

## **CHAPTER 10**

# **ECONOMIC GLOBALIZATION AND PUBLIC HEALTH IN ASIA**

**Elizabeth A. Jahncke, Saumik Paul, Ramkishen S. Rajan, Adeline Seow**

## 10.1 Introduction

Economic globalization, which is broadly defined as the shrinkage of economic distances (i.e. costs of doing business) between nations, is more accurately seen as a set of processes pertaining to *international trade and production finance* and *international capital flows*.<sup>1</sup> Both aspects of globalization have been aided and abetted by three factors. First, are the spectacular innovations and advances in transportation, information and communications technologies, such as the Internet, which have dramatically lowered the costs of doing business across borders (Baldwin and Martin, 1999, Masson, 2001 and World Bank, 2002b). Second, is the push by the various international institutions towards global economic liberalization (i.e. reduced policy barriers to trade and investment). These include the General Agreement on Tariffs and Trade (GATT), and its successor, the World Trade Organization (WTO), in the case of world trade in goods and services and to a lesser extent in movement of natural persons; and the International Monetary Fund (IMF) in the case of global finance and international capital flows. Third, is the shift in perceptions about the appropriate role of government and near global consensus on the need for extensive, albeit judicious, use of market incentives for economic success.<sup>2</sup>

Focusing specifically on international trade and production, major strides over the decades in transportation, coordination and communication technologies have afforded

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<sup>1</sup> There is, of course, another aspect of economic globalization, viz. globalization of labor which has lagged the other components of globalization quite significantly (Streeten, 2001 and World Bank, 2002b). See Rajan and Srivastava (2007a) for an overview of cross-border labor flows and worker remittances.

<sup>2</sup> Note that the use of markets does not, by any means, imply complete *laissez faire*. We return to this issue in Section 10.3.

firms vastly increased opportunities for the fragmentation of previously integrated goods and activities into their constituent parts, components and accessories.<sup>3</sup> This in turn is spread across countries on the basis of comparative advantage. The importance of such production fragmentation is that economic globalization will benefit all parties involved by expanding opportunities for international specialization and trade. Thus, in the longer-term, globalization and free trade ought to be an unambiguously positive-sum game. Of course, this presupposes that the necessary institutional structures are in place to allow for a country to exploit the opportunities that are available in the global market place.

This said, the world economy is no more, and, in some ways, is actually less integrated than it was back in 1913 when cross-border transactions costs had been significantly reduced by the advent of the railroad, steam ships and the telegraph in the 19<sup>th</sup> century and by the automobile and airplane in the early 20<sup>th</sup> century. However, while technological progress continued unabated, the “triple whammy” of World War I (1914 to 1918), the Great Depression (1929 to mid 1930) and World War II (1939 to 1945) effectively halted the trend towards economic globalization. An index of the intensity of globalization over the last century suggests a U-shaped curve, with a lengthy trough spanning the period between 1914 and 1950-60. Thus, the World Bank (2002b) identifies three broad periods of globalization: “the first wave of globalization” (1870-1914), “the second wave” (1945-80) and the “third wave” or “new wave” (1981 to the present).

Just how far has the second wave of globalization (of trade and production) progressed in the contemporary era? *Intra*-country trade between regions still far exceeds

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<sup>3</sup> The term “production sharing” is used by Yeats (1998), while the term “production fragmentation” is used by Jones and Kierzkowski (2000). Other terms sometimes used in the literature to describe this phenomenon include “disintegration of production” (Feenstra, 1998) and “slicing the value chain” (Krugman, 1995). See Rajan (2003) for a discussion of globalization of capital flows.

*inter*-country trade, even where much smaller physical distances exist between two countries than between two regions in the same country. An oft-cited example is the fact that trade between states in the US is on average twenty times more than trade between a Canadian province and a US state (McCallum, 1995). Similarly, Wei (1996) finds that during the period 1982 to 1994 a typical OECD country was on average about two and a half times more likely to buy goods and services from itself than from a trading partner, after controlling for factors such as geographical distance and relative size. Although this “home bias” in trade is tending to decline gradually, with tests of absolute and relative price differentials across countries suggesting growing real sector integration (Knetter and Slaughter, 2000), the process has not yet reached full maturity; there is still a long way to go.

This said, there are some important differences in the characteristics of historical and contemporary globalization -- the “first” and “second” waves of globalization (Baldwin and Martin, 1999, Bordo et al., 1999 and World Bank, 2002b). In the case of the globalization of production and trade, the first wave largely involved *extensive growth*, a general increase in the tradability of goods and services. Contemporary globalization, on the other hand, reflects in large part *intensive growth*, i.e. intra-product specialization and trade in parts, components and accessories discussed above. Another important dynamic of international trade in the current epoch of globalization is the growing role played by services. Despite the vague statistical description of services, it is noteworthy that international trade in services has outpaced that of merchandise trade over the last decade. There has been a rapid rise in the offshore outsourcing of and trade in many services activities that may have been considered non-tradable in the recent past.

The often repeated mantra nowadays is “anything that one can send over the wire is up for grabs”! Many US, British and other multinationals as well as smaller enterprises routinely outsource a number of their services activities. They have come to appreciate that if they do not outsource to reduce costs, while their competitors continue to do so aggressively, they stand to lose global and local market shares to their foreign rivals. The resultant stagnant corporate profit growth will limit the creation of new capital and re-investment in domestic technology.<sup>4</sup> Echoing the view of many informed observers, Primo Braga (1996) has declared that the “internationalization of services is viewed as being at the core of economic globalization” (p.34); while the World Bank (2002a) has proclaimed that “(i)n virtually every country, the performance of the service sectors can make the difference between rapid and sluggish growth” (p.69).

Contemporary globalization production and trade has been facilitated by multinational corporations. Indeed, a large part of trade in parts, components and accessories and services is of the intra-firm variety (i.e. involving international affiliates of the same company). The latter in turn constitutes some one third of global trade, while at least 80 percent of all international trade is said to be related to at least one multinational corporation (Kleinert, 2001). Notably, there has been much greater involvement of developing countries in world trade in the current wave of globalization.

East and south-east Asia have been among the first developing regions to embrace globalization of trade and production and benefit significantly thereof. To be sure, until the mid-1990s emerging East Asian economies were among the most dynamic in the world. In addition to the sustained growth of the newly industrializing countries (NICs) --

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<sup>4</sup> Rajan and Srivastava (2007b) offer an overview on services outsourcing with reference to Asia.

