

## Supplementary appendix A

Supplementary Notes .....	2
Appendix Table 1. Classification of service coverage indicators by tracer areas .....	11
Appendix Table 2. Tests for differences in means between full and used sample in the waves of NHSS 2008 and CHNS 2009 .....	12
Appendix Table 3. Trends of UHC indicators in 1997-1998, 2002-2004, and 2011-2013 .....	16
Appendix Table 4. Trends in Composite prevention index by various subgroups within China, 1993-2018 .....	17
Appendix Table 5. Trends in Composite treatment index by various subgroups within China, 1993-2018 .....	18
Appendix Table 6. Relative inequality index (RII) in 1993, 2008, and 2018 .....	19
Appendix Table 7. Trends in Catastrophic health expenditure by various subgroups within China, 1993-2018 .....	20
Appendix Table 8. Trends in Medical impoverishment by various subgroups within China, 1993-2018 .....	21
Appendix Table 9. Adjusted R squares used by general linear model, splines model and generalized additive model .....	22
Appendix Table 10. Sensitivity analysis of projections based on trends from 1993 to 2008 .....	23
Appendix Table 11. Sensitivity analysis of UHC indicators based on trends from 2003 and 2018 .....	24
Appendix Table 12. Results for composite prevention and treatment index using projections of CHNS indicators .....	25
Appendix Table 13. Sensitive analysis of meta-analysis .....	26
Appendix Table 14. Confidence intervals (CIs) of composite prevention and treatment index after applying multiplicity correction .....	27
Appendix Table 15. Confidence intervals (CIs) of financial protection indicators after applying multiplicity correction .....	28

## Supplementary Notes

### Description of four surveys used in this study

National Health Service Survey (NHSS) is a continuous cross-sectional survey implemented by the National Health Commission (NHC) of the People's Republic of China (1), aiming to identify the achievements and challenges in healthcare in the five years preceding the survey. NHSS is carried out every five years since 1993, and there are six waves (1993, 1998, 2003, 2008, 2013 and 2018) available so far. NHSS uses multi-stage stratified cluster random sampling strategy, covering 31 provinces (autonomous regions, and municipalities) in mainland China. NHSS is well representative at the national level and sub-region level. NHSS is widely used in research on health-related issues, such as healthcare utilization (2), medial expenditure (3), and determinants of health (4). Our study used all six waves for analysis, including 54984, 56994, 57023, 56456, 93613 and 94076 households, and 215163, 216101, 193689, 177501, 273688 and 256304 individuals in each wave.

China Health Nutrition Survey (CHNS) is a collaborative project between University of North Carolina at Chapel Hill and Chinese Center for Disease Control and Prevention. It uses a multi-stage random cluster sampling strategy to obtain sample households covering 31 provinces across China which varied largely in geography, economic development, public resources and health indicators. CHNS is used in research on nutrition (5), diseases prevalence and management (6), and determinants of health (7). CHNS data was first collected in 1989, and six waves are available by 2015. In consistence with the study period in NHSS, we used CHNS data in waves of 1993, 1997, 2004, 2009, 2011 and 2015. It is worth noting that during our study period, Heilongjiang province was added in 1997, while Beijing, Shanghai and Chongqing were added in 2011. Therefore, in consideration of continuity and comparison, we dropped the observations in Beijing, Shanghai and Chongqing in our study. As Heilongjiang was missed in only one wave, we kept its observations to ensure a large sample size. Finally, there are 13895, 14441, 12308, 12178, 15725 and 16622 individuals for each wave in our study.

Chinese Household Income Project (CHIP) is conducted by a team of Chinese and foreign researchers, and is implemented with the assistance of the National Bureau of Statistics (NBS), aiming to provide a dynamic assessment of income distribution in China. There are six waves available (1988, 1995, 2002, 2007, 2013 and 2018), and our study used the latest five waves. The sampling strategy varies slightly between each wave. In 1995, urban and rural sample were drawn from the NBS urban and rural household survey samples, respectively. Systematic sampling after sorting by income was used, yielding a sample covering 6868 urban households and 7998 rural households. Since 2002, CHIP has added a migrant sample to better reflect the characteristic of rural population mobility in China. The urban household survey, rural household survey and migrant survey were carried out by NBS, covering 6835, 9200 and 2000 households, respectively. In 2007, urban household samples, rural household samples and rural-urban migrant samples were included. The urban and rural household samples were drawn from the larger NBS household survey

samples conducted by NBS, while the migrant samples were collected by a separate survey. Finally, a sample covering 5000 urban households, 8000 rural households, and 5000 rural-urban migrant households were produced. There were still three types of household samples in 2013. However, they were all drawn from the NBS urban-rural integration household survey samples, yielding a sample of 7175 urban household, 11013 rural households, and 760 migrant households in 15 provinces. CHIP is used widely to discuss income-related issues in China, such as poverty (8) and income inequality (9), while health-related income issues were also frequently discussed (10,11).

RFPS is implemented by the Ministry of Agriculture, aiming to describe the social and economic picture in rural areas of China. RFPS is used to measure multiple dimensions of rural areas in China, such as poverty reduction (12) and rural health insurance (13). RFPS uses a multi-stage stratified random sampling strategy, and typically one village is selected in each county. RFPS data is collected based on the weekly accounting book in survey household, and covers detailed information of household income and expenditure, including total household expenditure and eight subcategories (13). RFPS has covered 23000 rural households of 360 villages in 31 provinces by 2017. RFPS was first carried out in 1986, and we used waves of 1995 and 2002 in our analysis to complement our results on financial protection in 1995 and 2002, given that questionnaires on household expenditures for rural households in CHIP 1995 and 2002 were not consistent with other waves.

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### Procedures of selecting indicators

Our selection of indicators is based on the framework proposed and recommended by the WHO and related international studies. This framework proposed by the WHO includes four tracer areas and 16 tracer indicators when monitoring UHC services coverage (1). The 16 indicators are family planning, antenatal care, DPT3 immunization, care-seeking behaviours for children with suspected pneumonia, tuberculosis treatment, HIV treatment, malaria prevention, water and sanitation, prevention of cardiovascular disease, management of diabetes, cancer detection and treatment, tobacco control, hospital access, health worker density, access to essential medicines, and health security. In addition, the existing studies on UHC progress evaluation include some other indicators such as postnatal care, exclusive breastfeeding, BCG immunization, polio3 immunization, measles immunization, non-overweight, institutional delivery, skilled birth attendance (2-4). We built a list of potential tracer indicators for our study based on the WHO report and these related studies. Then we select 24 indicators used in this study as follows.

First, we drop some indicators that are not suitable for measuring the UHC progress in China such as malaria prevention. China was certified malaria-free by the WHO in 2021 with no indigenous cases for four consecutive years and tremendous control efforts in the last 70 years (5). In fact, the incidence of malaria was extremely low during our study period. According to the China Health Statistics Yearbook, the incidence of malaria was 5.05 per 100,000 population in 1993 and dropped to 0.18 in 2018. Hence, we do not include it into our UHC framework.

Second, we select some indicators that are great important to measure China's conditions such as hepatitis B (HB3) immunization and non-underweight. China's burden of hepatitis B virus infection is the largest around the world (6). The Chinese government has given high priority to HB3 immunization for new-born babies since 1992 (7). Therefore, we include the indicator of HB3 immunization in our UHC framework. Similarly, China once had a high prevalence of malnutrition in 1990s (8) and low BMI is linked to some diseases as well, such as colorectal cancer (9). Therefore, in addition to the overweight indicator, we include the underweight indicator for our analysis.

Third, we have to drop some indicators due to unavailability of high-quality data sources. Some of them are replaced by other indicators with available data source. For example, we use outpatient and inpatient care seeking when needed for children aged 0-4 to be proxy for care-seeking behaviours for children with suspected pneumonia. We use outpatient and inpatient care seeking and travel time to the nearest medical facility to be proxy for hospital access and health worker density. As for other indicators such as diabetes management, cervical and breast cancer screening, there are no alternative indicators to replace them. In the discussion part, we would discuss this limitation and show how the data unavailability of these indicators would influence our results and conclusions.

As for financial protection, we use the two common indicators, including the incidences of catastrophic health expenditure and medical impoverishment. These two indicators have already been used in previous studies (10, 11).

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Calculation of incidences of catastrophic health expenditure and medical impoverishment

In this study, the incidence of catastrophic health expenditure (CHE) refers to the proportion of households whose health expenditure exceeds a certain threshold of ability-to-pay or total expenditures. Formally it could be written as follows:

$$I_{cat} = \frac{1}{N} \sum_{i=1}^N P_i \quad (1)$$

$$P_i = \begin{cases} 1, & \frac{\text{Medical Expenditure}}{\text{Ability to Pay}} > CHE_{threshold} \\ 0, & \text{Otherwise} \end{cases} \quad (2)$$

where  $I_{cat}$  is the incidence of CHE;  $P_i$  is the catastrophic measure;  $N$  is the sample size.

$$\text{When } CHE_{threshold} \text{ is } 0.4, \frac{\text{Medical Expenditure}}{\text{Ability to Pay}} = \frac{\text{Medical Expenditure}}{\text{Total Exp} - \text{Food Exp}}.$$

$$\text{When } CHE_{threshold} \text{ is } 0.25 \text{ and } 0.1, \frac{\text{Medical Expenditure}}{\text{Ability to Pay}} = \frac{\text{Medical Expenditure}}{\text{Total Exp}}.$$

We measure impoverishment incidence as the change in poverty headcount with and without including out-of-pocket healthcare spending in total consumption. Formally it could be written as follows:

$$H_{POV}^{Pre(Post)} = \frac{1}{N} \sum_{i=1}^N P_i^{Pre(Post)} \quad (3)$$

$$PI = H_{POV}^{Post} - H_{POV}^{Pre} \quad (4)$$

where  $H_{POV}^{Pre}$  denotes is the incidence (Headcount) of poverty when including health spending;  $P_i^{Pre}$  equal to 1, if  $\text{Expenditure per capita} < \text{Poverty line}$  and zero otherwise.  $H_{POV}^{Post}$  denotes is the incidence (Headcount) of poverty when excluding health spending;  $P_i^{Post}$  equal to 1, if  $\text{Expenditure per capita} - \text{Medical Expenditure} < \text{Poverty line}$  and zero otherwise.  $PI$  is the incidence of medical impoverishment, measured by the change in the incidence (Headcount) of poverty.

