in fulfilling this need. Unhealthy people cannot promote healthy development. Placing resources into health and education is a sound investment. Improving maternal and newborn health is feasible as well as our duty. It is ironic indeed that today, even though our journey to the moon may be safe, that of a foetus through the female pelvis is not always safe. We have the tools, skills and resources to reduce maternal mortality but do we have the will to use them? Dr Fathalla\textsuperscript{14} has described the struggle for better maternal health thus: “we have only one place to stand with women, beside women and behind women, and when the moment of truth is called, we will stand up to be counted.”
References


The Determinants of Maternal Morbidity in Indonesia

Dr Sarimawar Djaja and Dr Agus Suwandono

Abstract

Maternal mortality and morbidity are still major health problems in Indonesia. The maternal mortality rate (MMR), according to the National Household Health Survey 1992, conducted in 27 provinces, was 404/1000 000 live births, and 390/100 000 live births according to the Indonesia Demographic and Health Survey (IDHS) 1994. The study of maternal morbidity conducted in five provinces (West Java, Central Java, East Nusatenggara, Maluku and Irian Jaya) in 1996 was aimed to collect data on reproductive history and health status of women aged 15-49 years. This paper is based on the above study and tries to explore the determinants of maternal morbidity in Indonesia.

The odds ratio method was used to calculate the determinants of maternal morbidity, while logistic regression was used to select the potential confounders. All variables with p value < 0.25 were treated as potential confounders, then continued by selecting variables which had p value < 0.05 and the other variables which were important to be included in the multivariate model. The multivariate logistic regression analysis showed that a history of maternal morbidity during previous pregnancy was a risk factor for maternal morbidity during the current pregnancy (OR=14) as well. Similarly, maternal morbidity during previous labour was a risk factor for the same morbidity in the next labour (OR=9). Detailed analysis showed that the risk of postpartum haemorrhage was higher in women with seizure (OR=37) and haemorrhage during labour. Postpartum haemorrhage was usually due to uterine atonia, due to prolonged labour (OR=15). This analysis led to the conclusion that maternal morbidity tended to get repeated in the next pregnancy as well.

Careful history-taking in respect of previous pregnancy, labour, and purpureum was very important, since many complications tended to recur. Notes of previous history of pregnancy, labour, and purpureum had been
1. Introduction

MATERNAL mortality and morbidity are still major health problems in Indonesia. Various studies on maternal mortality have shown a relatively high maternal mortality; 450/100 000 live births as per National Household Health Survey known as Survei Kesehatan Rumah Tangga (SKRT) in seven provinces (1985) (1); 404/100 000 live births as per SKRT in 27 provinces (1992) (2); 384/100 000 live births as per SKRT 1995 (3), and 390/100 000 live births as per Indonesia Demographic and Health Survey (IDHS) 1994 (4). All the surveys show that in a 10-year period, there has been only a small change in maternal mortality ratios (MMR), although the Government of Indonesia had targeted to decrease MMR to 225/100 000 by the end of the Seventh Five-year development plan (Repelita VII).

It is necessary to explore the cause of high MMR in Indonesia. Fortney (1985) showed that 67 % of maternal deaths were related to bleeding, mostly postpartum bleeding (5). SKRT 1995 showed that bleeding, infection/sepsis and eclampsia were still the major causes of maternal deaths. A study on maternal mortality in Central Java showed that the highest case fatality rates were due to retained placentae, bleeding and infection/sepsis (6). All of these major causes need a quick and reliable obstetric emergency service.

Antenatal care in Indonesia has shown a promising pattern. Based on IDHS 1994, 82 % of pregnant women received antenatal care and 61 % received antenatal care at least four times. Nevertheless antenatal care could only detect morbidity during pregnancy; it could not detect obstetric complications that would occur during delivery (7,8). Rosenfield and Maine (1985) concluded that antenatal screening has only a small and insignificant contribution in preventing bleeding and prolonged obstructed labour, which are the major causes of maternal mortality (9).

Although a majority of pregnant women receive antenatal care from health providers, many women still rely on traditional birth attendants (TBAs) for their deliveries (4). This condition creates a double risk for women: the risk of obstetric complications which is difficult to predict, and the risk of death because of inadequate treatment of these complications. A study in West Java showed that the delay in referring women for adequate treatment of their complications has a big contribution in high maternal mortality. The current policy of...
providing basic obstetric emergency services in health centres or puskesmas and comprehensive obstetric emergency services in hospitals is expected to overcome delays in referring and providing treatment to women with obstetric complications.

In 1995, the National Institute of Health Research and Development (NIHRD), Ministry of Health, Republic of Indonesia, conducted maternal morbidity and mortality study in five provinces. This study was aimed to collect data on reproductive history, reproductive health status, access to antenatal care and health-seeking behaviours of women aged 15-49 years. It was a good source of data for exploring the maternal morbidity and mortality problems in Indonesia. This paper is based on the above study and tries to explore the determinants of maternal morbidity in Indonesia.

2. Objective
The objective of the analysis was to identify the related factors of maternal morbidity and to study their relationship.

3. Methodology
A modified conceptual framework of McCarthy and Maine (10) adjusted with the existing data was used as the analysis orientation (see figure). The four groups of intermediate variables included reproductive behaviour; health status; access to health services, and health care behaviour/use of health services. Socio-demographic factors including residency, education, knowledge of mothers at risk and diseases were classified as distant factors. The outcomes of the analysis model concentrated on maternal morbidity.
The study used maternal morbidity and mortality survey data from five provinces in Indonesia. The maternal morbidity and mortality study was done in West Java, Central Java, East Nusatenggara, Maluku and Irian Jaya. The sub-sample of “SUSENAS” (National Socioeconomic Survey), consisting of 12,500 households and 9,615 married women aged 15-49 years, comprised the subject of this study. Seven thousand seven hundred sixty nine women were interviewed, out of whom 3,784 had had their pregnancy terminated during 1992-1996. The study used histories of last pregnancy from 3,299 out of 3,784 women, leaving out women who were still pregnant at the time of interview. The interviewers used for the morbidity and mortality study were local midwives and the questionnaire module used was SKRT95-MORB.