Hong Kong, Korea, Singapore and Taiwan -- and the near-NICs in Southeast Asia (notably the MIT economies of Malaysia, Indonesia and Thailand), the Asian giants of China and (later) India were rapidly integrating into the global economy. The Asian crisis of 1997-98 brought the growth in the NICs and Southeast Asia to a screeching halt. The region experienced a period of painful but much-needed de-leveraging and corporate and financial restructuring (including consolidation, loan loss recognition and restructuring of bad loans) as well as some institutional reforms. The region faced setbacks with a series of negative shocks in 2000-2003, including the collapse of the NASDAQ (National Association of Securities Dealers Automated Quotations) bubble, the spread of severe acute respiratory syndrome (SARS), the Avian flu and some natural disasters all of which helped delay full-fledged recovery in both growth and asset prices. Although some doubts were expressed about whether the region could regain its luster at all, Asia re-emerged quite strongly, with growth returning to pre-crisis levels and asset prices, in most cases even surpassing their pre-crisis levels. However, by mid-to-late 2008 Asia was badly hit again by the financial tsunami that emanated from the US housing and financial system.

Despite the fact that the region has been hit by a series of negative shocks, countries in the region have by and large remained among the world's fastest growing. This is due in no small part to their openness to international trade and investment. Merchandise trade as a percent of GDP is highest in the East Asia and Pacific region compared with other regions (Figure 1). Trade-to-GDP ratios are as high as 180 percent for Malaysia, 150 percent for Vietnam and almost 120 percent for Thailand (Figure 1).

The ratios are even higher for Hong Kong and Singapore. However, the World Bank data excludes these higher income economies in Asia as well as Japan and South Korea.

<insert figure 1 here>

## **10.2 Impact of globalization on health**

Much has been said about the contribution of globalization and the deregulation of trade and investment to East Asia's stellar economic performance. We turn now to the issue of how this growth, and the processes which drive it, potentially influence the health of the people living in this region. Globalization has been described as a 'mixed blessing' for health (McMichael and Beaglehole 2000), and both its proponents as well as those who decry what they see as the 'neoliberalism' or 'neocolonialism' have been active and vocal in their response (Feachem 2001). The remainder of this paper focuses on several key areas for which the incorporation of national economies in Asia into the larger world system, and the resulting movement of capital, technology, information and labor has both direct and indirect effects on health of their populations. In the concluding section, we offer a broader discussion on the health system response and the role of national and international governments.

### **10.2.1 Background: global indicators of health in East Asia**

In terms of human development indicators scores, the Asia region ranks fourth after the OECD, Europe and Central Asia, and Latin America and the Caribbean. The Human development index (HDI) gives an average score of three basic items: income, health and education. In terms of life expectancy at birth, the region gained more than 20

years during the second half of the 20<sup>th</sup> century. Currently, life expectancies in East Asia and the Pacific are similar to those in Latin America and, in some cases, higher than some European countries indicating that for Asia the score on the consolidated health indicators are favorable relative to their corresponding scores in income and education.

<Insert (Figure 2)>

Indeed significant improvements in health have been achieved in middle-income southeast Asian countries like Indonesia, the Philippines, Thailand and Vietnam. Between 1990 and 2004 the overall infant mortality rate in Eastern Asia improved from 37 to 26 deaths per 1,000 live births, while in Southeast Asia the same indicator decreased from 53 deaths to 32 deaths per 1,000 live births (United Nations Economic and Social Commission 2007). More detailed examination shows that this is a mixed bag: Vietnam has made the greatest progress by reducing its under-5 mortality rate by half, and Indonesia, Lao PDR and Timor-Leste are either on track or have reached their goal for child health. In Cambodia, however, the under-5 mortality rate increased from 115 deaths per 1,000 live births in 1990 to 141 in 2004, showing that gains made in the previous decade had been lost. Moreover, despite these losses, Cambodia enjoys lower child mortality than Timor Leste or Lao PDR.

<Insert Figure 3>

The Millennium Development Goals (MDGs) created a global partnership of development promoting human, social as well as economic progress. There are eight broader goals comprising 21 targets for developmental progress of which more than 50 percent are dedicated to sustainable health and environment concerns. While considerable heterogeneity exists, the Asian nations as a whole have also shown good progress in

achieving these targets. The region is on track to reduce extreme poverty, based on the \$1/day measure, by half. However, in countries such as Lao PDR, the proportion of the population people living on less than \$1/day has increased from 18.6% in 1992 to 27% in 2002 (UNESCAP, ADB and UNDP 2007). Net primary enrollment rates are also quite high, with a regional average of 94%. However within Southeast Asia, little progress has been made since the early 1990s and, in some cases rates are regressing. (UNESCAP, ADB and UNDP 2007).

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#### 10.2.2 Globalization and social inequalities

While growth in investment, production and trade in East Asia has led to economic gains for many countries in the region, it has been argued that this process is inherently 'disequalizing', and is leading to widening social disparities and inequities in health within countries (Braveman and Tarimo 2002, Schrecker 2008). There are several reasons for this: the global labor market increases the worth of highly skilled and mobile workers at the top of the income scale, while encouraging employers to lower wages for those in production, in an effort to remain competitive. There is growing evidence that the unskilled population have been left behind in the market economy (Asian Development Bank 2007). Income disparities evident, for example, between China's eastern seaboard and the more rural interior and western provinces, are reflected in infant mortality rates twice as high in rural compared with urban areas (Drummer and Cook 2008). These gaps are also replicated within large cities, where the large influx of migrants creates pockets of poverty. The hazards to health that arise in these situations

have been well documented: abuse of drugs and alcohol, high-risk sexual behavior, mental illness and violence, in addition to over-crowding which exacerbates the spread of infectious diseases (Woodward and Kawachi 2000, Drummer and Cook 2008).

Another potentially disequalizing factor is that the infrastructure for the global marketplace, in the form of binding trade agreements and other processes (an example of which is the TRIPS agreement discussed below) may affect the viability of specific industries in developing countries and this again has the greatest impact on livelihoods of the poor, and consequently on their health.

