Refugee Review Tribunal
AUSTRALIA

RRT RESEARCH RESPONSE

Research Response Number:	CHN32120
Country:	China
Date:	1 August 2007

Keywords: China – Medical Treatment – Dialysis – Kidney Transplants – Denial of Medical Treatment

---

Questions
Please provide information about:
1. The availability of medical treatment (in particular dialysis/transplants) in China – both rural and cities.
2. The cost of medical treatment compared to average income.
3. General accessibility of medical treatment.
4. Is there any evidence that such treatment may be denied to any particular group of people?

RESPONSE

Please provide information about:
1. The availability of medical treatment (in particular dialysis/transplants) in China – both rural and cities.
2. The cost of medical treatment compared to average income.
3. General accessibility of medical treatment.

The availability and quality of medical treatment in China varies from region to region. Eastern China and cities have better access to quality medical treatment than Central and Western China and rural areas. Medical treatment is mostly funded by the patient with rural residents paying more than city residents. Dialysis and kidney transplants are available for those who can pay for it.

The information provided in response to the questions has been organised into the following eight sections:

- Cost of Medical Treatment;
- Use of Medical Facilities;
- Dialysis;
- Kidney Transplantation; and
- Organ Transplantation.

Medical Facilities

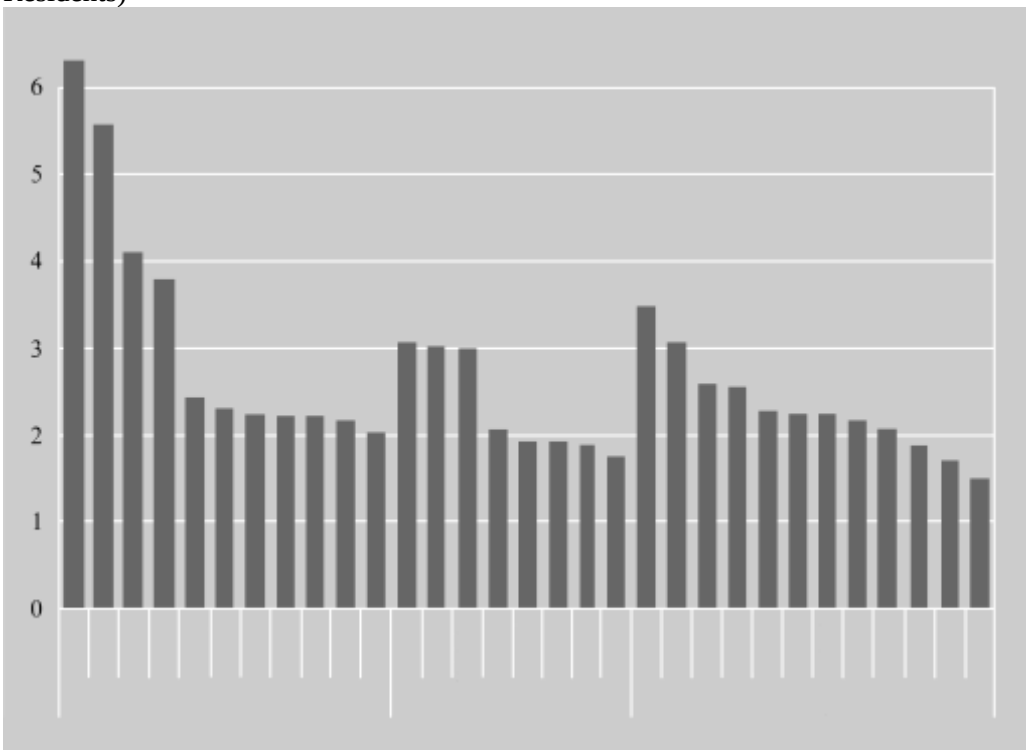
According to the United Nations (UN) Health Partners Group in China, there were 3.2 million hospitals beds in China at the end of 2003 or 2 hospital beds per 1000 people:

> By the end of 2003, there were 3.2 million hospital beds in the country, about 26 times more than in 1950. That amounted to about 2 beds per 1000 population. For the rural population: in 45,200 health centers there were 673,000 beds – about 15 beds per township health center and 1 bed per 1000 rural population (United Nations Health Partners Group in China 2005, *A Health Situation Assessment of the People's Republic of China*, July, p.31 – Attachment 1).

The China Development Research Foundation (CDRF) and the United Nations Development Programme (UNDP) provide the following information on the disparity in the allocation of hospital beds across China:

> Another indication of disparity is the allocation of hospital beds, indicated in Figure 3.15: more than six beds per thousand residents in Shanghai, but fewer than two beds per thousand in Guizhou. Over the past 20 years or so, medical provision in the eastern coastal areas has improved rapidly while the central and western regions have seen much slower progress.

> Figure 3.15 Number of Beds in Hospitals and Health Centres, by Province, 2002 (per 1,000 Residents)



Eastern Region[1]	Central Region[2]	Western Region[3]

Source: Ministry of Health, 2003: Table 3.7 (China Development Research Foundation & United Nations Development Programme 2005, *China Human Development Report 2005*, 15 October, pp.58-59 – Attachment 2).

An academic paper reports that China's health care providers are still dominated by state ownership and government control with the private sector primarily serving self-paying patients in rural areas. In 1984, there were about 80,000 private practitioners in China. By 2002, there were more than 200,000 private practitioners (Liu, Yuanli et al 2006, 'Health care in China: The role of non-government providers', *Social Policy*, Vol. 77, Issue 2, July, p.212 & 214, Harvard School of Public Health website http://www.hsph.harvard.edu/phcf/publications/Liu.Berman.Yip.2006.pdf – Accessed 27 July 2007 – Attachment 3).

