

# COMPARISON OF FOUR HEALTH SYSTEMS: CUBA, CHINA, JAPAN AND THE USA, AN APPROACH TO REALITY

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**Abstract.** The ultimate responsibility for the overall performance of a country's health system lies with government, which in turn should involve all sectors of society in its stewardship. A comparison in structure, financing and function of the health systems of Japan, the USA, Cuba and China, as well as their main health and social-demographic results, is shown here. Two clear examples of inequalities, between regions in China and between ethnic and social groups in the USA, let us see different health indicators of both countries. To achieve and maintain a healthy population with good health results does not necessarily depend on a big budget or richness in a country. Good governmental policies regarding public health and social security are crucial to achieve good quality of life equally distributed to the whole population. Some suggestions are given.

## INTRODUCCION

Every day, the lives of vast numbers of people lie in the hands of health systems. From the safe delivery of a healthy baby to the care, with dignity, of the frail elderly, health systems have a vital and continuing responsibility to people throughout their lifespan (WHO, 2000).

Almost every day another new drug or treatment, or a further advance in medicine and health technology, is announced. The result is increasing demands and pressures on health systems, including both their public and private sectors, in all countries, rich or poor. Clearly, limits exist on what governments can finance and on what services they can deliver. Health systems can misuse their power and squander their potential. Poorly structured, badly led, inefficiently organized and inadequately funded health systems can do more harm than good. These failings result in large numbers of preventable deaths and disabilities in each country; in unnecessary suffering; in injustice, inequality and denial of the basic rights of individuals (WHO, 2000).

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The ultimate responsibility for the overall performance of a country's health system lies with its government, which should involve all sectors of society in its stewardship. The careful and responsible management of the well being of the population is the very essence of good government. For each country it means establishing the best and fairest health system possible with available resources. The health of the people is a national priority: government responsibility for it is continuous and permanent.

In this paper, we make a comparison in structure, financing and function of the health systems of Japan, the United States of America (USA), Cuba and China, as well as their main health and social-demographic results at present.

## MATERIALS AND METHOD

Using the main information sources from WHO (World Health Organization), World Bank, governmental information from each country and worldwide literature, we compared the structure, financing, function and health outcomes of Japan, the USA, Cuba and China in this analysis-opinion paper. Its body is divided into three main parts: geo-demographic description, health systems, and the health situation of each country. A discussion using our own and other opinions closes the text.

## RESULTS

**The countries**

**Japan.** With a total land area of 380,000 km<sup>2</sup>, the population estimated in the year 2000 was 127,096,000 inhabitants, the eighth largest population in the world. Population density is 340/km<sup>2</sup> and 78.6% of the population live in urban areas. The capital is Tokyo, with a total population of 11,837,000 citizens and a population density of 5,630/km<sup>2</sup>, almost 17 times the national average (WHO, 2001; Statistic Bureau, 2000).

**United States of America (USA).** Most of its territory is situated in North America, and some in other areas. Its land surface totals 9,158,960 km<sup>2</sup>. With a total of 281,421,906 inhabitants, the population density is 29.2/km<sup>2</sup>, of which 77.4% live in urban areas according to the 2000 US National Census. It is divided into 50 states and the capital is Washington DC with 5,894,121 inhabitants and 230/km<sup>2</sup> (US Census Bureau, 2002; WHO, 2001).

**Cuba.** Cuba is the biggest country in the Caribbean area, an archipelago composed of two main islands and many little islands and keys. The total land area is around 110,860 km<sup>2</sup>, with a population density of 100.9 km<sup>2</sup>. The total population is 11,199,000 inhabitants, of which 75.5% live in urban areas. The capital is La Habana, with a population density of 3003.9/km<sup>2</sup> and a total population of around 2,000,000 inhabitants (WHO, 2001; MINSAP, 2002).

**The People's Republic of China.** China is located in Eastern Asia and has a total land area of 9,326,410 km<sup>2</sup>, the world's second-largest country after Russia (Lee, 2001). The total population in 2000 was 1,282,437,000 inhabitants with a population density of 137/km<sup>2</sup>. The annual statistics on total population do not include residents in Taiwan Province, Chinese compatriots in Hong Kong and Macao and overseas Chinese. The proportion of urban population is 30.4%. The capital is Beijing with a population of 12,570,000 inhabitants and a population density of 748.2/km<sup>2</sup> (NBSC, 2000; WHO, 2001).