In the international arena, frameworks and agreements that are binding upon member nations of the WTO or which set the stage for bilateral free-trade agreements may also have important consequences for public health. Pharmaceuticals account for 55% of all health related trade, valued at US\$650 billion in 2006, of which the high value patented products account for almost 90%. The WTO Agreement on Trade-Related intellectual property rights or TRIPS, was established in January 1995, and set global minimum standards for the protection of intellectual property, including 20 year patent protection on pharmaceuticals and protection of test data on effectiveness and safety of drugs. While such agreements serve an important role in promoting research and development, and address the complexities of dealing with varying levels of intellectual property between countries, it could be argued that TRIPS has served to further polarize the pharmaceutical market, and widen the gap between developed countries which produce and export high-value patented drugs, and developing countries which must import these products, or are involved in the production of low-value generics (Smith 2009). These inequalities raise issues regarding the affordability of medicines in these

countries, including new generation antibiotics, anticancer and antiretroviral drugs. For example, prices of drugs in Malaysia rose by 28% between 1995 and 2005 (Babar 2007). In 2001, the Doha Declaration provided for member countries' rights to "adopt measures necessary to protect public health and nutrition" by introducing flexibilities within TRIPS, such as the granting of compulsory licenses for third parties to produce or sell drugs which are in short supply or to allow access to patented drugs sold at a lower price in another country. However, reservations remain as to how effectively developing countries will be able to apply these flexibilities to safeguard access to essential medicines. As Williams (2001) points out

"First, it is piecemeal, ambiguous and it is difficult to administer public safeguards and exceptions...Developing countries do not always have the infrastructure to examine patents and resolve issues of questionable patent ownership, this and other factors are resulting in a chilling effect on developing countries implementing the safeguard measures in these provisions. Many countries do not act because they fear legal challenges by multinational corporations and trade sanctions that may result from an adverse ruling by the WTO dispute panels." (pp.5-6)

In the meantime, however, patients in need lack access to life-saving drugs, thus increasing the health disparities between wealthy and poor nations.

### 10.2.3 Impact on the environment

Environmental health risks have been fueled by rapid industrialization that is accompanied by inadequate environmental safeguards, together with spiraling population growth. The pace at which development is occurring is outstripping the capacity for replenishment, leading to large-scale losses in terms of arable land, clean waterways, and biodiversity. This in turn has implications for food security and food safety, and the potential for contamination of the general environment by hazardous and often carcinogenic materials (such as 1,3 butadiene, formaldehyde, polychlorinated biphenyls and heavy metals) may increase a populations risk of cancer (Vineis and Xun 2009). Another consequence of rapid industrialization in developing countries which rely on coal and oil as sources of energy, is the rise in air pollution. Particulate air pollution is a cause of a range of respiratory diseases and also causes premature mortality by exacerbating heart disease. Those at highest risk are living in the most populous cities in the developing world, particularly in Asia and Latin America (World Bank, 2004).

<Insert Table 1 here>

In occupational settings, the ‘race to the bottom’ encourages employers to cut costs by being less stringent about health and safety standards at the workplace. There is also little incentive for small enterprises to meet environmental standards unless effective regulatory and monitoring systems are in place. In China, township and village enterprises (TVEs) established over the last three decades account for 50% of total production and 40% of national exports, and employed more than 120 million rural workers (or 20% of all rural laborers) in 1999. A Ministry of Health survey found that TVEs had very low compliance rates with national occupational health standards for workplaces, including standards governing exposure to silica, coal dust and asbestos.

TVEs had very limited access to health and safety services – only 1.4% conducted preventive inspections and 2.7% provided regular physical examination for their workers. Sixty percent of employers did not provide medical insurance, and no compensation was paid for work-related diseases in the majority of these entities (Zhi 2001).

#### 10.2.4 Travel and communications

A global labor market is contingent on human mobility – the exponential rise in the volume of air traffic reflects burgeoning international business travel on the one hand, and the effects of low-cost airlines on the tourism industry on another. With more than 2000 airlines servicing over 3700 airports, growth of world air travel has averaged approximately 5% per year over the past 30 years (Massachusetts Institute of Technology 2008) and it is estimated 1 billion persons travel per year (Mangili, Gendreau 2005). Apart from rural-urban migration of workers within countries, there is also a tremendous movement at borders as ‘foreign workers’ fill labor needs in several East Asian countries, including Hong Kong, Malaysia, and Singapore (UN Population Division 2007). The impact of all these movements on how rapidly a new or emerging infection can traverse the globe was demonstrated first by the SARS epidemic in 2002-2003, which spread to 30 countries over a period of 6 months (Fleck 2003) and more recently by the H1N1 virus. Interestingly, economic globalization is linked with the geographical spread of emerging infectious diseases in other forms: the introduction of the *Aedes* mosquito, vector for the dengue fever virus, to the Americas is postulated to have occurred in shipments of used rubber tires exported from Asia (Hawley 1987).

Reduction in the ‘effective distance’ between countries and business partners is also facilitated by information and communications technology. Shrinking costs have extended the reach of computers and the internet even to remote communities that struggle with basic needs. While this has the capacity to bring about tangible benefits to health, e.g. telemedicine, it is also a conduit for transnational advertising and marketing. The influence on health through changing consumer preferences, diet and lifestyles to those which are less traditional and are associated with risk of chronic disease is one consequence of this. In many cases, countries do not regulate advertising in such a way that these harms are made known to the public.

#### 10.2.5 Lifestyle and risk of chronic degenerative diseases

Over the past several decades, rapid changes in standards of living, population structure (primarily due to declining fertility rates and improved infant survival) and income growth have accelerated the epidemiological transition within many Asian countries. Non-communicable diseases such as heart attack, stroke, diabetes mellitus, respiratory diseases and cancer account for 34% of years of life lost, globally. In East Asia, this figure ranges from 24-25% in Lao and Cambodia, to 73-76% in Singapore and Japan (WHO 2009). Globally, 20% of deaths from chronic disease occur in upper-middle income and high-income countries while the remaining 80% of these deaths occur in low-income and lower middle-income countries including parts of China, Cambodia and Vietnam (WHO 2005).

