Health in China

From Mao to market reform

Therese Hesketh, Wei Xing Zhu

Summary

After the Liberation by Mao Ze Dong's Communist army in 1949, China experienced massive social and economic change. The dramatic reductions in mortality and morbidity of the next two decades were brought about through improvements in socioeconomic conditions, an emphasis on prevention, and almost universal access to basic health care. The economic mismanagement of the Great Leap Forward brought about a temporary reversal in these positive trends. During the Cultural Revolution there was a sustained attack on the privileged position of the medical profession. Most city doctors were sent to work in the countryside, where they trained over a million barefoot doctors. Deng Xiao Ping's radical economic reforms of the late 1970s replaced the socialist system with a market economy. Although average incomes have increased, the gap between rich and poor has widened.

Problems "of vast importance"

"Chinese problems, even if they affect no one outside China, are of vast importance since the Chinese constitute a quarter of the human race.... All the world will be vitally affected by the development of Chinese affairs ... during the next two centuries." These were Bertrand Russell's reflections after a visit to China in 1921.[1] The Chinese still make up nearly a quarter of the world's population, over three times the population of the whole European Union and, as Russell predicted, China has become a major world influence. In the health field China has given us traditional Chinese medicine (a sophisticated discipline when Europeans were in the dark ages) tai chi, qi gong, barefoot doctors, the primary healthcare model for Alma Ata; the list goes on. China's experience in the past few decades also illustrates how twists and turns in politics directly affect the health of the people, so some understanding of recent history is essential to an understanding of the country today.

Mao Ze Dong

The China that Russell visited was a country ruled by warlords, racked by poverty and disease, and ripe for the birth of the Communist party. There followed a civil war for the control of China between the Communists and the Nationalists. In 1949 Mao Ze Dong's army was victorious, but what the Communists had won was a country devastated by years of war: poverty, malnutrition, and endemic disease existed on a huge scale, and the industrial base was in ruins. The infant mortality rate was estimated to be more than 250/1000.

Mao responded to the daunting task ahead by introducing massive social and economic change. Millennia of social tradition were swept away with the birth of the commune. This replaced the family unit, taking care of employment, food supply, child care, education, and health. Basic health care and preventive services

This is the first in a series of five articles on changing aspects of health care in China

Centre for International Child Health, London WC1 N1EH

Therese Hesketh, *research fellow*

Health Unlimited, London SE1 9NT

Wei Xing Zhu, *programme manager, East Asia*

Correspondence to: Dr Hesketh.

BMJ 1997;314:1543–5

Public health education notices in Hangzhou. Health education notices are common in China, but they rarely appear in English

Guidelines for organising health care

Four basic guidelines for the organisation of health care were announced at the First National Health Congress in 1950:

- Medicine should serve the workers, peasants, and soldiers
- Preventive medicine should take precedence over therapeutic medicine
- Traditional Chinese medicine should be integrated with Western scientific medicine
- Health work should be combined with mass movements

were provided to everyone as part of the cooperative medical system.

This almost universal access to health care is one factor explaining the reductions in mortality and morbidity seen during the 1950s and '60s. However, more important factors were stability after decades of war, the improvement in socioeconomic conditions, and the emphasis placed on prevention.[2] Massive immunisation campaigns were carried out, brothels were closed, and campaigns against opium use were run. The Great Patriotic Health Campaigns mobilised the masses in tasks aimed at improving nutrition, sanitation, and water quality and attacking certain diseases. The anti-schistosomiasis campaign included organising teams to lance snails with sharpened chopsticks. The Four Pests Campaign aimed to eliminate flies, mosquitoes, rats, and sparrows. Sparrows were targeted because they ate grain. For days and nights people shouted and banged saucepan lids until the birds fell dead with exhaustion. But as a result the insects that would have been eaten by the birds now devoured the grain instead.

Eccentric as much of this sounds, the results were remarkable. A number of infectious diseases such as schistosomiasis, sexually transmitted diseases, leprosy, and plague were virtually eradicated, in the short term at least, though some are now returning.

WEI XING ZHU

Village doctor's clinic. The drawers contain traditional Chinese herbal remedies

The Great Leap Forward, 1958-60

During the 1950s China was isolated by the Western powers, the Soviet Union being China's only ally. (It was with the help of Russian expertise that medical schools and hospitals were established.) Mao felt increasingly that he needed to prove the strength of the Communist system by expanding its industrial base.

Peasants were abruptly diverted from agricultural work to other tasks such as irrigation schemes and the new rural industries. As a result, in some areas crops were left to rot because it was no one's responsibility to harvest them. Ludicrous production targets were set, with disastrous consequences. To meet the grain targets farmers were urged to overfarm the land, which ruined the soil. To meet steel production targets, peasants were encouraged to set up backyard steel furnaces. Cooking pots, redundant in those days of communal eating, were melted down. The results of all this economic and agricultural mismanagement were disastrous. Estimates for the number who starved to death vary between 20 and 50 million. Infant mortality rose to over 300/1000.

Facts about China

Population (1995): 1 210 000 000
Infant mortality rate: 37/1000
Maternal mortality: 50/100 000
Annual number of births: 22 000 000
Gross national product per capita: $470
Life expectancy: 70 years
Adult literacy rate: 81%

The Cultural Revolution, 1966-76

The Cultural Revolution was to bring further disruption. Political struggles in the senior echelons of the Communist party made Mao vulnerable and led him to intensify his dictatorial rule. Policy reversals were abrupt and had to be implemented without question or adaptation.

Mao launched an onslaught on the privileged position of the medical establishment. Medical schools and universities closed, as did specialist departments in hospitals. Many professionals, including doctors, were persecuted and tortured by the Red Guards, the anarchic groups of young people, who rampaged through the streets destroying anything representing the Four Olds: old customs, old ideas, old culture, and old habits.

