

Practice and Effect Evaluation of Hypertension Homogenization Management Model Under the “Walking Hospital” Mode in Primary Medical Institutions

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Purpose: To practice and evaluate the effectiveness of a hypertension homogenization management model under the “walking hospital” mode in primary medical institutions.

Methods: This study examines the impact of hypertension management under the “Walking Hospital” model in Wushan County, encompassing all eligible hypertension patients with established records from various townships and streets. The management approach involves standardized procedures, including unified blood pressure measurement, diagnostic evaluation, treatment follow-up, referral of acute and severe cases, and quality control standards. Data is collected through face-to-face interviews before and after the management initiative. Key indicators of observation include the status of hypertension control (awareness, treatment, and control rates) across different areas. Patient follow-up and data collection span from August 2023 to August 2024. Analysis is conducted using SPSS 22.0, with categorical variable data presented as percentages, and repeated measures ANOVA used for statistical analysis.

Results: Prior to the implementation of the aforementioned management strategies, the prevalence of hypertension awareness in Wushan County was 50.35% ($\pm 7.09\%$ SD), with a treatment rate of 42.73% ($\pm 7.20\%$ SD) and a control rate of 16.25% ($\pm 2.49\%$ SD). Following the implementation of these strategies, there was a significant increase in hypertension awareness to 72.85% ($\pm 4.99\%$ SD), treatment rate to 60.92% ($\pm 3.78\%$ SD), and control rate to 43.32% ($\pm 3.41\%$ SD) in Wushan County ($p < 0.0001$).

Conclusion: Wushan County's “walking hospital” for hypertension management employs standardized procedures, encompassing uniform blood pressure measurement, diagnostic evaluation, treatment monitoring, emergency protocols for acute and severe cases, and stringent quality control standards. This approach effectively enhances the awareness, treatment adherence, and control of hypertension in the region.

Keywords: hypertension, walking hospital, awareness rate, treatment rate, compliance rate

Introduction

With the improvement of people's living standards and the development of an aging population in China, the incidence of hypertension among Chinese people has been increasing year by year. In 2015, the prevalence of hypertension among people over 18 years old in China had reached 27.9%, and the number of new cases of hypertension exceeded 3 million people per year.¹ Hypertension is one of the main causes and risk factors for a variety of cardiovascular, cerebrovascular, renal, and vascular diseases. By affecting the structure and function of these target organs, it ultimately leads to organ failure.¹⁻³ Among the factors leading to death in Chinese residents, cardiovascular disease ranks first, with more than 50% of cardiovascular events being related to hypertension.⁴ The direct economic burden caused by hypertension reaches 210.3 billion yuan annually, accounting for 6.61% of the total health expenditure in China, imposing a serious burden on families and society.^{5,6}

The current situation of hypertension control in China is extremely severe, characterized by the phenomenon of “three highs and three lows”: high prevalence, high mortality, high disability rate, low awareness, low treatment rate, and low control rate.⁷ According to surveys, in 2002, the awareness rate of hypertension was 30.2%, the treatment rate was 24.7%, and the control rate was 6.1%. Even in 2015, these “three rates” were only 42.7%, 38.3%, and 14.5% respectively, still at a relatively low level.^{1,8}

The registered population of Wushan County, Chongqing, China, is approximately 460,000. In 2023, our medical team conducted a preliminary survey of the diagnosis and treatment of hypertension in the Futian Town and Longmen Subdistrict within the region. The findings were as follows: Futian Town has a population of 44,876, with 1526 cases of hypertension on file, a treatment rate of 38.2%, and a control rate of 14.8%; Longmen Subdistrict has a population of 10,643, with 502 cases of hypertension on file, a treatment rate of 40.0%, and a control rate of 14.9%. The treatment and control rates of the hypertensive population in this region are both lower than the national average, indicating that the situation of hypertension prevention and control in Wushan County is not optimistic.