The odds ratio method (using cross-tabulation and logistic regression) was used to calculate the determinants of maternal morbidity. For the logistic regression model, the potential determinants were first determined and tested using the p value of 0.25 in univariate logistic regression. As a second step, all potential determinants were included in the model and assessed, using the multivariate logistic regression at p value 0.05.

4. Results

All women who had had their last pregnancy terminated during 1992-1996 were interviewed about their health status during pregnancy, delivery and purpureum. The results showed that maternal morbidity occurred during pregnancy, delivery and purpureum in 27% women. Maternal morbidity was defined as all complaints and symptoms occurring were accruing during pregnancy, delivery and purpureum, including the symptoms of paleness, dizziness and fatigue which were proxy symptoms of anaemia. The prevalence of maternal morbidity is presented in Table 1.

<table>
<thead>
<tr>
<th>Type of morbidity during:</th>
<th>Frequency (n=3501)</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Pregnancy, labour and purpureum</td>
<td>815</td>
<td>26.7</td>
</tr>
<tr>
<td>- Pregnancy</td>
<td>473</td>
<td>15.5</td>
</tr>
<tr>
<td>- Labour</td>
<td>432</td>
<td>14.2</td>
</tr>
<tr>
<td>- Purpureum</td>
<td>100</td>
<td>3.3</td>
</tr>
</tbody>
</table>

The prevalence of combined maternal morbidity was the highest in East Nusatenggara, While bleeding as an individual component of maternal morbidity was the highest in East Nusatenggara and Maluku (3.7% and 3.6%). The symptoms of anaemia were the highest in East Nusatenggara; Maluku and Irian Jaya (22.5%, 10.3% and 11.9%), and the lowest in Central Java (3.3%). Lastly, high fever recorded the highest prevalence in the eastern part of Indonesia (Table 2).
Prolonged labour and bleeding were the most common morbidity symptoms occurring during delivery. The highest prevalence of prolonged labour was in Irian Jaya (17%) and the lowest was in West Java (6.2%). High fever and bleeding had the highest prevalence in the eastern parts of Indonesia while eclampsia had the highest prevalence in East Nusatenggara (0.9%). Low abdominal pain was the most frequently occurring symptom (Table 2).

**Table 2. Percentage of maternal morbidity during pregnancy, labour, and purpureum in five CHN-III provinces, SKRT 1995/1996**

<table>
<thead>
<tr>
<th>Morbidity</th>
<th>All Province (n=3299)</th>
<th>West Java (n=1032)</th>
<th>Central Java (n=766)</th>
<th>East Nusa Tenggara (n=547)</th>
<th>Maluku (n=619)</th>
<th>Irian Jaya (n=335)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pregnancy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haemorrhage</td>
<td>2.5</td>
<td>1.9</td>
<td>2.1</td>
<td>3.7</td>
<td>3.6</td>
<td>1.5</td>
</tr>
<tr>
<td>Seizure</td>
<td>0.3</td>
<td>0.2</td>
<td>0.1</td>
<td>0.7</td>
<td>0.5</td>
<td>0.3</td>
</tr>
<tr>
<td>Oedema</td>
<td>2.5</td>
<td>2.8</td>
<td>0.8</td>
<td>5.3</td>
<td>2.4</td>
<td>1.2</td>
</tr>
<tr>
<td>High fever</td>
<td>5.4</td>
<td>2.3</td>
<td>1.0</td>
<td>15.5</td>
<td>6.8</td>
<td>6.0</td>
</tr>
<tr>
<td>Dysuria</td>
<td>0.7</td>
<td>0.2</td>
<td>0.3</td>
<td>2.0</td>
<td>0.8</td>
<td>1.2</td>
</tr>
<tr>
<td>Yellowish eye/skin</td>
<td>0.5</td>
<td>0.1</td>
<td>0.1</td>
<td>2.2</td>
<td>0.2</td>
<td>0.9</td>
</tr>
<tr>
<td>Hypertension</td>
<td>0.9</td>
<td>1.0</td>
<td>1.0</td>
<td>0.9</td>
<td>0.6</td>
<td>0.6</td>
</tr>
<tr>
<td>Paleness, dizziness and fatigue</td>
<td>9.8</td>
<td>6.9</td>
<td>3.3</td>
<td>22.5</td>
<td>10.3</td>
<td>11.6</td>
</tr>
<tr>
<td><strong>Labour</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prolonged labour</td>
<td>9.2</td>
<td>6.2</td>
<td>9.4</td>
<td>11.0</td>
<td>9.0</td>
<td>17.0</td>
</tr>
<tr>
<td>High fever</td>
<td>2.4</td>
<td>1.6</td>
<td>1.2</td>
<td>4.9</td>
<td>2.6</td>
<td>3.3</td>
</tr>
<tr>
<td>Seizure</td>
<td>0.2</td>
<td>0.2</td>
<td>0.1</td>
<td>0.9</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Haemorrhage</td>
<td>4.4</td>
<td>3.2</td>
<td>3.1</td>
<td>7.7</td>
<td>5.2</td>
<td>4.2</td>
</tr>
<tr>
<td><strong>Purpureum</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Haemorrhage</td>
<td>0.9</td>
<td>1.1</td>
<td>0.4</td>
<td>1.6</td>
<td>0.6</td>
<td>0.9</td>
</tr>
<tr>
<td>Seizure</td>
<td>0.2</td>
<td>0.1</td>
<td>-</td>
<td>0.4</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>High fever</td>
<td>2.6</td>
<td>2.6</td>
<td>0.9</td>
<td>7.1</td>
<td>1.1</td>
<td>1.5</td>
</tr>
</tbody>
</table>
Logistic regression was used to select potential confounders. All variables with p value < 0.25 were treated as potential confounders. Modelling was continued by selecting variables which had p value < 0.05 in multivariate model and other variables which were important (according to the references) to be included in the model. Table 3 shows the final multivariate model for complications in pregnancy, delivery and purpureum.

5. Discussion

The incidence of maternal morbidity as per SKRT 1995 was lower as compared to that in respect of the follow-up study of pregnant women in 1995. Paleness, dizziness and fatigue were the most frequently occurring symptoms in all five provinces. However, the frequency of occurrence of these symptoms was less as compared to that in the case of the follow-up study of pregnant women. In the follow-up study, 50.7% pregnant women were found to be anaemic. Since in mild anaemia there might be no noticeable symptoms, it is important to note that paleness, dizziness and fatigue usually occur when the haemoglobin is less than 7 mg/dl [11].

