Preplanned Studies

Prevalence and Patterns of Multimorbidity Among Adults Aged 18 Years and Older — China, 2018

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Summary

What is already known about this topic?

Multimorbidity is becoming more common and poses a major challenge to healthcare systems. However, the prevalence and patterns of multimorbidity among Chinese adults aged ≥18 years are largely unknown.

What is added by this report?

This study found that 46.5% of Chinese adults had multimorbidity in 2018. And the prevalence of multimorbidity prevalence is increased with age. Prevalence of multimorbidity was higher among men, Han Chinese, adults with lower educational level, and those with lower household income. The most common multimorbidity pattern is a combination of three chronic conditions, hypertension, dyslipidemia, and obesity.

What are the implications for public health practices?

As multimorbidity diversifies characteristics and patterns, guideline development, clinical management, and public intervention should consider the complexity of multimorbidity.

In 2008, the World Health Organization defined multimorbidity as the presence of two or more chronic conditions in an individual (*1*). Multimorbidity is associated with an increased risk of premature death, hospitalization, reduced function, depression, polypharmacy, worsened quality of life, and, thus, poses a substantial economic burden on health systems (*2*). However, few studies have shown the prevalence and patterns of multimorbidity among adults aged 18 years and older in China, most of which focused on middle-aged and older adults. This study used data from the 2018 China Chronic Disease and Risk Factor Surveillance (CCDRFS) to estimate the prevalence and patterns of multimorbidity among Chinese residents aged ≥18 years. For adults with two chronic conditions in China, hypertension and dyslipidemia were the most prevalent multimorbidity combination. For those

with three, hypertension, dyslipidemia, and obesity were the most prevalent co-occurrence of three chronic conditions. Effective prevention and control measures are essential to reduce the burden of multimorbidity in China.

The CCDRFS program was established in 2004 to provide periodic nationwide data on the prevalence of major chronic diseases and the associated behaviors and metabolic risk factors. Details of the design, objective, and survey methods of the CCDRFS have been described previously (*3*). In 2018, 194,811 individuals were invited and 184,876 participated yielding a 94.9% response rate. This study analyzed 163,972 participants aged ≥18 years in 2018. Those missing information on the included chronic diseases or conditions and sampling weights were excluded.

In this study, information on the following 12 chronic conditions with high prevalence in China that significantly affect health or decrease functional performance and quality of life was collected by the 2018 CCDRFS: cancer, hypertension, diabetes, dyslipidemia, heart disease, stroke, chronic kidney disease, chronic obstructive pulmonary disease (COPD), musculoskeletal disorders, cervical and lumbar diseases, digestive system disorders, and obesity. Additionally, the inclusion criteria also considered a core list of chronic conditions for any multimorbidity measurement as recommended by a systematic review (*4*). Although it is controversial whether obesity should be considered as a chronic condition or a risk factor in multimorbidity studies, the British Academy of Medical Sciences recommended that obesity should be reported in multimorbidity research wherever possible (*5*). In this study, multimorbidity was defined as the presence of two or more of the 12 chronic conditions coexisting in an individual.

To assess the 12 selected conditions, the CCDRFS used a combined method that included self-reports based on physician diagnosis, physical measurements, and/or laboratory tests. Participants were asked if they

had previously been diagnosed with either of the 12 selected chronic conditions by a doctor at a township health center, community health center, or higher-level health center. The definition and diagnostic criteria of the included chronic conditions and methods of data collection are shown in Supplementary Table S1 (available in http://weekly.chinacdc.cn/).

Estimates of prevalence rate and their 95% confidence intervals (CIs) for multimorbidity were generated using a range of characteristics, including age group, sex, ethnicity, household income, residency, educational level, and region. The top three most common multimorbidity combinations with two and three chronic conditions were described by sex and age group.