Location of Medical Facilities

According to the CDRF and the UNDP, rural residents are "less likely to get access to medical services" with most health resources located in Chinese cities:

> According to the third national health care survey in 2003, the proportion of people in urban areas who could reach the nearest medical institution in ten minutes was 82 percent. In the countryside, it was only 67 percent; moreover, 7 percent needed more than 30 minutes.
>
> …Most health resources are concentrated in large and medium-sized cities because the bulk of the available funds are used for hospitals. Of China's total health expenditure in 2002, 67.7 percent went to hospitals, 50.5 percent went to urban hospitals, and just 7.3 percent to health centres.
>
> …There are also disparities between the regions, and again, the western region fares the worst. Some poor and mountainous areas have no clinics, so farmers must go to hospitals in townships or county towns. The disparity between regions is evident in the proportion of the population that lives more than five kilometres from the nearest hospital. One survey in 2002 found this proportion to be only 8 percent in the eastern region, but 13 percent in the central region and 22 percent in the western region (China Development Research Foundation & United Nations Development Programme 2005, *China Human Development Report 2005*, 15 October, p.58 – Attachment 2).

According to the Office of the World Health Organisation (WHO) Representative in China and the Social Development Department of China State Council Development Research Centre, specialised care is not available outside Chinese cities:

> Geographical obstacles are more subtle in China. The fact that about 10% of rural residents have to travel more than 30 minutes to receive basic medical care, compared to only 1% of their urban counterparts, is acceptable by international standards. A bigger problem is access to specialized services. Outside the cities, specialized care (such as emergency obstetric care and trauma service) is not available, and adequate facilities and trained medical professionals are scarce (Office of the World Health Organisation Representative in China & Social

[1] Eastern Region: Beijing, Shanghai, Tianjin, Liaoning, Zhejiang, Jiangsu, Shandong, Hebei, Guangdong and Fujian (left to right).
[2] Central Region: Shanxi, Jilin, Heilongjiang, Hubei, Hunan, Jiangxi and Anhui (left to right).
[3] Western Region: Xinjiang, Qinghai, Inner Mongolia, Shanxi, Henan, Ningxia, Tibet, Gansu, Yunnan, Sichuan, Chongqing, Guangxi and Guizhou (left to right).

Development Department of China State Council Development Research Centre 2006, *China: Health, Poverty and Economic Development*, June, p.18 http://www.wpro.who.int/NR/rdonlyres/A1F18401-BE93-44EF-9F76-55DDA2C6E12D/0/hped_en.pdf – Accessed 27 July 2007 – Attachment 4).

Medical Personnel

According to the UN Health Partners Group in China, there were 5.3 million health professionals in China at the end of 2003, including 1.4 doctors per 1000 people:

> By the end of 2003, there were 5.3 million health professionals around the country, including 4.3 million technical professionals – 82% of the total. There are 1.4 doctors per 1000 total population. Township health centers have a total of 1.06 million health professionals, amounting to 1.2 health professionals per 1000 rural population. In addition, there are 867,800 village doctors in 2003, about 1.2 per village.
>
> …Until more people are trained and quality standards are fully monitored, the level of health services will not improve. Existing staff is already unable to comprehensively address health needs (United Nations Health Partners Group in China 2005, *A Health Situation Assessment of the People's Republic of China*, July, pp.31 & 34 – Attachment 1).

According to the CDRF and the UNDP, rural residents have access to fewer medical personnel than city residents:

> Rural people also have fewer doctors to look after them: In the cities there are 5.2 medical personnel per 1,000 residents, whereas in the countryside there are only 2.4. And in the case of doctors specifically, the respective proportions are 2.3 and 1.2. People at the township and village levels are usually the worst off. Roughly half of all rural clinics are run by one person, and some villages have no clinic at all.
>
> Even worse, the number of health personnel in rural areas appears to have declined, dropping by around 12 percent since 1980. Many of these healthcare workers have received very little medical education; few receive more than short-term training. The number of rural village doctors and health workers per 1,000 residents has decreased from 1.79 in 1980 to 1.41 in 2001.
>
> …There are comparable disparities in the allocation of medical personnel, as indicated in Table 3.8. In the east, there are 3.9 medical personnel per thousand residents, but only 3.2 per thousand in the central region and 3.0 per thousand in the western region. Even these figures understate the disparities since they take no account of quality. People in the east also benefit from a higher population density because they have a greater choice of facilities within easy reach.

Table 3.8 Medical Personnel per 1,000 Residents, by Region, in 2002

	Number of medical personnel per 1,000 residents	**Number of practicing (assistant) doctors per 1,000 residents**
Eastern region	3.8	1.7
Central region	3.2	1.4
Western region	3.0	1.4

Source: Calculated on the basis of Ministry of Health (2003) (China Development Research Foundation & United Nations Development Programme 2005, *China Human Development Report 2005*, 15 October, pp.58-59 – Attachment 2).

The Office of the WHO Representative in China and the Social Development Department of China State Council Development Research Centre report that medical personnel in rural areas tend to be less qualified than their city counterparts:

> There have been several concerns arising around human resources in health in China. Though the number of physicians per 10,000 population in China (14.2 per 10,000) has approached the level of Singapore (15 per 10,000) and Korea (19.4 per 10,000) in 2003, physicians in China are not evenly distributed. The poor rural areas have since the economic reform lost their most experienced personal to hospitals located in those areas where doctors and other professional are well paid, and have not able to attract and retain qualified medical staff. Those working in the poor rural areas often have not received formal training to a level implied by their rank and title. Furthermore, many health workers responsible for public health and preventative care in the rural areas tend to be less qualified than those specializing in clinic services. In essence, in many rural areas, there is no clear relationship between the skills of health workers and the functions they perform (Office of the World Health Organisation Representative in China & Social Development Department of China State Council Development Research Centre 2006, *China: Health, Poverty and Economic Development*, June, pp.24-25 http://www.wpro.who.int/NR/rdonlyres/A1F18401-BE93-44EF-9F76-55DDA2C6E12D/0/hped_en.pdf – Accessed 27 July 2007 – Attachment 4).