### Weighting method for estimating financial protection indicators

We used the CHIP dataset to calculate the incidence of catastrophic health expenditure (CHE) and medical impoverishment in urban area in 1995 and 2002, and that in both rural and urban areas in 2007, 2013 and 2018. We used RFPS dataset to calculate the incidence of CHE and medical impoverishment in rural area in 1995 and 2002 to complement our results. The critical consideration in using RFPS was the inconsistency in questionnaire questions in CHIP. Specifically, the CHIP survey investigated the net household income in rural area in 1995 and 2002 but recorded the annual household income after 2007. However, the RFPS collected the annual total income in rural areas, which was more consistent with the CHIP survey after 2002.

We used the method of weighting recommended by a previous study (1). The overall strategy we used was dividing China into several subregions based on regions (eastern, central and western regions) and areas (urban and rural areas). The division of areas and regions was in line with the categories of the National Bureau of Statistics. Specifically, the eastern region includes Beijing, Tianjin, Shanghai, Hebei, Liaoning, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong and Hainan, the central region includes Shanxi, Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei and Hunan, and the western region includes Inner Mongolia, Guangxi, Sichuan, Chongqing, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Qinghai, Ningxia and Xinjiang. It is worth noting that in order to align with the sampling technique, we selected Beijing, Tianjin and Shanghai as the representativeness of the municipalities (Chongqing was not a municipality in 1995. Hence, in order to be consistent, Chongqing was divided into western region) in CHIP dataset. Hence, we divided China into the following parts: the urban area in eastern region, the rural area in eastern region, the urban area in central region, the rural area in central region, the urban area in western region and the rural area in western region (The CHIP dataset also includes the urban area in municipalities and the rural area in municipality).

The formula of weighting is shown as follows:

$$w_i^k = \left( \frac{N^k * n}{n^k * N} \right) * \frac{N}{n} = \frac{S^k}{s^k} * \frac{N}{n}$$

$S^k$  represents the proportion of the population in category k among the national population.  $s^k$  represents the population in category k among the total population in the sample.  $N$  represents the national population.  $n$  represents the total population in the sample. As the incidence of CHE and Medical impoverishment were household-based, we still need to multiply the individual-level weights by family size to acquire the household-level weights.

For example, we obtained the national population and the population of the rural area in eastern region from the China Statistical Yearbook and the China Rural Statistical Yearbook. We calculated the total population and the population of the rural area in eastern region in the sample. Then we divided the proportion of the population of the rural area in eastern region among the national



population by the corresponding proportion in the sample, divided the national population by the total population in the sample, and multiplied the two together. Then we multiplied it by their family size to obtain final weights.

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Distribution of non-information prior in Bayesian linear model.

$y_i$  represents the value of the proportion of each indicator after logit transforming, and its distribution is as follows:

$$y_i \sim N(\mu_i, \sigma_i^2)$$

The distribution of the conditional mean  $\mu_i$  is as follows:

$$\mu_i = \beta_0 + \beta_1 x_i$$

$x_i$  represents the year,  $\beta_0$  is the intercept term, and  $\beta_1$  is the coefficient. The prior distributions of  $\beta_0$  and  $\beta_1$  are as follows:

$$\beta_0 \sim N(0, 0.0001)$$

$$\beta_1 \sim N(0, 0.0001)$$

and

$$\sigma^2 \sim N(0.0001, 100)$$

**Appendix Table 1. Classification of service coverage indicators by tracer areas**

<b>Tracer area</b>	<b>Prevention indicator</b>	<b>Treatment indicator</b>
Reproductive, maternal, new-born and child health (RMNCH)	<ul style="list-style-type: none"> <li>• At least four antenatal care visits (ANC4)</li> <li>• Postnatal care of mother</li> <li>• BCG immunization</li> <li>• DPT3 immunization</li> <li>• Polio3 immunization</li> <li>• Measles immunization</li> <li>• HB3 immunization</li> </ul>	<ul style="list-style-type: none"> <li>• Institutional delivery</li> <li>• Skilled birth attendance</li> <li>• Outpatient care seeking when needed (aged 0-4)</li> <li>• Inpatient care seeking when needed (aged 0-4)</li> </ul>
Infectious diseases	<ul style="list-style-type: none"> <li>• Improved water</li> <li>• Adequate sanitation</li> </ul>	<ul style="list-style-type: none"> <li>• Tuberculosis treatment</li> </ul>
Non-communicable diseases	<ul style="list-style-type: none"> <li>• Non-use of tobacco</li> <li>• Non-overweight</li> <li>• Non-underweight</li> </ul>	<ul style="list-style-type: none"> <li>• Normal blood pressure</li> <li>• Hypertension awareness</li> <li>• Hypertension treatment</li> <li>• Hypertension control</li> </ul>
Service capacity and access		<ul style="list-style-type: none"> <li>• Outpatient care seeking when needed</li> <li>• Inpatient care seeking when needed</li> <li>• Travel time to the nearest medical facility</li> </ul>

Notes: BCG = Bacillus Calmette - Guerin vaccine. DPT3 = three doses of diphtheria, pertussis, and tetanus vaccine. Polio3 = three doses of polio vaccine. HB3 = three doses of Hepatitis B vaccine.

**Appendix Table 2. Tests for differences in means between full and used sample in the waves of NHSS 2008 and CHNS 2009**

	Full sample		Used sample		P-value of differences
	N	% (95% CI)	N	% (95% CI)	
<b>Pregnancy and delivery care</b>					
Area					
Urban	1478	19·0(18·2-19·9)	1453	19·2(18·4-20·1)	p=0·75
Rural	6290	81·0(80·1-81·8)	6104	80·8(79·9-81·6)	p=0·75
Region					
Eastern	2570	33·1(32·0-34·1)	2531	33·5(32·4-34·6)	p=0·59
Central	2078	26·8(25·8-27·7)	2006	26·5(25·6-27·6)	p=0·77
Western	3120	40·2(39·1-41·3)	3020	40·0(38·9-41·1)	p=0·80
Income (mean, 95% CI)					
All	7756	5357·2(5186·9-5527·5)	7545	5389·6(5215·2-5564·1)	p=0·79
Q1	2460	1730·0(1706·4-1753·6)	2381	1733·8(1709·9-1757·7)	p=0·83
Q2	2218	3444·1(3423·6-3464·5)	2161	3443·0(3422·2-3463·7)	p=0·94
Q3	1904	5884·1(5837·9-5930·4)	1845	5881·7(5834·7-5928·7)	p=0·94
Q4	1174	15717·5(14827·1-16607·9)	1158	15755·4(14854·2-16656·5)	p=0·95
<b>Child immunization</b>					
Area					
Urban	1647	17·1(16·3-17·9)	1609	17·0(16·3-17·8)	p=0·92
Rural	7992	82·9(82·1-83·7)	7839	83·0(82·2-83·7)	p=0·92
Region					
Eastern	2837	29·4(28·5-30·4)	2794	29·6(28·7-30·5)	p=0·83
Central	2804	29·1(28·2-30·0)	2751	29·1(28·2-30·0)	p=0·97
Western	3998	41·5(40·5-42·5)	3903	41·3(40·3-42·3)	p=0·82
Income (mean, 95% CI)					
All	9625	4826·9(4698·5-4955·2)	9436	4832·7(4702·4-4962·9)	p=0·95
Q1	3473	1707·5(1687·6-1727·3)	3393	1708·6(1688·6-1728·7)	p=0·94
Q2	2744	3430·8(3412·4-3449·2)	2698	3428·6(3410·1-3447·1)	p=0·87
Q3	2198	5858·4(5815·7-5901·1)	2162	5862·4(5819·3-5905·5)	p=0·90
Q4	1210	15072·6(14304·3-15840·8)	1183	15113·4(14329·6-15897·1)	p=0·94
<b>Household conditions related to health</b>					
Area					
Urban	16802	29·8(29·4-30·1)	16728	29·7(29·3-30·1)	p=0·83
Rural	39654	70·2(69·9-70·6)	39590	70·3(69·9-70·7)	p=0·83
Region					
Eastern	19198	34·0(33·6-34·4)	19165	34·0(33·6-34·4)	p=0·93
Central	16799	29·8(29·4-30·1)	16781	29·8(29·4-30·2)	p=0·88
Western	20459	36·2(35·8-36·6)	20372	36·2(35·8-36·6)	p=0·82
Income (mean, 95% CI)					
All	56380	6596·2(6530·5-6661·8)	56244	6591·4(6525·7-6657·2)	p=0·92
Q1	15116	1700·4(1690·6-1710·2)	15085	1700·6(1690·8-1710·4)	p=0·98
Q2	13076	3436·8(3428·5-3445·2)	13056	3436·7(3428·3-3445·1)	p=0·98
Q3	14690	5971·8(5954·6-5989·1)	14655	5972·0(5954·7-5989·2)	p=0·99
Q4	13498	15818·9(15619·0-16018·8)	13448	15815·5(15615·0-16015·9)	p=0·98

(continued)