Descriptive analyses were performed using frequencies for categorical variables and means [standard deviation (SD)] for continuous variables. For all estimates, sampling weights were used (*3*). Rao Scott chi-squared tests were used to test global differences, and logistic regression models were used to test for trends in ordinal categorical variables. Contingency tables were used to generate the most prevalent multimorbidity combinations of two and three chronic conditions. All differences were found to be statistically significant using two-tailed significance tests (*P*<0.05). All statistical analyses were performed using the SAS software package (version 9.4, SAS Institute, Inc. Cary, NC, USA), and Microsoft Office Excel 2019MSO (version 2205, Microsoft Corporation, Santa Rosa, California, USA) was used to generate the figures.

In this study, a total of 163,972 Chinese residents aged ≥18 years were included, with 72,444 (44.2%) males and 91,528 (55.8%) females. In 2018, 46.5% (95% *CI*: 45.6%–47.3%) had multimorbidity (Table 1). Men aged 18–59 years old were more likely to have multimorbidity than women. However, the prevalence was higher among women aged ≥60 years. The prevalence of multimorbidity increased with age, decreased with household income in all age groups, and decreased with educational levels among adults aged 18–44 years. Among adults with three or more chronic conditions, multimorbidity prevalence was higher among people with lower household income and educational levels than in the other groups (Supplementary Table S2, available in http://weekly. chinacdc.cn/).

Most people with any of the 12 chronic conditions examined had two or more conditions rather than a single condition alone (Figure 1). People with stroke and heart disease were more likely to suffer from multimorbidity.

For adults with two chronic conditions in China, the most prevalent multimorbidity combination of two chronic conditions was hypertension and dyslipidemia (12.9%) (Table 2). Additionally, it was also the most prevalent among people aged ≥45 years. The second most common combination of two chronic conditions was dyslipidemia and obesity (12.8%). Among Chinese adults with three chronic conditions, hypertension, dyslipidemia, and obesity were the most prevalent (12.4%) (Table 2).

DISCUSSION

In 2018, the prevalence of multimorbidity among Chinese adults aged ≥18 years was 46.5%. Previous systematic reviews have reported that the pooled prevalence of multimorbidity was 42.4% (*6*). Estimates of multimorbidity prevalence vary widely across studies due to the lack of consensus on the definition and the number of chronic conditions included. Multimorbidity is common in all age groups in this study, especially among the elderly. This implies that research and prevention strategies for multimorbidity should not only focus on the elderly but should also recognize its impact among young and middle-aged adults. Men aged 18–59 years and women aged ≥60 years had a higher prevalence of multimorbidity. Menopausal and postmenopausal women experience hormonal changes accompanied by an increased risk of several chronic diseases, which may lead to higher multimorbidity prevalence among women aged ≥60 years (*7*). The prevalence of multimorbidity increased with age, consistent with previous studies (*8*). Many studies worldwide have confirmed that increasing age has a large impact on multimorbidity prevalence. The goal for older people with multimorbidity is to improve functional limitations and reduce adverse effects stimulated by chronic illness, and current best practices for the young population should focus on the prevention of common risk factors. Furthermore, the prevalence of multimorbidity decreased with household income in all age groups, and it decreased with educational levels among adults aged 18–44 years. According to a previous study, a low education level was significantly associated with the likelihood of multimorbidity (*9*). Health awareness was higher among those with higher education levels than among those with lower education levels. Additionally, multimorbidity is strongly associated with socioeconomic deprivation (*8*). This suggests that

TABLE 1. Prevalence of multimorbidity* among adults aged 18 years and older — China, 2018[†].

