EXECUTIVE SUMMARY

Shanghai is a municipal city of China. The city is now divided into 18 districts and 1 county. There were 132 towns, 3 townships, 99 sub district committees, 3,393 neighborhood committees and 2,037 villagers’ committees in the city at the end of 2002. The city’s 18 districts cover a total area of 5,299.29 square kilometers and its only county has an area of 1,041.21 square kilometers. By the end of 2002, Shanghai’s population had grown to 13,3423 million (according to the permanent residence registration), representing 1% of China’s total. In 2002, the average population density in the city stood at 2,014 people per square kilometer. Continuously fast development has markedly increased the city’s comprehensive economic strength and constantly jacked up its average per capita GDP. In 2002, the city’s per capita GDP reached 4,912 US dollars, the highest among all Chinese provinces, municipalities, autonomous regions, except for Hong Kong, Macao and Taiwan. In 2002, the city realized a total financial income of 220.225 billion yuan, including 71.979 billion yuan in local financial revenue, up 10.4% and 30% respectively over the previous year.

Economic development has been consistently fast since the 1990s. The increasingly prosperous economy and the further reform of economic system have laid a suitable environment for the promotion of health reform and establishment of a new health care delivery system.

By the end of 2002, Shanghai’s population had reached to 13,2864 million. The natural population growth rate was -0.26%, with fertility rate of 17.91‰, birth rate reaching 0.47% and mortality rate 0.73%. The elderly population aged 60 years and over was 2471.02 thousands, accounting for 18.6%. Child dependency ratio was 13.83‰, elderly dependency ration 26.37‰, and dependency ratio 40.20% in 2002. The life expectancy was 79.52 years (77.36 for male and 81.63 for female).

The health sector in Shanghai is a mixed system. The public health services system consists of Shanghai Municipal Health Bureau(SMHB) and its sub agencies. There are 24 departments within the SMHB, 8 for administrative functions and 16 line departments with specific program or functional authority. At the end of 2001, the sub agency of SMHB included the 432 hospitals; the 3210 out-patient departments; the 5 nursing homes; the 57 institutions for disease prevention and health care; the 14 medical research institutions; the other 75 health organizations. And there are 723 private health sub sectors in Shanghai too. All the health systems have 36.5 (37.1 in the urban area and 26.3 in the rural area) physicians and 27.9 (28.5 in the urban area and 15.5 in the rural area) nurses for every 10,000 beneficiaries.
In Shanghai Community-based health care services play a central role in improving the health service and quality of life for the elderly. It is proved that they not only greatly improve the equity and efficiency of health care delivery, but also effectively control the increase in medical expenditure and to improve health status.

The expenditure of the health services financed was 1.601 billions RMB in 2001 in Shanghai, accounting for 2.20 percent of the total public expenditure in Shanghai.

There were 141,800 health service workers by the end of 2001. Among them, there were 105,100 in the health technical teams and 13,500 in the administrative teams. In the health technical teams, number of the senior(head doctor), the vice-senior, the attending and the resident is 1,400, 5,400, 79,800 and 48,500, respectively, accounting for 1.36%, 5.14%, 18.84% and 46.15% of the total number. According to the survey at the end of 1998, only one-fourth of the staff in community hospitals had an undergraduate educational background, which was far short of the capacity to deliver community health care services. In the future, technical skills especially general practice of the medical staff should be greatly upgraded. Education in the general practice/family medicine should be given by the medical universities in order to train general practitioners to attain higher eligible physicians in charge, which will offer better services for the community, and especially for the elderly.

BACKGROUND

Shanghai is a municipal city of China. The government and administration of Shanghai are the responsibility of Shanghai People's Congress (PC). The city is now divided into 18 districts and 1 county. The 19 urban districts cover a total area of 5,299.29 square kilometers and the only county has an area of 1,041.21 square kilometers. There were 132 towns, 3 townships, 99 sub district committees, 3,393 neighborhood committees and 2,037 villagers' committees in the city by the end of 2002.

Economic development has been consistently fast since the 1990s. Fast economic development has markedly improved the city's comprehensive economic strength and constantly increased the average per capita GDP. In 2002, the city's per capita GDP reached 4,912 US dollars, the highest among all Chinese provinces, municipalities, autonomous regions, except for Hong Kong, Macao and Taiwan. In 2002, the city realized a total financial income of 220.225 billion yuan, including 71.979 billion yuan in local financial revenue, up 10.4% and 30% respectively over the previous year. The increasingly
prosperous economy and the further reform of economic system have laid a suitable environment for the promotion of health reform and establishment of a new health care delivery system.