	Raw data		Used data		P-value of differences
N	% (95% CI)	N	% (95% CI)		
<b>No-use of tobacco</b>					
Area					
Urban	3609	33·9(33·0-34·8)	3608	33·9(33·0-34·8)	p=0·98
Rural	7038	66·1(65·2-67·0)	7032	66·1(65·2-67·0)	p=0·98
Region					
Eastern	3482	32·7(31·8-33·6)	3479	32·7(31·8-33·6)	p=0·99
Central	4582	43·0(42·1-44·0)	4579	43·0(42·1-44·0)	p=1·00
Western	2583	24·3(23·5-25·1)	2582	24·3(23·5-25·1)	p=0·99
Income (mean, 95% CI)					
All	10518	10771·7(10506·1-11037·3)	10512	10772·3(10506·6-11038·0)	p=1·00
Q1	2502	1951·8(1908·7-1994·9)	2500	1951·5(1908·4-1994·6)	p=0·99
Q2	2768	5433·5(5393·2-5473·7)	2767	5434·1(5393·9-5474·4)	p=0·98
Q3	2702	10178·6(10111·0-10246·3)	2700	10178·2(10110·5-10245·9)	p=0·99
Q4	2546	25872·3(25042·2-26702·3)	2545	25871·3(25040·9-26701·7)	p=1·00
<b>Non-overweight and Non-underweight</b>					
Area					
Urban	2811	33·5(32·5-34·5)	2585	32·7(31·6-33·7)	p=0·26
Rural	5583	66·5(65·5-67·5)	5329	67·3(66·3-68·4)	p=0·26
Region					
Eastern	2755	32·8(31·8-33·8)	2672	33·8(32·7-34·8)	p=0·20
Central	3738	44·5(43·5-45·6)	3521	44·5(43·4-45·6)	p=0·96
Western	1901	22·6(21·8-23·6)	1721	21·7(20·9-22·7)	p=0·17
Income (mean, 95% CI)					
All	8314	11000·4(10687·2-11313·7)	7837	10955·1(10646·9-11263·4)	p=0·84
Q1	1850	1960·4(1910·4-2010·4)	1734	1970·1(1918·5-2021·8)	p=0·79
Q2	2238	5449·6(5404·9-5494·3)	2104	5446·9(5400·9-5492·8)	p=0·93
Q3	2193	10163·6(10088·9-10238·2)	2071	10171·6(10094·8-10248·4)	p=0·88
Q4	2033	26240·1(25247·0-27233·2)	1928	25888·7(24938·4-26839·1)	p=0·62
<b>Normal blood pressure</b>					
Area					
Urban	3744	33·4(32·6-34·3)	3491	32·8(31·9-33·7)	p=0·32
Rural	7450	66·6(65·7-67·4)	7148	67·2(66·3-68·1)	p=0·32
Region					
Eastern	3610	32·2(31·4-33·1)	3526	33·1(32·3-34·0)	p=0·16
Central	4797	42·9(41·9-43·8)	4556	42·8(41·9-43·8)	p=0·97
Western	2787	24·9(24·1-25·7)	2557	24·0(23·2-24·9)	p=0·14
Income (mean, 95% CI)					
All	11059	10619·2(10364·2-10874·3)	10510	10642·5(10389·3-10895·6)	p=0·90
Q1	2686	1953·1(1911·6-1994·5)	2531	1959·0(1916·4-2001·5)	p=0·85
Q2	2927	5428·9(5389·8-5468·0)	2763	5429·5(5389·4-5469·6)	p=0·98
Q3	2824	10167·4(10101·4-10233·4)	2697	10172·0(10104·3-10239·6)	p=0·93
Q4	2622	25777·7(24968·2-26587·1)	2519	25589·1(24811·3-26366·8)	p=0·74

(continued)

	Raw data		Used data		P-value of differences
	N	% (95% CI)	N	% (95% CI)	
<b>Hypertension awareness</b>					
Area					
Urban	1021	34.7(33.0-36.5)	1018	34.8(33.1-36.6)	p=0.95
Rural	1918	65.3(63.5-67.0)	1906	65.2(63.4-66.9)	p=0.95
Region					
Eastern	1168	39.7(38.0-41.5)	1163	39.8(38.0-41.6)	p=0.98
Central	1257	42.8(41.0-44.6)	1250	42.7(41.0-44.6)	p=0.99
Western	514	17.5(16.2-18.9)	511	17.5(16.1-18.9)	p=0.99
Income (mean, 95% CI)					
All	2892	11185.6(10711.0-11660.2)	2877	11196.2(10719.9-11672.6)	p=0.98
Q1	675	1910.6(1827.5-1993.7)	669	1910.1(1826.7-1993.6)	p=0.99
Q2	698	5458.2(5377.6-5538.8)	695	5460.3(5379.8-5540.9)	p=0.97
Q3	735	10145.7(10012.9-10278.5)	733	10151.2(10018.2-10284.2)	p=0.95
Q4	784	25245.1(23994.8-26495.5)	780	25253.8(23997.6-26509.9)	p=0.99
<b>Hypertension treatment</b>					
Area					
Urban	1021	34.7(33.0-36.5)	1018	34.9(33.1-36.6)	p=0.93
Rural	1918	65.3(63.5-67.0)	1903	65.1(63.4-66.9)	p=0.93
Region					
Eastern	1168	39.7(38.0-41.5)	1163	39.8(38.1-41.6)	p=0.95
Central	1257	42.8(41.0-44.6)	1247	42.7(40.9-44.5)	p=0.95
Western	514	17.5(16.2-18.9)	511	17.5(16.2-18.9)	p=1.00
Income (mean, 95% CI)					
All	2892	11185.6(10711.0-11660.2)	2874	11195.8(10719.0-11672.6)	p=0.98
Q1	675	1910.6(1827.5-1993.7)	669	1910.1(1826.7-1993.6)	p=0.99
Q2	698	5458.2(5377.6-5538.8)	694	5462.2(5381.6-5542.8)	p=0.95
Q3	735	10145.7(10012.9-10278.5)	732	10153.9(10020.8-10286.9)	p=0.93
Q4	784	25245.1(23994.8-26495.5)	779	25257.3(23999.6-26515.1)	p=0.99
<b>Hypertension control</b>					
Area					
Urban	1021	34.7(33.0-36.5)	1003	34.6(32.9-36.4)	p=0.93
Rural	1918	65.3(63.5-67.0)	1894	65.4(63.6-67.1)	p=0.93
Region					
Eastern	1168	39.7(38.0-41.5)	1156	39.9(38.1-41.7)	p=0.90
Central	1257	42.8(41.0-44.6)	1242	42.9(41.1-44.7)	p=0.94
Western	514	17.5(16.2-18.9)	499	17.2(15.9-18.6)	p=0.79
Income (mean, 95% CI)					
All	2892	11185.6(10711.0-11660.2)	2850	11127.9(10652.2-11603.5)	p=0.87
Q1	675	1910.6(1827.5-1993.7)	668	1906.5(1823.0-1990.0)	p=0.95
Q2	698	5458.2(5377.6-5538.8)	691	5453.2(5372.0-5534.5)	p=0.93
Q3	735	10145.7(10012.9-10278.5)	725	10148.6(10014.7-10282.6)	p=0.98
Q4	784	25245.1(23994.8-26495.5)	766	25215.3(23953.9-26476.7)	p=0.97

(continued)

	Raw data		Used data		P-value of differences
	N	% (95% CI)	N	% (95% CI)	
<b>Incidence of CHE</b>					
Area					
Urban	4999	38.5(37.6-39.3)	4986	38.4(37.6-39.2)	p=0.92
Rural	8000	61.5(60.7-62.4)	8000	61.6(60.8-62.4)	p=0.92
Region					
Eastern	5400	43.2(42.3-44.1)	5399	43.2(42.4-44.1)	p=0.96
Central	4499	36.0(35.2-36.8)	4491	36.0(35.1-36.8)	p=0.96
Western	2600	20.8(20.1-21.5)	2596	20.8(20.1-21.5)	p=0.98
Income (mean, 95% CI)					
All	12974	11103.1(10860.7-11345.6)	12961	11100.7(10858-11343.4)	p=0.99
Q1	3248	4128.9(4023.0-4234.8)	3243	4124.7(4018.7-4230.6)	p=0.96
Q2	3242	7299.3(7128.5-7470.2)	3238	7292.5(7121.6-7463.4)	p=0.96
Q3	3242	10908.0(10652.0-11164.0)	3239	10902.0(10645.9-11158.2)	p=0.97
Q4	3242	22089.3(21303.0-22875.6)	3241	22084.4(21297.9-22870.9)	p=0.99
<b>Incidence of MI</b>					
Area					
Urban	4999	38.5(37.6-39.3)	4977	38.5(37.7-39.4)	p=0.89
Rural	8000	61.5(60.7-62.4)	7936	61.5(60.6-62.3)	p=0.89
Region					
Eastern	5400	43.2(42.3-44.1)	5349	43.1(42.2-44.0)	p=0.85
Central	4499	36.0(35.2-36.8)	4477	36.1(35.2-36.9)	p=0.92
Western	2600	20.8(20.1-21.5)	2588	20.8(20.1-21.6)	p=0.94
Income (mean, 95% CI)					
All	12974	11103.1(10860.7-11345.6)	12913	11124.9(10881.4-11368.3)	p=0.90
Q1	3244	2420.2(2394.0-2446.3)	3219	2428.4(2402.4-2454.5)	p=0.66
Q2	3268	4933.1(4902.9-4963.4)	3254	4933.8(4903.5-4964.1)	p=0.98
Q3	3219	9773.7(9700.9-9846.4)	3202	9769.1(9696.2-9842.0)	p=0.93
Q4	3243	27326.0(26629.0-28023.1)	3238	27332.6(26634.6-28030.6)	p=0.99

Note: This table shows differences in means of some demographic and income variables between the full sample and the used sample in the waves of NHSS 2008, CHNS 2009, and CHIP 2007. There were no missing data in indicators of Tuberculosis treatment, Outpatient care seeking, Outpatient care seeking (aged 0-4), Inpatient care seeking, and Inpatient care seeking (aged 0-4). To save space, we appended ANC4, Postnatal care of mother, Institutional delivery, and Skilled birth attendance into Pregnancy and delivery care, appended BCG immunization, DPT3 immunization, Polio3 immunization, Measles immunization, HB3 immunization into Child immunization, appended Improved water, Adequate sanitation, and Time to the nearest medical facility into Household conditions related to health. ANC4 = At least four antenatal care visits; BCG = Bacillus Calmette - Guerin vaccine. DPT3 = three doses of diphtheria, pertussis, and tetanus vaccine. Polio3 = three doses of polio vaccine. HB3 = three doses of Hepatitis B vaccine. 95% confidence intervals are reported in parentheses.