<insert Table 2 here>

In China, a rapidly ageing population combined with increases in high-risk behaviors such as reduced physical activity, smoking (especially in men) and increased intake of dietary fats has driven the emergence of chronic, non-communicable diseases as the main causes of morbidity and mortality (Yang et al 2008). Rapid economic development and urbanization have also precipitated shifts in dietary patterns towards foods higher in sugar, saturated fats and sodium, as well as changes in occupation associated with reduced physical activity. Over the past 30 years, prevalence rates of type 2 diabetes has increased three-fold to five-fold in Korea, Indonesia and Thailand, while risk factors for type 2 diabetes have also kept pace throughout Asia. In Taiwan, the prevalence of obesity and overweight in children and young adolescents rose from 4% to 12% between 1980 and 1996 and in China, increased by 28-fold from 1985 to 2000 (Kun-Ho et al 2006).

Tobacco usage, another major risk factor for chronic disease, is growing fastest in low-income countries with nearly two-thirds of all smokers living in just 10 countries, including China, India, Indonesia and Japan (WHO 2008). With an estimated annual value of US\$22 billion, international tobacco trade is big business (Tobacco Atlas, accessed 4 August, 2009).

Through WTO multilateral trade agreements, sizable reductions in tariff and non-tariff barriers expanded global trade in tobacco. The Framework Convention on Tobacco Control (FCTC) was adopted by World Health Organization (WHO) member countries in 2003 to initiate cost effective interventions to reduce death and disease caused by tobacco use. Indeed, many countries in the region do provide health warnings on cigarette packets, and some prohibit smoking at public, indoors venues (e.g Thailand and

Singapore); in other, such as China, there are fewer and poorly enforced restrictions. The harm from second hand smoke to others, especially unborn and young children, justifies intervention to reduce tobacco use.

According to a recent report by the WHO, worldwide tobacco use caused more than 5 million deaths per year. More deaths are caused each year by tobacco use than by all deaths from human immunodeficiency virus (HIV), illegal drug use, alcohol use, motor vehicle injuries, suicides, and murders combined (World Bank, 2008). By 2030 tobacco consumption is expected to kill more than 8 million people per year, with 80% of these deaths occurring in Asia. In China, if current usage levels do not decrease dramatically amongst men, one-third of the approximately 300 million male smokers alive today will eventually die from tobacco-related causes (Jha, Anderson 2007). Smoking prevalence among Chinese men increased from 43 percent in the 1950s to 63 percent in 1996. Tobacco is often a significant part of household expenditure especially in lower and middle income households. A recent study showed that smokers in 2,716 households in Minhang district, Shanghai province, spent 17 percent of their household income on cigarettes (Gong et al, 1995). As evident from Figure 5, imports of tobacco and manufactured tobacco substitutes in China has doubled from 2002 to 2007.

<Figure 5 here>

Much like tobacco, alcohol is no ordinary commodity (Babor et al 2003); however, unlike tobacco, alcohol lacks a framework for concerted global action. The acceleration of free trade at the regional, national and global levels has created unprecedented opportunity for the expansion of alcohol corporations into emerging markets, thus increasing the availability, affordability and marketing of alcohol in

developing countries (Casswell, Thamarangsi 2009). This aggressive expansion, coupled with the strong link between purchasing power and per-capita consumption suggests that alcohol consumption and its associated harms are likely to increase in most societies in the future (Beaglehole, Bonita 2009).

An important risk factor for chronic disease and injury, alcohol consumption accounts for approximately 4% of global mortality and between 4% and 5% of disability-adjusted life years (DALYs), making it one of the largest avoidable risk factors (Rehm et al, 2009). Increased alcohol consumption amongst countries in Southeast Asia previously associated with a culture of abstinence presents a growing public health problem. Perhaps most troubling is the pattern of drinking that has emerged in many east and southeast Asian countries – frequent and heavy drinking. In Thailand, between 1988 and 2001, the per adult drinking volume doubled (Thamarangsi 2006), while in China both the amount of alcoholic beverages produced and consumed increased almost tenfold between 1978 and 1996 (Yen et al 2009).

That international trade agreements often fail to recognize alcohol as a health-damaging commodity is apparent in the degree to which regulation of alcohol pricing, marketing and distribution is relaxed (or, in some cases, removed) at both national and regional levels, as well as the lack of a formal mechanism in which public health interests are represented in the development of trade agreements (Gould 2005).

#### **10.2.6 Trade in health-related services**

The scope of contemporary globalization encompasses the trade and production of both goods and services. Although international trade in health services is relatively new,

advances in communication technology, increased mobilization of patients and providers, growing private sector participation, and systemization of services trade within the WTO under the General Agreement on Trade in Services (GATS) has prompted governments throughout the region to take into account their own positions in regards to this particular sector (Smith R, Chanda R, Tangcharoensathien 2009). Unlike the General Agreements on Tariffs and Trade (GATT) which deals primarily with merchandise trade, the GATS deals solely with trade in services such as water, communication, health and education.

The GATS extends the concept of cross-border trade by defining four modes of supply services:

- (1) *Cross-border supply* refers to the remote provision of services from a health provider in one country to an overseas patient or client. Examples include teleradiology, laboratory testing, remote surgery, teleconsultation as well as administrative functions such as claims processing and medical transcriptions (Smith R, Chanda R, Tangcharoensathien 2009). As an example, the Philippines, with a large pool of educated, English-speaking workers, is a major exporter of medical transcriptions to the United States. The Philippine government offers special incentives for foreign direct investment (FDI) in the sector and the majority of the 25 companies exporting these services in 2004 were owned by US investors (Arunanondchai J, Fink C 2007).
- (2) *Consumption abroad* refers to medical or health tourism and typically characterized by patients of one country traveling to another for medical services. In 2007, medical tourism generated USD 1.3 billion in revenue, with projected growth to USD 4.4 billion in 2012 (Clearstate 2007). Lower costs, higher quality

and the availability of specialized or niche services (Arunanondchai J, Fink C 2007), attracts more than 1 million patients annually to Thailand, with Singapore and Malaysia expected to reach this amount by 2012 (Smith R, Chanda R, Tangcharoensathien 2009).