High fever is one of the main symptoms of malaria in women living in endemic areas outside Java and a predisposing factor for spontaneous abortion [12]. This condition is bad for the foetus, since a mother with anaemia due to parasite may also suffer from intrauterine malnutrition [13]. However, if the mother suffers from only mild anaemia and consumes an appropriate amount of Fe tablets during pregnancy, she can be protected from severe anaemia with all its complications.

Table 3. Adjusted odds ratio of selected risk factors for maternal morbidity during pregnancy, labour, and purpureum.

<table>
<thead>
<tr>
<th>Risk factors</th>
<th>Maternal morbidity in the last pregnancy, labour, and purpureum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Pregnancy</td>
</tr>
<tr>
<td>Bad smelling mucous</td>
<td>0.7</td>
</tr>
<tr>
<td>Low abdominal pain</td>
<td>1.0</td>
</tr>
<tr>
<td>Hip pain</td>
<td>0.9</td>
</tr>
<tr>
<td>Waist pain</td>
<td>0.9</td>
</tr>
<tr>
<td>Dysuria</td>
<td>0.5</td>
</tr>
<tr>
<td>Mastitis</td>
<td>0.9</td>
</tr>
</tbody>
</table>
The Determinants of Maternal Morbidity in Indonesia

| Maternal morbidity at previous pregnancy | 13.80 (8.05-23.78)\(^a\) | – | – |
| History of miscarriage | 24.2 (4.8-122.32) | – | – |
| Maternal morbidity at previous labour | –\(^b\) | 9.54 (5.07-17.96) | – |
| History of still birth | – | 8.97(2.28-35.32) | – |
| Maternal morbidity at the last pregnancy | N/A \(^c\) | – | 4.10 (2.54-6.31) |
| Maternal morbidity at last labour | N/A | N/A | 2.56 (1.59-4.12) |
| Traditional birth attendance | N/A | – | 1.75 (0.99-3.09) |

\(^a\) : number in parentheses show 95\% confidence interval of adjusted odds ratio
\(^b\) : not a determinant factor
\(^c\) : N/A = not applicable

The other maternal morbidity symptom is prolonged labour, which is accompanied by prolonged labour contraction. The prevalence of prolonged labour in all the five provinces was quite high, from 6.2\% to 17.2\%. Similar studies in other South-East Asia countries have found the incidence of prolonged labour to range from 5.8\% to 13.5\% (14). Many cases of prolonged labour were found to be due to narrow or disproportionate pelvis. Many factors, such as genetic, physical and environmental including nutritional influence the growth of women. Malnutrition and infections, such as malaria, diarrhoea and measles, can delay the pelvic growth and, as a result, prevent the pelvis from growing properly (13). Prolonged labour due to narrow pelvis can cause haemorrhage and rupture of the uterus.

The most frequently occurring maternal morbidity symptoms during purpureum were low abdominal, hip and waist pain, and bad smelling discharge. These symptoms might indicate post-partum infections. Infectious agents could enter the reproductive tract through many ways, including unclean hands of the birth attendant or the use of unsterilized apparatus. Infections could also come from airborne organisms, or from the anus. Putting herbs, leaves or oil to the vagina may also cause infections (11). A study of maternal mortality in East Nusatenggara revealed the practice of vaginal fumigation after labour. This ritual was done to clean the dirty blood (8). In West Java also, a dangerous traditional practice was being followed of putting oil or other traditional medicine into the vagina in order to accelerate the healing process (7).
pregnancy was a risk factor for maternal morbidity during the current pregnancy (OR=14). Detailed analysis also showed that dysuria had the highest odds ratio (OR=148); nevertheless, this symptom is a very subjective symptom. Paleness, dizziness and fatigue also had high odds ratios (OR=28); nevertheless, these symptoms are also subjective. An analysis of other maternal morbidity symptoms showed that hypertension and oedema tend to recur in the next pregnancy as well.

Maternal morbidity during previous labour was the risk factor for the same morbidity in the next labour (OR=9). Seizure was the morbidity symptom which has the highest possibility to recur in the next labour. Seizure is the common symptom for eclampsia. It is said that appropriate treatment of pre-eclampsia/eclampsia during pregnancy and labour can prevent 19% of intrapartum and purpureum haemorrhage 17).

The risk of postpartum haemorrhage was higher in women with seizure (OR=37) and haemorrhage during labour. Postpartum haemorrhage is usually due to uterine atonia, due to prolonged labour (OR=15). The other cause is retentio placenta, whereby placentae cannot be removed even up to one hour after labour. Intrapartum haemorrhage could be due to laceration in the birth canal and this condition may continue into purpureum. Paleness, dizziness and fatigue during pregnancy are the risk factors (OR=4) for fever in purpureum. In spontaneous labour, puerperal infection is rare. However, if the woman is anaemic and though the aseptic procedure has been followed during labour, followed by some traditional procedure after labour, it is highly possible that infection might occur. In the eastern part of Indonesia, malaria too is a risk factor for fever during purpureum. A delivery attended to by non-medical staff has 1.8 times higher risk of fever during purpureum as compared to a delivery attended to by medical staff.

The analysis of this data showed that maternal morbidity tended to get repeated in the next pregnancy. Similar analysis in other countries also showed similar results.

6. Conclusions

(1) Paleness, dizziness and fatigue because of severe anaemia were the most frequent maternal morbidity symptoms during pregnancy (9.8%), this prevalence was higher in the eastern part of Indonesia. The prevalence of other maternal morbidity symptoms during pregnancy, such as high fever and oedema, also was higher in the eastern part of Indonesia, especially in East Nusatenggara.

(2) Prolonged labour contraction (9.2%) and haemorrhage (4.4%) were the most frequent
maternal morbidity indications, their prevalence was higher in the eastern part of Indonesia.

(3) Fever with low abdominal pain was the most frequent maternal morbidity indication during purpureum and its prevalence also was higher in the eastern part of Indonesia.

