



Overweight and obesity in schoolchildren aged 7-18 in large cities in China⁵

changes in the proportions, and sources, of dietary macronutrients over the past 20 years. Energy intake from animal sources has increased from 8% in 1982 to 25% in 2002,³ and the average energy intake from dietary fat among urban Chinese increased from 25% to 35%,⁹ which is above the upper limit of 30% recommended by the WHO. The obesity epidemic in China may also have its roots in the prevailing social attitudes towards body fatness. In Chinese culture, there is still a widespread belief that excess body fat represents health and prosperity. This is perhaps a consequence of China's recent history, where famine and chronic malnutrition caused the deaths of millions of people in the 1950s.

Coinciding with China's continuing modernisation are reductions in physical activity and labour intensity in both urban and rural areas. People are expending less energy on traditional forms of transportation such as walking and cycling, and the popularity of cars, buses, and motorcycles is increasing. Data from the national statistics bureau show that the number of cars produced in China quadrupled from 5400 in 1980 to over 2 million in 2003—almost all of which are sold in China. Furthermore, the lack of consideration towards constructing environments in inner cities that promote physical activity has meant that it has become increasingly difficult to find safe places in residential areas to exercise or even walk.

As in other countries, China's epidemic of overweight and obesity poses a considerable public health problem, and it is becoming increasingly clear that we need to act now to prevent any further increase. The means by which this may be accomplished remain

elusive. In randomised trials, intensive lifestyle education has been shown to result in modest but sustained weight loss; the feasibility and efficacy of conducting such studies in China is uncertain but should be investigated. As a first step, the prevention and control of obesity should be listed in China's framework and policy on health. By confronting the challenge now, China may be able to halt the growing problem of overweight and obesity, doing what the West has so far failed to do.

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- 1 WHO-MONICA Project. Risk factors. *Int J Epidemiol* 1989;18(suppl 1):S46-55.
- 2 Ma G, Li Y, Wu Y, Zhai F, Cui Z, Hu X, et al. The prevalence of body overweight and obesity and its changes among Chinese people during 1992 to 2002. *Chin J Prev Med* 2005;39:311-5. (In Chinese, with English abstract.)
- 3 Wu Y, Ma G, Hu Y, Li Y, Li X, Cui Z, et al. The current prevalence status of body overweight and obesity in China: data from the China nutrition and health survey. *Chin J Prev Med* 2005;39:316-20. (In Chinese, with English abstract.)
- 4 World Health Organization. *Preventing chronic disease: a vital investment: WHO global report*. Geneva: WHO, 2005:56. www.who.int/chp/chronic_disease_report/contents/en/index.html (accessed 27 Apr 2006).
- 5 Ji C, Sun J, Chen T. Dynamic analysis on the prevalence of obesity and overweight school-age children and adolescents in recent 15 years in China. *Chin J Epidemiol* 2004;25:103-8. (In Chinese, with English abstract.)
- 6 Cooperative Meta-analysis Group of the Working Group on Obesity in China. Predictive value of body mass index and waist circumference for risk factors of certain related diseases in Chinese adults—study on optimal cut-off points of body mass index and waist circumference in Chinese adults. *Biomed Environ Sci* 2002;15:83-95.
- 7 Cooperative Meta-analysis Group of the Working Group on Obesity in China. Effect of body mass index on all-cause mortality and incidence of cardiovascular diseases—report for meta-analysis of prospective studies on optimal cut-off points of body mass index in Chinese adults. *Biomed Environ Sci* 2002;15:245-52.
- 8 Working Group on Obesity in China, Department of Disease Control, Ministry of Health. The guidelines for prevention and control of overweight and obesity in Chinese adults. *Biomed Environ Sci* 2004;17:1-35.
- 9 Wang L, ed. *The status in nutrition and health in China*. Beijing: People's Medical Publishing House, 2005.

Meeting the needs of elderly people in China

Community health care is a good idea but unsatisfactorily implemented

Like its neighbours Thailand and South Korea,¹⁻³ China is facing the challenge of a rapidly ageing population. The proportion of people aged over 65 reached 6.9% in 2000 and is predicted to be as high as 22.7% in 2050.⁴ Although the Chinese population is currently younger than the UK population (which in 2002 had 16% of people over 65),⁵ the proportion of older people is growing faster

than in the UK. People over 60 currently make up 10.9% of the population in China, projected to rise to 31.0% in 2050, compared with 21.2% rising to 29.4% in the United Kingdom.⁶

Ageing leads to increased healthcare needs and to changes in the modes and content of healthcare delivery—from narrow, merely medical treatment to integrated, community based health care, for example.