Cost of Medical Treatment

According to the UN Health Partners Group in China, in 2002 government health spending was 0.8% of GDP compared to 0.9% in 1978 or 3.9% of total spending in 2002 compared to 6.1% in 1978. The share of medical costs paid by insurance schemes dropped from 47% in 1980 to 27% in 2002. As a result private spending on health increased from 36% in 1980 to 68% in 2002. The UN Health Partners Group in China also report that health spending mainly benefits urban residents:

> China's health spending mainly benefited urban residents. In 2002, the average level of per-capita health spending in urban areas was more than twice the national average. It was 3.5 times the average health spending level in rural areas (RMB 933 versus RMB 267). Total health expenditure for 500 million urban residents was RMB 280 billion, compared to RMB 190 billion for 800 million rural residents.
>
> Spending on health falls seriously short in rural areas especially in China's central and western regions. Given the relatively low levels of rural income, the 90% reliance on out-of-pocket spending, people in rural areas can barely make use of the meager health care facilities that are available. And the vast majority of China's rural population is not covered by social health insurance schemes. They are exposed to the harsh reality of becoming ill without a way of paying for their treatment (United Nations Health Partners Group in China 2005, *A Health Situation Assessment of the People's Republic of China*, July, pp.39-41 – Attachment 1).

According to the Office of the WHO Representative in China and the Social Development Department of China State Council Development Research Centre, local health departments and health providers are expected to generate a "significant" proportion of their operating budget. As a result, there is an under-provision of "cheaper" public health services and an over-provision of profitable specialised services and expensive medicines:

> Market-orientated financing reforms may have improved the productivity and efficiency in the health sector to a small degree but the effect on the health care providers has been largely negative. Incentives have removed the objectivity from the health care profession and they are eroding the adequacy, safety and social value of their services.

> Because local health departments and other providers are expected to generate a significant proportion of their own operating budgets (see Box 3.3), they under-provide "cheaper" public health services including basic preventive and health promotion services. Efforts are concentrated on profitable curative services and sales of medicines because there is a larger profit margin. Hospitals are usually permitted to keep net revenues use these to raise salaries, allowance and welfare of their staff. Services that generate the most revenue are encouraged but these are not necessarily the services that are most appropriate. In this context health spending has increasingly become seed money for health providers to purchase high-tech equipment, build nicer facilities, and offer highly-specialized services to attract richer customers. Meanwhile, lack of attention to preventative services and health promotion is contributing to the rising burden of chronic non-communicable diseases, which in turn later require expensive services.
>
> The economic incentives built into the health financing system have led to over-provision of specialized services and expensive medicines for those who are able to pay, and under-provision of public health services for those who cannot afford them. While rising fees are forcing the poor and low-income population groups to minimize their use of health services, underutilization has become an urgent problem – particularly in most rural health facilities, such as township hospitals. Failure to seek medical attention when sick also creates risk for entire communities as diseases occasionally spread. Once these impoverished citizens come to medical and health attention, they are often offered goods and services which are profitable to the facility and may not be appropriate. One specific example is the trend towards over-prescription of antibiotics which is reaching dangerous levels (Office of the World Health Organisation Representative in China & Social Development Department of China State Council Development Research Centre 2006, *China: Health, Poverty and Economic Development*, June, pp.22-23 http://www.wpro.who.int/NR/rdonlyres/A1F18401-BE93-44EF-9F76-55DDA2C6E12D/0/hped_en.pdf – Accessed 27 July 2007 – Attachment 4).

According to the Office of the WHO Representative in China and the Social Development Department of China State Council Development Research Centre, of the many obstacles the poor face in accessing health services "the financial barriers are perhaps the most acute." In 2004, private spending accounted for over 55% of total health spending. In rural areas, private spending on health was as high as 90% (Office of the World Health Organisation Representative in China & Social Development Department of China State Council Development Research Centre 2006, *China: Health, Poverty and Economic Development*, June, p.17 http://www.wpro.who.int/NR/rdonlyres/A1F18401-BE93-44EF-9F76-55DDA2C6E12D/0/hped_en.pdf – Accessed 27 July 2007 – Attachment 4). According to WHO China, "illness is often a ticket to financial ruin" in China:

> China's poor and vulnerable, particularly in rural areas, benefit little from public spending on health. In poor regions, the authorities provide fewer and lower quality services, and individuals end up paying a higher share of the costs out of their own pockets. For many, healthcare is not even an option – it is simply unaffordable.
>
> Indeed illness is often a ticket to financial ruin. Surveys estimate that between 30 to 50 per cent of China's poor are driven into entrenched poverty by costs related to illness and injury. Many simply refuse treatment (World Health Organisation China 2006, 'China's health systems development', 19 July – Attachment 5).

