

HYPERTENSION CONTROL PROJECTS

South Korea's success in hypertension control

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1. Achievements and Key Drivers of Success

According to the "WHO Global Report on Hypertension 2025,"¹ the Republic of Korea (Korea) has emerged as an exemplary global benchmark for national-level success in hypertension management. As a prevalent chronic condition, hypertension substantially elevates the risk of critical comorbidities, including cardiovascular diseases (CVD), cerebrovascular accidents (CVA), chronic kidney disease, and dementia. Over the past three decades, Korea has achieved substantial improvements in public health indicators. Most notably, the national hypertension control rate expanded from a mere 5% in 1990 to 62% in 2025,² representing an unprecedented public health milestone achieved within a relatively brief timeframe.

Prior to 2005, public awareness regarding the systemic dangers of elevated blood pressure was deficient. Diagnostic and therapeutic services across primary healthcare facilities lacked structural integration, leaving patients vulnerable within the gaps between diagnosis, active treatment, and follow-up monitoring. Furthermore, the absence of standardized clinical practice protocols, coupled with the prohibitive cost of antihypertensive medications, severely undermined patient medication adherence.

To systematically address these structural barriers, a well-coordinated, multisectoral coalition was formed. This initiative integrated the efforts of the Ministry of Health and Welfare, the Korea Disease Control and Prevention Agency, the National

Health Insurance Service (NHIS), local public health centers, and academic bodies such as the Korean Society of Hypertension (KSH). Together, they deployed a comprehensive, team-based strategy incorporating the following core interventions:

Strengthened Policy Governance: The government launched the National Sodium Reduction Program in 2012,³ integrated routine blood pressure screening into national health examinations, and implemented protocol-driven care through standardized national clinical guidelines.

Sustainable Cost Management: By regulating and subsidizing medication costs, financial barriers to long-term antihypertensive therapy were minimized, facilitating therapeutic persistence.

Multisectoral Actions: Broad-scale public awareness initiatives, workplace-based screenings, and targeted national dietary interventions were executed. Consequently, by 2023, the mean national sodium intake decreased by 34.5% compared to 2012 baselines.

Optimization of Pharmacotherapy: Access was expanded for Angiotensin Receptor Blockers (ARBs) and Calcium Channel Blockers (CCBs), recognized for optimal blood pressure reduction and target-organ protection with minimal adverse events. Currently, the utilization rate of combination therapy exceeds 60%,⁴ with over half prescribed as Single-Pill Combinations (SPCs), vastly enhancing clinical efficacy and patient persistence.

Figure 1. Changes in Korean hypertension control rate.