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(3) *Commercial presence* refers to the movement of capital across national borders, typically in the form of foreign direct investment (FDI). Within the health sector of developing countries, FDI can be an important source of capital investment and infrastructure development; however, foreign, for-profit firms with better pay, equipment and services may lure health professionals away from the public health sector thus creating an internal brain drain and creating a two-tier health system – high quality care for the rich and low quality care for the poor (Smith R 2004). In the ASEAN region, Singapore and Thailand have considerable commercial presence abroad. Parkway Group Healthcare, the largest investment group in the healthcare sector in Singapore, has set up joint ventures with hospitals in India, Indonesia, Malaysia, Sri Lanka, and the United Kingdom. Additionally, Thailand's Bumrungrad Hospital has entered into management contracts with hospitals in Bangladesh and Myanmar, and has formed a joint venture with a hospital in the Philippines (Arunanondchai J, Fink C 2007). In 2001, there were 24 private hospitals with part-foreign ownership in Thailand with foreign investment originating from the following countries and regions: Japan (25%), Singapore (19.4%), China (11.1%), Europe (11.1%) and the USA (5.6%) (Wibulpolprasert S, Pachanee C, Pitayarangarit S, Hempisut P).

<insert figure 7>

(4) *Movement of individual service providers* refers to the *temporary* movement of health professionals from one country to another. Historically, the Philippines has been, and continues to be a major exporter of health professionals, particularly nurses. From 1992 to 2005, more than 100,000 Philippine, nursing professionals were deployed to work abroad (POEA 2005). Top receiving countries included Saudi Arabia, the United Arab Emirates, Kuwait, the United States, the United Kingdom and Ireland (Arunanondchai J, Fink C 2007). Furthermore, of the total number of work permits issued for nurses in the UK during 2002, approximately 50% originated from the Philippines and India.

Within the ASEAN region, the major receiving countries are Malaysia and Singapore, with Malaysia in the unique position as both recipient and exporter of healthcare workers (Arunanondchai J, Fink C 2007).

Given the demographic profile of many receiving countries (e.g. rapidly aging populations), one can expect the migration of health professionals to increase over the coming decade. Many countries in the region are trying to pre-empt the expected shortfall in supply through economic agreements and government policy. In September of 2007, Japan signed an Economic Partnership Agreement (EPA) with eight countries, including the Philippines and Indonesia in order to meet the expected demand of nurses and care workers by 2010 (Amante, 2007; Stott, 2008). Sending countries face the dual problem of aging populations

combined with increased outflows of nurses, physicians and other health care workers. To combat this problem, sending countries, like Malaysia, are actively recruiting foreign nurses. The Malaysian Ministry of Health has agreements with India, Pakistan, Bangladesh, Indonesia, Philippines, Indonesia and Albania which allows their nurses to practice in Malaysia (International Council of Nurses, 2008; Matsuno, 2007). Within traditional sending countries the implications of domestic shortages upon the national health system are not well understood as few studies have examined the magnitude and impact of “brain drain” upon national health systems in developing countries (Pang T, Guindon G 2004).

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### **10.3 Globalisation and the response of health systems**

While fundamentally an economic process, contemporary globalization, unlike the forces of colonization and expansion of trade in the 19<sup>th</sup> and early 20<sup>th</sup> century, is multidimensional. It is also taking place at a pace and depth that is unprecedented.

It is important to recognize that improvements in health status in Asia have taken place over several decades, primarily as a result of broad-based improvements in sanitation, literacy, family spacing, nutrition, access to primary health care and the implementation of public health measures such as vaccination, as well as treatment of infectious diseases (McMichael 2000). The sustainability of these health gains, in the light of the forces of globalization, is contingent on the public health community adopting

an ecological and 'systems-based' view of health and disease prevention that takes into account the complex and multi-factorial issues involved.

How can we act to make globalization work 'for' health? The new and rapidly evolving needs of the population call for both a global and a local response.

On a global scale, containing the spread of contagious diseases such as Severe Acute Respiratory Syndrome (SARS), Avian influenza, H1NI and the like are examples of concerns which require concerted, collaborative efforts by international organizations and their Member States. They also require a substantial commitment of resources by governments nationally, regionally and internationally. International health diplomacy is also essential so that countries can work together to address concerns relating to equity and to redress possible imbalances, as illustrated both by the TRIPS plus agreements and the WHO initiative on tobacco.

As we have seen, the social and political institutions within each country play an important role in determining the impact of globalization on the health of its population. It has been argued that the degree to which the poorest sections of society are able to benefit from economic growth depends on the economic and social policies that are in place at the national level to safeguard the equitable distribution of benefits. Even on an informal level, this social capital (civic institutions, social networks) can be a critical safeguard against urban decay and weakened support systems that are encountered in many major cities in Asia,

A salient example of the need for appropriate social policies at the national level is the structure and financing of health care. The effect of financial reforms introduced in China in support of a decentralized, market-based healthcare system has provided

important lessons for the region. Beginning in 1978, health institutions were no longer regarded as welfare entities fully supported by the State, but as economic entities. The proportion of national health spending by the central government fell from 32% in 1978 to 14% in 2000, and out of pocket payments rose from 20% in 1978 to 60% in 2000 (Blumenthal and Hsiao 2005, Liu 2004, Ho and Gostin 2009). The healthcare system fundamentally evolved from public-funded state clinics and hospitals to a fee-for-service system. On the one hand, this led to an over-supply of profitable services, such as drug prescriptions (which can lead to drug-resistant disease, as discussed in chapter 3) and expensive investigations, while on the other, it denied access to a large proportion of the population who could not afford healthcare. In 1978, 85% of the rural population were covered by the Cooperative Medical Scheme, a health security program – this had fallen to 9.5% in 2003. The Third National Health Services survey in 2003 found that 40% of ill persons do not seek medical attention, and 70% of those refusing hospitalization after being referred cited cost as their main reason (Ho and Gostin 2009). Additionally, the reduction in government health budget allocated to public health and preventive services was particularly marked: from 15-18% in the 1970s, to 10.6% in 1995 (Liu and Mills 2002). Disease prevention, public education and surveillance of disease, being unprofitable, lacked the resources to be effective, which led to failures in containing the incidence and spread of communicable diseases. The impact of all these changes in causing a widening of health inequalities has led the Chinese government to consider comprehensive reforms which would provide universal health coverage and enhanced public health functions (Blumenthal and Hsiao 2005, Ma et al 2008, Ho and Gostin 2009). The lessons learnt in healthcare provision and financing will be important for

other rapidly transitioning economies. Indeed, other Asian countries, such as Thailand, that have seen large expansions in private healthcare, have also witnessed spiraling health costs and reduced access to care by socially disadvantaged groups (Sitthi-amorn 2001).