**Health systems**

**Japan.** The Japanese Health System guaran-

tees universal coverage for all citizens. Under the universal medical care insurance system, all the citizens are obligated to subscribe for one of the public medical insurances and are compensated for necessary medical expenses. The scale of national health expenditure is growing every year. As is shown in Table 1 the annual public health expenditure as a proportion of the national health expenditure was 78.1%, with 7.5% of annual national health expenditure as a proportion of the Gross Domestic Product (GDP) (1998 data). The total annual percapita expenditure on health at official exchange rate was US\$ 2,244 and social security expenditure on health as % of public expenditure on health was 89.2% in the same year (MHW, 2000; 2001; The World Bank Group, 2002).

The medical care expenditure for the elderly is growing by about 9% every year along with the rapid increase of aging population, and is about 1/3 of the national health expenditure. The medical care expenditure for the elderly is paid by the contributions for health services for the elderly, which is mostly borne by the insured of the working generation and business owners, and by the contributions shared by the national and local governmental organizations. The amount of contributions is increasing every year and becoming a heavy financial pressure to medical care insurers (MHW, 2001).

According to the Annual Report on Health and Welfare 1999-2000, in the whole Japanese Health System there are 9,333 hospitals (1,369 public and 7,589 private) with a total of 1,656,415 beds, making 13 beds per 1,000 inhabitants (Table 2). The average stay is 28 days. The total amount of physicians was 248,611 counting 19.6 by 10 000 inhabitants. With a total of 1,092,900 nurses, there were 54 per 10,000 inhabitants. Regarding dentists, there are 7 per 10,000 inhabitants. Trained personnel attend 99.97% of deliveries in the country (MHW, 2001).

In Japan 96.3% of the population has access to drinking water services. There is high vaccination coverage for children against main communicable diseases: 99% for poliomyelitis, 96% for measles, 96% for tuberculosis, and 82% for tetanus, diphtheria and pertusis (The World Bank

Group, 2002).

**USA.** The United States is the only developed country that does not have a public medical security system to cover all citizens universally. Private health insurance programs take a major role in the health insurance system in the USA. Employers often purchase health insurance plans for their employees as a part of employee benefits and welfare packages at the workplace. Medical services are financed by the individual's payment, private medical insurance, Medicare, Medicaid. Forty-nine percent of the total medical expenses are covered by the private sector. Medicare is a federally managed program that covers people aged 65 or over who are old-age pension beneficiaries and patients suffering from chronic kidney disease. Medicare consists of A) compulsory hospital insurance covering inpatient hospital services, and B) supplementary medical insurance covering outpatient hospital and other services such as physician's examination. Part A is funded through the social security tax (tax rate of 2.9%, employees and employers sharing the tax equally, and the self-employed paying the whole amount) together with the tax of OASDI (Old-Age and Survivors Insurance and Disability). Part B is financed by the participants' premium (monthly premium being US\$ 45.50 in 1990) and general revenue resources (MHW, 2001; ODPHD, 2002).

The number of people not covered by any health insurance or public medical security program had reached almost 44 million in 1998, which is a serious social issue. In order to address the problem, the government has taken measures to expand and promote coverage by medical insurance programs, for example, the Children's Health Insurance Program (MHW, 2001; NACCHO, 2002; ODPHD, 2002).

In the USA health and welfare programs for the elderly are based on the concept of self-support. Medicare covers the medical area of long-term care services. Once people have used up their properties to pay long-term care expenses and cannot support themselves, they are covered by Medicaid. The Older American Act provides some care services such as meal delivery and bathing assistance, which are not included in the

medical area, and grants financial support from the federal government.

Annual national health expenditure as a proportion of the GDP (1998 data- Table 1) was 12.9% and the annual public health expenditure as a proportion of the national health expenditure was 44.8%. Total annual percapita expenditure on health was US\$ 4,055 and percapita public expenditure on health was US\$ 1,817. Social security expenditure on health as % of public expenditure on health was 33.2 (MHW, 2001; PAHO, 2001).