However, Wushan County is located in the remote mountainous area of northeastern Chongqing and was once a national-level poverty-stricken county. The majority of the population in the county is rural, and it is an area with a lack of per capita medical resources. Therefore, Wushan County launched the “Walking Hospital” project in July 2023. The “Walking Hospital” is a medical assistance project guided by the Central Liaison Committee of the Chinese Peasants and Workers Democratic Party. Based on the current situation of the region’s medical and health services, and in combination with the advancement of regional medical community construction by the health administration department, the project equips primary care doctors with intelligent general practitioner assistant packages and an “Internet + Medical” platform.⁹ It integrates medical expert resources and establishes medical consortia with medical institutions at all levels to create a clear and efficient hierarchical medical system within the region: “County Hospitals - Township Health Centers or Community Service Centers - Village Clinics”. This system aims to significantly improve the capacity and level of primary medical services, ensuring that local residents can access high-quality medical services right at their doorstep.

Currently, the control of hypertension in Wushan County is unsatisfactory. After investigation by our research group, the reason may be related to the failure of primary care doctors to adopt a homogenized and standardized hypertension management model. Therefore, this study relies on the “National Guidelines for Hypertension Prevention and Treatment in Primary Settings” to formulate unified standards for blood pressure measurement, diagnosis and evaluation, treatment and follow-up, referral of acute and severe cases, and quality control. Then, through the “Walking Hospital” project, a hypertension management team composed of county-level specialists, township general practitioners, and village doctors is established to provide homogenized and standardized management for hypertension patients. This aims to improve the aforementioned “three rates” (awareness rate, treatment rate, and control rate) and hopefully improve the hypertension control situation in this region.

Data and Methods

General Information

All study subjects were adult hypertension patients aged 18 and above from the implementation area of the “Walking Hospital” project in Wushan County (a total of 13 townships or streets). Inclusion criteria: ① Age \geq 18 years; ② Residency \geq 6 months; ③ Diagnosis conforms to the diagnostic criteria of the “Chinese Guidelines for the Prevention and Treatment of Hypertension (2024 Revision)”, ie, without using antihypertensive drugs, non-diem measurements of office blood pressure on three separate days, systolic blood pressure (SBP) \geq 140 mmHg and/or diastolic blood pressure (DBP) \geq 90 mmHg; or previously diagnosed hypertension, currently taking antihypertensive medication. Exclusion criteria: ① Patients with secondary hypertension: hypertension caused by clear etiology (such as hypertensive renal disease, renovascular hypertension, primary aldosteronism, pheochromocytoma, Cushing’s syndrome, etc.); ② Patients with severe comorbidities: complicated with severe damage to target organs such as heart, brain, and kidney (such as acute myocardial infarction, unstable angina, stroke, renal failure, etc.), or severe diseases such as malignant tumors, with

a life expectancy of <1 year; ③ Patients with mental illness: suffering from severe mental illness, unable to cooperate to complete the study. ④ Pregnant or lactating women.

Methods

Survey participants: All hypertension patients who meet the above criteria from all townships and streets in the county will be included as research subjects. Patient information will be provided by primary care physicians who establish the medical records. The survey will be conducted through face-to-face interviews.

Blood pressure control standards: ① For general hypertension patients, the blood pressure control standard is $\leq 140/90$ mmHg. ② For patients with diabetes, coronary heart disease, or chronic kidney disease with proteinuria, if tolerated, the blood pressure control standard is $\leq 130/80$ mmHg. ③ For elderly patients aged 80 and above, the blood pressure control standard is $\leq 150/90$ mmHg.

The “Walking Hospital” and its Homogenization Strategy (as shown in Figure 1): (1) In county-level medical institutions: Hypertension specialists are responsible for establishing various standards for hypertension prevention and treatment, as well as developing the “Primary Care Hypertension Prevention and Management Flowchart”. They systematically train medical personnel in primary care facilities, conduct comprehensive quality assessments of treatment plans, and statistically analyze the current status of hypertension treatment within the region. They also develop educational materials such as videos and newsletters on hypertension prevention and treatment, and regularly conduct educational activities in townships and streets. (2) In township hospitals or community service centers: Conduct a comprehensive initial assessment of diagnosed hypertension patients, formulate medication plans, carry out health education, and perform annual evaluations; be responsible for referring patients with difficult-to-treat hypertension to higher-level facilities; ensure the availability of essential hypertension medications in village clinics. (3) In village clinics: Utilizing the “Walking Hospital”, conduct door-to-door hypertension screening, shifting the screening age from 35 years to 18 years. Refer diagnosed hypertension patients for initial assessment and upload their information to the township hospitals for comprehensive evaluation. Establish residents’ health records, and carry out health education, medication guidance, and follow-up evaluations. (4) Medication Guarantee: Under the background of “Tendering with

