

Research Article

Prevalence, awareness, treatment, and control of hypertension in the older population: results from the multiple national studies on ageing



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Manuscript received September 19, 2015 and accepted November 27, 2015

Abstract

The international comparisons that provided useful epidemiologic information of hypertension in the elderly people is still sparse; we aim to provide the latest international estimates on the burden of hypertension. These sampling methods of the selection of surveys mainly used multistage population registry; this cross-national study of 63,014 adults aged ≥ 50 years was from in four high-income countries, four upper–middle–income countries (UMICs), and three low–middle–income countries (LMICs). Overall, the age-standardized prevalence of hypertension among the adult population aged ≥ 50 years was 53.2% (51.9% of men and 54.3% of women). The high-income countries and UMICs had more or less twice the prevalence of hypertension compare with LMICs. The rates of awareness, treatment, and control of hypertension were 55.6%, 44.1%, and 17.1%, respectively, and awareness and control of hypertension were lowest in UMICs and treatment of hypertension was lowest in LMICs. Among this multiple national study population, hypertension was very common among elderly population. Even more worrisome is that the rates of awareness, treatment, and control of hypertension were relatively low in UMICs and IMICs. These results indicate that improving the ability to control and prevention of hypertension in resource-limited settings is needed. *J Am Soc Hypertens* 2016;10(2):140–148. © 2016 American Society of Hypertension. All rights reserved.

Keywords: Control; cross-national studies; hypertension; prevalence.

Funding: This work is supported by “Study on the Vertical Integration Strategies in Health Services for Rural Patients with Chronic Diseases Based on Comprehensive Incentive Model” from the National Natural Science Fund of China (grant no.71473130), “Current status and implementation experiences of typical collaboration models between hospitals and community health service centers” from the general project of social science research for Jiangsu university, education department of Jiangsu province (grant no.2014SJB161), “Socioeconomic inequalities in prevalence and control of diabetes mellitus in the rural Shandong, China” (grant no. 2013NJMU029) from Nanjing Medical University School. However, the funding agencies had no role in the design, conduct analysis, and interpretation of this article.

Conflicts of interest: We declare that we have no conflicts of interest.

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Introduction

Hypertension is the most important risk factor for cardiovascular diseases, which accounts for nearly half of the cardiovascular morbidity and mortality¹ and led to at least 7.6 million deaths per year worldwide (13.5% of all deaths).² Even more worse is that nearly three-quarters of hypertension live in developing countries where people have a very low awareness of hypertension and poor blood pressure (BP) control.³ The health system in many developing countries is inadequate due to the limited health resources and inexperience of chronic disease prevention.³ And according to the Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure (JNC-7), more than 65% of the elderly people suffered from hypertension.⁴ Compared with the younger hypertensive patients, cardiovascular disease is significantly increased in the elderly people,⁵ which requires persistent adherence to prescribed medication and

Table 1

Characteristics of the national surveys and blood pressure (BP) measurement techniques of the surveys

Data Source	Survey Year(s)	Selected Wave	Sample Size	Age Range, y	Respondents Rates (%)	Population	BP Device	Location of BP Measurements	No. of BP Measurements	Resting Time Between Measurements, min
CRELES (Costa Rica)	2010	1	2729	55–65	66	National	OMRON brand digital monitors with automatic inflating, model HEM-711	The participants' homes	2	An average interval time of 20 minutes
SAGE (Mexico)	2007–2010	1	2117	50+	51	Regional	Boso Medistar Wrist Blood Pressure Monitor Model S	The participants' homes	3	At least 1 minute
SAGE (China)	2007–2010	1	12,403	50+	93	Regional	Boso Medistar Wrist Blood Pressure Monitor Model S	The participants' homes	3	At least 1 minute
SAGE (India)	2007–2010	1	6559	50+	68	Regional	Boso Medistar Wrist Blood Pressure Monitor Model S	The participants' homes	3	At least 1 minute
SAGE (Ghaha)	2007–2010	1	4294	50+	80	Regional	Boso Medistar Wrist Blood Pressure Monitor Model S	The participants' homes	3	At least 1 minute
SAGE (South Africa)	2007–2010	1	3758	50+	77	Regional	Boso Medistar Wrist Blood Pressure Monitor Model S	The participants' homes	3	At least 1 minute
SAGE (Russian)	2007–2010	1	3913	50+	83	Regional	Boso Medistar Wrist Blood Pressure Monitor Model S	The participants' homes	3	At least 1 minute
IFLS (Indonesia)	2007	4	6266	40+	90	Regional	The mercury sphygmomanometer	The respondent's home	2	10-Minute rest
HRS (the United States)	2012	11	7862	50+	88	National	Omron HEM-780N monitor, batteries, stopwatch	The respondent's home	3	Approximately 45 seconds to 1 minute
ELSA (the United Kingdom)	2012–2013	6	7351	50+	54.7	National	Calibrated Omron, small, medium, and large cuffs	The respondent's home	3	NA
TILDA (Ireland)	2009–2011	1	5847	50+	62	National	The OMRON digital automatic blood pressure monitor (Model M10-IT)	The health center and the home	2	1 Minute apart

CRELES, Costa Rican Study of Longevity and Healthy Aging; ELSA, English Longitudinal Study of Ageing; HICs, high-income countries; HRS, Health and Retirement Study; IFLS, Indonesia Family Life Survey; LMICs, low–middle–income countries; NA, data not available; TILDA, The Irish Longitudinal Study on Ageing; UMICs, upper–middle–income countries; WHO-SAGE, WHO Study on Global Ageing and Adult Health (WHO-SAGE, including SAGE in Mexico, India, Ghaha, South Africa, Russian Federation, and China).

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