In the whole US Health System the average hospital stay is 5.7 days. In 2000 (Table 2), the total number of physicians was 701,200, making 27.9 per 10 000 inhabitants. With a total of 2,161 700 nurses, there were 80 per 10,000 inhabitants. Regarding dentists, there are 58 per 10,000 inhabitants. (NACCHO, 2002).

Trained personnel attend 99.4% of deliveries in the country. There is high vaccination coverage for children against main communicable diseases: 91% for poliomyelitis, 91% for measles, and 95% for tetanus, diphtheria and pertusis. There is no vaccination against tuberculosis. One hundred percent of the population has access to drinking water services (WHO, 2001; The World Bank Group, 2002).

**Cuba.** Completely public, the Cuban Health System is universal, free and accessible for all citizens at every level. The Ministry of Public Health is the managing organism of the National Health System and applies all State and Government policy regarding Public Health, Medical Science Development and Medical-pharmaceutical Industry.

Cuba's health system is financed out of the state budget. The population receives free preventive, curative, and rehabilitation services, which range from primary care, routine medical attention, and dentistry to hospital care requiring the use of highly sophisticated medical technologies. In addition, all necessary diagnostic testing and drugs are provided free of charge to pregnant women and to persons receiving outpatient care in the context of certain programs. Out-of-pocket expenditures for families include drugs prescribed for outpatient treatments and some medical de-

vices. As a consequence of the deep economic crisis faced by the country during the last decade, natural and traditional medicine has been introduced as the cheapest alternative way to maintain the people's health without the necessary resources for the western medicine.

The annual public health expenditure as a proportion of the national health expenditure is 87.6%, with 6.4% of annual national health expenditure as a proportion of the GDP (1998 data - Table 1). The total percapita expenditure on health at the official exchange rate (1998) was US\$ 121. Social security expenditure on health as a % of public expenditure on health was 33.2% in the same year (WHO, 2001; The World Bank Group, 2002). Retirement budget for the elderly is completely managed and assumed by the government through the Social Security System, which also guarantees some help for widows, orphans and people without resources whatsoever.

The Health System comprises a network of institutions that are easily accessible and provide coverage to 100% of the population. In 2000 (Table 2), the system included 80,528 hospital beds (7.3 per 1,000 inhabitants) with an average stay of 9.4 days. Medical care is provided through a network made up of 284 hospitals, 12 research institutes, 442 polyclinics, and a contingent of 30,133 family doctors who guarantee primary health care to 99.1% of the Cuban population. Oral health care is provided in 168 dental clinics. Social welfare services include 269 homes for the elderly and 33 homes for disabled persons. There are 58.2 physicians and 74.3 nurses per 10,000 inhabitants. Regarding dentists, there are 8.9 per 10 000 inhabitants. The proportion of population with access to drinking water services is 92.9% (MINSAP, 2001; WHO, 2001; PAHO, 2002; The World Bank Group, 2002).

Trained personnel attend 100% of deliveries in the country. The vaccination coverage for children is around 100% for the main communicable diseases: tuberculosis, poliomyelitis, tetanus, diphtheria, pertusis, measles, rubella, mumps, hepatitis B, meningococci B and C and *Haemophilus influenzae* b (MINSAP, 2001; WHO, 2001; PAHO, 2002).

**China.** China has a public health system in al-

most the whole main territory. The health care system is undergoing a major transition that has made the government revise its approach to how medicine is taught and practiced. Family medicine (established in the 1980s) is at the forefront of this transition (Brown and Kuang, 1991; Nieman, 2001).

The medical insurance system consists of three types of programs: a medical insurance program for workers, a public money medical program for public employees, and a farm village joint medical system. As an open economic policy has advanced during the 1980s, China has faced problems such as deterioration of national enterprise business, increased weight of the private sector in the economy, and the increase of medical expenses (MHW, 2001). In 1998 a new universal medical insurance system for urban workers in many areas was implemented which combines the participant's individual account and social reserve, expands coverage to private sector employees and provides a more stable financing with its risk pool at city levels (Liu, 2002).