(4) Women with a history of previous maternal morbidity during pregnancy had a higher risk to have the same morbidity in the next pregnancy as well. The maternal morbidity symptoms that tend to recur are hypertension, oedema, paleness, dizziness and fatigue.

(5) Women with a history of previous maternal morbidity during labour had a higher risk to have the morbidity symptom which had the highest chance of recurring.

(6) Women with maternal morbidity during pregnancy and labour had a higher risk to have maternal morbidity during purpureum also and for the same period of time.

(7) Labour attended to by a traditional birth attendant had a higher risk of leading to maternal morbidity during purpureum.

7. Recommendations

Careful history-taking of previous pregnancy, labour, and purpureum are very important, since many complications tend to recur. Notes of previous history of pregnancy, labour and purpureum should be included in pregnant women cards (KMS Ibu Hamil) and their distribution increased to cover all pregnant women.

The practice of midwives as birth attendants should be improved. Traditional birth attendants should be assisted by village midwives (bidan di desa). The distribution of village midwives should be improved, especially in remote areas which are far away from health facilities.

Public health insurance (Jaminan Pemeliharaan Kesehatan Masyarakat/JPKM) should be optimized, and an appropriate referral system for women with complications during pregnancy, labour, and purpureum established. The Ministry of Health should enable women with complications in pregnancy, labour, and purpureum to use health cards (kartu sehat) issued to poor families.

It is necessary to highlight the importance of treatment of pregnant women with high risk of complications by the mother-friendly movement’s staff. Proper basic emergency obstetric care and comprehensive obstetric emergency care should be provided in the mother-friendly public health centre and hospital. The institutions should be ready with well-trained medical personnel, blood
transfusion facilities, drugs, and an adequate referral system. The eastern part of Indonesia needs more attention with specific programmes to suit local situations.

References


Social Interaction and Diffusion of Knowledge: BRAC’s Adolescent Reproductive Health Education (ARHE) Programme in Rural Areas of Bangladesh

Dr Sabina Faiz Rashid*

Abstract
Knowledge about adolescent reproductive health education (ARHE) is permeating to the peer network, family and community members, thus providing new ideas and information to not only the young, including boys, covered by the programme, but also to those adolescents and adults who are not targeted by formal programme strategies. ARHE has helped those concerned to break this silence and shed their shame about the sensitive topic of adolescent reproductive health, and had thereby contributed to provide relationships between adolescents and their parents and teachers, as well as among themselves.

Introduction

ADOLESCENCE is a transitional period between childhood and adulthood and is a relatively new concept in Bangladesh. Until recently Bangladeshi females went from childhood to adulthood within this environment in essentially three steps – menstruation, marriage and childbearing. The ‘concept’ of adolescence now exists in the sense that girls often remain unmarried for as long as half a dozen years after puberty in rural and urban Bangladesh. Due to globalism, the market economy has increasingly penetrated rural areas and the proportion of teenage girls and boys has trebled (Caldwell et al, 1998).

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There is the gradual emergence of 'adolescence' as a distinct life cycle in Bangladesh; the physical, social and psychological changes specific to adolescents previously unexplored, are now being recognized as a crucial issue (Caldwell et al, 1998). In Bangladesh, 23 per cent of the total population (27 million as of 1995) fall into the age group of 10-19 years. Like other South Asian countries, Bangladesh is a conservative country. Moreover, while it is officially a secular state, Islam is central to most Bangladeshis' lives, and this plays an important role in regulating social behaviour and practices. In addition to conservatism and strong patriarchal structures, the overlapping of Hindu, Muslim and 'traditional understandings' influences rural Bangladesh. Low levels of education combine to create an environment of misunderstanding regarding reproductive and sexual health, which regularly puts men and especially young adolescents in danger (Nahar et al, 1999).

A number of publications have addressed the general issue of reproductive health and hazards among adolescents in Bangladesh and developing countries (Mamdani, 1999, Nahar et al, 1999, Hashima-e-Nasreen, 1998). While the data available is scarce, the overall conclusions point to young adolescents remaining ignorant on matters relating to sex and reproductive health. Providing information and breaking the misconceptions and silence surrounding these issues has been one of the objectives of the Bangladesh Rural Advancement Committee (BRAC), a local NGO, which set up an ARHE programme in 1995. The primary goal of the programme is to ensure that adolescents are able to acquire reproductive health information, access health services and live in a supportive environment they need for their health and development.

**BRAC's ARHE Programme**

The ARHE programme falls under the umbrella of BRAC’s health programme, covered by the Health and Population Division (HPD). The HPD has three major areas of operation, one of which is the Reproductive Health and Disease Control (RHDC) programme. This third initiative is focused on decreasing infant and maternal mortality and morbidity, in addition to pregnancy-related care, family planning and immunization. The RHDC programme is active in areas of sexual education and reproductive health among adolescents through the ARHE programme.

The ARHE classes are provided through BRAC’s Basic Education for Older Children (BEOC) or Kishor Kishori (KK) schools which run for three years, with ARHE being provided in the third year, after which the KK schools are transformed into pathaghars (libraries) and non-formal primary education (NFPE) schools. In the first phase the curricula emphasis is on primary health care education, which changes in the
second phase to an emphasis on reproductive health matters. The ARHE classes now cover topics on adolescence, reproduction and menstruation, marriage and pregnancy, STDs/AIDS, family planning and birth control, smoking/substance abuse, gender issues (inequality between males and females, respect between sexes, role of male and female in reproduction, and the newly-incorporated chapter on violence. Adolescent boys and girls above the age of 12 years are taught by women teachers who are minimum grade 9 pass, from the same community. Classes run for an hour every fortnight in the KK schools and in pathaghars. The pathagar sessions are conducted in a BRAC school room (Assessment Team, 1999).

The programme has the greatest number of recipients in the Kishori Pathagar where over 7 000 girls are taught in 210 pathaghars. The NFPE schools have a slightly more limited reach of approximately 6 700 students in 202 schools. Lastly, over 1 500 students are taught in 21 secondary schools. Despite some initial hiccups, the programme has been well received and is being implemented in rural areas.

Methods

Field research was carried out in Nilphamari district during mid-October to November 1999. The study looked at KK schools and pathaghars. This site was selected as it is one of first areas where phase 1 and phase 2 of the ARHE programme was carried out. Further, it is one of the older programmes, starting in 1995 and has implemented the ARHE programme both in KK schools and in pathaghars. Pre-testing was carried out in Sherpur district before starting the fieldwork, in order to test some of the responses from respondents and staff of the programme.

