Chinese population challenges: fewer girls, more old people

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Though the population of China has almost doubled since the 1960s and now exceeds 1.3 billion, it is no longer perceived as a threat. China has undergone profound demographic upheaval over the last forty years and its turbulent history is reflected in a population pyramid that illustrates the new challenges facing the country: the prospect of an ageing population and a shortage of young girls.

With 1.3 billion inhabitants in 2005, China is the world’s most populous country, though its share of the total world population is shrinking; 22% in 1950, compared with 20% today [1]. Likewise, one-third of all inhabitants of the least developed countries were Chinese in 1950, compared with only one-quarter today. Demographers are even predicting that the population of China will be overtaken by that of India within the next 25 to 30 years (Figure 1). To understand the reasons for this relative decline, we need to look at the demographic history of China over the last fifty years.

A rapid slowdown in population growth

The 1953 and 2000 population pyramids illustrate the scale of the demographic changes that have swept across China in less than half a century (Figure 2). The 1953 pyramid has a broad base and narrows steadily towards the summit. This shape is typical of populations where birth rates and death rates are high. The 2000 pyramid is no longer triangular, and has become very irregular in shape. The dip at ages 38-40 corresponds to the famine of 1959-1961 caused by the Great Leap Forward which disorganized agricultural production. There were fewer births in those years and mortality was exceptionally high. After a return to normal in 1962, the number of births dropped in the 1970s. Fertility also started falling rapidly, from 5.7 children per woman on average in 1970 to below 3 in 1980, as the government birth control campaign got under way. (Figure 3). Despite the one-child policy launched in 2005.
1979, the number of births began increasing again in the early 1980s as the large cohorts of the 1960s reached childbearing age. This trend continued until the very early 1990s, but was then reversed as cohort size decreased and fertility resumed its decline. In the wake of economic reforms launched by Deng Xiaoping from 1978 and the major social upheavals that ensued – higher cost of living, unemployment, urbanization – fertility fell below replacement level (2.1 children per woman) (Figure 3). The latest estimates give figures of between 1.5 and 1.8 children per woman.

Thanks to the faster than expected slowdown in natural increase, the time when the Chinese population crossed the symbolic threshold of 1.3 billion inhabitants was delayed by four years with respect to the targets set by the Chinese government in the early 1990s.

The proportion of over-65s should double in the next 25 years

Since 1949, life expectancy at birth has increased by more than thirty years, from around 40 years to 71 years today. But most of this progress was achieved in the first decades of Communist rule. Since the progressive privatization of the health sector in the 1980s, inequalities in access to basic healthcare have widened. Patients are now required to pay an increasing share of their healthcare costs, while doctors and hospital managers are bound by stringent cost constraints. The efficacy of preventive and curative care appears to be decreasing, thereby cancelling out the progress achieved through a higher standard of living. So the overall health status of the population may no longer be improving. Life expectancy has barely increased in recent years, gaining only three years since 1982. It was 69 years for men and 72 years for women in 2000, well below the levels observed in Taiwan and South Korea, where it stands at 73 years for men and 79 to 80 years for women.

The decline in fertility and the increase in longevity...
have totally modified the age structure of the Chinese population. In less than twenty years, the population under age 15 has dropped by ten points, from 34% in 1982 to 23% in 2000, while the proportion of over-65s has increased from 5% to 7%. According to the latest UN projections, it should more than double by 2030 to reach 16% [1].

**More boys than girls**

One of the most striking trends revealed by the 2000 census is the growing numerical imbalance between boys and girls. Normally, between 103 and 106 boys are born for every 100 girls. The sex ratio then decreases as the children grow older, since mortality is higher among boys than girls.

In China, the sex ratio at birth has increased during the last two intercensal periods, rising from 107 boys for 100 girls in 1982 to 111 in 1989 and 117 in 2000. This has led to a surplus of boys in the child population, with proportions of boys below age 10 that are 5 to 15% above the normal levels (Figure 4). The corresponding shortage of girls accrued over the last twenty years is close to ten million [2].

China retains traits of a patriarchal, Confucian society in which girls and women still occupy a marginal position. Sons are preferred because they offer a range of advantages. It is through sons that the family lineage is continued, and it is sons who look after their parents in their old age and provide them with financial support. For the last thirty years, Chinese birth control policy has required couples to apply for authorization before each birth and has imposed sanctions upon those who do not comply. So girls have become undesirable because they prevent their parents from having a son. Moreover, quite apart from the coercive government birth control policy, a growing number of couples are spontaneously limiting their family size, with the priority objective of having a son.

An abnormal surplus of boys due to female infanticide had already been observed in China in the 1930s and 1940s. As the status of women improved in the 1950s, this practice became much rarer, and the biological balance was restored. But fertility was still high at that time, with no government restriction on the number of births. With the drop in fertility and the implementation of the one-child policy, the gender imbalance re-emerged in the 1980s.