**Appendix Table 3. Trends of UHC indicators in 1997-1998, 2002-2004, and 2011-2013**

	Coverage in year (95% confidence interval)		
	1997-1998	2002-2004	2011-2013
<b>Prevention indicators</b>			
At least four antenatal care visits	42.4(40.9-43.9)	53.7(52.7-54.7)	81.4(80.7-82.1)
Postnatal care of mother	52.2(50.7-53.7)	53.3(52.3-54.3)	64.2(63.3-65.1)
BCG immunization	93.5(85.1-98.0) <sup>†</sup>	95.9(95.5-96.3)	98.7(98.5-98.9)
DPT3 immunization	85.2(75.0-92.5) <sup>†</sup>	88.4(87.7-89.1)	92.5(92.1-92.9)
Polio3 immunization	86.8(77.0-93.8) <sup>†</sup>	89.8(89.2-90.4)	93.7(93.3-94.1)
Measles immunization	88.6(74.4-96.4) <sup>†</sup>	94.3(93.8-94.8)	97.3(97.0-97.6)
HB3 immunization	72.1(46.1-88.8) <sup>†</sup>	80.2(79.4-81.0)	93.3(92.9-93.7)
Non-use of tobacco	71.6(70.8-72.4)	73.4(72.6-74.3)	74.5(73.6-75.3)
Non-overweight	73.9(73.0-74.9)	64.1(63.1-65.2)	55.9(54.8-57.1)
Non-underweight	93.0(92.4-93.5)	94.6(94.0-95.0)	95.1(94.6-95.6)
Improved water	46.5(46.1-46.9)	52.2(51.8-52.6)	75.0(74.7-75.3)
Adequate sanitation	23.1(22.8-23.5)	27.1(26.7-27.5)	54.1(53.8-54.4)
<b>Composite prevention index</b>	71.1(55.8-84.3)	75.0(59.1-88.0)	84.2(73.6-92.5)
<b>Treatment indicators</b>			
Institutional delivery	50.3(48.8-51.8)	68.3(67.3-69.3)	96.3(96.0-96.6)
Skilled birth attendance	79.8(78.6-81.1)	84.1(83.4-84.9)	97.3(97.0-97.6)
Normal blood pressure	83.5(82.8-84.2)	78.0(77.2-78.8)	73.6(72.7-74.4)
Hypertension awareness	23.8(21.9-25.8)	37.5(35.5-39.5)	52.3(50.4-54.2)
Hypertension treatment	15.6(14.0-17.3)	27.3(25.5-29.1)	42.5(40.7-44.4)
Hypertension control	4.4(3.6-5.5)	10.9(9.7-12.3)	15.0(13.7-16.4)
Tuberculosis treatment	74.1(67.5-80.7)	65.8(58.1-73.5)	83.0(75.4-90.6)
Outpatient care seeking when needed	61.9(61.4-62.4)	51.1(50.5-51.7)	72.7(72.4-73.0)
Outpatient care seeking when needed (aged 0-4)	80.7(79.1-82.3)	76.3(73.9-78.7)	85.6(83.9-87.3)
Inpatient care seeking when needed	64.1(63.0-65.2)	72.5(71.5-73.5)	82.8(82.3-83.3)
Inpatient care seeking when needed (aged 0-4)	86.4(82.5-90.3)	93.4(90.4-96.5)	92.6(91.1-94.1)
Travel time to the nearest medical facility	68.8(68.4-69.2)	71.2(70.8-71.6)	73.6(73.4-73.9)
<b>Composite treatment index</b>	57.4(47.5-67.1)	62.1(52.2-71.4)	74.8(66.2-82.6)
<b>Financial protection</b>			
Catastrophic health expenditure		5.6(5.0-6.2)	5.1(4.7-5.5)
Medical impoverishment		1.2(1.0-1.5)	1.3(1.1-1.5)

Notes: The results for immunization rates in 1998 were imputed using Bayesian linear regression. Hence, for these values, credible interval (CrI) was reported in parentheses instead of confidence interval (CI), and we used <sup>†</sup> to distinguish. BCG = Bacillus Calmette - Guerin vaccine. DPT3 = three doses of diphtheria, pertussis, and tetanus vaccine. Polio3 = three doses of polio vaccine. HB3 = three doses of Hepatitis B vaccine. Composite prevention index and Composite treatment index were computed using meta-analysis.



**Appendix Table 4. Trends in Composite prevention index by various subgroups within China, 1993-2018**

	<b>1993</b>	<b>1998</b>	<b>2003</b>	<b>2008</b>	<b>2013</b>	<b>2018</b>
overall	65.6(52.1-77.9)	71.1(55.8-84.3)	75.0(59.1-88.0)	78.8(63.6-90.7)	84.2(73.6-92.5)	87.7(81.8-92.6)
urban	81.7(68.6-91.9)	84.7(75.1-92.2)	87.5(79.9-93.4)	85.9(79.7-91.2)	87.0(81.2-91.9)	88.2(84.1-91.7)
rural	58.2(38.0-76.9)	65.7(43.5-84.7)	69.9(46.1-89.0)	75.7(53.2-92.5)	81.5(64.8-93.7)	85.5(74.9-93.6)
eastern	76.4(61.2-88.7)	80.6(64.3-92.8)	81.9(67.2-92.9)	82.6(69.8-92.4)	86.4(77.6-93.3)	88.5(83.0-93.1)
central	64.3(48.5-78.7)	70.2(53.1-84.7)	73.0(56.3-86.9)	76.7(60.0-89.9)	83.0(71.9-91.7)	86.8(79.1-92.9)
western	59.4(44.4-73.6)	66.3(49.1-81.5)	72.2(54.7-86.7)	77.2(60.0-90.7)	83.4(70.9-93.0)	87.0(78.5-93.6)
Q1	54.2(35.1-72.7)	61.1(37.6-82.1)	65.9(41.5-86.6)	73.7(51.4-91.0)	80.2(63.4-92.7)	84.5(72.0-93.8)
Q2	57.8(36.5-77.6)	67.6(45.7-86.0)	71.0(49.0-88.8)	77.9(59.1-92.1)	83.7(70.9-93.3)	87.6(79.1-94.1)
Q3	69.7(54.6-82.8)	75.0(59.2-88.0)	78.7(64.2-90.2)	81.9(68.9-91.9)	86.3(78.4-92.6)	89.3(83.6-93.9)
Q4	80.4(69.0-89.7)	83.3(73.6-91.1)	86.0(78.4-92.2)	86.6(80.0-92.0)	88.2(83.1-92.6)	90.7(86.4-94.2)

Notes: Composite prevention index was computed using meta-analysis. Q1-Q4 represents income quartiles from the poorest to the richest. 95% confidence intervals are reported in parentheses.

**Appendix Table 5. Trends in Composite treatment index by various subgroups within China, 1993-2018**

	<b>1993</b>	<b>1998</b>	<b>2003</b>	<b>2008</b>	<b>2013</b>	<b>2018</b>
overall	57.1(43.5-70.1)	57.4(47.5-67.1)	62.1(52.2-71.4)	68.0(58.4-76.8)	74.8(66.2-82.6)	75.5(66.6-83.5)
urban	65.2(50.2-78.9)	63.5(50.9-75.3)	67.0(52.4-80.1)	71.5(61.4-80.7)	75.6(67.4-83.0)	77.0(69.9-83.4)
rural	53.9(36.7-70.6)	55.8(45.7-65.8)	60.3(51.2-69.0)	66.1(56.0-75.5)	74.5(64.6-83.3)	74.6(63.9-84.0)
eastern	62.8(49.4-75.3)	62.5(51.8-72.7)	67.9(55.3-79.3)	72.6(61.3-82.6)	75.6(66.5-83.8)	76.8(66.6-85.7)
central	57.1(41.7-71.9)	58.1(45.8-69.9)	61.6(49.0-73.5)	67.8(56.3-78.3)	73.5(64.2-81.9)	75.6(65.6-84.4)
western	53.4(39.7-66.8)	54.2(45.0-63.3)	58.0(50.0-65.9)	64.8(56.4-72.8)	74.5(65.6-82.5)	74.3(66.6-81.3)
Q1	49.6(32.2-67.1)	51.9(41.1-62.6)	56.8(48.4-65.1)	64.3(55.3-72.9)	72.0(61.1-81.7)	73.4(63.5-82.3)
Q2	55.0(37.9-71.5)	57.6(47.2-67.6)	61.5(51.3-71.2)	67.1(56.5-77.0)	75.2(64.7-84.4)	75.2(65.8-83.6)
Q3	59.6(46.2-72.4)	60.0(49.1-70.5)	64.4(52.2-75.8)	69.7(58.5-79.9)	74.7(64.9-83.5)	76.7(67.5-84.8)
Q4	66.5(53.5-78.4)	64.1(52.5-74.9)	69.4(55.6-81.6)	71.9(61.8-81.1)	76.9(67.4-85.3)	78.3(69.7-85.8)

Notes: Composite treatment index was computed using meta-analysis. Q1-Q4 represents income quartiles from the poorest to the richest. 95% confidence intervals are reported in parentheses.