An academic paper, on the role of non-government providers in health care in China, reports that "one of the significant reasons for choosing the private sector is cheaper price" with some private clinics providing charity care to communities:

> Although the regression results are not completely identical for the urban and rural samplings, there appears to be some convergence on the significant predictors for using the private sector. For both urban and rural samples, lower education level, no insurance coverage and lower-middle income are associated with a high probability of using a private provider. These results are interesting because they indicate that provision of health care by the private sector may not be as inequitable as one would imagine. Indeed, one of the significant reasons for choosing the private sector is cheaper price, as shown in Table 8. Furthermore, some private clinics have been reported to provide charity care to communities.
>
> …Neither literature review nor our primary data analysis provides any support for the notion that the private sector charges a higher price and they serve primarily the better-off people. Quite on the contrary, available data seem to suggest that not only the private sector tends to serve disproportionately the low–middle income groups (this may well be due to its relative lower costs and convenience), consumer satisfaction with regards to the quality and price of health care also seems to be higher with the private sector than with the public sector. It may be that the private sector charges lower and has better services due to competition among other private providers. The policy implications of our findings are significant, as there is no solid evidence that the public sector is better (Liu, Yuanli et al 2006, 'Health care in China: The role of non-government providers', *Social Policy*, Vol. 77, Issue 2, July, pp.218-219, Harvard School of Public Health website http://www.hsph.harvard.edu/phcf/publications/Liu.Berman.Yip.2006.pdf – Accessed 27 July 2007 – Attachment 3).

In 2003, the average annual income for China's rural population was 2,622 *yuan* (US$328). According to the Ministry of Health, the average medical expenses were 2,236 *yuan* (US$280) in 2004. According to a well-known Chinese countryside saying, "Once the ambulance siren wails, a pig is taken to the market; once a hospital bed is slept in, a year of farming goes down the drain; once a serious disease is contracted, ten years of savings are whittled away" ('China's Failing Health Care System Searching for Remedy' 2006, *Xinhua*, 6 October, China.org.cn website http://www.china.org.cn/english/MATERIAL/183009.htm – Accessed 27 July 2007 – Attachment 6).

According to a report by the Chinese Scientist Discussion Forum in Beijing, "Chinese citizen's medical expenditures have increased from an average of 11 yuan (approximately US$1.35) in 1978 to 442 yuan (approximately $54.50) in 2002." The report notes that 87% of farmers pay their own medical expenses with some farmers saying that a single visit to the hospital can equal one year's income. The *Blue Book* dated December 2005 by the Chinese Academy of Social Sciences reports that one quarter of the population forgoes medical treatment because they cannot afford it. In December 2005, the Ministry of Labor and Social Security in Hebei examined the health of rural workers. They found that 40% of rural workers continued to work when sick (Xiewang 2006, 'China's Unfair Distribution of Health Care Resources', *The Epoch Times*, 7 February http://en.epochtimes.com/news/6-2-7/37811.html – Accessed 27 July 2007 – Attachment 7).

Two news articles provide examples of patients unable to continue treatment due to its cost:

- 2 March 2006 (*BBC News*): Mrs Cheng in Fengyan village, Sichuan has womb cancer. Mrs Cheng stopped treatment after four rounds of chemotherapy. The family used their life savings, more than $1000, for treatment but it cost more than three times that. Mrs Cheng's son dropped out of high school to find work and relations and friends gave money but it was not enough. Her husband "admits her illness has plunged the extended family, and some of their neighbours, into poverty" (Lim, Louisa 2006, 'The high price of

illness in China', *BBC News*, 2 March http://news.bbc.co.uk/2/hi/asia-pacific/4763312.stm – Accessed 27 July 2007 – Attachment 8); and

- 14 January 2006 (*The New York Times*): Jin Guilian travelled two days by bus to a county hospital. The doctors' first question was "How dare you do this to him? This man could die at any moment." The doctors' second question was about money and how much Jin's family could pay, up front, to care for Jin's failing heart and festering arm. Jin's relatives scraped together enough money for four days in hospital after that Jine was forced to move to an unheated and scantily equipped clinch at the outskirts of Fuyang "where stray dogs wandered the grimy, unlighted halls" (French, Howard W. 2006, 'Wealth Grows, but Health Care Withers in China', *The New York Times*, 14 January http://www.nytimes.com/2006/01/14/international/asia/14health.html?ex=1185854400&en=cd19509615b1ad5c&ei=5070 – Accessed 27 July 2007 – Attachment 9).

Use of Medical Facilities

According to the UN Health Partners Group in China, the public is using the Chinese health system less:

> The continuing expansion of medical institutions has led to escalating costs. At the same time, the public is using the system less. Economic reasons accounted for 39% of the non-visit rate in 2003, higher than in 1998 (36%). The hospitalisation rate in 2002 was 3.6% the same as in former surveys.
>
> The number of daily consultations per doctor in general hospitals was 5.0 in 2003, lower than 5.5 in 1990. The rate of daily inpatient visits per doctor in general hospitals was 1.5 lower than 2.1 in 1990. Hospital bed utilization rate was 71%, lower than 86% in 1990. Township hospitals showed the same trend, with a reduction in daily visits per doctor from 8.1 in 1990 to 4.7 in 2003. The utilization rate of beds in township hospitals has declined from 43% in 1990 to 36% in 2003 (United Nations Health Partners Group in China 2005, *A Health Situation Assessment of the People's Republic of China*, July, pp.33-34 – Attachment 1).