The rural health services have benefited from the policies of economic reform, but not in an optimal way, particularly in poor areas. Fiscal decentralization combined with the financial responsibility system has resulted in a weakening of financing and provision of rural health services in poor areas (Gu *et al*, 1995). Welfare services for the elderly are mainly carried out by community service providers managed by community people based on the spirit of autonomy, self-help, and mutual aid (MHW, 2001).

China is the only country in the world where western and traditional medicines are practiced alongside each other at every level of the health care system. Traditional Chinese medicine has a unique theoretical and practical approach to the treatment of disease, which has developed over thousands of years (Hesketh and Zhu, 1997).

According to World Bank and World Health Organization data (Table 1), the annual national health expenditure as a proportion of the GDP was 4.5% in 1998 and annual public health expenditure as a proportion of the national health expenditure was 38.8%. Total annual percapita expenditure on health at the official exchange rate

was US\$ 34, and annual percapita public expenditure on health was US\$ 13. Social security expenditure on health as % of public expenditure on health was 80.1% (WHO, 2001; The World Bank Group, 2002).

By the end of 2000 there were 325,000 health care institutions (including clinics), with a total of 3.18 million beds (2.4 per 1,000 inhabitants). Public hospitals account for about 50% of the total hospitals and comprise 70% of the number of beds. The average of hospitalization is 13.1 days (Table 2). More than 40% of hospitals are man-

aged by national enterprises. There were 2.08 million doctors in hospitals and health-care stations, making 16.7 per 10,000 inhabitants, and 1.27 million senior and junior nurses (10 per 10,000 inhabitants). The proportion of deliveries attended by trained personnel is 89.31%. There is high vaccination coverage for children against main communicable diseases: 98% for poliomyelitis, 98% for measles, 98% for tuberculosis, and 97% for tetanus, diphtheria and pertussis. Seventy-five percent of the population have access to drinking water services (WHO, 2001).

Table 1  
Some socioeconomic indicators from Japan, USA, Cuba and China.

Indicator	Japan	USA	Cuba	China
Annual National Health Expenditure as a proportion of the GDP	7.5	12.9	6.4	4.5
Annual Public Health Expenditure as a proportion of the National Health Expenditure	78.1	44.8	87.6	38.8
Percapita total expenditure on health	2,244	4,055	138	34
Percapita public expenditure on health as % of public expenditure on health	1,752	1,817	121	13
Social Security Expenditure on Health as % of public expenditure on health	89.2	33.2	19.4	80.1

Sources: World Bank Development Indicators [CD-ROM Database], 2001. WHO, 2001.

Table 2  
Some indicators of resources, access and coverage.

Indicator	Japan	USA	Cuba	China
Physicians per 10,000 inhabitants	19.6	27.9	58.2	16.7
Beds per 1,000 inhabitants	13	-	7.3	2.4
Average stay in hospitals	28	5.7	9.4	13.1
Nurses per 10,000 inhabitants	54	80	74.3	10
Dentists per 10,000 inhabitants	7	58	8.9	-
Proportion of deliveries attended by trained personnel	99.97	99.4	100	89.31
Proportion of under-1 population vaccinated against poliomyelitis	99	91	100	98
Proportion of under-1 population vaccinated against measles	96	91	96	98
Proportion of under-1 population vaccinated against diphtheria, pertussis, and tetanus	82	95	100	97
Proportion of under-1 population vaccinated against tuberculosis	96	-	100	98
Proportion of population with access to drinking water services	96.3	100	93.8	75

Sources: World Bank Development Indicators [CD-ROM Database], 2001. WHO, 2001.



Table 3  
Some health indicators in Japan, USA, Cuba and China. 2000.

Data	Japan	USA	Cuba	China
Annual growth rate 1990-2000 (%)	0.3	1.1	0.5	1
Total fertility rate	1.4	2	1.6	1.8
Life expectancy at birth (years)	81	76.9	76.3	70.8
Male	77.1	74.1	74.7	68.7
Female	84	79.5	78.6	73
Population aged 60+ years (%)	23.2	16.1	13.7	10
Infant mortality rate (less than 1 year) x 1,000 live births	3.4	7.2	7.2	33.2
Maternal mortality rate	6.1	7.1	34.1	56.2
Under-5 mortality rate x 10,000 live births	5.4	8.4	9.1	42
Mortality rate from communicable diseases	16.17	46.1	51.8	-
Tuberculosis rate x 100,000 inhabitants	35.9	6.25	10.1	35.6
Live HIV cases (end of 2001)	12,000	900,000	3,200	850,000
HIV prevalence rate in adults (%)	< 0.1	0.61	< 0.1	0.1

Sources: World Bank Development Indicators [CD-ROM Database], 2001; WHO, 2001; 2002.

