between the city government and our university, the participation rate was high. Therefore, potential bias due to nonparticipation is unlikely to be a concern.

Regarding resident characteristics, most participants were married. In addition 10% to 13% of participants had been in high school or university, which was lower than the 2010 national level in the same age group (17.1%).[36] The proportion of current smokers was 57.1% among men and 11.1% among women, which was similar to the 2008 national prevalence (about 58%) among men aged 40 years or older but higher than the national prevalence (3%) among women.[37] Fangshan had a higher prevalence of smoking than did rural communities in Japan (53% among men and 3% among women aged 40 to 69 years in 2003[38]). Unlike the trend toward higher smoking prevalence with increasing age among women in China,[39] prevalence was higher among young women than among elderly women in Japan. Also, among Japanese women aged 20 to 29 years, the prevalence of smoking increased from 7% in 1965 to 15% in 2008.[40] In contrast, among Chinese women in the same age group the prevalence of smoking decreased slightly from 1.2% in 1996 to 1.0% in 2002.[41]

Overall, 49.9% of men and 6.1% of women in our survey were current drinkers. As compared with 2002 national levels (43.3% and 6.8%, respectively, for age ≥40 years[42]), the prevalence was higher for men and similar for women.

Overweight/obesity appears to be a serious public health issue in Fangshan. Average BMI was 25.4 kg/m^2 among men and 26.5 kg/m^2 among women, and the prevalence of overweight/obesity was 53.3% among men and 64.7% among women. These values are much higher than the 2002 national levels (25.2% and 29.2% for age ≥45 years).[43] The prevalences of overweight/obesity in the rural districts of Beijing have been among the nation's highest since the 1980s.[44] Differences between rural areas of Beijing and other provinces in the prevalence of overweight/obesity have not diminished.[44] Overweight and obesity have traditionally been uncommon among Asians such as the Chinese and Japanese. However, the prevalence of overweight/obesity was much higher in Fangshan than in a rural area of Japan, which had an average BMI of 24.0 kg/m^2 among men and 24.3 kg/m^2 among women aged 40 years or older.[38] According to the 2009 National Health and Nutrition Survey in Japan, among adults aged 40 years or older the proportions of overweight and obesity were 27.6% and 3.4%, respectively, among men and 19.5% and 3.8% among women.[45] The 2008 NHANES in the United States showed that median BMI was 28.3 kg/m^2 among men and 27.7 kg/m^2 among women aged 40 years or older. Among adults aged 40 years or older the prevalences of overweight and obesity were 42.3% and 35.8%, respectively, among men and 31.7% and 35.8% among women.[46] Average BMI and the prevalence of overweight/obesity among Fangshan residents were between national levels in Japan and the United States.[45,46]

The high prevalence of overweight/obesity in Fangshan is likely mainly due to decreased activity thermogenesis. According to nutrition surveys done in Fangshan, mean daily energy intake changed from 2368 kcal in 1983 to 2576 kcal in 1992 to 2370 kcal in 1999, which indicates the lack of a marked change over time.[47,48] As for exercise activity, 37.4% of men and 43.7% of women in Fangshan reported taking part in regular physical exercise, similar to 2002 national prevalences for the same age group.[27] Therefore, a decrease in non-exercise activity, along with rapid economic development, may have contributed to the high prevalence of overweight/obesity in Fangshan. In a previous survey of 885 men and 646 women in rural Beijing, 60.0% of men and 52.8% of women reported that their occupational physical activity had decreased during the past 10 years.[49] Private business owners were most likely to report decreased occupational physical activity, probably because 27.1% of them had previously been peasants and 35.3% had been manual workers in national factories. Moreover, 52.6% of manual workers who did not change jobs reported decreased occupational physical activity, due to mechanization.[49] Although no research has studied leisure-time non-exercise activity in rural Beijing, the proportion of Chinese households with TV sets increased from 65% in 1989 to 91% in 1997,[50] and the increase was more evident in rural areas.[51]

The prevalence of hypertension was 64.5% among men and 61.8% among women in our study. These prevalences were much higher than those in the national data and other areas in China, using the same definition as that in the present study.[52,53] The InterASIA study of a nationally representative sample, conducted in 2000–2001, reported that hypertension prevalence was 28.6% among men and 25.8% among women aged 35 years or older.[52] Hypertension prevalence was 35.3% among men and 32.7% among women aged 35 years or older in rural areas of Shanghai in 2004.[53]

The prevalence of diabetes mellitus was 12.1% among men and 13.6% among women in Fangshan, which were also higher than national levels (ie, 4.6% among men and 5.4% among women aged 35–74 years in all rural areas of China in 2001, using the present definition[54]).

In Fangshan, 14.5% of men and 19.6% of women aged 40 years or older reported that they had received a diagnosis of coronary heart disease, and 13.7% of men and 8.3% of women had received a diagnosis of stroke. These percentages were much higher than national levels (1.0% of men and 0.7% of women aged ≥35 years in rural populations of Linyi city for coronary heart disease,[55] 1.3% of men and 0.8% of women aged ≥40 years for stroke nationally[56]). Our findings are consistent with previous results, which showed that Beijing has had the highest incidence and prevalence of coronary heart disease and stroke since 1987.[56,57] In 1987, the incidence of coronary heart disease in Beijing was 70.3/100 000 among men and 31.3/100 000 among women. Anhui and Sichuan provinces had the lowest incidence: 3.3/100 000 among men

in Anhui province and 1.3/100 000 among women in Sichuan province.[57] The prevalence of stroke in Beijing was 6.8% in 1991, while the lowest prevalence (1.2%) was in Henan province.[56] It is possible that Fangshan residents were more likely to report a medical history of coronary heart disease and stroke because, under the conditions of a policy established in Fangshan in 2008, they could receive free medications once diagnosed. Our surveillance of CVD incidence is expected to reveal a clearer picture of CVD in Fangshan.

In conclusion, the Fangshan Cohort Study will collect useful epidemiologic data on cardiovascular risk factors and disease profile, which will aid in the development of appropriate CVD prevention and control strategies for rural areas of China.

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