#### **10.4 Globalization and Public Health Reconsidered**

It is clear that the openness and porosity that characterize economic globalization can and do have a complex influence on the overall health status of populations in East Asia. While some of these are positive, it will take a sustained effort by both the international community and national governments to mitigate the potential hazards, particularly to the most vulnerable groups of society. What this clearly implies is the need for a strong State to conduct essential public functions and for the appropriate social and economic policies to be in place.

If anything, the East Asian experience has emphasized the need for a mixed economy approach to development, a ‘pointilistic’ rather than a ‘broad-brush’ strategy. As Rodrik (2000) has noted:

“The idea of a mixed economy is possibly the most valuable heritage that the twentieth century bequeaths to the twenty-first in the realm of economic policy...(W)e enter the twenty-first century with a better understanding of the complementarity between markets and the state--a greater appreciation of the virtues of the mixed economy. That is the good news. The bad news is that the operational implications of this for the design of development strategy are not that clear. There remains plenty of opportunity for renewed mischief on the policy front...(T)he state and the

market can be combined in different ways. There are many different models of a mixed economy. The major challenge facing developing nations in the first decades of the next century is to fashion their own particular brands of the mixed economy” (pp.1 & 3).

As the effects of globalization become increasingly apparent in the region, it is the social capital, as evident in the quality of domestic policies and the strength of regulatory institutions that will play an increasingly important role in determining whether the fruits of globalization will realistically translate to the betterment of all societies.

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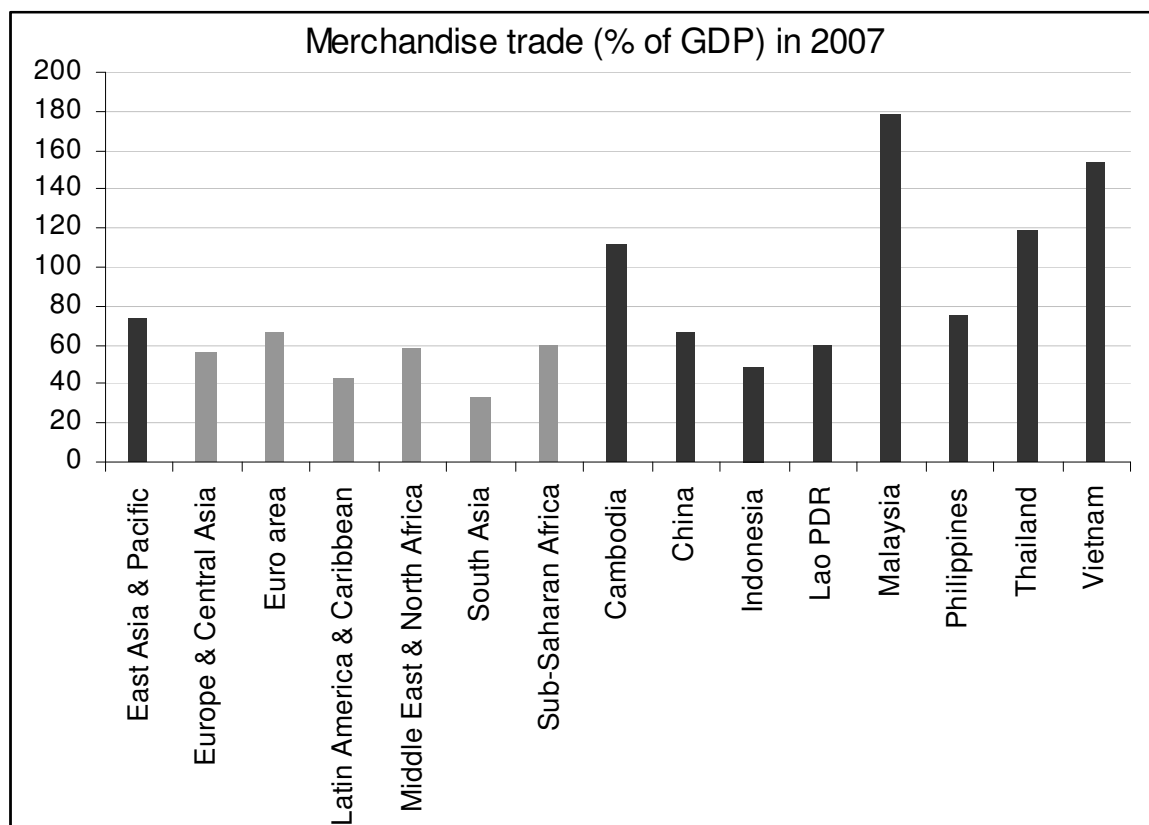
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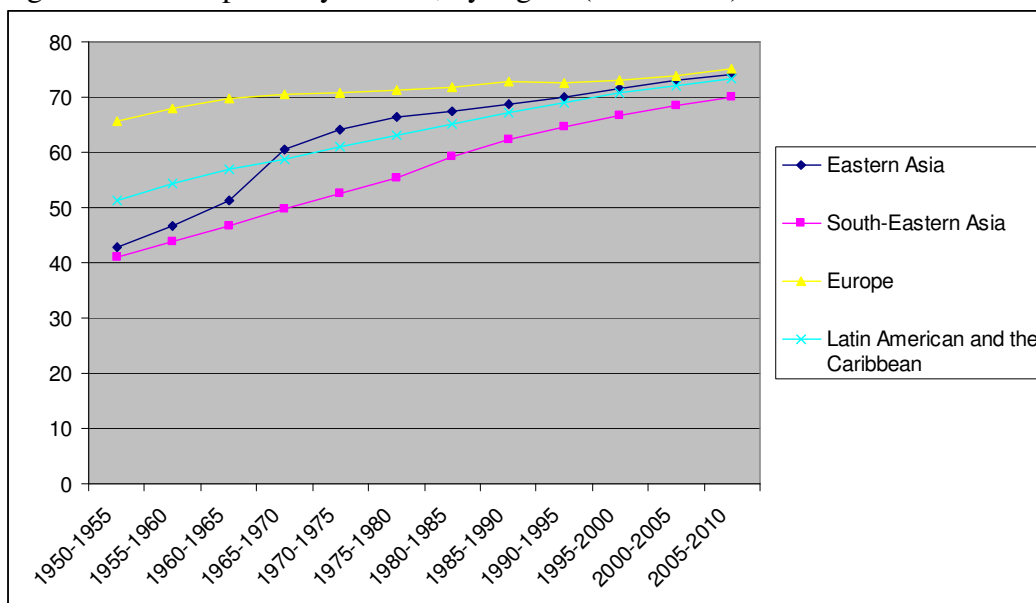
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Figure 1. Trade volume as a percentage of GDP in 2007



