

Hypertension as a Public Health Problem in India.

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ABSTRACT

The greatest risk factor for morbidity and mortality worldwide is hypertension. With an estimated 100 million cases, it has reached epidemic proportions in India. The disease has been spreading faster in rural areas than in cities in recent decades. In India, only 20% of patients with hypertension have their condition under control, with approximately one-third of patients receiving therapy. To prevent the burden of early cardiovascular disease owing to hypertension, creative system-based techniques combining physician-led clinic-based therapy and public health initiatives are needed.

KEYWORDS : Cardiovascular disease, Hypertension epidemiology, Public health approach, Risk factors.

INTRODUCTION

A illness becomes important for public health when its prevalence crosses a predetermined threshold (usually >5%). The description of hypertension, which has been dubbed endemic, epidemic, and pandemic, is ideal.¹ In India, the focus of public health has been on communicable diseases and the health of mothers and children, with hypertension and other noncommunicable disorders long overlooked. Noncommunicable illnesses, which include cancer, chronic obstructive pulmonary diseases, heart disease, and mental illness, are currently the biggest cause of death, disability, and years of life lost (YLLs) worldwide, accounting for between 60 and 70 percent of all cases. These illnesses are to blame for roughly 50% of the disease load and mortality in India.³ However, it has not received the attention it merits, and medical schools' public health curricula as well as public health initiatives to prevent and manage this illness are sadly

deficient.²

The public health approach to hypertension in developed nations has involved policy modifications, population-wide interventions, and individual risk-based treatment in addition to the latter. In these countries, the death rate from stroke and coronary heart disease has significantly decreased (by 50–100%) during the past 50 years as a result of these actions.⁶ We contend that hypertension is a significant public health issue in India, having already reached epidemic proportions and contributing to a high death rate, particularly in the nation's rural areas where the condition is fast spreading.

BURDEN OF HYPERTENSION IN INDIA

According to data from the World Health Organization (WHO), low- and lower-middle-income nations have higher rates of hypertension than high- and middle-income nations.⁵

The Sub-Saharan and Central African countries, as well as the South, South-East, Eastern, and Central Asian countries, have the highest prevalence. According to a study on the global burden of illnesses, there were 350 million people with hypertension worldwide in 1990; this number rose to over 500 million in 2005, and it is predicted to reach roughly one billion by 2025.⁶ According to the most recent version of the global burden of illnesses, the prevalence of hypertension has stabilized in high- and middle-income nations, but it is still rising in low- and lower-middle-income nations like India.

In a prior study, we examined the 50-year trends in the prevalence of hypertension in India and documented rising rates of this illness in both urban and rural areas between the 1950s and 1990s.⁹

Urban population-based epidemiological studies conducted in the mid-1950s and early 1960s revealed 1.2 to 4.0% prevalence of hypertension using the older WHO criteria for diagnosis (known hypertension or blood pressure >160 mm Hg systolic and/or 95 mm Hg diastolic). Since then, the incidence of hypertension has been investigated in numerous Indian cities; reports indicate a consistent rise in this condition's prevalence, which increased from 3.0 to 4.5% in the early 1960s to 11.0 to 15.5% in the mid-1990s.⁹

Research conducted in India's rural areas between the 1950s and the 1970s revealed a reduced prevalence of hypertension. In a previous study, we looked at the 50-year trends in India's prevalence of hypertension and found that between the 1950s and 1990s, the condition was becoming more common in both urban and rural areas.⁹ Using the previous WHO criteria for diagnosis (known hypertension or blood pressure >160 mm Hg systolic and/or 95 mm Hg diastolic), urban population-based

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epidemiological studies carried out in the mid-1950s and early 1960s found 1.2 to 4.0% prevalence of hypertension. Ever since, studies on the prevalence of hypertension have been conducted in many Indian cities; the prevalence of this ailment rose steadily from 3.0 to 4.5% in the early 1960s to 11.0 to 15.5% in the mid-1990s.⁹ Between the 1950s and the 1970s, studies carried out in rural India revealed

POLICY AND PUBLIC HEALTH IMPLICATIONS

The high absolute number of hypertensive subjects in Indian subjects, both in urban and rural areas, portends a catastrophic cardiovascular disease epidemic. For instance, recent research has shown that stroke incidence is high in rural Indian people.¹⁴ In India, hypertension is the primary risk factor for stroke.¹⁵ Despite decreased risk factors, the Prospective Urban Rural Epidemiology (PURE) study found higher cardiovascular mortality among rural compared to urban patients in low-income countries (mostly India), burden.¹⁶ This is linked to the nation's poor levels of hypertension awareness, treatment, and control.¹⁷ In India, awareness of hypertension has grown over the past 30 years, but it is still quite low, particularly among the rural populace.¹² From less than 30% in urban and less than 10% in rural areas in the 1980s, hypertension awareness, treatment, and control have grown to 60% in urban and 40% in rural areas currently. Nonetheless, less than 30% of people live in urban regions and 20% in rural ones.^{12,17} Therefore, using conventional public health methods, policy actions are required to delay the beginning of cardiovascular risk factors and enable cardiovascular primary prevention.

These interventions can be implemented at the policy, health system, population, or clinic level as well as at the individual level (Table 1).¹⁸ Public education and screening should be the main goals of policy and system level interventions, whereas reduced alcohol and salt intake, quitting smoking, encouraging a healthy diet, and promoting physical activity should be the main goals of population level interventions. Interventions at the individual level should focus on improving physician education, encouraging patients to make lifestyle modifications, using the right medication, controlling vascular risk factors, and encouraging adherence.

CONCLUSION

In India, hypertension is a significant public health issue. There is inadequate awareness, detection, and management of hypertension. Every year, hundreds of thousands of preventable fatalities as well as a comparable number of strokes and heart attacks can be avoided with better detection and care.¹⁹ The above-mentioned (Table 1)

innovative system-based techniques for better hypertension management are needed. A combination strategy of changing lifestyle factors and using antihypertensive and lipid-lowering medications can cut the risk of cardiovascular disease by up to 75%. Better healthcare systems are required for broad hypertension screening in order to identify the condition. The greatest way to effectively control blood pressure and lower the risk of CVD is to use the right medication and follow through on it. An approach to public health like this will result.

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