According to the Office of the WHO Representative in China and the Social Development Department of China State Council Development Research Centre, the poor face "major social, financial and cultural obstacles" in accessing health services in China:

> Although availability of advanced health care in Chinese cities has been rapidly improving since the early 1980s, the poor and low-income population groups are facing major social, financial and cultural obstacles when trying to access to health services. According to the 2003 National Health Services Survey, half of those surveyed refused outpatient services when sick, and 30% of those who were referred to hospitals for inpatient care declined (out of who, 70% quoted non-affordability as the reason). Outpatient non-use also increased substantially from 36% to 49% of patients in 1993 and 2003, respectively.
>
> …Among the many obstacles in access to health services facing the poor, the financial barriers are perhaps the most acute. Despite large-scale infrastructural investments by the Government to facilitate access, evidence indicates that many people reduced the use of medical services for purely financial reasons. Nationwide, health services surveys indicate that 38% of those who did not seek any treatment while sick and 70% of those who refused hospitalization after doctor's referral reported excessive cost as the primary factor for those decisions. Furthermore, the gap in non-hospitalization rates between the bottom and the top quintile groups widened during 1993-2003 from 15 to 24 percentage points in urban areas and from 19 to 22 percentage points in rural areas. Among early hospital discharges that occurred against medical advice, 67% were reported as associated with financial non-affordability

(Office of the World Health Organisation Representative in China & Social Development Department of China State Council Development Research Centre 2006, *China: Health, Poverty and Economic Development*, June, p.16 http://www.wpro.who.int/NR/rdonlyres/A1F18401-BE93-44EF-9F76-55DDA2C6E12D/0/hped_en.pdf – Accessed 27 July 2007 – Attachment 4).

According to the CDRF and the UNDP, the cost of medical treatment and the location of medical facilities impacted on whether patients' sought medical treatment:

> According to China's third national health care survey in 2003, although rural people were more likely to require hospital visits, a smaller proportion of them were actually hospitalized. Rural residents were also more likely than urban residents to leave the hospital without receiving treatment – 14 percent versus 10 percent – usually because of financial difficulties. Even those who did receive treatment often had to leave early because they could not afford to stay, a problem that appears to be increasing. Of the patients who left hospital early, 34 percent of urban residents asked to leave, and of these, 53 percent of them did so due to financial difficulty. In the countryside, 47 percent asked to leave hospital, 67 percent because of financial difficulty
>
> …The proportion of patients who need to see a doctor but do not do so is 22.1 percent for low-income families and 13.5 percent for other income groups. Among members of poverty-stricken households, 66.6 percent did not visit a doctor owing to financial difficulty. In low-income households the proportion was 65.9 percent, in other households, 61.5 percent. Among poverty-stricken households, the main reason not to visit hospitals is financial difficulty (66.6 percent), followed by distance (23.5 percent). These figures imply that financial difficulty and an unreasonable allocation of medical resources are the main reasons rural people, especially the poor, are unable to make use of medical services (China Development Research Foundation & United Nations Development Programme 2005, *China Human Development Report 2005*, 15 October, p.60 – Attachment 2).

Dialysis

According to Shanyan Lin, President of the Chinese Society of Nephrology, hemodialysis[4] and peritoneal dialysis[5] are widely used in China:

> Both hemodialysis and peritoneal dialysis are widely used in China, with approximately a 40 to 50% survival rate in three years. About two thirds of the end-stage-renal disease (ENRD) patients received erythropoietin[6]; however, the hematocrit levels of most cases are less ideal. A variety of sources, mainly from the government, in several big cities provide financial support for ESRD dialysis, which has already become a heavy financial burden to public health.
>
> …In the relatively economically developed areas of China, especially in the major cities, the incidence of ESRD is programs is currently estimated to be 102 cases per million of the population. Fifty-five percent of these patients are currently receiving hemodialysis or treatment with continuous ambulatory peritoneal dialysis (CAPD). In small centers where

[4] "During hemodialysis, a machine acting as an artificial kidney cleans your blood" (http://www.kidney.org.au/LinkClick.aspx?fileticket=dUT8LoLhk6E=&tabid=78&mid=882)
[5] "Peritoneal dialysis allows the blood to be cleaned inside your body" (http://www.kidney.org.au/LinkClick.aspx?fileticket=RE%2bCT%2f8%2fu0s%3d&tabid=78&mid=882)
[6] "A hormone produced by the kidney that promotes the formation of red blood cells in the bone marrow. ...Using recombinant DNA technology, EPO has been synthetically produced" (http://www.medterms.com/script/main/art.asp?articlekey=7032)

there are fewer special facilities, peritoneal dialysis is more commonly employed. In larger cities, because of the relatively high cost of imported fluid for CAPD, which means that the costs are roughly equivalent, hemodialysis is now and is likely to remain the predominant mode of treatment. At the present time about 80% of patients are treated by maintenance hemodialysis and 20% by CAPD. There is universal use of twin bag systems for CAPD in the major centers.

The two and three year survival rates for dialysis patients are 50% and 40%, respectively. About 20% of patients survive for more than five years with a small number living for more than ten years. The average frequency of dialysis is 2.3 times per week. The adequacy of dialysis (Kt/V) ranges from 1.2 to 1.6 for hemiodialysis.

In Shanghai, two thirds of ESRD patients are treated with erythropoietin (EPO). Although there are more than 20 bio-pharmaceutical companies producing recombinant human EPO (rHuEPO) in China, and the pricing is competitive – about one third of the cost of imported products – the hematocrit levels of most cases are less than ideal (average 28.2%). Aside from issues of availability, one of the more important reasons may be reduced responsiveness, as intravenous iron preparations have not been available in mainland China.

The leading cause of death among patients with ESRD is cardiovascular disease, accounting for 57% of 4010 cases. For patients on CAPD the main case of death is as a result of infection.