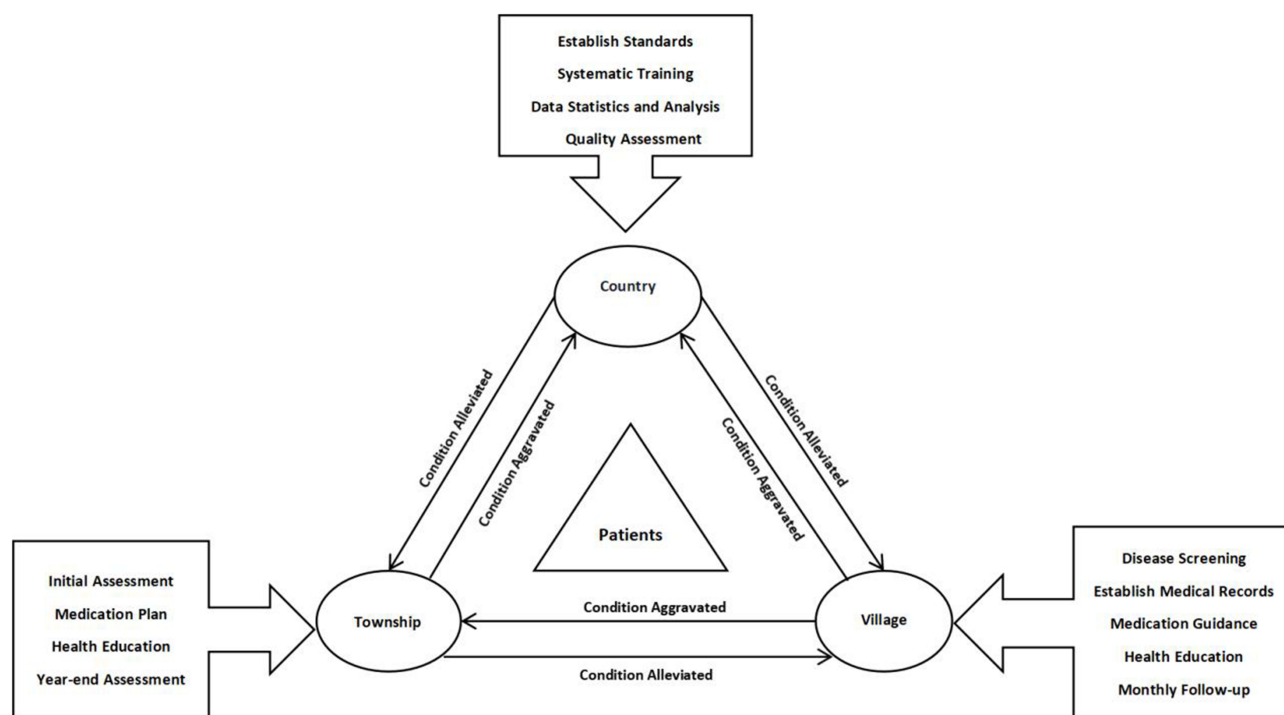


Figure 1 The “Walking Hospital” and its Homogenization Strategy.

Volume and Multi-provincial Alliance Tendering”, the prices of many commonly used hypertension medications and complication treatment drugs have dropped significantly. Medical institutions can increase the proportion of essential hypertension medications. This provides a guarantee for the homogenized treatment of hypertension patients, meeting the medication needs of primary care medical personnel and patients.

The implementation process is as follows: Commencing in August 2023, township health center physicians and village doctors will first establish patient records for hypertensive individuals in their respective areas. Subsequently, doctors from the county hospital will conduct an assessment of the three key hypertension indicators—awareness, treatment, and control rates—in each township of Wushan County. They will then guide the township health center physicians and village doctors in treating hypertensive patients according to the established standards. Six months later, the county hospital doctors will reevaluate the three hypertension indicators in each township. The entire process is scheduled to conclude by August 2024.