Characteristics	N	≥2 Chronic conditions, % (95% CI[§])			
		18–44 years	45–59 years	≥60 years	Total
Total	163,972	32.1 (31.0−33.2)	59.8 (58.9−60.6)	74.6 (73.8−75.5)	46.5 (45.6−47.3)
Gender					
Male	72,444	39.5 (38.0−41.0)	60.9 (59.7−62.1)	70.5 (69.5−71.6)	50.1 (49.0−51.2)
Female	91,528	24.5 (23.2−25.8)	58.6 (57.7−59.5)	78.5 (77.6−79.4)	42.8 (41.7−43.9)
P value for difference		<0.0001	0.0005	<0.0001	<0.0001
Ethnicity					
Han	144,178	32.0 (30.9–33.2)	59.8 (58.9–60.7)	74.9 (74.1–75.8)	46.6 (45.7–47.6)
Minorities	19,794	32.7 (30.6–34.8)	59.2 (57.6–60.8)	70.7 (68.6–72.8)	44.7 (43.0–46.3)
P value for difference		0.6113	0.5313	<0.0001	0.0475
Residency					
Urban	67,262	32.8 (31.4–34.3)	59.2 (57.8–60.5)	77.2 (75.8–78.5)	45.6 (44.3–47.0)
Rural	96,710	31.2 (29.8–32.6)	60.3 (59.3–61.4)	72.6 (71.7–73.5)	47.3 (46.2–48.4)
P value for difference		0.109	0.1767	<0.0001	0.0521
Household income (CNY)					
<15,000	27,034	34.3 (31.5–37.0)	62.1 (60.5–63.7)	73.1 (72.0–74.3)	53.3 (51.6–55.0)
15,000–	33,681	32.9 (30.5–35.3)	60.5 (59.1–62.0)	73.1 (71.7–74.5)	48.1 (46.6–49.5)
30,000–	35,819	33.8 (31.9–35.8)	59.2 (57.8–60.6)	76.5 (75.1–77.8)	46.7 (45.2–48.2)
>60,000	29,759	30.8 (29.0–32.7)	57.8 (56.3–59.3)	77.1 (75.4–78.7)	42.1 (40.4–43.7)
Unwilling to disclose	37,679	30.4 (28.5–32.4)	60.1 (58.5–61.7)	73.9 (72.7–75.0)	45.8 (44.3–47.4)
P value for trend[¶]		0.0385	0.0001	<0.0001	<0.0001
Education					
Illiterate	25,900	39.3 (34.4–44.2)	62.6 (61.0–64.2)	76.1 (74.8–77.3)	67.4 (66.0–68.8)
Primary	55,295	39.9 (37.6–42.1)	59.5 (58.4–60.7)	73.7 (72.7–74.7)	56.5 (55.2–57.8)
Secondary	71,397	32.5 (31.1–33.8)	60.3 (59.2–61.4)	74.4 (72.7–76.0)	44.1 (42.9–45.3)
Tertiary or higher	11,380	26.6 (24.9–28.4)	52.5 (49.9–55.2)	75.6 (72.7–78.4)	30.1 (28.4–31.8)
P value for trend		<0.0001	0.1070	0.9703	<0.0001
Region					
East	61,661	32.0 (30.3–33.7)	59.4 (58.0–60.7)	75.7 (74.4–77.0)	46.4 (44.9–47.8)
Center	46,605	33.3 (31.6–35.1)	60.7 (59.0–62.4)	75.6 (74.1–77.0)	47.8 (46.1–49.4)
West	55,706	30.9 (28.8–33.0)	59.3 (57.7–60.8)	71.8 (70.3–73.3)	45.0 (43.5–46.6)
P value for difference		0.2645	0.3941	0.0003	0.0947

Abbreviation: CI=confidence interval; CNY=Chinese Yuan.
* Adults considered with multimorbidity are persons who had been diagnosed by a healthcare professional that they had two or more of the following 12 conditions: cancer, hypertension, diabetes, dyslipidemia, heart disease, stroke, chronic kidney disease, chronic obstructive pulmonary disease (COPD), musculoskeletal disorders, cervical and lumbar diseases, digestive system disorders, and obesity.
[†] Table presented weighted prevalence, which represents the overall national population. The standard population estimation for 2010 was obtained from the National Bureau of Statistics of China.
[§] Considered complex survey design.
[¶] Category "unwilling to disclose" was excluded in the trend test.

future strategies designed to reduce multimorbidity should consider the importance of socioeconomic status factors. Most individuals with selected chronic conditions have at least two or more diseases. Participants with stroke and heart disease had the highest multimorbidity prevalence, which was similar to the findings of previous studies (8).

Hypertension and dyslipidemia were the most prevalent co-occurrence of two chronic conditions among Chinese adults, and dyslipidemia, hypertension,

TABLE 2. Top 3 prevalent multimorbidity* combination of two and three chronic conditions among adults — China, 2018[†].