It became compulsory for virtually all medical graduates to work in the countryside, usually for years at a time. Some worked as village doctors and trained locals to be barefoot doctors, while other simply worked the land. The more senior doctors were often allocated the most menial tasks—for example, the most experienced paediatric cardiac surgeon in China was sent to plant rice for seven years.

But some good came of all this. Over a million barefoot doctors were trained, and although some doctors are bitter about their treatment, and the prolonged separation from loved ones, many value the experience they gained of peasant life. The Chinese were keen that the image portrayed to the outside world at this time was a positive one: barefoot doctors, growing medicinal herbs, and providing care to the

community at very low cost.[2] The few examples of excellence became a model for the world and were cited at the Alma Ata conference. But this was all an integral part of the communal society and thus in many ways inappropriate for other developing countries.

When the medical schools reopened in 1972 the training was politicised, selection of students was related to political attitude, course length was arbitrary, and there was an emphasis on manual labour and Mao Ze Dong's thought. It was 1977 before standard five year medical training started again.

The economic reforms

Mao Ze Dong's death in 1976 brought an end to the Cultural Revolution. The power vacuum was filled by Deng Xiao Ping. He realised that two decades of economic stagnation meant that reform was essential to China's future survival and growth. The socialist system was replaced by a market system which essentially allows more rapid economic growth at the whim of market forces while accepting less equality. The communes were dismantled, and families could sell surplus produce at the newly opened free markets. The result was a doubling of agricultural output in five years, and the per capita income of the peasants increased by 10-12% a year.[3]

With the open door policy of 1982 foreign investment accelerated the process of growth. Economic growth is now running at 10% a year.[4] Average incomes have increased but the gap between rich and poor has widened, with high inflation, especially for basic commodities, eroding purchasing power.

In health care the reforms have brought about crucial changes in the way that health is financed and organised. Some of the issues raised by the new market in health care will be discussed in the next article.

1 Sidel R, Sidel VW. *The health of China.* Boston, MA: Beacon Press, 1982.
2 Taylor CE, Parker RC, Zheng DL. Public health policies and strategies in China. In: Holland WW, Knox S, Detels R, eds. *Oxford textbook of public health medicine.* Oxford: Oxford University Press, 1991.
3 Schell O. *To get rich is glorious—China in the 1980s.* New York: Mentor Pantheon, 1985.
4 Financial summary. *Far Eastern Economic Review* 1997 January 16:68.

Socioeconomic determinants of health

The contribution of nutrition to inequalities in health

W Philip T James, Michael Nelson, Ann Ralph, Suzi Leather

Summary

Social class differences in health are seen at all ages, with lower socioeconomic groups having greater incidence of premature and low birthweight babies, heart disease, stroke, and some cancers in adults. Risk factors including lack of breast feeding, smoking, physical inactivity, obesity, hypertension, and poor diet are clustered in the lower socioeconomic groups. The diet of the lower socioeconomic groups provides cheap energy from foods such as meat products, full cream milk, fats, sugars, preserves, potatoes, and cereals but has little intake of vegetables, fruit, and wholewheat bread. This type of diet is lower in essential nutrients such as calcium, iron, magnesium, folate, and vitamin C than that of the higher socioeconomic groups. New nutritional knowledge on the protective role of antioxidants and other dietary factors suggests that there is scope for enormous health gain if a diet rich in vegetables, fruit, unrefined cereal, fish, and small quantities of quality vegetable oils could be more accessible to poor people.

Introduction

The poorer health of people in the lower socioeconomic groups in Britain is now well recognised (table 1),[1] but its origins are complex. Diet has been considered a possible factor, but this is often seen as unlikely because most of the classic nutritional deficiencies are rare in Britain. Modern nutritional research into the pathophysiological basis of a variety of diseases has presented a new perspective, as shown in table 2. Many of the risk factors are clear, but the dietary contributors are just emerging. Physical activity is included because it determines total dietary intake, affects food choice, and has an independent metabolic effect.

Underlying most of these conditions are genetic factors which probably do not cluster in the lower socioeconomic groups, but any environmental disadvantage will have an impact on people who are genetically vulnerable. Excess smoking is a direct contributor to the clustered pattern of diseases—it operates partly through diet, influencing food choice adversely and reducing the dietary contribution to the antioxidant and DNA repair capacity of the body.[2] Table 2 shows the importance of dietary quality and physical inactivity in promoting the wide range of preventable conditions affecting poor people. A high intake of vegetables, fruit, and fish with modest amounts of appropriate fats and limited intakes of foods and drinks rich in fats, salt, and sugars seems, with sustained physical activity and non-smoking, to be capable of promoting substantial health gains.

Dietary and activity patterns

The annual national food survey of 7000 British households shows that, compared with the highest income group (A), low income groups D and E2 consume more milk (but less semiskimmed milk), meat and meat products (of which more is higher fat meat products), fats, sugar and preserves, potatoes, and cereals.[3] They consume fewer fresh vegetables, fruit, and higher fibre products such as brown and wholewheat

This is the last in a series of eight articles edited by Richard Wilkinson

Rowett Research Institute, Bucksburn, Aberdeen AB21 9SB
W Philip T James, *director*
Ann Ralph, *research nutritionist*
Department of Nutrition and Dietetics, King's College London, London W8 7AH
Michael Nelson, *senior lecturer in nutrition*
National Food Alliance, London EC2A 2BH
Suzi Leather, *consultant to the Food Poverty Network*
Correspondence to: Dr Ralph.

BMJ 1997;314:1545–9