A qualitative research methodology was used. Young, unmarried female and male adolescents aged 12-15 years (respondents from the NFPE KK schools, pathaghars BRAC libraries), including their parents/guardians and teachers comprised the study population. In all, 56 female adolescents and 26 male adolescents were interviewed through focus group discussions (FGDs) and individual interviews. Eighteen of the corresponding parents (mothers and in some cases aunts) were also interviewed separately. Four separate FGDs took place with 21 mothers/guardians who had not been previously interviewed; thus, in all 39 mothers/guardians were spoken to. In addition, informal discussions took place with seven teachers and 16 programme staff.

Although we allow for the fact that some of the adolescents, responses may be exaggerated or biased due to the presence of BRAC

1 In the first phase the curricula emphasis was on primary health care education which changed in phase 2 to an emphasis on reproductive health matters
researchers, numerous similar anecdotal stories, cross-checking of data with guardians, focus group discussions and interviews with students, parents and teachers reinforce the validity of the data collected. It is important to keep in mind when reading the findings, that the adolescent boys and girls and their families came from very poor families; thus any changes in attitudes expressed are significant. A majority of adolescents’ parents were illiterate or had had very little formal schooling. And a number of adolescents’ siblings had married early or had studied not beyond class 6.

The findings given below are based on data collected from a much larger exercise conducted on the ARHE programme, which explored the socio-cultural effects of the programme on adolescents and the community, adolescents’ perceptions and concerns about the programme, and gaps in the programme. This paper only illustrates a small section out of chapter one – and highlights the way ARHE knowledge is being disseminated informally in the community.

**Socio-Cultural Effects of the ARHE Programme**

**Social interaction and diffusion of ARHE knowledge**

Women teachers at the BRAC schools are teaching adolescent girls (and boys) a wide range of topics related to reproductive health matters. Given the predominantly traditional and conservative nature of Bangladeshi society, adolescent girls, unmarried status and age require that they be modest and in theory sheltered from sexuality and reproductive health knowledge (Mita and Simmons, 1995). The fact, however, is that the ARHE classes have been held without any disruption from community members, which reveals an acceptance of the programme so far. Other factors, such as modernizing influences of the electronic media, increasing urbanization, and exposure to NGOs, have set in motion a process of social change in which ARHE classes are managing to co-exist with ‘traditional’ community discourses on sexuality and sex in rural areas.

It can be argued that similar to the introduction of family planning programmes which have introduced new ideas about family planning size and methods in rural areas, the ARHE programme (at a much smaller scale) is also consciously and unconsciously

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2 In the designated programme areas.

directing information on reproductive knowledge at the community level. Mita and Simmons (1995) in their pioneering work on the diffusion of knowledge about contraception suggest that new ideas about fertility regulation spread spontaneously or freely through a ‘variety of social, cultural, and linguistic networks.’ Similarly, anecdotal evidence illustrates that ARHE knowledge is permeating through personal social networks that include family members and peers. An assessment study conducted on the programme also found that ARHE classes were working towards influencing community norms positively (1999:38).

It appears that for most of the adolescent girls, menstruation was the most significant of topics to discuss. Many had shared their newly-acquired knowledge on hygienic practices during menstruation with their peers, sister-in-laws and in some cases with their mothers. Family planning methods was another popular topic and mainly discussed with their peer network and in some cases, with their younger sister-in-laws or sisters. Discussion about STDs/AIDS took place among the girls but since it was a ‘sensitive’ topic, none of them shared their beliefs with any of the adults, except for one girl. Most of the girls were unclear about the causes and symptoms of the disease itself, and therefore sharing of knowledge with peers was confined to limited comments such as, ‘if someone goes to a bad person (prostitute) they will get AIDS’, or ‘too many partners cause jounno roge (STDs).’ The sharing and diffusion of knowledge took place informally when young girls chatted with one another after school, and depending on the relationship with their mothers, they shared their newly-acquired knowledge with them. More significantly, the shame and silence surrounding their bodies have been broken with the girls openly discussing with one another, previously considered ‘shameful’ subjects. Similarly, other studies looking at adolescent intervention programmes in India found that young adolescent girls, by learning about their bodies, are ‘mobilized to break the culture and shame surrounding their body…’(Mamdani, 1998:284).

A number of girls explained, ‘atah (menstruation) amader jeboney beyshee kajey lagey (this is something we will need to know more about in our lives). Before I was convinced that menses was an affliction but now I realize it is not – it is natural for girls to have it.’ Menstruation is a particularly private matter for girls. This is because menstruation signifies the coming of age or ‘womanhood’ for young girls in

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4 In a more general sense, diffusion refers to a process whereby new ideas, information and knowledge are disseminated through a variety of ways and affect behaviour and attitudes (Mita and Simmons, 1995).

5 For this study, field visits were made to each of the four districts covered in the project area. All 175 schools and 39 pathaghars were listed. Thanas were randomly selected from areas with schools and pathaghars in the two phase 1 districts (Sherpur and Nilphamari) and randomly selected from phase 2 districts (Moulvibazar and Habiganj).
Bangladesh. Soon after menarche, particularly in rural areas, adolescent girls are married off, although this practice is changing in some rural areas. Symbols or images of sexuality, fertility and pollution are strongly associated with menstruation, and thus it is considered a shameful and hidden subject (Rashid and Michaud, 1999). The social taboos surrounding menstruation are so great that young adolescent girls usually do not share their menstruation experiences even with their own mothers. Moreover, mothers do not educate or share their knowledge about menstruation with their daughters. The cultural norm is to share one's first menstruation experience with an elder sister or bhabi (brother's wife), grandmother or peers. If the girl does not have a sister, bhabi, grandmother, or peers to confide in, only then will she resort to sharing the event with her mother, or keep the knowledge to herself. However, the extent of sharing is very limited and generally the matter is treated with shame and secrecy?