**Appendix Table 6. Relative inequality index (RII) in 1993, 2008, and 2018**

Indicators	1993-1995			2007-2009			2015-2018		
	Coverage (95% CI)		RII (95% CI)	Coverage (95% CI)		RII (95% CI)	Coverage (95% CI)		RII (95% CI)
	Poorest quartile	Richest quartile		Poorest quartile	Richest quartile		Poorest quartile	Richest quartile	
<b>Prevention indicators</b>									
At least four antenatal care visits	5·8(5·3-6·2)	56·5(55·2-57·7)	2·8(-0·7-6·4)	52·8(51·0-54·7)	87·7(85·3-90·0)	0·7(0·4-1·0)	85·8(84·6-87·0)	98·6(98·0-99·1)	0·2(0·1-0·3)
Postnatal care of mother	40·4(39·4-41·3)	41·5(40·4-42·6)	0·0(-1·2-1·2)	51·1(49·2-52·9)	71·5(68·3-74·7)	0·5(0·0-0·9)	68·9(67·3-70·5)	82·0(80·4-83·7)	0·2(0·1-0·3)
BCG immunization	81·5(51·8-95·9) <sup>†</sup>	98·9(95·3-99·9) <sup>†</sup>	0·3(0·1-0·4)	98·4(98·0-98·9)	99·7(99·3-100·1)	0·0(0·0-0·0)	99·3(98·4-99·8) <sup>†</sup>	99·1(97·3-99·8) <sup>†</sup>	0·0(0·0-0·0)
DPT3 immunization	78·2(58·3-92·3) <sup>†</sup>	93·6(84·8-97·8) <sup>†</sup>	0·3(-0·1-0·7)	89·9(88·8-91·0)	92·5(90·4-94·5)	0·0(-0·1-0·1)	93·2(87·2-96·8) <sup>†</sup>	91·3(84·5-95·8) <sup>†</sup>	0·0(-0·2-0·1)
Polio3 immunization	77·4(49·9-93·0) <sup>†</sup>	93·1(81·6-98·4) <sup>†</sup>	0·3(0·1-0·4)	92·3(91·4-93·3)	92·6(90·6-94·7)	0·0(-0·1-0·1)	94·9(89·7-98·0) <sup>†</sup>	92·9(85·7-97·4) <sup>†</sup>	0·0(-0·1-0·0)
Measles immunization	66·2(33·6-88·6) <sup>†</sup>	77·3(48·8-93·4) <sup>†</sup>	0·2(-0·4-0·8)	91·9(90·9-92·9)	93·8(91·9-95·6)	0·0(0·0-0·0)	97·9(95·4-99·2) <sup>†</sup>	98·1(95·7-99·3) <sup>†</sup>	0·0(0·0-0·0)
HB3 immunization	34·6(9·0-72·6) <sup>†</sup>	91·3(75·5-98·1) <sup>†</sup>	1·3(0·7-1·9)	91·8(90·8-92·8)	95·5(93·9-97·1)	0·0(0·0-0·1)	97·1(92·6-99·1) <sup>†</sup>	94·1(86·5-97·9) <sup>†</sup>	0·0(-0·1-0·0)
Non-use of tobacco	70·8(68·9-72·6)	69·8(67·9-71·7)	0·0(-0·1-0·1)	72·5(70·7-74·2)	75·0(73·3-76·6)	0·1(0·0-0·2)	76·2(74·6-77·8)	77·7(75·7-79·5)	0·0(0·0-0·1)
Non-overweight	83·8(82·0-85·4)	73·1(71·0-75·0)	-0·2(-0·4-0·0)	62·1(59·7-64·3)	54·2(52·0-56·4)	-0·2(-0·4-0·1)	53·1(50·8-55·3)	49·7(47·1-52·3)	-0·1(-0·3-0·1)
Non-underweight	90·9(89·5-92·2)	92·7(91·4-93·8)	0·0(0·0-0·1)	92·7(91·4-93·8)	94·9(93·8-95·8)	0·0(0·0-0·1)	94·7(93·5-95·6)	96·4(95·3-97·2)	0·0(0·0-0·1)
Improved water	15·9(15·3-16·5)	85·2(84·6-85·8)	2·2(0·4-4·0)	40·1(39·4-40·9)	82·8(82·1-83·5)	1·0(0·4-1·6)	65·4(64·8-66·0)	89·8(89·4-90·1)	0·4(0·3-0·6)
Adequate sanitation	9·0(8·5-9·5)	59·6(58·8-60·4)	3·2(-2·3-8·8)	10·3(9·8-10·7)	71·2(70·4-72·1)	2·4(0·6-4·2)	42·2(41·6-42·8)	90·0(89·6-90·4)	1·0(0·5-1·4)
<b>Treatment indicators</b>									
Institutional delivery	13·5(12·8-14·1)	79·5(78·6-80·4)	2·2(0·4-4·1)	80·5(79·1-82·0)	94·9(93·4-96·5)	0·2(0·1-0·4)	98·0(97·5-98·5)	99·0(98·6-99·5)	0·0(0·0-0·0)
Skilled birth attendance	62·8(61·8-63·7)	96·0(95·6-96·5)	0·5(0·3-0·8)	86·6(85·3-87·8)	96·8(95·5-98·1)	0·1(0·0-0·3)	96·5(93·2-98·5) <sup>†</sup>	98·9(97·8-99·5) <sup>†</sup>	0·0(0·0-0·1)
Normal blood pressure	89·3(88·1-90·4)	84·7(83·2-86·0)	-0·1(-0·1-0·0)	73·3(71·6-75·0)	68·9(67·0-70·7)	-0·1(-0·3-0·1)	64·4(62·6-66·2)	62·6(60·2-64·9)	0·0(-0·2-0·1)
Hypertension awareness	22·8(18·0-28·4)	37·7(32·8-42·8)	0·6(0·4-0·8)	39·0(35·4-42·8)	55·1(51·6-58·6)	0·5(-0·4-1·3)	41·8(38·7-45·0)	50·9(47·0-54·8)	0·3(-0·2-0·8)
Hypertension treatment	11·2(7·9-15·5)	24·0(19·9-28·6)	0·9(-0·3-2·1)	29·4(26·1-33·0)	47·2(43·8-50·8)	0·7(-0·3-1·7)	32·9(30·0-36·0)	43·6(39·7-47·5)	0·4(-0·2-1·1)
Hypertension control	6·2(3·9-9·6)	6·5(4·4-9·4)	0·2(-1·6-2·0)	10·6(8·5-13·2)	14·6(12·3-17·3)	0·5(-0·8-1·8)	9·6(7·9-11·8)	16·1(13·3-19·2)	0·7(0·2-1·2)
Tuberculosis treatment	54·6(45·7-63·6)	62·5(38·8-86·2)	0·2(-0·3-0·6)	84·0(73·8-94·2)	64·7(42·0-87·4)	-0·3(-0·6-0·0)	87·8(77·8-97·8)	100·0(100·0-100·0)	0·1(-0·5-0·7)
Outpatient care seeking when needed	64·7(63·7-65·8)	61·8(60·6-62·9)	-0·1(-0·2-0·1)	60·4(59·4-61·4)	67·5(66·4-68·6)	0·1(-0·2-0·5)	87·8(87·4-88·2)	89·9(89·5-90·3)	0·0(-0·1-0·1)
Outpatient care seeking when needed (0-4)	78·2(75·9-80·5)	81·3(77·9-84·8)	0·1(0·0-0·2)	77·0(73·7-80·3)	77·1(70·2-84·1)	0·0(-0·4-0·4)	88·7(86·8-90·6)	82·7(78·8-86·6)	-0·1(-0·1-0·1)
Inpatient care seeking when needed	66·4(64·6-68·2)	84·2(82·7-85·7)	0·3(0·3-0·4)	72·0(70·6-73·4)	82·8(81·2-84·4)	0·2(0·2-0·2)	74·8(74·0-75·6)	83·4(82·5-84·3)	0·1(0·1-0·2)
Inpatient care seeking when needed (0-4)	79·4(75·1-83·7)	88·9(83·8-94·0)	0·1(0·0-0·3)	91·9(88·1-95·7)	89·8(81·3-98·3)	0·0(-0·2-0·2)	90·6(88·1-93·1)	91·9(88·1-95·7)	0·0(-0·1-0·2)
Travel time to the nearest medical facility	56·4(42·1-69·6) <sup>†</sup>	72·7(62·8-81·8) <sup>†</sup>	0·4(0·1-0·6)	59·7(58·9-60·5)	79·3(78·6-80·1)	0·4(0·2-0·5)	74·6(74·1-75·2)	84·4(83·9-84·9)	0·2(-0·2-0·5)
<b>Financial protection</b>									
Catastrophic health expenditure	3·9(3·0-4·8)	2·7(1·8-3·6)	-0·5(-1·5-0·4)	9·8(8·7-11·0)	6·0(5·2-6·8)	-0·6(-1·1--0·1)	5·5(5·2-5·9)	2·3(2·1-2·5)	-1·2(-1·9--0·4)
Medical impoverishment	3·4(2·5-4·3)	0·2(0·0-0·4)	-2·9(-8·5-2·7)	6·6(5·7-7·5)	0·1(0·0-0·2)	-3·8(-12·0-4·4)	6·9(6·5-7·3)	0·1(0·1-0·2)	-4·4(-13·3-4·5)

Notes: RII represents relative inequality index. Quartiles are divided by household income per capita. 95% confidence intervals are reported in parentheses. The results for immunization rates in 1993 and 2018, skilled birth attendance in 2018, and travel time to the nearest medical facility in 1993 were imputed using Bayesian linear regression. Hence, for these values, credible interval (CrI) was reported in parentheses instead of confidence interval (CI), and we used <sup>†</sup> to distinguish. BCG = Bacillus Calmette - Guerin vaccine. DPT3 = three doses of diphtheria, pertussis, and tetanus vaccine. Polio3 = three doses of polio vaccine. HB3 = three doses of Hepatitis B vaccine.

**Appendix Table 7. Trends in Catastrophic health expenditure by various subgroups within China, 1993-2018**

	<b>1995</b>	<b>2002</b>	<b>2007</b>	<b>2013</b>	<b>2018</b>
overall	3·5(3·1-4·0)	5·6(5·0-6·2)	7·9(7·4-8·5)	5·1(4·7-5·5)	3·6(3·5-3·7)
urban	3·3(2·8-3·7)	4·7(4·2-5·2)	7·7(7·0-8·5)	3·4(3·0-3·9)	2·4(2·3-2·6)
rural	3·6(3·0-4·2)	5·9(5·2-6·7)	8·1(7·4-8·8)	6·8(6·3-7·3)	5·0(4·8-5·2)
eastern	3·2(2·4-4·0)	4·6(3·8-5·4)	6·2(5·5-6·9)	4·2(3·6-4·7)	2·9(2·7-3·1)
central	4·4(3·8-5·0)	5·8(5·1-6·5)	8·0(7·2-8·9)	5·6(5·0-6·2)	3·9(3·7-4·2)
western	3·0(1·9-4·1)	6·8(5·2-8·5)	10·7(9·4-12·0)	6·1(5·3-6·9)	3·5(3·2-3·7)
Q1	3·9(3·0-4·8)	6·5(5·3-7·6)	9·8(8·7-11·0)	7·8(6·9-8·7)	5·5(5·2-5·9)
Q2	4·2(3·2-5·1)	5·3(4·2-6·4)	7·8(6·8-8·8)	6·2(5·4-7·0)	3·9(3·6-4·1)
Q3	3·0(2·2-3·8)	5·2(4·1-6·2)	7·6(6·6-8·6)	3·5(2·9-4·1)	2·9(2·6-3·1)
Q4	2·7(1·8-3·6)	4·9(3·8-5·9)	6·0(5·2-6·8)	3·3(2·7-3·9)	2·3(2·1-2·5)

Notes: Q1-Q4 represents income quartiles from the poorest to the richest by household income per capita. 95% confidence intervals are reported in parentheses.