The financial support for dialysis comes mainly from Government sources. Government employees, those who work for Government owned enterprises and those who can obtain enrolment in the Government Health Insurance Program are able to gain reimbursement for the costs of their treatment. In the large cities, in Shanghai for instance, more than two thirds of the patients with ESRD are available to afford the cost of dialysis by obtaining financial support from a variety of sources. Due to the increasing number of ESRD cases and hence the increasing expense, the upper limit of financial support for the cost of dialysis has been capped by the Government in most areas of the country. The average cost for hemodialysis in Shanghai is $US7500 per patient per year and US$9600 for peritoneal dialysis. These rates are clearly much cheaper than those available in more developed nations. Nonetheless, this is still a heavy burden on the public health and social security systems.

The principle reason for non-acceptance onto dialysis programs is the inability to afford treatment for those who do not have access to insurance programs. It is now quite rare to find areas in China where dialysis is not available for lack of trained staff and facilities [Researcher Emphasis Added] (Lin, Shanyan 2003, 'Nephrology in China: A great mission and momentous challenge', *Kidney International*, Vol. 63, Issue S83, February, pp.S108-S109 – Attachment 10).

According to the publication *Disease Control Priorities in Developing Countries*, China had 75,000 patients on dialysis in 2003 (Dirks, John et al 2006, 'Implementation of Control Strategies: Lessons of Experience – Diseases of the Kidney and the Urinary System', *Disease Control Priorities in Developing Countries*, 2nd edn, Oxford University Press, New York, Disease Control Priorities Project website http://www.dcp2.org/pubs/DCP/36/Section/5101 – Accessed 30 July 2007 – Attachment 11).

According to Chen Jianghua, Professor of the Nephrology Centre at the First Affiliated Hospital of Zhejiang University, hemodialysis costs between 70,000 *yuan* ($US8,750) and 100,000 *yuan* ($US12,500):

> Chen's hospital alone receives about 70,000 patients with kidney problems each year and performs hemodialysis for 40,000 times of them [sic].
>
> The renal disease has edged into the world's top five lethal chronic diseases over the past decade. In China, it affects eight to ten percent of people aged above 40 ('Lack of donated kidneys afflicts Chinese patients' 2006, *People's Daily*, source: *Xinhua*, 15 December http://english.people.com.cn/200612/15/eng20061215_332687.html – Accessed 30 July 2007 – Attachment 12).

Kidney Transplantation

The first successful kidney transplant in China was performed by Professor Wu Jieping in 1960. By the end of 2000, 34,832 patients had undergone kidney transplants in China. As of 2001, kidney transplants could be conduced in 29 provinces, municipalities and autonomous regions. The survival rate is 90% and the longest surviving patient lived for over 24 years ('Achievements in Organ Transplantation' 2001, *People's Daily*, 17 August http://english.people.com.cn/english/200108/17/eng20010817_77545.html – Accessed 30 July 2007 – Attachment 13).

According to Lin, "about 5000 patients receive renal transplantation every year". Lin notes that "an inability to pay for the procedure is still a barrier to transplantation." Lin continues:

> While most of the recipients of renal transplants are young, an inability to pay for the procedure is still a barrier to transplantation. For those with access to medical insurance, reimbursement of $100,000 Yuan (US$12,000) is available for the first year of treatment following transplantation. Cyclosporine, which is locally produced, together with mycophenolate mofetil and prednisolene constitute the most widely used immunosuppressive regime, but tacrolimus and sirolimus also are available for use, and the cost of these agents can be reimbursed also. Monoclonal antibiotics are available, but the cost of their use is not reimbursed.
>
> Renal transplantation units are not Government run, and a number of private clinics are being established to provide the necessary services. The principle source of organs is from brain dead cadavers. Signed consent is required from the closest relative and in the case of renal donation following execution, from the donor and the closest relative.
>
> There were 5040 transplant operations in 2000 and 4130 in 2001. Less than 10% of these were from living related sources. The 12 month graft survival rate is >80%, although there are regional differences. …Renal transplantation is performed by specialist surgeons, most of who have a background in urology (Lin, Shanyan 2003, 'Nephrology in China: A great mission and momentous challenge', *Kidney International*, Vol. 63, Issue S83, February, p.S110 – Attachment 10).

According to Chen Jianghua, Professor of the Nephrology Centre at the First Affiliated Hospital of Zhejiang University, "a patient may only spend 40,000 yuan (5,000 US dollars) on a kidney transplant and other services when being hospitalised". According to China's Organ Transplant Society, 8,000 kidney transplants are performed every year in China, less than 10% of the demand. According to the Chinese Ministry of Health, by the end of 2004, 599 medical institutions conducted liver, kidney, heart and lung transplants ('Lack of donated kidneys afflicts Chinese patients' 2006, *People's Daily*, source: *Xinhua*, 15 December http://english.people.com.cn/200612/15/eng20061215_332687.html – Accessed 30 July 2007 – Attachment 12).

A kidney transplant costs between 40,000 and 60,000 *yuan* ($US4,800 and $US7,200) in China. This is affordable for foreigners from developed countries but a "heavy burden" for most Chinese people ('New rule to regulate organ transplants' 2006, *People's Daily*, source: *China Daily*, 5 May http://english.people.com.cn/200605/05/eng20060505_263202.html – Accessed 30 July 2007 – Attachment 14).

Organ Transplantation

As of 1 July 2006, all organ transplant operations in China must be discussed with and approved by a Medical Science and Ethnic Committee. The new regulations require institutions who wish to conduct transplants to register with provincial-level Health Departments and only Class 3A hospitals are allowed to apply for registration. Registration will only be granted if the hospital has doctors with clinical organ transplant qualifications, transplant equipment, a good management system and a Medical Ethnics Committee. The new regulations require written agreement from all donors or their relatives before the transplant ('New rule to regulate organ transplants' 2006, *People's Daily*, source: *China Daily*, 5 May http://english.people.com.cn/200605/05/eng20060505_263202.html – Accessed 30 July 2007 – Attachment 14).