### Health situation

**Japan.** The annual population growth rate from 1990 to 2000 was 0.3% as is shown in Table 3. During the last 50 years, the life expectancy (LE) increased almost 27 years for men and about 30 years for women. Today it is the highest of any country worldwide. In 2000, LE average was 81 years old, and 23.2% of the population was more than 60 years old. Hence, Japan's Health System is facing care of the elderly as a problem. The rate of progress of fewer children and an aging population in Japan is at a speed unprecedented in other nations. At the same time, the total fertility rate had fallen to 1.4. As the form of the family is undergoing a transformation, the role which social security must play is expected to grow to include support for long-term care needs and childcare (The World Bank Group; MHW, 2000; WHO, 2001).

In the last 50 years, infant mortality rate has abruptly decreased and is now one of the lowest in the world (3.4 in the year 2000). A drastic decrease in acute diseases such as infectious diseases enabled such longevity. On the other hand, the disease trends have greatly changed with an increase in chronic diseases. The major causes of death are malignancy, heart diseases, cerebrovas-

cular diseases, pneumonia and accidents. The mortality rate from communicable diseases was 16.17 in the year 2000, and the tuberculosis rate was 35.9 x 10<sup>5</sup> inhabitants. At the end of 2001, Japan reported to the WHO a total of 12,000 living HIV cases. The rate in adults is 0.02%. (MHW, 2000; 2001; WHO, 2001; 2002).

**USA.** In the USA, the annual population growth rate during the period 1990-2000 was 1.1%, and fertility rate was 2 per woman in the year 2000 (Table 3). Life expectancy at birth was 76.9 years as average. Population aging is also accelerating in the United States. The USA's older population (60 and over) was 16.1% of the total population in 2000, and the number is estimated to increase to more than 20% in 2025.

Infant mortality rate (less than 1 year old) was 7.2 per 1,000 new borns in the year 2000, and the under-5 mortality rate was 8.4 per 10,000 live births. Maternal mortality rate was 8.1 per 10,000 in the same year, and the low birth weight incidence was 8.8% of all live births. The main causes of death are heart disease, malignancy, cerebrovascular diseases, chronic lower respiratory diseases and accidents. The mortality rate from communicable diseases was 46.1 in the year 2000, and tuberculosis rate was 6.25 x 10<sup>5</sup> inhabitants. At the end of 2001 there were reported to

WHO a total of 900,000 living HIV cases. The rate in adults is 0.61% (PAHO, 2001; WHO, 2001; 2002; The World Bank Group, 2002).

**Cuba.** The Cuban population had an annual growth rate of 0.5% from 1990 to 2000, and the fertility rate was 1.6 per woman (Table 3). Life expectancy at birth is 76.3 years, on average. Demographic changes have been occurring in Cuba because of accelerated aging of the population and the increasing life expectancy. Today, 13.7% of the population is more than 60 years old. Projections forecast this population group will increase to 21% in the year 2025. In this sense, the National Health System made an integral program for elderly with a community and institutional approach. Another prioritized program has been maternal-infant care. As a result of this effort, infant mortality rate has decreased steadily in the last 30 years. In the year 2000, it was 7.2 per 1,000 live births, and the mortality rate of children younger than 5 years old was 9.1 per 1,000 live births. Low birth weight incidence was 6.1 per 1,000 live births, and maternal mortality rate was 34.1 per 10,000 live births (MINSAP, 2001; WHO, 2001; PAHO, 2002; The World Bank Group, 2002).

Main mortality causes in Cuba in 2000 were heart diseases, malignancy, cerebrovascular diseases, influenza, pneumonia and accidents. The mortality rate from communicable diseases was estimated at 51.8 per 10<sup>5</sup> in the year 2000, and the tuberculosis rate was 10.1 x 10<sup>5</sup> inhabitants. At the end of 2001 there were reported 3,200 living HIV cases. The rate in adults is 0.03% (WHO, 2002).