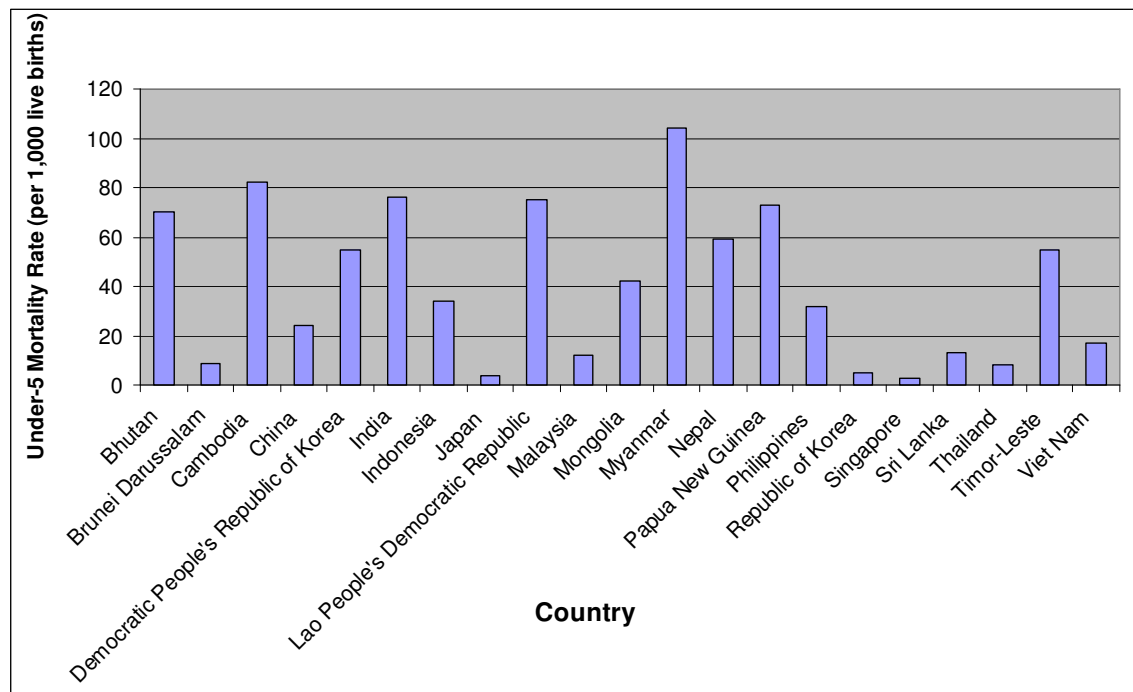
Source: WDI (2008)

Figure 2: Life Expectancy at birth, by region (1950-2010)



Source: Population Division of the Department of Economic and Social Affairs of the United Nations Secretariat, World Population Prospects: The 2008 Revision, <http://esa.un.org/unpp>.

Figure 3: Under-5 mortality rate (probability of dying by age 5 per 1,000 live births) both sexes, 2006



Source: WHO Statistical Information Systems, Core Indicators, Under-5 Mortality 2006.

Figure 4: Countries on and off track for the Millennium Development Goals

Goal	1		2 *		3 *			4		6		7			
	\$1/day	Underweight children	Primary enrolment	Primary Completion Rate	Gender Primary	Gender Secondary	Gender Tertiary	Under-5 Mortality	Infant Mortality	HIV prevalence	TB prevalence	Water Urban	Water Rural	Sanitation Urban	Sanitation Rural
China	•	•			•	•	▲	•	▲	▲	•	▼	■	■	■
DPR Korea		▲						▼	▼		•	•	•		
Hong Kong			•	•	▼	•					•				
Mongolia	▲	•	▼	•	•	•	•	▲	▲	▲	•	▼	▼		
R of Korea			•	•	•	•	■	•	•	▲	▼	•			
Brunei Darussalam			•	•	•	•	•	•	•	▲					
Cambodia		▼	•	■	▲	■	■	▼	▼	•	•				
Indonesia	•	▼	•	■	•	•	■	▲	▲	▲	•	▼	■	■	■
Lao PDR	▼	■	▲	■	▲	■	▲	▲	▲	▲	•				
Malaysia	•	•	•	■	•	•	•	•	•	▼	•	•	•	•	
Myanmar		■	▼	▲	•	•		■	■	•	•	▼	•	•	•
Philippines	■	■	▼	•	•	•	•	▲	▲	▲	•	▼	■	▲	■
Singapore					•			•	•	▲	•	•	•	•	
Thailand	•		▲		•	•	•	•	•	▲	•	•	•	•	•
Timor-Leste								•	▲	•					
Vietnam		•	▼	▼	■	•	▼	•	•	▼	•	•	•	•	▲

Legend	
• Early achiever	Already achieved the 2015 target
▲ On track	Expected to meet the target by 2015
■ Off track-slow	Expected to meet the target, but after 2015
▼ Off track-No progress/regressing	Stagnating or slipping backwards

\* Primary enrollment: Net enrolment ratio in primary education; ratio of the number of children of official school age (as defined by the national education system) who are enrolled in primary school to the total population of children of official school age.