New regulations which prohibit organisations and individuals from trading human organs in any form took effect in May 2007. The regulations also stipulate that only a certain number of hospitals would be authorised to conduct transplants. As of July 2007, approximately 600 hospitals around China applied to get authorisation and about 160 Chinese medical institutions are currently authorised to conduct transplants. New regulations restricting organ transplants for foreigners and giving priority to Chinese citizens came into effect in July 2007. The new regulations stipulate that foreigners visiting China on a tourist visa cannot receive transplants, hospitals cannot advertise abroad and hospitals must be receive authorisation from the Chinese health authorities before they can conduct a transplant on a foreigner (Cody, Edward 2007, 'China Tightens Restrictions on Transplants', *Washington Post*, 4 July http://www.washingtonpost.com/wp-dyn/content/article/2007/07/03/AR2007070300640.html – Accessed 30 July 2007 – Attachment 15; and 'Foreigners take a back seat to Chinese in organ transplants' 2007, *People's Daily*, source: *China Daily*, 4 July http://english.peopledaily.com.cn/90001/90776/6207635.html – Accessed 30 July 2007 – Attachment 16).

4. Is there any evidence that such treatment may be denied to any particular group of people?

The Office of the WHO Representative in China and the Social Development Department of China State Council Development Research Centre report that some groups, including the elderly, women, children, the disabled, the floating population and those living with HIV/AIDS, "have unique qualities that often place them at a comparative disadvantage" when accessing medical treatment:

> Many specific groups suffering from limited access to health have been under-represented in surveys, studies and policy considerations. Beyond simply being under or just above the poverty line, they have unique qualities that often place them at a comparative disadvantage. Some examples of these groups include the elderly, women, children, the disabled, the floating population, and those living with HIV/AIDS. Little is known about the specific

challenges facing these groups, but the gaps remain enormous. Their unique epidemiologic problems, however, may pose an increasing challenge for local governments and service providers.

For instance, the 140 million "floating" population of rural migrants working outside their area of official residence are perhaps not the poorest citizens in their home villages but they are excluded from public resources (and government policy planning considerations) in the places they work. Although the situation has been improving in the past few years, migrants and their families continue to be at a disadvantage in accessing public services and participating in social insurance schemes. The reason is that many of the schemes are managed locally and do not have portable benefits. Only recently this group has come to the attention of local policymakers and service providers. "Opinions of the State Council on resolving migrant worker's problems" was issued in March 2006 (Office of the World Health Organisation Representative in China & Social Development Department of China State Council Development Research Centre 2006, *China: Health, Poverty and Economic Development*, June, pp.19-20 http://www.wpro.who.int/NR/rdonlyres/A1F18401-BE93-44EF-9F76-55DDA2C6E12D/0/hped_en.pdf – Accessed 27 July 2007 – Attachment 4).

A March 2006 report by the UN Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment found that torture including denial of medical treatment and medication occurred in pre-trial detention centres, re-education through labour (RTL) camps, police station, psychiatric hospitals, public places and other locations across China. The victims were Falun Gong practitioners, Uighurs, sex workers, Tibetans, human rights defenders, political dissident and others. The perpetrators were police and other public security officers, RTL staff, prison staff, pretrial detention centre staff, psychiatric hospital staff and fellow prisoners:

40. The Special Rapporteur recalls that over the last several years his predecessors have received a number of serious allegations related to torture and other forms of ill-treatment in China, which have been submitted to the Government for its comments. He cautions that such information does not necessarily illustrate the state of torture and ill-treatment in a given country, but rather reflects the state of information brought to the attention of the Special Rapporteur. Nevertheless, over a period of time, the number and consistency of the allegations received may be informative.

41. Since 2000, the Special Rapporteur and his predecessors have reported 314 cases of alleged torture to the Government of China. These cases represent well over 1,160 individuals. Over the past five years, the Special Rapporteur has received 52 responses from the Government of China relating to a total of 90 cases.

42. The following table indicates the typology of the victims of alleged torture and ill-treatment.

Table 1

Victims of alleged torture

Victims	Percentage
Falun Gong practitioners	66
Uighurs	11
Sex workers	8
Tibetans	6
Human rights defenders	5

Political dissidents	2
Other (persons infected with HIV/AIDS and members of religious groups)	2

43. The following table indicates the locations where alleged torture and ill-treatment took place.

Table 2

Locations of alleged torture

Places	Percentage
Pretrial detention centres	27
Re-education through labour (RTL) camps	25
Police stations	17
Psychiatric hospitals (ankang)	8
Public places	5
Other (police transit, birth control offices, army barracks, private residences)	18

44. The following table indicates the typology of the alleged perpetrators.

Table 3

Typology of alleged perpetrators

Perpetrators	Percentage
Police and other public security officers	47
RTL staff	21
Prison staff	13
Pretrial detention centre staff	7
Psychiatric hospital (ankang) staff	7
Fellow prisoners at the instigation or acquiescence of detention facility staff	5

45. The methods of torture alleged include, among others: …denial of medical treatment and medication…Several of these forms of torture have been corroborated by studies carried out by Chinese academics. On the basis of the information he received during his mission, the Special Rapporteur confirms that many of these methods of torture have been used in China (UN Commission on Human Rights 2006, *Report of the Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment, Manfred Nowak,* 10 March, E/CN.4/2206/6/Add.6, pp.12-14 – Attachment 17).