Quality Control: All participants in the survey are physicians with the title of attending physician or above, engaged in the diagnosis and treatment of cardiovascular diseases for 5 years or more. A quality control group is established in the county hospitals, which randomly selects 5% of the survey workload for review in each batch. Any identified issues are promptly feedback to the research team. Regular supervision is conducted in all survey areas, including the workflow, data storage, and other aspects.

Observational Indicators

Hypertension control status in each township or street (such as awareness rate, treatment rate, and blood pressure control rate); Follow-up with patients and collect blood pressure data from August 2023 to August 2024. Conduct interviews and record the information to understand patients’ awareness of hypertension and their medication status.

Data Analysis

The data will be organized and analyzed utilizing SPSS 22.0 software. Categorical data will be presented as percentages (%). Given the similarities in natural conditions and population characteristics across the townships, a repeated measures analysis of variance (ANOVA) will be utilized.

Results

Basic Information

Wushan County governs a total of 13 towns or streets, including Baolong Town, Futian Town, Gaotang Street, etc. In 2023, the number of managed hypertensive patients in the jurisdiction was 20,387, and in 2024, it was 25,686. For the specific details, please refer to [Table 1](#).

Table 1 Basic Information on the Number of Hypertensive Patients Managed in Each Jurisdiction of Wushan County

Serial Number	Town or Street	Number of Hypertensive Patients Managed in 2023	Number of Hypertensive Patients Managed in 2024
1	Baolong Town	1627	2392
2	Futian Town	2013	2722
3	Dachang Town	1526	2671
4	Gaotang Street	5035	6116
5	Guandu Town	2540	3335
6	Hongchun Tujia Ethnic Township	312	407

(Continued)

Table 1 (Continued).

Serial Number	Town or Street	Number of Hypertensive Patients Managed in 2023	Number of Hypertensive Patients Managed in 2024
7	Jianping Township	286	564
8	Longmen Street	502	835
9	Longxi Town	795	1160
10	Luoping Town	1288	1923
11	Miaoyu Town	2017	3291
12	Tonggu Town	1178	1898
13	Wuxia Town	1268	1878
-	Total	20387	25,686

The Awareness, Treatment, and Control Rates of Hypertension in Various Towns or Streets in 2023 and 2024

After the research team's visit and investigation, the awareness, treatment, and control rates of hypertension in various towns and streets under Wushan County in 2023 and 2024 are shown in Table 2.

Statistical Analysis

Each town or street in Wushan County serves as a data collection point to calculate the county's average values. The results are presented as mean \pm standard deviation, and a comparison is made between the awareness, treatment, and control rates of hypertension in 2023 and 2024. Prior to the implementation of the management strategies, the hypertension awareness rate in Wushan County was 50.35% ($\pm 7.09\%$ SD), with a treatment rate of 42.73% ($\pm 7.20\%$ SD) and a control rate of 16.25% ($\pm 2.49\%$ SD). After the implementation of these strategies, there was a significant increase in hypertension awareness to 72.85% ($\pm 4.99\%$ SD), in the treatment rate to 60.92% ($\pm 3.78\%$ SD), and in the control rate to 43.32% ($\pm 3.41\%$ SD) in Wushan County ($p < 0.0001$), as shown in Figure 2.

Table 2 The Awareness, Treatment, and Control Rates of Hypertension in Various Towns or Streets in 2023 and 2024

Town or Street	Awareness Rate in 2023 (%)	Treatment Rate in 2023 (%)	Control Rate in 2023 (%)	Awareness Rate in 2024 (%)	Treatment Rate in 2024 (%)	Control Rate in 2024 (%)
Baolong Town	45.2	42.5	18.7	72.3	59.3	40.3
Futian Town	50.3	43.7	16.3	71.5	62.1	42.3
Dachang Town	43.8	38.2	14.8	78.9	61.5	38.6
Gaotang Street	65.7	56.7	20.3	75.2	64.3	49.6
Guandu Town	56.8	46.8	13.8	69.2	54.5	43.1
Hongchun Tujia Ethnic Township	47.2	38.3	16.7	73.3	52.3	37.8
Jianping Township	40.3	35.6	15.2	65.6	63.5	43.9
Longmen Street	46.9	40.0	14.9	82.1	65.3	42.6
Longxi Town	47.5	40.3	13.7	70.3	62.2	43.6
Luoping Town	45.7	37.2	13.9	71.3	58.3	46.3
Miaoyu Town	50.2	37.7	15.2	72.8	65.2	47.7
Tonggu Town	53.7	40.2	16.2	69.2	61.2	40.6
Wuxia Town	62.3	58.3	21.5	75.6	62.3	46.8