**Social Context**

By the end of 2002, Shanghai's population had grown to 13.3423 million (according to the permanent residence registration), representing 1% of China's total. The figure was 2.6 times of that registered in early 1950. In 2002, the average population density in the city stood at 2,014 people per square kilometer. The population of people in 18 districts in Shanghai are remarkable different. At the end of 1998 only two districts had over 1,000,000 people, 1080,300 in Yangpu District and 1561,800 in Pudong New District. The city has registered a negative population growth rate since 1993, which is the first area to report negative population growth rate in China. In 2002, its natural population growth rate was -0.26%, with fertility rate of 17.91‰, birth rate reaching 0.47% and mortality rate 0.73%. The elderly population aged 60 years and over was 2494.9 thousands, accounting for 18.7%. (Proportion of population aged 65 years and over was 14.67%). Child dependency ratio was 13.83%, elderly dependency ration 26.37%, and dependency ration 40.20% in 2002. The life expectancy was 79.52 years (77.36 for male and 81.63 for female).

By the end of 2002, the working population was 7.9204 million people. Among them, 1.7368 million or 21.9% were hired by the state enterprises and institutions; 2.628 million or 33.2% were employed by collectively owned work units; and 3.5556 million or 44.9% worked in overseas-funded enterprises, private businesses or in firms of other economic sectors. The registered unemployment rate in the city's urban areas stood at 4.8%.

The education level of overall Shanghai's population has been steadily improving. According to the 5th national census, 11.4% of the city's population aged six and above had a college-equivalent education in 2000, 4.3% increased than that in 1990. Those with senior high school education accounted for 23.9% of the local population, those with junior middle school education accounted for 38.2%. The segment of population with primary school education fell by 11.1 percentage points. Only 5.4% of the local people aged 15 and above had no education or very little schooling.

**Economic Context**

Shanghai plays an important role in the nation's social and economic development. With a population of only 1% and a land area of 0.06% of the nation's total, Shanghai contributes one-ninth of the nation's total financial
income. The commodities passing through the city's ports account for 25% of the nation's total and the figure with its cargo handling volume is 10%. Shanghai has made great contribution to the nation's modernization drive.

Fast economic development has markedly improved the city's comprehensive economic strength and constantly increased its average per capita GDP. In 1993, for the first time, the city's per capita GDP exceeded 2,000 US dollars, according to the exchange rate of that year. The figure climbed to 3,000 US dollars in 1997 and 4,000 US dollars in 2000. In 2002, the figure reached 4,912 US dollars, the highest among all provinces in China, municipalities, autonomous regions, except for Hong Kong, Macao and Taiwan. Since 1992, the city has maintained a double-digit GDP growth rate for 11 years.

In 2002, the city realized a total financial income of 220,225 billion yuan, including 71,979 billion yuan in local financial revenue, up 10.4% and 30% respectively over the previous year. Of the total, the value-added taxes totalled 13,683 billion yuan, up 22.2%; business operation taxes 25,185 billion yuan, up 31.8%; personal income taxes 6,708 billion yuan, up 41%; and property taxes 1,968 billion yuan, up 34.3%.

**Social welfare system**

With the acceleration of economic growth, “three security system” (the basic living expenses for urban laid-off workers, the unemployment insurance system and the minimum living expense assurance system in urban areas) were further consolidated and improved.

**Health Services System**

**General Organization**

The health sector in Shanghai is a mixed system. The health services system consists of Shanghai Municipal Health Bureau (SMHB) and its subagencies. There are 24 departments within the SMHB, 8 for administrative functions and 16 line departments with specific program or functional authority. The subagencies of Shanghai SMHB include the 432 hospitals; the 3210 out-patient departments; the 5 nursing homes; the 57 institutions for health prevention and health care; the 14 medical research institutions; the other 75 health organizations. And there are 723 private health subsectors in Shanghai too.

The health personnel include doctors of traditional Chinese medicine, doctors of western medicine, senior nurses, pharmacists, laboratory
technicians, other technicians, paramedics of Chinese medicine, paramedics of western medicine, junior nurses, midwives, junior pharmacists, junior laboratory technicians, other junior technicians, and other junior medical technical personnel. There is great variation in the length and type of education received by doctors, nurses and other health professionals. Like elsewhere, doctors, nurses and other professionals with more education and skills don’t like to practice in rural and poorer areas since they can be better paid in the health institutions in urban areas.