**Appendix Table 8. Trends in Medical impoverishment by various subgroups within China, 1993-2018**

	1995	2002	2007	2013	2018
overall	1.4(1.1-1.8)	1.2(1.0-1.5)	2.1(1.8-2.4)	1.3(1.1-1.5)	1.9(1.8-2.0)
urban	1.1(0.8-1.3)	0.7(0.5-0.9)	0.4(0.2-0.5)	0.2(0.1-0.3)	0.7(0.6-0.7)
rural	1.5(1.1-2.0)	1.4(1.0-1.8)	3.2(2.8-3.7)	2.5(2.2-2.9)	3.5(3.3-3.7)
eastern	0.8(0.4-1.1)	1.0(0.6-1.5)	1.2(0.9-1.5)	0.8(0.5-1.0)	1.1(1.0-1.2)
central	1.6(1.3-2.0)	1.7(1.2-2.1)	2.7(2.2-3.2)	1.6(1.3-1.9)	1.8(1.7-2.0)
western	2.3(1.1-3.4)	1.1(0.4-1.8)	2.8(2.0-3.5)	1.9(1.5-2.3)	2.7(2.5-2.9)
Q1	3.4(2.5-4.3)	2.8(2.1-3.6)	6.6(5.7-7.5)	5.0(4.3-5.7)	6.9(6.5-7.3)
Q2	0.7(0.3-1.1)	0.5(0.2-0.8)	0.6(0.3-0.8)	0.4(0.2-0.7)	0.9(0.8-1.1)
Q3	0.1(0.0-0.2)	0.1(0.0-0.2)	0.2(0.0-0.3)	0.1(0.0-0.2)	0.3(0.2-0.4)
Q4	0.2(0.0-0.4)	0.2(-0.1-0.5)	0.1(0.0-0.2)	0.0(0.0-0.0)	0.1(0.1-0.2)

Notes: Q1-Q4 represents income quartiles from the poorest to the richest by household income per capita. 95% confidence intervals are reported in parentheses.

**Appendix Table 9. Adjusted R squares used by general linear model, splines model and generalized additive model**

<b>Indicator</b>	<b>General linear model</b>	<b>Splines model</b>	<b>Generalized additional model</b>
<b>Prevention indicators</b>			
ANC4	0.97	0.98	1.00
Postnatal care of mother	0.86	0.94	0.99
BCG immunization	0.40	-	-
DPT3 immunization	1.00	-	-
Polio3 immunization	0.97	-	-
Measles immunization	0.09	-	-
HB3 immunization	0.50	-	-
Non-use of tobacco	0.89	0.89	0.94
Non-overweight	0.99	1.00	1.00
Non-underweight	0.88	0.90	0.88
Improved water	0.90	0.94	0.91
Adequate sanitation	0.88	0.99	0.98
<b>Composite prevention index</b>	0.99	1.00	0.99
<b>Treatment indicators</b>			
Institutional delivery	0.98	0.99	1.00
Skilled birth attendance	0.78	1.00	1.00
Normal blood pressure	0.97	0.96	0.96
Hypertension awareness	0.66	0.54	0.83
Hypertension treatment	0.85	0.81	0.94
Hypertension control	0.71	0.69	0.76
Tuberculosis treatment	0.77	0.84	0.81
Outpatient care seeking	0.41	0.95	0.93
Outpatient care seeking (aged 0-4)	0.38	0.68	0.56
Inpatient care seeking	0.30	0.84	0.73
Inpatient care seeking (aged 0-4)	0.30	0.84	0.73
Time to the nearest medical facility	0.63	0.87	0.99
<b>Composite treatment index</b>	0.93	0.92	0.98

Note: Restricted cubic splines model with three knots and generalized additive model with three degrees of freedom were used to fit the observed data. The reason of selecting three knots and three degrees of freedom was that there were no obvious advantages when using higher knots and degrees. We performed logit transformation on the proportion before the analysis. ANC4 = At least four antenatal care visits; BCG = Bacillus Calmette - Guerin vaccine. DPT3 = three doses of diphtheria, pertussis, and tetanus vaccine. Polio3 = three doses of polio vaccine. HB3 = three doses of Hepatitis B vaccine.

**Appendix Table 10. Sensitivity analysis of projections based on trends from 1993 to 2008**

	Predicted coverage (95% CrI)		Observed coverage (95% CI)	
	2011-2013	2015-2018	2011-2013	2015-2018
<b>Prevention indicators</b>				
<i>Composite prevention index</i>	82.2(75.8-87.9)	85.1(77.1-90.9)	84.2(73.6-92.5)	87.7(81.8-92.6)
ANC4	78.9(67.3-87.8)	86.9(75.1-94.3)	81.4(80.7-82.1)	92.9(92.4-93.4)
Postnatal care of mother	59.1(45.9-71.4)	61.8(44.5-77.2)	64.2(63.3-65.1)	74.6(73.8-75.4)
BCG immunization	99.6(98.6-99.9)	-	98.7(98.5-98.9)	-
DPT3 immunization	91.2(76.9-98.1)	-	92.5(92.1-92.9)	-
Polio3 immunization	93.5(83.3-98.4)	-	93.7(93.3-94.1)	-
Measles immunization	87.6(67.9-96.8)	-	97.3(97.0-97.6)	-
HB3 immunization	97.5(92.5-99.4)	-	93.3(92.9-93.7)	-
Non-use of tobacco	74.0(67.4-80.2)	74.6(65.8-82.3)	74.5(73.6-75.3)	76.5(75.7-77.3)
Non-overweight	55.3(44.1-65.3)	49.2(34.9-62.8)	55.9(54.8-57.1)	51.4(50.3-52.6)
Non-underweight	94.8(92.3-96.8)	95.3(92.2-97.5)	95.1(94.6-95.6)	95.3(94.8-95.7)
Improved water	61.5(48.3-71.8)	65.7(48.3-78.5)	75.0(74.7-75.3)	77.9(77.6-78.2)
Adequate sanitation	37.2(24.6-50.8)	42.1(25.7-60.8)	54.1(53.8-54.4)	68.5(68.2-68.8)
<b>Treatment indicators</b>				
<i>Composite treatment index</i>	70.0(57.1-80.9)	73.0(55.6-85.7)	74.8(66.2-82.6)	75.5(66.6-83.5)
Institutional delivery	93.1(86.5-96.9)	96.7(91.6-98.9)	96.3(96.0-96.6)	98.6(98.4-98.8)
Skilled birth attendance	92.5(85.9-96.6)	-	97.3(97.0-97.6)	-
Normal blood pressure	69.8(60.4-76.8)	64.6(52.1-74.4)	73.6(72.7-74.4)	64.0(63.0-65.0)
Hypertension awareness	45.0(30.3-59.2)	49.4(30.5-67.2)	52.3(50.4-54.2)	44.7(43.0-46.4)
Hypertension treatment	37.3(25.2-50.3)	43.8(27.1-60.8)	42.5(40.7-44.4)	36.8(35.1-38.4)
Hypertension control	13.8(7.8-21.9)	17.3(8.4-30.3)	15.0(13.7-16.4)	11.8(10.8-13.0)
Tuberculosis treatment	76.1(59.4-88.0)	78.4(55.5-92.3)	83.0(75.4-90.6)	90.6(84.4-96.8)
Outpatient care seeking	56.1(37.2-73.3)	54.6(30.3-77.3)	72.7(72.4-73.0)	88.2(88.0-88.4)
Outpatient care seeking (aged 0-4)	77.9(65.6-87.8)	77.1(59.3-90.0)	85.6(83.9-87.3)	85.8(84.7-87.0)
Inpatient care seeking	74.5(58.0-87.3)	75.1(52.1-90.6)	82.8(82.3-83.3)	78.5(78.1-78.9)
Inpatient care seeking (aged 0-4)	95.1(90.4-97.7)	96.3(91.0-98.8)	92.6(91.1-94.1)	90.6(89.2-91.9)
Time to the nearest medical facility	72.7(65.5-79.9)	73.8(63.3-83.6)	73.6(73.4-73.9)	81.7(81.5-82.0)

Note: Sensitivity analysis of UHC service coverage indicators was performed using trends from 1993 to 2008. BCG = Bacillus Calmette - Guerin vaccine. DPT3 = three doses of diphtheria, pertussis, and tetanus vaccine. Polio3 = three doses of polio vaccine. HB3 = three doses of Hepatitis B vaccine. CrI = credible interval.