These changes have already happened in areas with ageing populations, such as some European countries, Japan and South Korea.^{2,3} Integrated, community based health care has proved to be efficient and effective.³

The national household health survey in China showed that both health needs and healthcare utilisation have changed. The survey, conducted in 1998 and 2003, included a nationally representative sample of around 70 000 households and 200 000 individuals in each round. The data showed that self reported illness increased by 15.0% among urban elderly people and 4.6% among rural elderly people between 1998 and 2003.⁷ The pattern of illness has also changed. Hypertension replaced acute respiratory disease as the predominant reason for morbidity in 2003, reaching 55.4% compared with 30.1% in 1998. During this period cardiac vascular disease increased from 29.7% to 33.9% and cerebrovascular disease from 16.3% to 20.1%. Between 1991 and 2001, hypertension increased from 40.1% to 47.3% among men and from 43.5% to 50.2% among women (adjusted for a change in criteria for diagnosing hypertension).⁸

The 2003 survey found more unmet needs than the 1998 survey. Visits to doctors decreased by 6.2% over the five years. The proportion of respondents reporting a need but not visiting a doctor was 54.3%, an increase of 13.5% among urban elderly people and 37.2% among rural elderly people.⁷

Financial difficulties, accessibility, and educational levels were factors affecting unmet needs. Patients' difficulty in paying their medical costs plays a critical role in determining underutilisation, accounting for 40% of those who did not visit a doctor and 75% of those who were not admitted to hospital despite reported need. Their lack of income, and lower likelihood of being covered by health security meant that old people, especially those from poor families, were less likely to use health care.

Accessibility in terms of distance to health care also contributes to the increase in underutilisation. Although 85% of elderly respondents reported that their nearest medical care contact point was within 1.5 km, most went to a distant tertiary hospital to seek medical care. There were two reasons: firstly, community healthcare centres were not fully covered by urban medical insurance, secondly,

owing to the lack of qualified health professionals (such as general practitioners) and infrastructure, the quality was not consistent in community centres.

The community health service has progressed in terms of infrastructure and regulation. The government approved 108 districts as models in primary healthcare implementation in 2005 and 2006, particularly community based integrated care for elderly people and health promotion and chronic disease management for local people. However, the service has not yet met the healthcare needs of elderly people as well as expected. The vision of the service, which is based on similar services in neighbouring countries, was clear and is good, but the barriers to realising it include the absence of financial subsidies from the government and the lack of a clear process for training qualified general practitioners. Currently, less than a quarter of needy elderly people are using the service.⁹

The government should ensure that elderly people have access to health care by extending healthcare coverage to more people, and funding it better. The community health service should be strengthened in terms of government budget and by training qualified professionals for the urgent needs of primary health care. An integrated package of care is needed, including medical, preventive, nursing care, and home care support. An effective approach in health promotion should be developed specifically for illiterate or less educated elderly people, in order to enhance their awareness of health care and to improve healthy behaviours.¹⁰⁻¹²

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The Chinese healthcare system in transition

China is experiencing a social and economic transition from a planned to a market economy in all sectors. Previously, visits to the doctor were free, but now urban employees face a co-payment fee when they visit a doctor. Most rural farmers have to pay for services out of pocket, because few are covered by the rural cooperative medical scheme. The result is underutilisation of health care and, subsequently, less satisfactory health outcomes. To tackle these problems, the Chinese government introduced community health care in 1997, with the aim of providing an integrated primary care to vulnerable groups, such as elderly people and disabled people, through delivering low cost, higher quality services that are easy to access.

- 1 Choomattanapakom T. The social situation in Thailand: the impact on elderly people. *Int J Nurs Pract* 1999;5:95.
- 2 Young Hee Choi. Health-care policy for Korean elderly. *Nurs Health Sci* 2002;4(suppl):A1.
- 3 Murashima S, Hatono Y, Whyte N, Asahara K. Public health nursing in Japan: new opportunities for health promotion. *Public Health Nurs* 1999; 16:133-9.
- 4 United Nations. *World population prospects*. 2000. www.un.org/esa/population/publications/wpp2000/ (accessed 19 Apr 2006).
- 5 National Statistics Online. *Population: ageing*. August 2005. www.statistics.gov.uk/cci/nugget.asp?id=949&Pos=&ColRank=1&Rank=326 (accessed 29 Apr 2006)
- 6 United Nations Department of Economic and Social Affairs, Population Division. *World population prospects: the 2004 revision*. 2005. www.un.org/esa/population/publications/WPP2004/2004Highlights_finalrevised.pdf (accessed 19 Apr 2006).
- 7 Ministry of Health, China. *The report of 3rd national health service survey*. Beijing: Peoples Health Publishing House, 2004. (In Chinese.)
- 8 Gu D, Reynolds K, Wu X, Chen J, Duan X, Muntner P, et al. Prevalence, awareness, treatment, and control of hypertension in China. *Hypertension* 2002;40:920-7.
- 9 Tian Q, Cui L, Han P. Community health care needs for the elderly. *Acta Acad Medicinae Militaris Tertiae* 2005;27:1120-2. (In Chinese.)
- 10 Wang F, Qian C. Self-care and its determinants in the urban elderly. *J Prev Med Inform* 2002;18(2):111-2. (In Chinese.)
- 11 Zhou S. Problem and policy choices for the rural elderly social medical security. *Chin J Gerontol* 2003;23(1):37-9. (In Chinese.)
- 12 Qian L, Liu T, Fang W. Demand of urban elderly to community health service in Yinchuan, Ningxia. *J Dis Control* 2004;8(3):49-51. (In Chinese.)