Health care facilities differ by urban and rural area. In the rural health care delivery system, there are three levels of the care. The village health post is the first level and the township health center serves as the second level. If there are cases that the township health centers are unable to deal with, they are referred to county level hospitals that provide the third level of health care in rural areas. Generally, the village health centers provide the most basic and immediate care to the residents, township health centers provide basic inpatient (uncomplicated surgeries, deliveries, etc.) and ambulatory care services, and county general hospitals provide outpatient and inpatient care including many medical specialties. In the urban areas, this system functions in a similar fashion: community health centers (with some health posts), district hospitals and municipal/city hospitals.

**System Resources:**

**Human Resources**

At the end of 2001, there were 13271,400 people who have registered permanent residence in Shanghai (12624,200 in urban area and 647,200 in rural area). In the health systems there are 3.65 (3.71 in the urban area and 2.63 in the rural area) physicians, 2.79 (2.85 in the urban area and 1.55 in the rural area) nurses and 5.75 hospitals beds (5.78 in the urban area and 5.10 in the rural area) for every 1,000 beneficiaries.

<table>
<thead>
<tr>
<th>Human Resource in the Health Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type of Resource</strong></td>
</tr>
<tr>
<td>No. of medical institutions</td>
</tr>
<tr>
<td>No. of hospitals</td>
</tr>
<tr>
<td>No. of physicians</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>No. of nurses</td>
</tr>
<tr>
<td>No. of medical technicians</td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>
Drugs and other health inputs

The prices of medicine are of two kinds, the price fixed by the government and the price regulated by market. All medicine that are included in the catalogue of basic medical insurance of the State and a smaller quantity of other special medicine whose production and operation have the nature of monopoly shall have their prices fixed by the State. Medicine other than that whose prices are fixed by the State shall have the prices fixed by the enterprises themselves, and shall be implemented after reporting to the price control department for the record.

According to the progress of the reform of the system of medicine and public health of this Municipality, combining with the implementation of the separate classified administration of prescription medicine and OTC medicine system we shall develop the experimental units of designated pharmacy of basic medical insurance.

The staff and workers that join the medical insurance may use the funds of their personal account to buy OTC medicine, or buy medicine with out-patient prescription of designated medical establishment at the designated pharmacy.

There are 292,000 blood donations in Shanghai in 2001, which meet 79.3% of requests.

Equipment and Technology

<table>
<thead>
<tr>
<th>Type of health sector</th>
<th>No. of subsectors</th>
<th>No. of beds</th>
<th>No. of health workers</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Public</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital</td>
<td>432</td>
<td>76,344</td>
<td>117,388</td>
</tr>
<tr>
<td>Nursing home</td>
<td>6</td>
<td>624</td>
<td>555</td>
</tr>
<tr>
<td>Sanatorium</td>
<td>5</td>
<td>460</td>
<td>339</td>
</tr>
<tr>
<td>Out-patient department</td>
<td>3210</td>
<td></td>
<td>9543</td>
</tr>
<tr>
<td>The institutions for health prevention and health care</td>
<td>73</td>
<td>150</td>
<td>5760</td>
</tr>
<tr>
<td>Medical research institution</td>
<td>14</td>
<td></td>
<td>1128</td>
</tr>
<tr>
<td>The other health organization</td>
<td>73</td>
<td>1244</td>
<td>6324</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>3813</td>
<td>78,822</td>
<td>141,037</td>
</tr>
<tr>
<td><strong>Private</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private health sector</td>
<td>723</td>
<td></td>
<td>763</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>723</td>
<td></td>
<td>763</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>4536</td>
<td>78,822</td>
<td>141,800</td>
</tr>
</tbody>
</table>
Currently, there are to 400 state-owned hospitals and 79 private hospitals with about 4,000 beds in Shanghai. And there are also about 20 overseas-invested hospitals and clinics in the city.

*Functions of the Health System*

Shanghai Municipal Health Bureau is an administrative department of Ministry of Health P.R. China. It is in charge of the health service in the whole city. The main duties are as follows:

I. Carrying out the policies, laws and standards on medical and health service issued by the nation. Drawing up the local policies, laws, regulations and standards in the same field and carrying out them.

II. Researching and drawing up the plans for developing Shanghai health services and carrying out them.

III. Organizing the health education of the whole people. Drawing up and carrying out the regulations about preventing infectious disease, chronic and noncommunicable disease. Monitoring the infectious disease. When serious incidents and disasters happen, to organize the medical workers to save lives, prevent and control diseases. Setting up the network of medical emergency and organizing to provide emergency care services.