**Appendix Table 11. Sensitivity analysis of UHC indicators based on trends from 2003 and 2018.**

	Predicted coverage in year (95% credible interval)		Probability of reaching UHC targets
	2025	2030	
<b>Prevention indicators</b>			
At least four antenatal care visits	97·0(93·8-98·8)	98·5(96·3-99·6)	100·0
Postnatal care of mother	80·3(66·9-89·9)	84·5(68·9-93·9)	82·6
BCG immunization	99·6(98·4-100·0)	99·7(98·6-100·0)	100·0
DPT3 immunization	95·2(88·0-98·4)	95·9(87·7-99·1)	99·2
Polio3 immunization	96·1(88·8-99·1)	96·6(87·5-99·5)	99·7
Measles immunization	97·9(91·1-99·8)	98·2(89·6-99·9)	99·6
HB3 immunization	98·2(93·8-99·8)	98·8(94·7-99·9)	99·8
Non-use of tobacco	78·0(62·8-88·6)	78·9(59·4-91·3)	49·5
Non-overweight	39·9(24·1-56·2)	34·6(16·9-56·1)	0·1
Non-underweight	95·4(90·3-98·1)	95·5(88·5-98·6)	99·6
Improved water	86·8(76·3-93·6)	90·7(79·9-96·7)	97·5
Adequate sanitation	82·6(70·0-91·4)	89·4(77·6-96·0)	95·4
<b>Treatment indicators</b>			
Institutional delivery	99·7(99·5-99·9)	99·9(99·8-100·0)	100·0
Skilled birth attendance	99·6(98·9-99·9)	99·8(99·4-100·0)	100·0
Normal blood pressure	51·4(29·6-73·3)	44·5(18·9-73·0)	1·1
Hypertension awareness	56·2(29·5-78·2)	59·5(24·7-85·3)	8·8
Hypertension treatment	52·8(26·4-77·8)	57·9(24·4-86·0)	7·3
Hypertension control	16·2(5·5-34·0)	17·9(4·6-43·4)	0·2
Tuberculosis treatment	94·8(90·9-97·3)	96·8(93·2-98·7)	100·0
Outpatient care seeking when needed	93·4(86·7-97·3)	96·2(90·5-98·9)	100·0
Outpatient care seeking when needed (aged 0-4)	89·5(81·0-94·7)	91·2(81·1-96·4)	98·4
Inpatient care seeking when needed	83·4(70·4-92·7)	84·8(68·4-94·9)	80·5
Inpatient care seeking when needed (aged 0-4)	89·2(82·4-93·7)	87·8(77·8-94·0)	95·5
Travel time to the nearest medical facility	83·2(71·0-91·5)	85·4(69·9-94·4)	84·8
<b>Financial protection</b>			
Catastrophic health expenditure	2·2(0·9-4·7)	1·6(0·5-4·0)	0·0
Medical impoverishment	1·8(0·5-4·5)	1·9(0·3-6·4)	0·0

Note: Sensitivity analysis of UHC service coverage indicators was performed using trends from 2003 and onwards. Projections of financial protection indicators were performed using trends from 2007 and onwards. 95% credible intervals are reported in parentheses. BCG = Bacillus Calmette - Guerin vaccine. DPT3 = three doses of diphtheria, pertussis, and tetanus vaccine. Polio3 = three doses of polio vaccine. HB3 = three doses of Hepatitis B vaccine.



**Appendix Table 12. Results for composite prevention and treatment index using projections of CHNS indicators**

<b>Panel A</b>	<b>1993</b>	<b>1997-1998</b>	<b>2003-2004</b>	<b>2008-2009</b>	<b>2011-2013</b>	<b>2015-2018</b>
Calculated by observed data in different survey years						
Composite prevention index	65·6(52·1-77·9)	71·1(55·8-84·3)	75·0(59·1-88·0)	78·8(63·6-90·8)	84·2(73·6-92·5)	87·7(81·8-92·6)
Composite treatment index	57·1(43·5-70·1)	57·4(47·5-67·1)	62·1(52·3-71·4)	68·0(58·4-76·8)	74·8(66·2-82·5)	75·5(66·6-83·5)
<b>Panel B</b>	<b>1993</b>	<b>1998</b>	<b>2003</b>	<b>2008</b>	<b>2013</b>	<b>2018</b>
Calculated by mixture of observed and predicted data in the same year						
Composite prevention index	65·6(52·1-77·9)	71·1(57·2-83·2)	75·1(58·8-88·3)	79·0(63·1-91·2)	84·1(73·2-92·6)	87·4(81·8-92·2)
Composite treatment index	57·1(43·5-70·1)	58·9(49·6-68·0)	61·6(51·5-71·2)	67·7(58·2-76·4)	73·7(64·9-81·6)	77·3(70·2-83·6)

Notes: Panel A shows the results for composite prevention and treatment index using observed data from CHNS and NHSS. In this panel, we regard adjacent years as the same period to address inconsistencies in the timing of survey waves. In Panel B, we make projections of CHNS indicators in 1998, 2003, 2008, 2013 and 2018, and combine these predicted data with observed data from NHSS to calculate the composite prevention and treatment index. 95% confidence intervals are reported in parentheses.

**Appendix Table 13. Sensitive analysis of meta-analysis**

<b>dropped indicators</b>	<b>1993</b>	<b>1998</b>	<b>2003</b>	<b>2008</b>	<b>2013</b>	<b>2018</b>
<b>Prevention indicators</b>						
No drop	65.6(52.1-77.9)	71.1(55.8-84.3)	75.0(59.1-88.0)	78.8(63.6-90.8)	84.2(73.6-92.5)	87.7(81.8-92.6)
ANC4	69.4(55.1-82.0)	73.5(57.4-86.9)	76.7(59.8-90.1)	79.9(63.7-92.2)	84.4(73.1-93.1)	87.1(81.3-92.0)
Postnatal care of mother	67.3(51.3-81.4)	72.7(56.5-86.3)	76.8(59.8-90.1)	80.6(64.7-92.7)	85.7(74.7-94.0)	88.7(82.4-93.7)
BCG immunization	63.2(49.2-76.1)	68.5(52.7-82.4)	72.4(56.3-86.0)	76.0(60.8-88.4)	82.2(71.5-90.8)	86.0(79.8-91.2)
DPT3 immunization	64.0(50.0-76.9)	69.7(53.7-83.5)	73.6(56.9-87.4)	77.6(61.5-90.3)	83.3(72.0-92.2)	87.0(80.8-92.2)
Polio3 immunization	63.8(49.8-76.7)	69.5(53.6-83.3)	73.4(56.8-87.2)	77.3(61.3-90.0)	83.2(71.9-92.0)	86.9(80.7-92.0)
Measles immunization	63.8(49.8-76.7)	69.3(53.4-83.1)	72.7(56.4-86.4)	77.4(61.3-90.1)	82.6(71.6-91.3)	86.5(80.3-91.7)
HB3 immunization	66.2(52.0-79.0)	71.0(55.0-84.8)	74.5(57.5-88.3)	77.2(61.2-89.9)	83.2(71.9-92.1)	86.6(80.4-91.8)
Non-use of tobacco	65.1(51.2-77.8)	71.1(54.8-84.9)	75.1(58.0-88.9)	79.3(62.8-91.8)	85.0(73.8-93.5)	88.5(82.3-93.6)
Non-overweight	64.2(50.6-76.7)	70.9(54.8-84.6)	75.9(58.9-89.5)	80.4(64.2-92.5)	86.2(75.5-94.2)	90.0(84.6-94.4)
Non-underweight	62.7(50.0-74.4)	68.6(54.2-81.4)	72.7(56.3-86.4)	77.0(61.1-89.7)	82.9(71.6-91.8)	86.8(80.9-91.8)
Improved water	67.5(50.9-82.1)	73.2(52.2-89.8)	76.8(57.4-91.7)	80.5(62.0-93.9)	85.0(71.5-94.7)	88.5(80.0-94.8)
Adequate sanitation	69.5(56.0-81.6)	75.2(62.1-86.2)	78.8(66.1-89.1)	82.2(70.0-91.8)	86.4(77.8-93.1)	89.1(82.2-94.4)
<b>Treatment indicators</b>						
No drop	57.1(43.5-70.1)	57.4(47.5-67.1)	62.1(52.3-71.4)	68.0(58.4-76.8)	74.8(66.2-82.5)	75.5(66.6-83.5)
Institutional delivery	58.7(47.8-69.3)	58.1(47.6-68.2)	61.5(50.6-71.8)	65.7(56.0-74.9)	72.1(63.7-79.7)	72.3(63.2-80.5)
Skilled birth attendance	54.7(40.4-68.6)	55.2(44.7-65.5)	59.8(49.7-69.5)	65.2(55.9-74.0)	71.8(63.7-79.3)	72.7(63.1-81.4)
Normal blood pressure	53.9(40.0-67.5)	54.7(44.6-64.7)	60.5(49.8-70.7)	67.6(56.9-77.3)	74.9(65.5-83.2)	76.5(67.3-84.6)
Hypertension awareness	59.4(45.4-72.8)	60.6(50.8-69.9)	64.3(54.3-73.6)	70.0(60.4-78.9)	76.7(67.9-84.4)	78.0(69.3-85.7)
Hypertension treatment	60.9(47.1-73.9)	61.5(52.1-70.4)	65.2(55.6-74.2)	70.8(61.4-79.3)	77.4(68.9-84.9)	78.6(70.2-86.0)
Hypertension control	62.6(49.1-75.1)	63.2(54.8-71.1)	67.0(58.5-75.0)	73.2(65.5-80.2)	79.8(72.4-86.2)	80.8(73.8-87.0)
Tuberculosis treatment	56.9(42.7-70.5)	55.9(45.5-66.0)	61.7(51.5-71.5)	67.4(57.4-76.6)	74.1(65.0-82.2)	74.1(64.6-82.6)
Outpatient care seeking	56.5(40.0-72.2)	57.0(44.0-69.6)	63.1(52.7-72.8)	68.5(56.9-79.0)	75.0(63.7-84.8)	74.3(62.3-84.6)
Outpatient care seeking (aged 0-4)	54.8(40.5-68.6)	55.1(44.6-65.3)	60.7(50.3-70.6)	66.7(56.7-76.1)	73.7(64.5-81.9)	74.5(64.9-83.0)
Inpatient care seeking	55.3(40.6-69.6)	56.8(45.8-67.5)	61.1(50.3-71.3)	67.1(56.5-76.9)	74.0(64.1-82.8)	75.3(64.7-84.5)
Inpatient care seeking (aged 0-4)	54.5(40.3-68.3)	54.5(44.1-64.7)	58.6(48.3-68.5)	65.2(55.2-74.6)	72.8(63.6-81.1)	73.9(64.3-82.5)
Time to the nearest medical facility	56.5(42.2-70.3)	56.4(42.7-69.6)	61.2(48.6-73.1)	67.8(55.0-79.4)	74.9(63.1-85.1)	75.0(62.3-85.9)

Note: ANC4 = At least four antenatal care visits; BCG = Bacillus Calmette - Guerin vaccine. DPT3 = three doses of diphtheria, pertussis, and tetanus vaccine. Polio3 = three doses of polio vaccine. HB3 = three doses of Hepatitis B vaccine. In this table, we dropped an indicator every time and then calculated the composite prevention and treatment index again to see whether the results would change substantially. 95% confidence intervals are reported in parentheses.