Characteristics		With two chronic conditions	Prevalence % (95% CI[§])	With three chronic conditions	Prevalence % (95% CI[§])
Total	1	Hypertension + Dyslipidemia	12.9 (12.1–13.8)	Hypertension + Dyslipidemia + Obesity	12.4 (11.3–13.6)
	2	Dyslipidemia + Obesity	12.8 (11.6–14.1)	Hypertension + Diabetes + Dyslipidemia	6.1 (5.5–6.7)
	3	Dyslipidemia + Cervical and lumbar diseases	9.7 (9.0–10.3)	Hypertension + Dyslipidemia + Cervical and lumbar diseases	5.4 (4.9–5.9)
Gender					
Male	1	Dyslipidemia + Obesity	16.1 (14.3–18.0)	Hypertension + Dyslipidemia + Obesity	16.0 (14.3–17.6)
	2	Hypertension + Dyslipidemia	15.2 (14.0–16.3)	Hypertension + Diabetes + Dyslipidemia	6.7 (5.8–7.6)
	3	Dyslipidemia + Cervical and lumbar diseases	9.3 (8.4–10.2)	Hypertension + Dyslipidemia + Cervical and lumbar diseases	5.5 (4.7–6.2)
Female	1	Cervical and lumbar diseases + Digestive system disorders	11.8 (10.6–12.9)	Hypertension + Dyslipidemia + Obesity	8.2 (6.9–9.4)
	2	Dyslipidemia + Cervical and lumbar diseases	10.2 (9.0–11.5)	Musculoskeletal diseases + Cervical and lumbar diseases + Digestive system disorders	6.6 (5.9–7.3)
	3	Hypertension + Dyslipidemia	10.2 (9.4–10.9)	Hypertension + Diabetes + Dyslipidemia	5.4 (4.8–6.0)
Age groups (years)					
18–44	1	Dyslipidemia + Obesity	21.4 (19.4–23.5)	Hypertension + Dyslipidemia + Obesity	21.0 (18.6–23.4)
	2	Dyslipidemia + Cervical and lumbar diseases	11.8 (10.5–13.0)	Dyslipidemia + Cervical and lumbar diseases + Digestive system disorders	6.6 (5.2–8.0)
	3	Hypertension + Dyslipidemia	9.4 (8.0–10.9)	Dyslipidemia + Obesity + Cervical and lumbar diseases	5.7 (4.6–6.6)
45–59	1	Hypertension + Dyslipidemia	15.5 (14.5–16.6)	Hypertension + Dyslipidemia + Obesity	9.7 (8.9–10.6)
	2	Dyslipidemia + Cervical and lumbar diseases	9.4 (8.8–10.0)	Hypertension + Dyslipidemia + Cervical and lumbar diseases	7.0 (6.3–7.8)
	3	Cervical and lumbar diseases + Digestive system disorders	7.7 (7.1–8.2)	Hypertension +Diabetes + Dyslipidemia	7.0 (6.2–7.8)
≥60	1	Hypertension + Dyslipidemia	16.2 (15.3–17.1)	Hypertension + Diabetes + Dyslipidemia	8.0 (7.3–8.8)
	2	Hypertension + Chronic kidney diseases	7.7 (7.0–8.5)	Hypertension + Musculoskeletal diseases + Cervical and lumbar diseases	5.6 (5.0–6.3)
	3	Hypertension + Diabetes	7.6 (6.9–8.3)	Hypertension + Dyslipidemia + Chronic kidney diseases	5.2 (4.5–5.9)

* Adults considered with multimorbidity are persons who had been diagnosed by a healthcare professional that they had two or more of the following 12 conditions: cancer, hypertension, diabetes, dyslipidemia, heart disease, stroke, chronic kidney disease, chronic obstructive pulmonary disease (COPD), musculoskeletal disorders, cervical and lumbar diseases, digestive system disorders, and obesity.
[†] Table presented weighted prevalence, which represents the overall national population. Standard population estimation for the year 2010 was obtained from the National Bureau of Statistics of China.
[§] CI=confidence interval, considered complex survey design.