IV. According to the laws and standards, to supervise public health, including occupational health, environmental health, school health, safety of foods and cosmetics manufacturing, maternal and child health, prevention and control of communicable and non-communicable diseases.

V. Researching the reformation of medical institute. Being in charge of administration for medical institute, setting up medical equipment and supervising them.

VI. Being in charge of administration for blood collecting, storing and transfusing. Supervising the blood center and the blood quality.

VII. Drawing up and carrying out the plans of developing Chinese traditional medicine. Promoting Chinese traditional medicine combine with Western medicine.

VIII. Setting up the three-tier prevention and health care networks in the whole city. Carrying out the tasks of the primary health care in the rural areas and community health care services in the urban areas. Taking charge of the work for women and children’s health care.

IX. Drawing up the plans of developing medical researches and organizing to implement it. Making international exchange and cooperation in medicine and health service. Doing the medical work of aid to foreign countries.

X. Drawing up the plans of medical education. Carrying out the system of checkups for medical worker’s qualification and to issue license for
practicing medicine.

**Three tiers of health services**

The health services in Shanghai are divided into three levels (three tiers). The third tier of services are those provided by municipal and university hospital. In these hospitals, emergency care, outpatient and inpatient services are provided to patients with more complex illness. Generally, the physicians in these facilities are specialists. Most of the hospitals are general hospitals, but there are also those that provide specialized care, such as psychiatrics, gynecology and obstetrics, pediatrics, dental care. Almost all of these hospitals are teaching hospitals. The secondary tier of health services are those provided by mainly district level hospitals and clinics in urban areas or county level facilities. These facilities also provide emergency, outpatient and inpatient care. However the quality and quantity of health services provided are not of the same level as those provides by the third tier. There are also some secondary tier specific hospitals. In some areas, the second tier will merge into either the first or third tier facilities. The primary health care services in primary tier are provided mainly by community health service centers (and some health care posts), township health centers, or village health posts with rural doctors. In these facilities, the health consultations, health education, maternal and child health care, elder health care, chronic disease care, mental health, injections and others are delivered. The referral system between the three tier is not enforced and has weakened with the increased awareness of the public to their right of the choice in medical care. This has led to high occupancy levels in tertiary care hospitals along with low occupancy levels in secondary hospitals and township health centers.

In recent years, elderly hospitals and nursing homes have quickly developed in response to the rapid increase of the elderly population. In Shanghai there were 4 elderly hospitals and 31 nursing homes in 2000. It also has a very well developed system of drug distribution. As in other industries in the country, formerly state-owned drug manufactures and distributors now operate independently, resulting in increased competition in the market. Many people now purchase drugs without seeing a health professional at all, although most drugs are distributed by health facilities, pharmacies or private physician practices. Data on health spending expenditure by category mentioned above indicates that about half of all health spending goes towards pharmaceuticals, with 85% of all sales occurring in hospital inpatient or outpatient setting. This high level of spending on drugs has been associated with the inappropriate use of drugs by some purchasers. Health expensive drugs, since they obtain much of their income from source. Medical supplies can be brought in all drug stores and some supermarkets.
Ownership of the health services facilities

The health care delivery system in Shanghai has four major components:
1) government (municipality and county) owned and operated facilities;
2) enterprise, which is state-owned, owned and operated facilities;
3) collective economy organization owned and operated facilities, including township health centers and
4) private practice: both individual providers and an increasing number of hospitals.

Health reform in Shanghai

Shanghai has implemented health reform. The health service reforms in recent years have followed three main trends: 1) revival of community financing schemes in rural areas, to alleviate problems of financial access to care and to encourage primary care delivery in villages and townships. 2) encouragement of private sector investments in health care, and 3) efforts to contain the costs of health insurance coverage in the two major insurance programs: Government Health Insurance Scheme (GHI) and the Labor Health Insurance (LHI) Scheme.

The medical insurance system has covered the retirees’ expenses of outpatient treatment, emergency services, inpatient care and home beds in social insurance system. The system regulates that the individuals pay a small percentage (15%) of the medical cost. For old person, the percentage is cut by half. To help patients with serious disease to cover high medical expense, various forms of supplementary medical insurance have emerged. For example, the General Labor’s Union offers supplement insurance for the employees and the elderly. Besides, commercial medical insurance and social donations are organized.