**China.** China's population had an annual growth rate of 1% during the 1990-2000 period, and in the year 2000 it was 0.88% (Table 3). The fertility rate was 1.8 per woman. Life expectancy at birth was 70.8 years on average, and 10% of the population was more than 60 years old in 2000. After 2000, the percentage of the elderly will rapidly increase, posting an estimated 15.3% by 2030. Infant mortality rate in the year 2000 was 33.2 per 1,000 live births, and the mortality rate of children younger than 5 years old was 42 per 1,000 live births. Low birth weight incidence was 2.38 per 1,000 live births, and

maternal mortality rate was 56.2 per 10,000 live births (NBSC, 2000; WHO, 2001; The World Bank Group, 2002).

The tuberculosis rate was 36.5 x 10<sup>5</sup> inhabitants in that same year. Hepatitis B is a serious health problem in China, with a carrier rate of around 10%, among one of the highest in the world. A serious threat is the spread of HIV/AIDS. At the end of 2001, there were 850,000 HIV positive people in China. The rate in adults is 0.1% (WHO, 2002).

There is still a long way to go to control communicable diseases, although the incidence rates and proportion have decreased. Meanwhile, chronic diseases and injuries are becoming major health issues. Chronic diseases such as cerebrovascular diseases and cancer now make up two thirds of all mortality. Both diseases are strongly associated with smoking tobacco. China has more than 320 million smokers consuming 30% of the world's cigarette production. The main causes of mortality are diseases of the respiratory system, cerebrovascular diseases, heart diseases, malignancy and injury and poisoning (Yang, 1996).

## DISCUSSION

The four countries compared in this paper have very different situations regarding the structure, financing and function of their health systems. The two industrialized and rich ones - the USA and Japan - have a dissimilar performance of health policies. Japanese health insurance guarantees universal coverage of all citizens, while the US public medical security system does not cover all citizens universally. This inequality has yielded different health outcomes throughout the USA, depending on race, origin and incomes of people.

According to the National Vital Statistics Report from the Centers for Disease Control and Prevention (CDC, 2001), the percentage of people who live without health coverage in the USA oscillates from 9.5 to 48.6%, and this lack of coverage is higher for the poor, Hispanic, and uninsured, and in the Southern region.

This inequality is expressed in the main health outputs of the country. As an example of this issue, recently the media published informa-

tion from the CDC pointing out that black infants in the United States are on average more than twice as likely to die in their first year than white or Hispanic babies. Infant mortality is 13.9 per 1,000 live births in blacks, compared with 6.4 for whites and 5.9 for Hispanics. Cities with higher-than-average infant mortality rates had more very low or moderately low birth-weight babies, more teenage pregnancies, fewer women who received prenatal care and more racial segregation (CDC, 2001).

It has been demonstrated that poorer people die younger and are sicker than rich people; indeed, mortality and morbidity rates are inversely related and correlate to socioeconomic status such as income, wealth, education, or social class. This was first scientifically documented by René Villermé in Paris in 1920s, although references to the relationship can be found in ancient Greek and Chinese texts (Deaton, 2002).

The US Health System should promote a more healthy way of life and the use of natural medicine rather than chemical products. Improvements in social welfare systems, perhaps similar to Japan's, are necessary for the adequate security of all the population. Social inequalities and injustices characteristic of the social system require political willingness to redistribute more equally the country's wealth.

In Japan these kinds of inequalities do not exist because of the absence of racial segregation and fair health and insurance systems. Varying little by region, religion or person, Japanese culture is basically uniform throughout the country. The people have lived for centuries under centralized governments, which regulated people's lives in minute detail. Primary importance has traditionally been placed on the group rather than on the individual, and this heritage accounts for much of Japanese society's uniformity (Gakken Editing Board, 1997). The medical system in Japan is at the world's highest level in terms of the average life expectancy, death rates of infants and small children, etc. It is faced with some problems, including the small number of medical professionals per bed and the large average number of hospitalized days. It is an important task to establish a quality system to offer medical services that are at a level comparable to Japan's

economic and living standards (MHW, 2000).