and obesity were the most prevalent co-occurrence of three chronic conditions. According to a systemic review in Asia, cardiovascular and metabolic diseases were the most prevalent multimorbidity pattern, and the most common diseases identified in this pattern included hypertension, diabetes, dyslipidemia, coronary heart disease, kidney disease, stroke, and obesity (10). The combination of hypertension and dyslipidemia may be linked to increasing obesity in Chinese people. Moreover, obesity is also associated with multimorbidity. Notably, some chronic conditions are considered to be risk factors for other more serious diseases, for example, hypertension can often lead to cardiovascular disease and stroke. The

identification of these multimorbidity patterns could potentially recognize more serious diseases. Understanding the reasons for disease clusters may help to identify the possible etiology of clusters and prevent their development in the first place. On the other hand, from a clinical perspective, the identification of multimorbidity patterns contributes to developing more targeted treatments and care plans for patients with multimorbidity.

This study has some limitations. First, no mental health conditions were included in the study. Thus, the prevalence of multimorbidity might have been underestimated. Second, some chronic diseases were self-reported, leading to an underestimation owing to
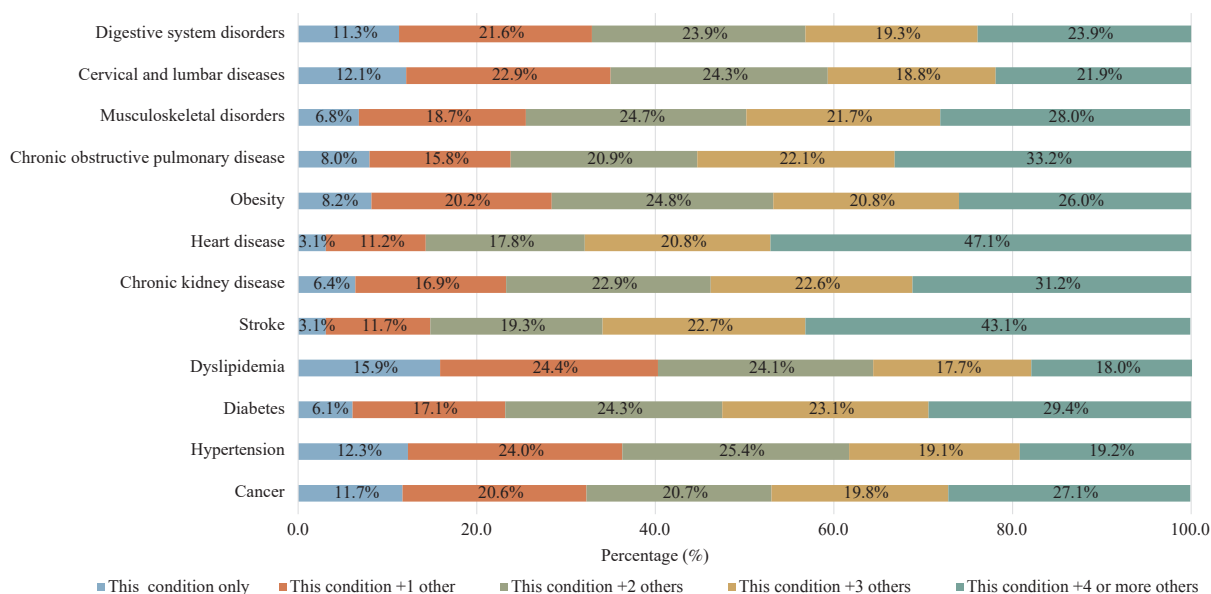
FIGURE 1. Distribution of multimorbidity of each chronic disease among adults — China, 2018.
Abbreviation: COPD=chronic obstructive pulmonary disease.

information bias. Third, some missing data on chronic conditions were excluded, resulting in significant differences in age, income, and ethnicity between the included participants and the excluded participants with missing values. This suggests that population representation was relatively limited. Therefore, the generalizability of the findings to other populations should be interpreted with caution.

In conclusion, this study used a nationally representative sample of Chinese adults to assess the prevalence and common patterns of multimorbidity. It is important to shift from single disease-oriented clinical guidelines to multimorbidity frameworks in Chinese populations, particularly among the elderly, people with low income, and those with low educational levels.