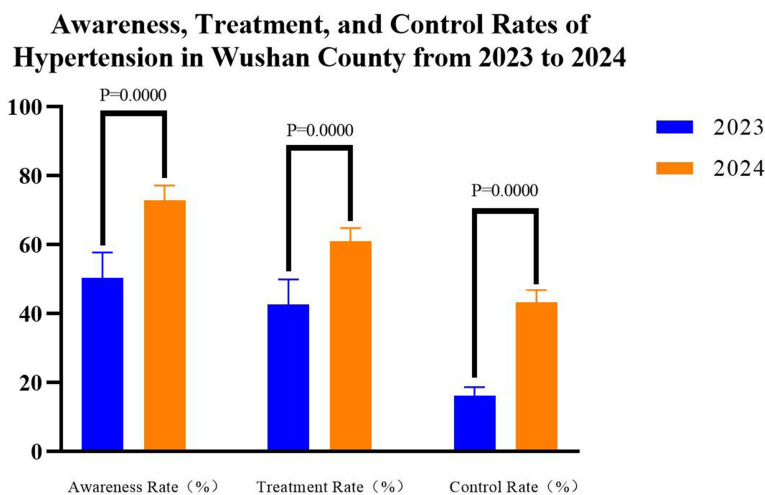


Figure 2 Awareness, Treatment, and Control Rates of Hypertension in Wushan County from 2023 to 2024.

Discussion

Hypertension is a pathological condition characterized by arterial blood pressure exceeding the normal range in a resting state. Typically, adult systolic blood pressure (SBP) ≥ 140 mmHg and/or diastolic blood pressure (DBP) ≥ 90 mmHg is defined as hypertension.¹⁰ According to the “China Cardiovascular Health and Disease Report 2023”, the prevalence of hypertension among the Chinese adult population reached 31.6% in 2023, an increase of 18% and 13.9% compared to 13.6% in 1991 and 17.7% in 2002, respectively, with an increasing trend of younger onset.¹¹ If left untreated, hypertension increases the risk of serious complications such as cardiovascular and cerebrovascular diseases, kidney disease, including myocardial infarction, heart failure, ischemic stroke, intracerebral hemorrhage, and renal failure.^{12–14} According to data from the World Health Organization (WHO) and the Global Burden of Disease Study (GBD), hypertension and its complications account for approximately 10.4 to 10.8 million deaths annually, which is 10% to 15% of the total global mortality.^{15,16} However, studies have shown that hypertension-related complications are preventable and manageable.¹⁵ For every 10 mmHg reduction in SBP or 5 mmHg reduction in DBP, the risk of death decreases by 10% to 15%, the risk of stroke decreases by 35%, the risk of coronary heart disease decreases by 20%, and the risk of heart failure decreases by 40%.^{17,18} Therefore, the prevention and control of hypertension is one of the core strategies to curb the prevalence of cardiovascular and cerebrovascular diseases in China.¹⁹

Early studies showed that the prevalence of hypertension in urban residents was higher than that in rural residents.^{20,21} However, recent studies have indicated a rapid increase in the number of people with hypertension in rural areas, which may be related to changes in lifestyle, accelerated aging processes, and relatively weak prevention and control capabilities for chronic diseases in rural areas.^{22,23} Rural residents typically have lower awareness, treatment, and control rates of hypertension compared to urban residents.^{24,25} Our research also supports this finding. As shown in Table 2, before the intervention of the “Walking Hospital” project, the awareness, treatment, and control rates of hypertension among patients in various towns and streets of Wushan County were generally at high levels. Due to the shortage of medical resources in rural areas, hypertensive patients in rural areas may face a greater risk of cardiovascular diseases, necessitating special attention and enhanced intervention measures.