This imbalance is the consequence of a shortage of female births due to sex-selective abortion, a practice that is increasingly widespread in China today. It is aggravated by excess female mortality after birth, because girl babies tend to be less well fed and cared for than boys. In societies where there is no discrimination

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**Figure 3 - Fertility in China from 1970 to 1999 (mean number of children per woman)**

**Figure 4 - Number of boys for 100 girls in China between ages 0 and 14**

**Table 1 - Infant mortality in China by sex (deaths of children under one year of age for 1,000 births)**

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<tbody>
<tr>
<td>Boys</td>
<td>48.9</td>
<td>38.7</td>
<td>39.9</td>
<td>25.5</td>
<td>26.5</td>
</tr>
<tr>
<td>Girls</td>
<td>42.8</td>
<td>36.7</td>
<td>40.8</td>
<td>29.4</td>
<td>38.9</td>
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<tr>
<td>Both sexes</td>
<td>-</td>
<td>37.7</td>
<td>40.3</td>
<td>27.3</td>
<td>32.2</td>
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<tr>
<td>Ratio G/B</td>
<td>0.88</td>
<td>0.95</td>
<td>1.02</td>
<td>1.15</td>
<td>1.46</td>
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against girls and women, male mortality generally exceeds female mortality at all ages. In China, this is true for adults, but not for children, because sex discrimination results in excess female infant mortality (Table 1) [3].

The health policies introduced by the Communists from the 1950s, based on vaccination and hygiene campaigns, eradicated the most deadly childhood diseases and substantially reduced child mortality. But progress later slowed down, and did not benefit both sexes equally. Though infant mortality continued to decline among boys, from 39‰ in 1981 to 26‰ in 2000, it rose among girls from 37‰ to 39‰. While girls died less often than boys in 1981, the opposite was true in 2000. In the absence of sex discrimination, female infant mortality would be 22% lower than that of boys [4]. In 2000, it was 46% higher.

**From the threat of growth... to the problem of ageing**

The “Population and Birth Control Act” adopted at the end of 2002 reasserts the principle of one child per couple. But with the social liberalization resulting from the Chinese economic reforms, it is now increasingly difficult for the authorities to interfere in the private lives of couples. Moreover, the threat of unmanageable population growth is now a thing of the past. Though coercion is still the rule, certain regions are now developing an approach based on voluntary birth control. Emphasis is now placed on health, reproductive health in particular, as well as on education and information [2].

Moreover, the Chinese government is now starting to worry about the problem of population ageing, which will occur very quickly due to the rapid decline in fertility and mortality. Apart from a small fraction of the urban population who work for state-owned enterprises, old people in China do not receive a pension. Most of the elderly rely on support from the family, if they are lucky, or must carry on working to maintain their income. But with the increasing cost of living and the rise of individualism in the wake of socioeconomic change, family solidarity is weakening. Family composition has also changed, making solidarity more difficult. The smaller family size and the lengthening of life expectancy mean that when two people marry, each of them an only child, they must support their four parents and sometimes several surviving grandparents as well. A share of the burden placed on families should be transferred to the community via a pension system accessible to all.

According to the latest UN projections, the Chinese population may never reach 1.5 billion, but will level off at 1.45 billion in 2030 before starting to decline [1]. By then, it will have been caught up by India, which may have 200 million more inhabitants than China in 2050. Though these projections clearly confirm the end of the “population explosion” in China, they also highlight the threat of rapid population ageing in the coming years. As we have already seen, the proportion of over-65s is set to double in the next 25 years, rising from 8% in 2005 to 16% in 2030. In France, this transition took place over a whole century. From 2035, the Chinese population will have reached the level of population ageing now affecting Japan, the country in the world where this trend is most far advanced. In thirty years time, 27% of China’s population will be aged 60 and over (26% in Japan in 2005) and the median age will be 43, like Japan in 2005. The under-15s will represent only 16% of the population (14% in Japan today).

Future trends in the numerical imbalance between boys and girls are more difficult to predict. It is to be hoped that mentalities will evolve towards greater equality between the sexes. In 2001, the Chinese authorities launched a campaign entitled “More consideration for girls” to promote gender equality and improve the living conditions of families with just one girl child, in rural areas especially. The aim is to return the sex ratio to normal levels by 2010. Experience in Korea shows that this objective is attainable. In South Korea, the sex ratio at birth increased in the 1980s, as it did in China, reaching 115 boys for 100 girls in the early 1990s. But since the mid 1990s, it has fallen back to around 110 boys for 100 girls [5]. Efforts by the Korean government to promote the status of women appear to be bearing fruit, and China could draw on the experience of its neighbour to promote greater gender equality.

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**REFERENCES**