The interviews revealed that the onset of menarche can be a particularly traumatic period for young adolescent girls. A girl shared her (a typical scenario in rural areas) life story, ‘I had my menses when I was 12 years old. Then I thought to myself – what is happening? I was really very scared. I thought I am dying. Blood was coming out. I went to my bhabi (sister-in-law) but she sent me to my older sister. My sister explained to me that this is the way dirty blood is let out. Later on I found out that Allah (God) gives this to everyone...’

A number of girls admitted to incorporating the ARHE knowledge of hygienic health care practices for menstruation. One of them stated, ‘Before I didn’t know what to do - I washed with chai (ashes) and I really didn’t know what to do. Now I wash the cloth with soap and if I can, when noone is in the house, I wash it with dettol or hot water. The girls mentioned discussing this new knowledge with other girls in the village. They spoke of the eagerness with which adolescent girls came to speak with them about menstruation and family planning methods. One girl explained, ‘There is no club or recreation place for girls and only some of us come to the pathaghar. We usually sit and talk together with other girls in the village. That is when they ask me about what I am learning in class. One girl came to see me about maasheek and I told her what I know - use a clean cloth, wash it and don’t worry. It is a neom (rule/natural), it is nothing to be scared of.’ A few girls spoke of sharing their knowledge with their younger female

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6 A recent study carried out in both rural and urban areas of Bangladesh, with 4 000 adolescents aged 10-19 years, found that out of 232 girls, only 34 per cent knew of menstruation before experiencing it, and as a result, experienced it with mental trauma. After menarche many of these girls communicated with their elder sisters, sister-in-laws, or grandmothers, who in turn gave them information on how to manage their menstruation; however, in most cases, the information was incomplete (Nahar et al, 1999).
relatives. One girl explained, 'I have told my bhabi to do what I also do - wash with soap or dettol and dry it in a good place so that the cloth dries properly.'

As such, most mothers knew of their daughters' newly-acquired knowledge about hygienic practices during menstruation, but often there was no open discussion about it. As one mother explained, 'I buy her soap as she says she needs it to wash her things with it. She asked me for soap so I got it for her but I didn’t say anything to her...what is there to say? As long as she is learning all this, it is less worries for me and she will know what to do'. Only a few daughters speak quite freely about menstruation practices with their mothers.

One mother stated, 'my daughter and I talk about everything. She tells me what to do if there is menstruation and how to keep myself clean. I am learning from her now.'

Other than a few rare cases, there was no discussion of family planning methods between mothers and daughters. Adolescent girls admitted to feeling uncomfortable discussing this topic with their mothers and with older female relatives. This is because communication patterns in rural Bangladesh are strongly influenced by gender and age. Family planning on the whole is a sensitive subject between older women and young unmarried girls in the 'traditional' rural culture (Mita and Simmons, 1995). Thus, sharing of knowledge about family planning methods was confined to their bhapis or close friends (usually with sister-in-laws who were not much older than they were). 'I told my bhabi to use something - not to have too many children. I told her about the methods I had learned. She listened to me and asked me for more information but I could only tell her what I knew. She said she would discuss it with my brother.' In one case, a girl discussed STDs with her older bhabi (sister-in-law). 'I told her that if a man with STD has sex with his wife then she (wife) can also get STD – and the child can also be born with the disease.

As the earlier narratives highlight there are no restrictions as to what topics can be discussed by adolescents with their own female peer network. Mita and Simmons argue in their study (1995) that in the diffusion of knowledge, not only are others gaining knowledge about contraceptive methods and how to access them, the 'very thinkability that young women can control their reproductive lives is being established.' The receptivity of the girl's female relatives to learning about fertility control, menstruation practices and so on, are important factors in the diffusion process.

Adolescent boys were interested in sharing what they had learnt in their ARHE classes with their friends and male cousins, particularly information related to AIDS, STDs and family
planning methods. When the boys congregated together, their discussions mainly centred around personal stories of ‘macho’ behaviour and sexual experiences. One boy explained the eagerness with which other adolescent boys approached him for answers about the female body and family planning methods, ‘When my friends found out I was learning all of this in the school they came and asked me a lot of questions like, “how does a girl get pregnant?” and “why does menses (periods) happen?” and “tell us about some family planning methods” but I answered some of the questions - not all as I didn’t know many of the answers.’

Like most of the girls, boys too were unclear about STDs and AIDS and their causes and symptoms. Thus, their sharing of knowledge was confined to limited information such as, ‘if a man goes to a bad woman (prostitute) he will get AIDS’, or ‘having too many partners causes jounno roge (STDs),’ and within that limited knowledge, some of the boys attempted to advise their male peers.

One boy commented, ‘At our age when boys go to a kharap (bad) place they don’t use condoms. I knew that my cousin was going to a place where there are kharap (bad) women. I told him that AIDS roge (illness) and jonno roge (STDs) can spread if one does too much mixing. He became very quiet. I told him if he used condoms, as apa (father) had explained to us, he could prevent himself from getting the disease. He told me that he would use condoms next time he went there.’ Another boy explained, ‘What I found most important was family planning methods - if we don’t know this now it can be damaging for us later. I told my friend who studies in high school – you don’t know that if men do not use condoms when they go to bad women (prostitutes), they can get AIDS. I spoke to him about it and I told him what I had learned.’
Conclusion

The above narratives demonstrate that the newly-acquired knowledge among adolescent boys and girls is not restricted to themselves, but is also passed onto the peer network in the village who examine, question and incorporate the information. In the social process, young girls and boys, in their most susceptible years, (and family members as well), gain some basic knowledge on health and their bodies. Adolescent boys and girls studying ARHE become an important source of information to their unmarried peers. Further, it is important to keep in mind that adolescent boys and girls and their families are very poor; thus any changes in their social attitudes, practices or behaviour are significant. Therefore, considering the prevailing social context, and the sensitivity of the ARHE curriculum, the programme is working well as a medium of information.

The study’s findings have several implications for research and policy. The results presented cannot be viewed as definite or as complete evidence on the programme. Additional research will be desirable and a greater focus on married adolescents who are also part of the ARHE programme to see whether they are able to negotiate and decide on contraceptive methods, and whether their new knowledge on ARHE has affected their lives, would be useful. The study findings are significant as they highlight the importance of the ARHE programme and the need for such education in rural areas.