There could be several reasons for this situation: 1. Residents lack health awareness and knowledge about hypertension prevention and treatment, and there are many cognitive misunderstandings, such as taking medication late, using medication based on feelings, stopping medication when blood pressure drops, etc., which prevents them from adhering to systematic treatment.²⁶ 2. Most medical staff in primary healthcare institutions are general practitioners who have not received professional training, and are unable to comprehensively assess the patient’s condition or provide personalized interventions in a standardized manner.²⁷ 3. There are fewer varieties of antihypertensive drugs available at the primary level, and there are many irrational phenomena in the process of use, such as repeated medication, unreasonable

combination medication regimens, use of non-long-acting antihypertensive drugs, and extensive use of domestically produced traditional fixed-combination preparations.²⁸

China's "National Guidelines for Hypertension Prevention and Treatment at the Primary Level" points out that primary healthcare institutions are the "main battlefield" for hypertension management, and their management level will directly affect the future trends of cardiovascular and cerebrovascular diseases in China.²⁹ Therefore, the standardized management and treatment of hypertension by primary healthcare professionals is crucial. This requires the development of unified standards and quality control programs for the diagnosis and treatment of hypertension for primary healthcare professionals, to improve their level of hypertension prevention and treatment, and to achieve homogenized and standardized treatment for hypertension patients across the entire region.

This study integrates the "Walking Hospital" platform to establish a regional medical service system. It is structured with county hospitals at the top tier, township health centers as intermediaries, and village clinics as the foundational unit. This three-tiered system fosters collaboration and efficient resource allocation among medical institutions at the county, township, and village levels, aiming to enhance primary healthcare services. The project transforms village clinics into pivotal stations for health management, providing comprehensive and high-quality care throughout the population's lifecycle. It strives to ensure that complex medical conditions can be managed within the county, while basic healthcare needs are met at the village level. This initiative significantly benefits the wider community, especially those who are elderly, disabled, or have mobility challenges, by offering convenient access to healthcare services.

Beyond this, we have also adopted a homogenized management strategy based on the "Walking Hospital" model. This strategy integrates medical resources, improves the quality of medical services, and strengthens health education activities for residents through the establishment of a three-tiered linked diagnosis and treatment system, with the aim of improving the management effectiveness of hypertensive patients. After a period of effort, the research results show that the "three rates" of hypertensive patients in Wushan County have significantly increased, with detailed data shown in [Figure 2](#). According to the "Healthy China 2030" plan, by 2030, the awareness rate of hypertension among residents aged 30 and over in our country should not be less than 65%, the standardized management rate should not be less than 70%, and the treatment rate and control rate should also continue to increase.³⁰ This improvement not only proves the effectiveness of the homogenized management strategy based on the Walking Hospital but also lays the foundation for Wushan County to achieve the goals proposed in the "Healthy China 2030" plan.

Conclusion

In summary, the homogeneous management model based on the "Walking Hospital" has significantly increased the awareness, treatment, and control rates of hypertension in Wushan County. We will further consolidate this strategy in Wushan County. We believe that through the promotion of this strategy, limited medical resources can be utilized more effectively, and the capacity of primary medical services can be improved. We look forward to suggesting the next step of implementing this strategy in a wider area of the Northeast Chongqing mountainous region. Providing scientific basis for government decision-making in the field of chronic disease management, promoting the formation of a more perfect and efficient chronic disease prevention and control system. Through such efforts, we expect to make a positive contribution to improving the health level of the entire population.

Ethics Statement

The Ethics Committee of Wushan County People's Hospital, Chongqing, based on the researcher's proactive declaration regarding the research, confirms that this study is exempt from ethical review as per Article 32 of the "Ethical Review Measures for Human Life Sciences and Medical Research".

Disclosure

The authors report no conflicts of interest in this work.