Conflicts of interest: No conflicts of interest.

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SUPPLEMENTARY TABLE S1. Definition/diagnostic criteria and prevalence of each chronic disease/condition included.

Chronic conditions	N	Prevalence (%)	Data collection	Definition/diagnostic criteria
Dyslipidemia	67,354	38.2	Laboratory test and/or self-report	Total cholesterol (TC) ≥6.22 mmol/L (240 mg/dL); or high density lipoprotein cholesterol (HDL-C) <1.04 mmol/L (40 mg/dL); or low density lipoprotein cholesterol (LDL-C) ≥4.14 mmol/L (160 mg/dL); or triglyceride (TG) 2.26 mmol/L (200 mg/dL), and/or have been diagnosed with dyslipidemia by hospitals at the township (community) level or above
Hypertension	69,578	28.1	Physical measurement and/or self-report	Systolic blood pressure ≥140 mmHg (18.6 kPa) and/or diastolic blood pressure ≥90 mmHg (12 kPa) without the use of anti-hypertensive drugs; and/or have been diagnosed with hypertension by hospitals at the township (community) level or above and have been taking medication for the last 2 weeks.
Cervical and lumbar diseases	51,186	24.5	Self-report	Cervical spondylosis, lumbar muscles strain, disc herniation.etc.
Diabetes	28,104	11.9	Laboratory test and/or self-report	Fasting blood glucose ≥7.0 mmol/L and/or 2 hours after taking sugar (OGTT-2h) blood glucose ≥11.1 mmol/L, and/or have been diagnosed with diabetes by hospitals at the township (community) level or above.
Chronic kidney disease	20,334	8.5	Laboratory test	Estimated glomerular filtration rate (eGFR) <60 mL/(min·1.73 m^2) or urine protein/creatinine ratio >30 mg/g was defined as chronic kidney disease.
Obesity	26,700	16.5	Physical measurement	BMI ≥28 kg/m^2
Digestive system disorders	30,187	14.9	Self-report	Gastritis, gastric ulcer, cirrhosis of liver or other digestive disease,etc.
Musculoskeletal disorders	33,929	13.0	Self-report	Osteoarthritis, musculoskeletal impairment due to injury, etc.
COPD	9,861	3.7	Self-report	Chronic obstructive pulmonary disease
Stroke	8,708	2.9	Self-report	Ischemic stroke and hemorrhagic stroke
Heart disease	6,595	2.2	Self-report	Myocardial infarction, angina, atrial fibrillation, heart bypass surgery, heart stent surgery
Cancer	3,545	1.7	Self-report	Cancer or malignant tumor (including benign craniocerebral tumor)

Abbreviation: BMI=body mass index; COPD=chronic obstructive pulmonary disease.

SUPPLEMENTARY TABLE S2. Prevalence and numbers of adults aged 18 years and older with chronic conditions* — China, 2018[†].