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SEARO Notes and News

Fifty-third Session of the Regional Committee

The WHO Regional Committee for South-East Asia concluded its 53rd session in New Delhi, India, on 7 September with a call to Member States to further strengthen the intercountry approach to health development in a spirit of mutual cooperation and collaboration.

The four-day session was inaugurated by His Excellency Dr C.P. Thakur, Union Minister for Health and Family Welfare, Government of India. It was attended by representatives of all the ten Member States of the Region, UN and other agencies, non-governmental organizations having official relations with WHO, as well as observers. Mr Javid A. Chowdhury, Secretary, Ministry of Health and Family Welfare, India, also addressed the inaugural session.

The Director-General of WHO, Dr Gro Harlem Brundtland, addressing the session on 4 September expressed happiness at the spirit of ‘one WHO’ permeating the work of the Regional Office and headquarters teams who were working together with countries, to strengthen the intercountry mechanism.

Mr Javid A. Chowdhury (India) was elected Chairman and Dr U Kyi Soe (Myanmar) as Vice-Chairman of the session.

The Committee reviewed the report of the Regional Director for the period 1 July 1999 to 30 June 2000 and noted with satisfaction the progress made on account of various measures set in motion by the Director-General, including the formulation of the WHO Corporate Strategy, for improving the Organization’s efficiency and for making its work more meaningful while addressing the priority needs of countries.

The Committee recognized the need to strengthen national surveillance systems for the control of both communicable and noncommunicable diseases, and noted that a good and reliable laboratory infrastructure, coupled with clinical research facilities, would go a long way in improving and strengthening national health surveillance systems. The Committee considered the recommendations...
arising out of the Technical Discussions on (1) Equity in Access to Public Health, and (2) Healthy Settings, held during the 37th meeting of the Consultative Committee on Programme Development and Management. The Committee selected the topic of Mental Health and Substance Abuse, including Alcohol for Technical Discussions in 2001.

The Committee decided to hold its 54th session in Myanmar (3-6 September) in 2001 and the 55th session in Indonesia in 2002.

The Committee adopted 13 resolutions, including on ‘Equity in Health and Access to Public Health Care’, and ‘Healthy Settings’.

**SEA Region Certified Guinea-Worm Disease-Free**

The 4th International Commission for Certification of Dracunculiasis, officially certified, on 15 February 2000, India and other countries in WHO’s South-East Asia Region as guinea-worm disease (also known as dracunculiasis) free. This was done on the basis of the report of the three-member International Certification Team that visited India in November 1999, and investigated 62 villages in the endemic states, as well as on the basis of the detailed documentation provided by the Government of India.

After smallpox, guinea-worm disease is the second disease to have been eradicated from the Region.

Guinea-worm disease, a water-borne disease, has been prevalent in the rural areas of India with inadequate safe drinking water. According to estimates, in 1947, the country had 25 million cases of dracunculiasis. In 1983-1984, when the Government of India launched the Guinea worm Eradication Programme, there were about 39,792 cases in seven endemic states. The disease causes severe pain, and incapacitation for varying periods and, in some cases, permanent crippling.

**Twenty-fifth Session of SEA/ACHR**

“It is imperative that the findings of health research are translated into policies and programmes to reduce the burden of disease among the poor and disadvantaged”, said Dr Uton Muchtar Rafei, Regional Director, WHO, South-East Asia Region. Inaugurating the 25th session of the South-East Asia Advisory Committee on Health Research, held in Bali (Indonesia), during April 2000, he added that “health research can provide evidence-based information, which should be considered in the development of health programmes...It is important that research findings are utilized appropriately by policy-makers, planners and managers at different
levels of the health system, which could contribute towards reducing the disease burden and to promoting health.

Dr Uton pointed out that beginning this session, SEA/ACHR had been expanded to include Directors of Medical Research Councils or analogous bodies. By bringing together health research scientists, policy-makers and planners in one forum, the Committee’s deliberations were expected to accelerate the application of research findings.

With a view to providing a broader global perspective, representatives from WHO/HQ, the WHO Centre for Health Development in Kobe, Japan, the Council on Health Research for Development and the Global Forum on Health Research also participated in the session. The four-day meeting discussed regional research priorities with regard to HIV/AIDS, maternal mortality and vaccine development. In addition, it studied operational guidelines for ethical review committees and considered ways to improve research management in the Region.

Meeting of the Task Force for Immunization in SEA

A meeting of the Task Force for Immunization in South-East Asia was held in the Regional Office from 24-27 July.

Opening the meeting, Mrs Poonam Khetrapal Singh, Deputy Regional Director, speaking on behalf of the Regional Director, said that following the huge push for universal vaccination, global immunization coverage had, by 1990, reached 80 per cent of the world’s children. Despite this success, there were still millions of children who died prematurely due to vaccine-preventable diseases. Nearly 30 million of the 130 million children born every year did not have access to vaccinations of any kind despite the availability of vaccines, safe injectables and resources to significantly reduce death and suffering due to these diseases.

Mrs Singh said that the world had still not obtained the full benefit of new vaccines. Millions of lives were still lost in developing countries because of the non-availability of new vaccines that developed countries took for granted. It was in this backdrop that the Global Alliance for Vaccines and Immunization (GAVI) had been formed to kick-start a campaign to increase vaccination coverage and assist in introducing new and under-used vaccines in developing countries. GAVI was committed to closing the gap between children in developing countries and developed countries in their access to vaccines, through a global alliance of international development organizations, multilateral development banks, philanthropic organizations, private sector leaders and other leaders. Eight
of the ten countries of the Region had submitted Expressions of Interest letters to the GAVI Secretariat to collaborate and get support from GAVI. Emphasizing that GAVI-funding depended on good planning and strong project monitoring, she urged the countries to ensure that good use was made of this funding so that it reached the hard-to-reach children. She assured the countries of WHO’s support in this regard.

Eighteenth Meeting of the Ministers of Health of SEAR

The eighteenth meeting of the Ministers of Health of the countries of the South-East Asia Region concluded on 25 August 2000. The meeting, hosted by His Majesty’s Government of Nepal, was held from 23-25 August 2000 in Hotel Soaltee Crown Plaza, Kathmandu and was inaugurated by The Prime Minister of Nepal, Right Honourable Mr Girija Prasad Koirala.