List of Sources Consulted

Internet Sources**:**

Government Information & Reports

Immigration and Refugee Board of Canada http://www.irb-cisr.gc.ca/cgi-bin/foliocgi.exe/refinfo_e

UK Home Office http://www.homeoffice.gov.uk/

US Department of State http://www.state.gov/

United Nations (UN)

UNHCR http://www.unhcr.ch/cgi-bin/texis/vtx/home

WHO http://www.who.int/

WHO Regional Office for the Western Pacific http://www.wpro.who.int/

Non-Government Organisations
Amnesty International http://www.amnesty.org/
Carnegie Endowment for International Peace http://www.carnegieendowment.org/
Human Rights Watch http://www.hrw.org/
Japan Centre for Economic Research http://www.jcer.or.jp/eng/index.html
International News & Politics
BBC News http://news.bbc.co.uk/
China.org.cn http://www.china.org.cn/english/index.htm
China Radio International http://english.cri.cn/
Epoch Times http://en.epochtimes.com/index12.html
New York Times http://www.nytimes.com/
People's Daily http://english.people.com.cn/
Voice of America http://www.voanews.com/english/portal.cfm
Topic Specific Links
Disease Control Priorities Project http://www.dcp2.org/main/Home.html
Global Dialysis http://www.globaldialysis.com/
Kidney Health Australia http://www.kidney.org.au/
National Kidney Foundation http://www.kidney.org/
University Sites
Harvard School of Public Health http://www.hsph.harvard.edu/
Search Engines
Google http://www.google.com.au/

Databases**:**
FACTIVA (news database)
BACIS (DIMA Country Information database)
REFINFO (IRBDC (Canada) Country Information database)
ISYS (RRT Country Research database, including Amnesty International, Human Rights Watch, US Department of State Reports)
RRT Library Catalogue

List of Attachments

1. United Nations Health Partners Group in China 2005, *A Health Situation Assessment of the People's Republic of China*, July.

2. China Development Research Foundation & United Nations Development Programme 2005, *China Human Development Report 2005*, 15 October.

3. Liu, Yuanli et al 2006, 'Health care in China: The role of non-government providers', *Social Policy*, Vol. 77, Issue 2, July, pp. 212-220, Harvard School of Public Health website http://www.hsph.harvard.edu/phcf/publications/Liu.Berman.Yip.2006.pdf – Accessed 27 July 2007.

4. Office of the World Health Organisation Representative in China & Social Development Department of China State Council Development Research Centre 2006, *China: Health, Poverty and Economic Development*, June http://www.wpro.who.int/NR/rdonlyres/A1F18401-BE93-44EF-9F76-55DDA2C6E12D/0/hped_en.pdf – Accessed 27 July 2007.

5. World Health Organisation China 2006, 'China's health systems development', 19 July.

6. ‘China’s Failing Health Care System Searching for Remedy’ 2006, *Xinhua*, 6 October, China.org.cn website http://www.china.org.cn/english/MATERIAL/183009.htm – Accessed 27 July 2007.

7. Xiewang 2006, ‘China’s Unfair Distribution of Health Care Resources’, *The Epoch Times*, 7 February http://en.epochtimes.com/news/6-2-7/37811.html – Accessed 27 July 2007.

8. Lim, Louisa 2006, ‘The high price of illness in China’, *BBC News*, 2 March http://news.bbc.co.uk/2/hi/asia-pacific/4763312.stm – Accessed 27 July 2007.

9. French, Howard W. 2006, ‘Wealth Grows, but Health Care Withers in China’, *The New York Times*, 14 January http://www.nytimes.com/2006/01/14/international/asia/14health.html?ex=1185854400&en=cd19509615b1ad5c&ei=5070 – Accessed 27 July 2007.

10. Lin, Shanyan 2003, ‘Nephrology in China: A great mission and momentous challenge’, *Kidney International*, Vol. 63, Issue S83, February, pp.S108-S110. (MRT-RRT Library)

11. Dirks, John et al 2006, ‘Implementation of Control Strategies: Lessons of Experience – Diseases of the Kidney and the Urinary System’, *Disease Control Priorities in Developing Countries*, 2nd edn, Oxford University Press, New York, Disease Control Priorities Project website http://www.dcp2.org/pubs/DCP/36/Section/5101 – Accessed 30 July 2007.

12. ‘Lack of donated kidneys afflicts Chinese patients’ 2006, *People’s Daily*, source: *Xinhua*, 15 December http://english.people.com.cn/200612/15/eng20061215_332687.html – Accessed 30 July 2007.

13. ‘Achievements in Organ Transplantation’ 2001, *People’s Daily*, 17 August http://english.people.com.cn/english/200108/17/eng20010817_77545.html – Accessed 30 July 2007.

14. ‘New rule to regulate organ transplants’ 2006, *People’s Daily*, source: *China Daily*, 5 May http://english.people.com.cn/200605/05/eng20060505_263202.html – Accessed 30 July 2007.

15. Cody, Edward 2007, ‘China Tightens Restrictions on Transplants’, *Washington Post*, 4 July http://www.washingtonpost.com/wp-dyn/content/article/2007/07/03/AR2007070300640.html – Accessed 30 July 2007.

16. ‘Foreigners take a back seat to Chinese in organ transplants’ 2007, *People’s Daily*, source: *China Daily*, 4 July http://english.peopledaily.com.cn/90001/90776/6207635.html – Accessed 30 July 2007.

17. UN Commission on Human Rights 2006, *Report of the Special Rapporteur on torture and other cruel, inhuman or degrading treatment or punishment, Manfred Nowak*, 10 March, E/CN.4/2206/6/Add.6.