Characteristics	Number of chronic conditions, % (95% CI[§])					Mean numbers of multimorbidity (SD)
	0	1	2	3	≥4	
Total	26.5 (25.7–27.4)	27.0 (26.4–27.6)	20.8 (20.3–21.3)	13.2 (12.8–13.6)	12.4 (11.9–12.9)	1.7±1.5
Gender						
Male	21.7 (20.8–22.6)	28.2 (27.4–29.0)	23.1 (22.2–23.9)	14.5 (13.9–15.0)	12.5 (11.9–13.1)	1.7±1.4
Female	31.4 (30.4–32.5)	25.8 (25.1–26.5)	18.5 (18.0–19.0)	12.0 (11.5–12.5)	12.3 (11.7–12.9)	1.6±1.6
Age groups (years)						
18–44	37.4 (36.2–38.6)	30.5 (29.5–31.4)	18.2 (17.4–19.1)	8.9 (8.4–9.4)	5.0 (4.6–5.4)	1.2±1.2
45–59	15.0 (14.5–15.6)	25.2 (24.6–25.8)	24.9 (24.3–25.4)	17.5 (17.1–18.0)	17.4 (16.7–18.1)	2.1±1.5
≥60	7.3 (6.9–7.7)	18.0 (17.4–18.6)	23.4 (22.9–23.9)	21.4 (20.9–21.8)	29.9 (28.9–30.9)	2.7±1.7
Ethnicity						
Han	26.4 (25.6–27.3)	26.9 (26.3–27.6)	20.8 (20.3–21.4)	13.2 (12.8–13.6)	12.6 (12.1–13.1)	1.7±1.5
Minorities	27.7 (25.1–30.2)	27.7 (26.2–29.1)	20.4 (19.4–21.4)	13.5 (12.9–14.1)	10.7 (9.7–11.7)	1.6±1.5
Residency						
Urban	27.9 (26.8–29.0)	26.4 (25.6–27.3)	20.7 (20.0–21.5)	12.7 (12.1–13.3)	12.2 (11.4–13.0)	1.6±1.5
Rural	25.0 (23.9–26.1)	27.6 (27.0–28.3)	20.9 (20.3–21.5)	13.8 (13.5–14.2)	12.6 (12.0–13.2)	1.7±1.5
Household income (CNY)						
<15,000	21.5 (20.0–23.0)	25.2 (23.7–26.8)	21.3 (20.2–22.4)	15.4 (14.4–16.4)	16.6 (15.4–17.7)	1.9±1.6
15,000–	24.0 (22.8–25.1)	27.9 (26.5–29.4)	21.0 (20.0–22.0)	14.1 (13.4–14.8)	13.0 (12.3–13.7)	1.7±1.5
30,000–	26.0 (24.7–27.3)	27.3 (26.2–28.5)	21.5 (20.5–22.4)	13.3 (12.6–14.1)	11.9 (11.2–12.6)	1.7±1.6
>60,000	30.7 (29.3–32.2)	27.2 (26.0–28.4)	20.2 (19.3–21.2)	11.5 (10.8–12.3)	10.3 (9.4–11.1)	1.5±1.5
Unwilling to disclose	27.4 (26.0–29.0)	26.7 (25.5–28.0)	20.3 (19.2–21.4)	13.1 (12.3–13.9)	12.4 (11.7–13.2)	1.7±1.5
Education						
Illiterate	12.3 (11.4–13.2)	20.3 (19.4–21.1)	22.5 (21.6–23.4)	20.0 (19.2–20.8)	24.9 (23.6–26.2)	2.4±1.7
Primary	18.6 (17.7–19.6)	24.9 (24.0–25.7)	22.7 (22.0–23.4)	16.9 (16.0–17.7)	16.9 (16.0–17.7)	2.0±1.6
Secondary	27.2 (26.3–28.2)	28.6 (27.8–29.5)	21.0 (20.2–21.7)	12.2 (11.7–12.7)	10.9 (10.3–11.6)	1.6±1.5
Tertiary or higher	41.6 (39.7–43.5)	28.3 (26.9–29.7)	17.0 (15.7–18.3)	8.2 (7.4–9.0)	4.9 (4.3–5.6)	1.1±1.2
Region						
East	27.4 (26.3–28.5)	26.2 (25.3–27.1)	20.9 (20.0–21.8)	13.3 (12.6–13.9)	12.2 (11.4–12.9)	1.6±1.5
Center	24.8 (23.4–26.2)	27.4 (26.4–28.4)	20.9 (20.0–21.8)	13.4 (12.8–14.0)	13.4 (12.4–14.5)	1.7±1.6
West	27.2 (25.3–29.1)	27.8 (26.7–28.9)	20.5 (19.7–21.3)	12.9 (12.1–13.7)	11.6 (10.9–12.3)	1.6±1.5

Abbreviation: CI=confidence interval; SD=standard division; CNY=Chinese Yuan.
* 12 chronic conditions measured were: cancer, hypertension, diabetes, dyslipidemia, heart disease, stroke, chronic kidney disease, chronic obstructive pulmonary disease (COPD), musculoskeletal disorders, cervical and lumbar diseases, digestive system disorders, and obesity.
[†] Table presented weighted prevalence, which represents the overall national population. Standard population estimation for the year 2010 was obtained from the National Bureau of Statistics of China.
[§] Considered complex survey design.