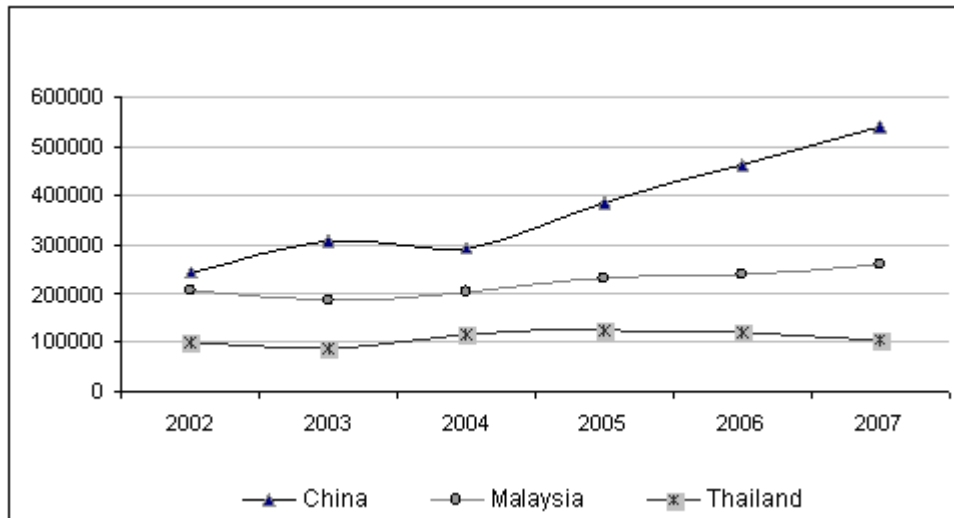
\* Primary completion rate: Proportion of pupils starting grade 1 who reach last grade of primary

\* Gender primary, secondary, tertiary: Ratios of girls to boys in primary, secondary and tertiary education

Source: UNESCAP, ADB and UNDP Millennium Development Goals: Progress in Asia and the Pacific, 2007.

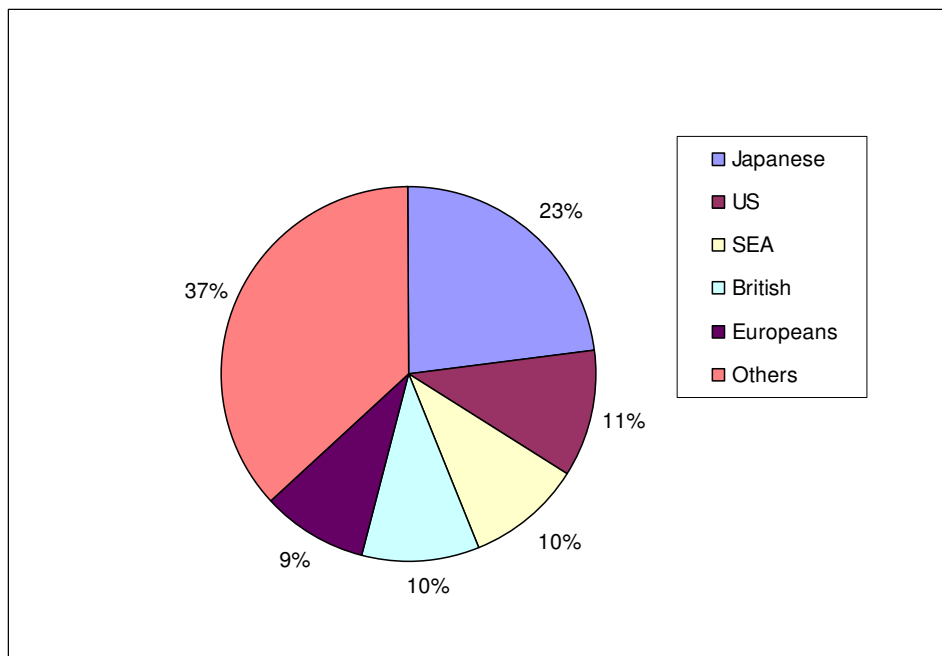


Figure 5 Trends in import of tobacco and manufactured tobacco substitutes (\$'000s), 2002-2007



Source: COMTRADE database

Figure 6 Medical tourists to Thailand by Country of Origin (2005)  
Total medical tourists : 1.1 million



Source: Clearstate. Medical Tourism, Asia's Growth Industry, 2007.

[http://clearstate.com/admin/data/Thailand\\_healthcare\\_tourism.pdf](http://clearstate.com/admin/data/Thailand_healthcare_tourism.pdf) [28 Aug 2009]

Figure 7 Foreign Investment in private hospitals in Thailand, by region or location (2001)

	Number without foreign investment (%)	Number with foreign investment (by hospital size)			
		<50 beds	51-100 beds	101-200 beds	>200 beds
Bangkok	48 (77%)	1	5	3	5
Central	117 (96%)	0	2	1	2
Northeast	42 (93%)	0	3	0	0
North	59 (97%)	0	0	1	1
South	36 (100%)	0	0	0	0
Total	302 (93%)	1	10	5	8

Source: Wibulpolprasert S, Pachanee C, Pitayarangsarit S, Hempisut P. 2004.

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Figure 8: Projected Nurse Supply

	Hong Kong	Japan	Korea	Macau	Singapore	Taiwan	Thailand
In 1 year	Shortage ↓	Shortage ↓	Shortage ↓	Shortage ↓	Shortage ↓	Surplus ↑	Shortage ↓
In 5 years	Balance ↔		Shortage ↓		Shortage ↓	Surplus ↑	Shortage ↓
In 10 years	Shortage ↓		Balance ↔	Balance ↔	Balance ↔	Surplus ↑	Shortage ↓

Source: International Council of Nurses (ICN): Asia Nursing Workforce Profile 2008

Table 1: Particulate air pollution in selected large urban centres, 1995

Country	City	City population (thousands)	Suspended particulate matter (SPM) (micrograms per m <sup>3</sup> )
Brazil	Sao Paolo	16,533	86
	Rio de Janeiro	10,187	139
China	Shanghai	13,584	246
	Beijing	11,299	377
France	Paris	9,523	14
India	Bombay	15,138	240
	Calcutta	11,923	375
	Delhi	9,948	415
Indonesia	Jakarta	8,621	271
Japan	Tokyo	26,959	49
	Osaka	10,609	43
Korea, Rep.	Seoul	11,609	84
Mexico	Mexico City	16,562	279
Philippines	Manila	9,286	200
Russian Federation	Moscow	9,269	100

Source: World Bank (2004) Beyond Economic Growth. Meeting the Challenges of Global Development. Urban Air Pollution.

Table 2: Distribution of years of life lost by broad cause in East and South East Asia (2004)

Country	Distribution of years of life lost by broad cause (%) in 2004		
	Communicable diseases	Non-communicable diseases	Injuries
China	20	59	21
Cambodia	67	25	8
Indonesia	31	32	37
Japan	8	76	16
Lao	62	24	14
Malaysia	28	55	17
Myanmar	56	33	11
Philippines	44	43	13
Singapore	12	73	14
Thailand	42	40	19
Vietnam	39	46	15
Global	51	34	14

Source: World Health Organization. World Health Statistics 2009.