References

1. Wang JG, Zhang W, Li Y, et al. Hypertension in China: epidemiology and treatment initiatives. *Nat Rev Cardiol.* 2023;20(8):531–545. PMID: 36631532. doi:10.1038/s41569-022-00829-z
2. Grave C, Bonaldi C, Carcaillon-Bentata L, et al. Burden of cardio-cerebrovascular and renal diseases attributable to systolic hypertension in France in 2021. *Hypertension.* 2025;82(2):357–369. PMID: 39648886. doi:10.1161/HYPERTENSIONAHA.124.23760
3. Kai H. Prevention of atherosclerotic cerebro-cardiovascular disease: a key objective in blood pressure management for coronary artery disease in East Asia. *Hypertens Res.* 2025;48(2):830–832. PMID: 39478192. doi:10.1038/s41440-024-01966-3
4. Wang Z. Report on cardiovascular health and diseases in China 2023. *J Am Coll Cardiol.* 2023;81(10):1319–1339. doi:10.1016/j.jacc.2023.01.011
5. Zhai X, Zhou Z, Liu G, et al. Catastrophic health expenditure of households with hypertension: a comparative study in China. *Front Public Health.* 2023;11:1176170. PMID: 37361148; PMCID: PMC10285052. doi:10.3389/fpubh.2023.1176170
6. Liu G, Fang Q, Ji X, et al. Medical expenditure and its influencing factors of patients with hypertension in Shanxi Province, China: a study based on “system of health accounts 2011” and multiple-layer perceptron neural network. *BMJ Open.* 2022;12(3):e048396. PMID: 35241463; PMCID: PMC8895933. doi:10.1136/bmjopen-2020-048396
7. Huang XB, Zhang Y, Wang TD, et al. Prevalence, awareness, treatment, and control of hypertension in southwestern China. *Sci Rep.* 2019;9:19098. doi:10.1038/s41598-019-55438-7
8. Wang Z, Chen Z, Zhang L, et al. Status of hypertension in China: results from the China hypertension survey, 2012–2015. *Circulation.* 2018;137(22):2344–2356. doi:10.1161/CIRCULATIONAHA.117.032380
9. Central Liaison Committee of the Chinese Peasants and Workers Democratic Party. The walking hospital project. Available from: https://en.dl.gov.cn/art/2023/11/30/art_671_2292514.html. Accessed October 19, 2023.
10. Burlacu A, Kuwabara M, Brinza C, Kanbay M. Key updates to the 2024 ESC hypertension guidelines and future perspectives. *Medicina.* 2025;61(2):193. PMID: 40005310; PMCID: PMC11857694. doi:10.3390/medicina61020193
11. National Center for Cardiovascular Diseases The Writing Committee of the Report on Cardiovascular Health and Diseases in China. Report on cardiovascular health and diseases in China 2023: an updated summary. *Biomed. Environ. Sci.* 2024;37(9):949–992. doi:10.3967/bes2024.162
12. Ringwald-de Meyer S, de La Harpe R, Vollenweider P, Marques-Vidal P, Vaucher J. Factor associated with and risk of cardiovascular disease in people with uncontrolled hypertension. *Sci Rep.* 2025;15(1):375. PMID: 39748021; PMCID: PMC11697324. doi:10.1038/s41598-024-84824-z
13. GBD 2021 Stroke Risk Factor Collaborators. Global, regional, and national burden of stroke and its risk factors, 1990–2021: a systematic analysis for the global burden of disease study 2021. *Lancet Neurol.* 2024;23(10):973–1003. PMID: 39304265. doi:10.1016/S1474-4422(24)00369-7
14. Ameer OZ. Hypertension in chronic kidney disease: what lies behind the scene. *Front Pharmacol.* 2022;13:949260. PMID: 36304157; PMCID: PMC9592701. doi:10.3389/fphar.2022.949260
15. World Health Organization. Global report on hypertension: the race against a silent killer. *World Health Organization.* 2021. Available from: www.who.int/publications/i/item/9789240033986. Accessed September 24, 2025.
16. GBD 2019 Risk Factors Collaborators. Global burden of 87 risk factors in 204 countries and territories, 1990–2019: a systematic analysis for the global burden of disease study 2019. *Lancet.* 2020;396(10258):1223–1249. PMID: 33069327; PMCID: PMC7566194. doi:10.1016/S0140-6736(20)30752-2