In his inaugural speech, Dr Koirala said that although advances in science and technology had resulted in the availability of improved health services for people who could pay for them, the prohibitive cost of such services made them inaccessible to the majority of the rural population. The Regional Director, in his address, while expressing satisfaction over the achievements in the past such as eradication of smallpox and guinea-worm and the significant progress made in eradicating polio and eliminating leprosy, felt that the rising incidence of communicable and noncommunicable diseases presented a major challenge to SEAR countries. The ministers of health from Bangladesh, Bhutan, DPR Korea, India, Indonesia, Maldives, Myanmar, Nepal, Sri Lanka and Thailand exchanged views and experiences in health development, within the perspective of socioeconomic development. They had discussions on Health Sector Reform, HIV/AIDS in SEAR and Rationalization of WHO resources to strengthen intercountry collaboration.

Book Review

World Directory of Medical Schools


This seventh edition of the World Directory of Medical Schools provides a country-by-country directory of 1,642 institutions of basic medical education that have been approved by the
competent national authorities in 157 countries or areas. The directory also provides information on the conditions for obtaining the licence to practise medicine in an additional 14 countries or areas that do not have medical schools.

Entries for individual medical schools include the year instruction started, the language of instruction, duration of the basic medical degree course, including practical training, whether the applicant is required to pass an entrance examination, and whether foreign students are eligible for admission.

A systematic attempt has been made to include information on national regulations governing medical registration and the licence to practise medicine and on the existence of bilateral or multilateral agreements relating to the mutual recognition of physicians' qualifications or experience. This information now appears for most countries included in the directory. The directory also provides updated information on the establishment of new medical schools, and notifications of changes in the name, university affiliation, or address of existing schools.

The directory is intended for use by health officials, medical faculties, students and student counsellors.

Management of Severe Malaria – A Practical Handbook
(Second edition ISBN 92 4 154523 2, Sw.fr.15.- US$ 13.50)

This manual is the second revised edition of a pocket-sized guide to the rapid diagnosis and management of severe P. falciparum malaria. In view of the complexities of management, the need for speed, and the severe consequences of errors, the book adopts a highly didactic approach, offering an at-a-glance reference to the signs to look for, the tests to perform, the actions to take immediately and later, and the nursing care required.

Addressed to doctors and other medical staff, the book is designed to facilitate rapid decisions and immediate action. Fold-out flaps on the inside and back covers guide the correct selection, dosage, and administration of antimalarial drugs, provide a map showing the global status of chloroquine resistance, and summarize the immediate steps to follow when confronted with thirteen specific complications. Coloured tab dividers make it possible to flip to the appropriate section containing full details on the clinical features and management of a given complication, the general principles of management and nursing care that apply to all patients, and the special protocols to follow when treating children and pregnant women.
In view of the need for speedy recognition of complications, each section dealing with a specific complication includes clinical information that can help doctors know which symptoms are common, unusual, rare or decisive for that complication. The book also explains how to diagnose malaria on the basis of clinical signs and symptoms, microscopic examination of blood films, and haematological and biochemical findings.

The handbook concludes with notes comparing the advantages and disadvantages of seven antimalarial drugs, including artemisinin derivatives, reproduction of the Glasgow coma scale and a modified scale for children, and illustrated instructions for cannulating the femoral vein, setting up an intra-osseous infusion in children, and measuring central venous pressure.

Monitoring ambient air quality for health impact assessment

(AWHO Regional Publications, European Series, No. 85)

AIR QUALITY ASSESSMENT is frequently driven by the need to determine whether a standard or guideline has been exceeded, but it should also provide the information needed to estimate population exposure to air pollution and the effects on the health of the population. Most air quality monitoring systems do not fully address population exposure to toxic air pollution. Health impact assessment combines estimates of population exposure with information on toxicity.

Given the importance of the availability of valid information on population exposure to air pollutants, the WHO European Centre for Environment and Health organized a working group to define the features of monitoring networks that allow their use in assessing the potential exposure of the population to air pollution from ambient air. This work resulted in this book. The principles outlined are intended to promote progressive modification of the networks monitoring air quality to improve their usefulness for health impact assessment.

This book is directed specifically to network managers, to those who design new networks or modify existing ones, to policy-makers and to those who influence policy.

Community Involvement in Health Development: A Review of the Concept and Practice (Public Health in Action, No.5)

(ISBN 92 4 156193 9 Sw. Fr. 52/- US$ 46.80)

This book provides a wide-ranging analysis of community involvement in health development (CIH) as a concept, a strategy and an ongoing experiment in the search for ways to improve health care for the majority of the world’s population. It aims to
provide a resource of ideas and practical methods for all health professionals interested in applying a participatory approach to development work, involving local groups, civil society organizations, schools and other infrastructures to contribute to health development.

Reporting Adverse Drug Reactions: Definitions of Terms and Criteria for their Use

ISBN 92 9036 071 2 Sw. Fr.35/- US$ 31.50

This book is intended to facilitate the work of drug regulatory authorities and the drug safety departments of pharmaceutical companies and sets out simple, precise, and unambiguous definitions for over 180 terms commonly used when reporting adverse drug reactions. These terms are grouped according to 21 disorders of systems or organs. The book also has an index of terms and synonyms.

Analysis of Hospital Costs: A Manual for Managers

ISBN 92 4 154528 3 Sw.Fr. 28/- US$ 25.20

This manual provides a practical guide to managers and administrators on the principles and methods of cost analysis as a managerial tool for improving the efficiency of hospitals. The manual, intended for use as a training tool, aims to equip its readers with the knowledge and skills required to calculate the costs of different activities, analyse their significance and use this information for optimum management of resources.

The Management of Nutrition in Major Emergencies

ISBN 92 4 154520 8 Sw.Fr.72/- US$ 64.80

This book provides a practical guide to measures needed to ensure that the food and nutrition needs of disaster-stricken populations, refugees or internally displaced persons are adequately met. Nutrition being a key concern in emergency management, the book offers expert advice on the concepts, principles and precise measures needed to ensure adequate nutrition both in the relief phase and the subsequent rehabilitation and development phases. Particular attention is given to conditions in developing countries, where inadequate nutrition and infectious diseases could make populations especially vulnerable to malnutrition in emergencies.