**Appendix Table 14. Confidence intervals (CIs) of composite prevention and treatment index after applying multiplicity correction**

	1993	1998	2003	2008	2013	2018	Differences		
							1993-2008	2008-2018	1993-2018
<b>Composite prevention index</b>									
Urban	81.7(81.3-82.1)	84.7(84.2-85.1)	87.5(87.1-87.9)	85.9(85.5-86.3)	87.0(86.8-87.2)	88.2(87.9-88.4)	p< 0.0001	p< 0.0001	p< 0.0001
Rural	58.2(57.8-58.5)	65.7(65.3-66.0)	69.9(69.5-70.2)	75.7(75.4-76.0)	81.5(81.3-81.8)	85.5(85.3-85.8)	p< 0.0001	p< 0.0001	p< 0.0001
Eastern	76.4(76.0-76.8)	80.6(80.1-81.1)	81.9(81.5-82.3)	82.6(82.2-83.0)	86.4(86.1-86.7)	88.5(88.2-88.8)	p< 0.0001	p< 0.0001	p< 0.0001
Central	64.3(63.8-64.8)	70.2(69.6-70.7)	73.0(72.5-73.5)	76.7(76.2-77.2)	83.0(82.6-83.3)	86.8(86.5-87.1)	p< 0.0001	p< 0.0001	p< 0.0001
Western	59.4(59.0-59.9)	66.3(65.7-66.8)	72.2(71.7-72.6)	77.2(76.8-77.7)	83.4(83.1-83.8)	87.0(86.7-87.3)	p< 0.0001	p< 0.0001	p< 0.0001
Q1	54.2(53.7-54.7)	61.1(60.4-61.7)	65.9(65.4-66.5)	73.7(73.2-74.2)	80.2(79.8-80.5)	84.5(84.1-84.8)	p< 0.0001	p< 0.0001	p< 0.0001
Q2	57.8(57.2-58.3)	67.6(67.0-68.2)	71.0(70.5-71.6)	77.9(77.4-78.4)	83.7(83.3-84.0)	87.6(87.2-87.9)	p< 0.0001	p< 0.0001	p< 0.0001
Q3	69.7(69.2-70.2)	75.0(74.5-75.6)	78.7(78.2-79.2)	81.9(81.4-82.4)	86.3(85.9-86.6)	89.3(89.0-89.6)	p< 0.0001	p< 0.0001	p< 0.0001
Q4	80.4(79.9-80.9)	83.3(82.8-83.8)	86.0(85.5-86.5)	86.6(86.1-87.1)	88.2(87.9-88.6)	90.7(90.3-91.0)	p< 0.0001	p< 0.0001	p< 0.0001
<b>Composite treatment index</b>									
Urban	65.2(64.6-65.9)	63.5(62.9-64.2)	67.0(66.3-67.6)	71.5(70.9-72.2)	75.6(75.3-76.0)	77.0(76.7-77.3)	p< 0.0001	p< 0.0001	p< 0.0001
Rural	53.9(53.5-54.3)	55.8(55.4-56.3)	60.3(59.8-60.7)	66.1(65.7-66.5)	74.5(74.2-74.9)	74.6(74.3-74.9)	p< 0.0001	p< 0.0001	p< 0.0001
Eastern	62.8(62.2-63.4)	62.5(61.9-63.2)	67.9(67.2-68.5)	72.6(72.1-73.2)	75.6(75.2-76.1)	76.8(76.5-77.2)	p< 0.0001	p< 0.0001	p< 0.0001
Central	57.1(56.5-57.8)	58.1(57.4-58.8)	61.6(60.9-62.3)	67.8(67.2-68.5)	73.5(73.1-74.0)	75.6(75.2-76.0)	p< 0.0001	p< 0.0001	p< 0.0001
Western	53.4(52.8-54.0)	54.2(53.6-54.9)	58.0(57.4-58.6)	64.8(64.2-65.4)	74.5(74.1-75.0)	74.3(73.9-74.7)	p< 0.0001	p< 0.0001	p< 0.0001
Q1	49.6(48.9-50.3)	51.9(51.1-52.6)	56.8(56.1-57.6)	64.3(63.7-65.0)	72.0(71.4-72.5)	73.4(73.0-73.8)	p< 0.0001	p< 0.0001	p< 0.0001
Q2	55.0(54.3-55.7)	57.6(56.8-58.4)	61.5(60.7-62.2)	67.1(66.5-67.8)	75.2(74.6-75.8)	75.2(74.8-75.6)	p< 0.0001	p< 0.0001	p< 0.0001
Q3	59.6(58.9-60.3)	60.0(59.3-60.8)	64.4(63.7-65.1)	69.7(69.0-70.4)	74.7(74.2-75.3)	76.7(76.3-77.2)	p< 0.0001	p< 0.0001	p< 0.0001
Q4	66.5(65.8-67.2)	64.1(63.3-64.9)	69.4(68.6-70.1)	71.9(71.2-72.7)	76.9(76.3-77.6)	78.3(77.8-78.7)	p< 0.0001	p< 0.0001	p< 0.0001

Note: 99.44% (100% - 5%/9) confidence intervals are reported in parentheses.

**Appendix Table 15. Confidence intervals (CIs) of financial protection indicators after applying multiplicity correction**

	1995	2002	2007	2013	2018	Differences		
						1995-2007	2007-2018	1995-2018
<b>Incidence of CHE</b>								
Urban	3.3(2.7-3.9)	4.7(4.0-5.4)	7.7(6.7-8.7)	3.4(2.8-4.0)	2.4(2.2-2.6)	p< 0.0001	p< 0.0001	p< 0.0001
Rural	3.6(2.9-4.3)	5.9(5.0-6.8)	8.1(7.3-8.9)	6.8(6.1-7.5)	5.0(4.7-5.3)	p< 0.0001	p< 0.0001	p< 0.0001
Eastern	3.2(2.4-4.0)	4.6(3.7-5.5)	6.2(5.3-7.1)	4.2(3.4-5.0)	2.9(2.6-3.2)	p< 0.0001	p< 0.0001	p= 0.29
Central	4.4(3.6-5.2)	5.8(4.9-6.7)	8.0(6.9-9.1)	5.6(4.8-6.4)	3.9(3.6-4.2)	p< 0.0001	p< 0.0001	p= 0.08
Western	3.0(2.0-4.0)	6.8(5.4-8.2)	10.7(9.0-12.4)	6.1(5.1-7.1)	3.5(3.2-3.8)	p< 0.0001	p< 0.0001	p= 0.19
Q1	3.9(2.9-4.9)	6.5(5.3-7.7)	9.8(8.4-11.2)	7.8(6.6-9.0)	5.5(5.0-6.0)	p< 0.0001	p< 0.0001	p= 0.0003
Q2	4.2(3.2-5.2)	5.3(4.2-6.4)	7.8(6.5-9.1)	6.2(5.2-7.2)	3.9(3.5-4.3)	p< 0.0001	p< 0.0001	p= 0.43
Q3	3.0(2.1-3.9)	5.2(4.1-6.3)	7.6(6.3-8.9)	3.5(2.7-4.3)	2.9(2.5-3.3)	p< 0.0001	p< 0.0001	p= 0.72
Q4	2.7(1.9-3.5)	4.9(3.8-6.0)	6.0(4.8-7.2)	3.3(2.5-4.1)	2.3(2.0-2.6)	p< 0.0001	p< 0.0001	p= 0.18
<b>Incidence of MI</b>								
Urban	1.1(0.8-1.4)	0.7(0.4-1.0)	0.4(0.2-0.6)	0.2(0.0-0.4)	0.7(0.6-0.8)	p< 0.0001	p= 0.02	p= 0.0005
Rural	1.5(1.0-2.0)	1.4(1.0-1.8)	3.2(2.7-3.7)	2.5(2.1-2.9)	3.5(3.2-3.8)	p< 0.0001	p= 0.19	p< 0.0001
Eastern	0.8(0.4-1.2)	1.0(0.6-1.4)	1.2(0.8-1.6)	0.8(0.5-1.1)	1.1(0.9-1.3)	p= 0.06	p= 0.54	p= 0.08
Central	1.6(1.1-2.1)	1.7(1.2-2.2)	2.7(2.0-3.4)	1.6(1.2-2.0)	1.8(1.6-2.0)	p= 0.0001	p< 0.0001	p= 0.29
Western	2.3(1.5-3.1)	1.1(0.5-1.7)	2.8(1.9-3.7)	1.9(1.3-2.5)	2.7(2.4-3.0)	p= 0.28	p= 0.81	p= 0.24
Q1	3.4(2.5-4.3)	2.8(2.0-3.6)	6.6(5.4-7.8)	5.0(4.0-6.0)	6.9(6.4-7.4)	p< 0.0001	p= 0.52	p< 0.0001
Q2	0.7(0.3-1.1)	0.5(0.1-0.9)	0.6(0.2-1.0)	0.4(0.1-0.7)	0.9(0.7-1.1)	p= 0.66	p= 0.11	p= 0.28
Q3	0.1(-0.1-0.3)	0.1(-0.1-0.3)	0.2(0.0-0.4)	0.1(0.0-0.2)	0.3(0.2-0.4)	p= 0.33	p= 0.27	p= 0.04
Q4	0.2(0.0-0.4)	0.2(0.0-0.4)	0.1(-0.1-0.3)	0.0(0.0-0.0)	0.1(0.0-0.2)	p= 0.29	p= 0.93	p= 0.15

Note: 99.44% (100% - 5%/9) confidence intervals are reported in parentheses.