17. Bergmann F, Prager M, Pracher L, et al. Systolic blood pressure targets below 120 mm Hg are associated with reduced mortality: a meta-analysis. *J Intern Med.* 2025;297(5):479–491. PMID: 40041991; PMCID: PMC12032999. doi:10.1111/joim.20078
18. Seidu S, Lawson CA, Kunutsor SK, et al. Blood pressure levels and adverse cardiovascular outcomes in heart failure: a systematic review and meta-analysis. *Eur J Heart Fail.* 2024;26(5):1111–1124. PMID: 38214669. doi:10.1002/ejhf.3108
19. Fan J, Zheng W, Liu W, et al. Cost-effectiveness of intensive versus standard blood pressure treatment in older patients with hypertension in China. *Hypertension.* 2022;79(11):2631–2641. PMID: 36177835. doi:10.1161/HYPERTENSIONAHA.122.20051
20. Lu J, Lu Y, Wang X, et al. Prevalence, awareness, treatment, and control of hypertension in China: data from 1.7 million adults in a population-based screening study (China PEACE Million Persons Project). *Lancet.* 2017;390(10112):2549–2558. Erratum in: *Lancet.* 2017 Dec 9;390(10112):2548. doi: 10.1016/S0140-6736(17)32897-0. PMID: 29102084. doi:10.1016/S0140-6736(17)32478-9
21. Sun G, Peng H, Liu S, et al. Hypertension control in China: translation from clinical trial to real-world application - preliminary outcomes. *China CDC Wkly.* 2025;7(20):685–689. PMID: 40620522; PMCID: PMC12227890. doi:10.46234/ccdcw2025.113
22. Hu SS; In China TWCOTROCHAD. Report on cardiovascular health and diseases in China 2021: an updated summary. *J Geriatr Cardiol.* 2023;20(6):399–430. PMID: 37416519; PMCID: PMC10320777. doi:10.26599/1671-5411.2023.06.001
23. The WCOTROCHADIC. Report on cardiovascular health and diseases in China 2022: an updated summary. *Biomed Environ Sci.* 2023;36(8):669–701. PMID: 37711081. doi:10.3967/bes2023.106
24. NCD Risk Factor Collaboration (NCD-RisC). Worldwide trends in hypertension prevalence and progress in treatment and control from 1990 to 2019: a pooled analysis of 1201 population-representative studies with 104 million participants. *Lancet.* 2021;398(10304):957–980. Erratum in: *Lancet.* 2022 Feb 5;399(10324):520. doi: 10.1016/S0140-6736(22)00061-7. PMID: 34450083; PMCID: PMC8446938. doi:10.1016/S0140-6736(21)01330-1
25. Cheng H, Gu Y, Ma X, Tang H, Liu X. Urban-rural disparities in hypertension prevalence, awareness, treatment, and control among Chinese middle-aged and older adults from 2011 to 2015: a repeated cross-sectional study. *BMC Cardiovasc Disord.* 2022;22(1):319. PMID: 35843959; PMCID: PMC9290206. doi:10.1186/s12872-022-02769-5
26. Wei J, Mi Y, Li Y, et al. Factors associated with awareness, treatment and control of hypertension among 3579 hypertensive adults in China: data from the China health and nutrition survey. *BMC Public Health.* 2021;21(1):423. PMID: 33648483; PMCID: PMC7919311. doi:10.1186/s12889-021-10417-4
27. Liu B, Xue Q, Li X, et al. Improving primary healthcare quality in China through training needs analysis. *Sci Rep.* 2024;14(1):30146. PMID: 39627421; PMCID: PMC11615283. doi:10.1038/s41598-024-81619-0
28. Su M, Zhang Q, Bai X, et al. Availability, cost, and prescription patterns of antihypertensive medications in primary health care in China: a nationwide cross-sectional survey. *Lancet.* 2017;390(10112):2559–2568. PMID: 29102087. doi:10.1016/S0140-6736(17)32476-5
29. Yin R, Yin L, Li L, et al. Hypertension in China: burdens, guidelines and policy responses: a state-of-the-art review. *J Hum Hypertens.* 2022;36(2):126–134. PMID: 34215840; PMCID: PMC8252986. doi:10.1038/s41371-021-00570-z
30. Hou L, Chen B, Ji Y, Wang B, Wu J. China CDC in action — hypertension prevention and control. *China CDC Weekly.* 2020;2(40):783–786. doi:10.46234/ccdcw2020.212

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