Following its ancient and rich oriental culture, the Japanese Health System should try to recover and apply the traditional and natural medicine as an institutionalized issue of medical assistance in addition to the current western style in use. As a consequence of, and complement to this, it should introduce this topic as teaching materials in medical universities. It should also promote and institutionalize the lower use of pharmaceutical products, which have been invading the country, many times without the adequate quality or tests to guarantee safe consumption by human beings.

On the other hand, with a health system comparable to Japan, there is Cuba, a poor country with very few resources and a big external debt. The government during 43 years has guaranteed equal health access and coverage for all citizens, allowing improvements in quality of life and obtaining some of the most favorable health indicators in the Americas (Beagle, 1997). For instance, infant mortality rate has decreased by 83.4% in Cuba during the last 40-year period: from 37.3 in 1960 to 6.2 in 2001. This statistic cites Cuba as one of the American countries with the lowest infant mortality rate (MINSAP, 2002). Cuba also shows favorable indicators in human resources and vaccination coverage, making possible the elimination of some main infectious diseases and increasing the life expectancy at birth comparable to the USA's level.

These favorable health indicators are only possible by governmental political willingness, which guarantees health and welfare for the whole population even in adverse economic situations. The Cuban experience indicates that the population's health status can be improved early in the process of "development" (Beagle, 1997).

The Cuban Health System should exploit more the possibilities of obtaining international help from non-governmental, governmental and World Organizations to maintain and complement the resources and modern technologies which have already obtained success. It should also continue developing and improving natural and traditional medicine (MINSAP, 1999) as a cheaper alternative to maintain the health levels (Schuster 2001; Holliday, 2003; Lewis, 2003).



In the case of China, even while having the highest GDP in the world (The World Bank Group, 2002), health indicators are lower than the other three countries compared here. Over the vast territory of China, the space suited for people to live and engage in economic activities is limited and population distribution is extremely uneven. Appropriate living areas account for only 47% of the total landmass, while arid and semi-arid areas account for 53%. Ninety-four percent of China's population live in the eastern part, which accounts for 46% of the country's territory. At present, there are still 70 million people in China living below the poverty level, of which the majority live in the western region where the geographic environment is harsher (CIIC, 2002). With a mix of both social systems, China has had difficulties in administration of resources and in insuring equal health and life levels for all the citizens. China's excellent community health system was seriously damaged during the early years of economic reform after 1982 (Dong, 2001).

Numerous studies indicate overall improvement in the nutritional status of the Chinese population after economic reforms, but the distribution was not uniform across the country. Differences in children's growth patterns between urban and rural areas are different in a way that parallels disparities relative to income between urban and rural populations (Hsiao and Liu, 1996; Shen *et al*, 1996; Hesketh and Zhu, 1997; Liu, 1998; Wang, 1998; 2002).

Liu and Moore (2000) published a comparison of perinatal care of the USA and China, showing that perinatal care has made tremendous achievements in both countries since the mid-twentieth century. Outcomes in the two cultures are different due to the different focus on caring concepts, the strengths of nursing philosophy, and the emphasis on the nursing role in maternal care. Chinese women have less access to qualified nursing services, higher infant mortality rates, and limited perinatal education.

The poorest areas in China need additional financing and organization to improve and catch up to the health situation in the rest of the country. They need centralization of the public health system to better distribute the national health budget equally in all the regions, is a utopian idea in

this vast country. An improvement in the information health network throughout the country using modern technologies could aid in the diagnosis and rapid actions needed in emergent and chronic health situations and the social necessities of remote places.

Throughout the world, political developments have brought new demands to communities to prevent and intervene in the incidence of infectious and noninfectious conditions. Historically, these developments have required new and more effective public health surveillance activities (Yang, 1997).

Two clear examples of inequalities are shown here. Inequalities between regions in China and inequalities between ethnic and social groups in the USA let us see different the health indicators of both countries, where decentralization of the health systems plays an important role in continuing these inequalities.

Looking at the indicators in this paper helps us understand that, achieving and maintaining a healthy population with good health results does not necessarily depend on a big budget or richness in a country. Good governmental policies regarding public health and social security are crucial to achieve a good quality of life equally distributed to the whole population.

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