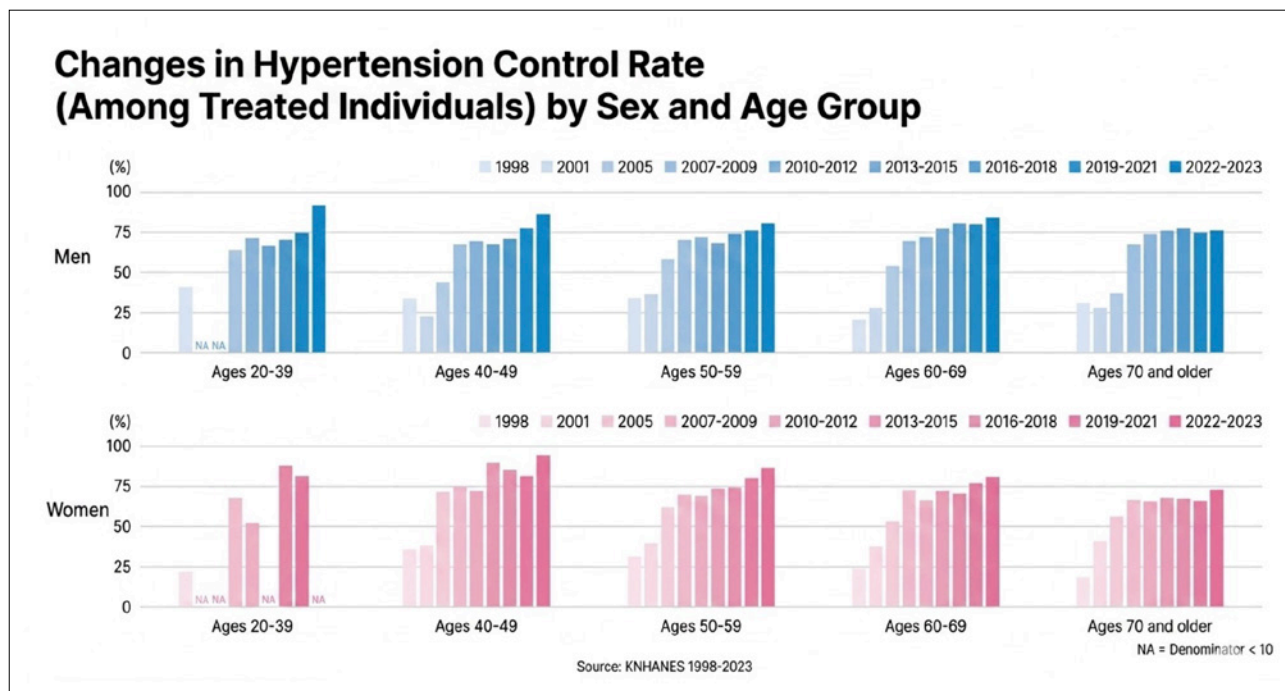
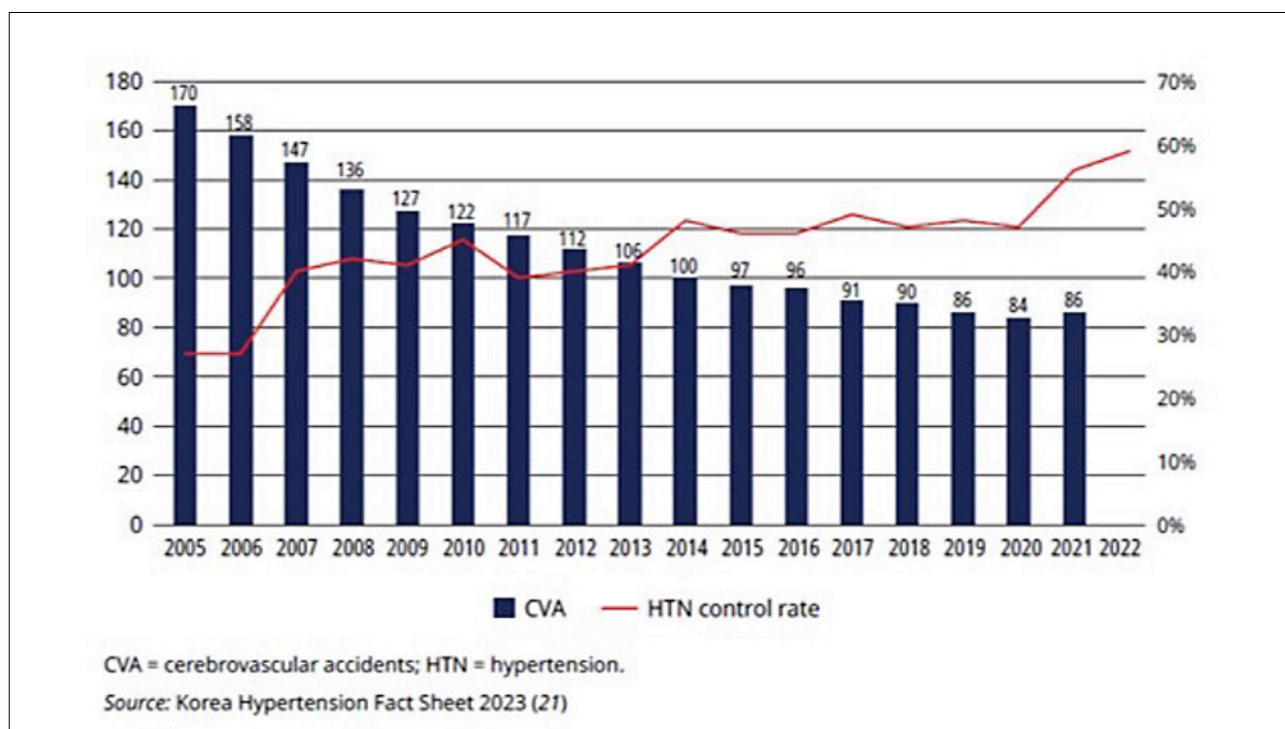


Figure 2. Trends of hypertension control and rates of cardiovascular disease deaths in the Republic of Korea.



Data-Driven Accountability: The establishment of a comprehensive national healthcare database enabled the KSH to publish annual "Hypertension Fact Sheets" and 2026 KSH Hypertension Clinical guideline.⁵ These publications function as an objective public report card, enforcing strict accountability among policymakers and healthcare providers. In tandem, nationwide clinical tours and

symposia hosted by the KSH delivered evidence-based clinical guidance directly to primary care physicians, fostering more aggressive therapeutic interventions.

As a direct result of these efforts, Korea documented a 4.6-fold increase in hypertension treatment rates (16% in 1990 to 74% in 2022), an

11.2-fold increase in blood pressure control rates (5% in 1990 to 56% in 2022), a 44% net reduction in sodium consumption (2005–2022), and a 74% decline in age-adjusted cardiovascular mortality.

2. Remaining Challenges and Future Directions

To further optimize hypertension control, the Korean government lowered the eligibility threshold for national health screenings down to 20 years of age. This policy modification was informed by empirical data revealing that hypertension detection and treatment rates among young adults were critically lower than those observed in the elderly population. This intervention underscores that robust data monitoring is a prerequisite for identifying systemic vulnerabilities within a healthcare infrastructure. Furthermore, maintaining open access to population-level medical data remains vital for analyzing epidemiological trends and formulating advanced public health strategies.

Despite these landmark achievements, significant clinical and epidemiological challenges persist:

Persistent Excess Sodium Consumption: Although national sodium intake has successfully declined, the average individual consumption still remains double the maximum amount recommended by international health bodies.

Epidemiological Stagnation: The crude prevalence of hypertension is failing to decline substantially due to rapid population aging, the westernization of dietary habits, and a post-COVID-19 surge in youth obesity rates. Consequently, the strategic focus must shift toward enhancing awareness and blood pressure control among younger demographics through targeted lifestyle modifications and nutritional interventions.

Escalating Gestational Hypertension: Mirroring the national decline in birth rates, the rising average age of pregnancy among Korean women has led to an increased incidence of gestational hypertension, which poses severe, long-term

cardiovascular risks. Crucially, the formulary of available obstetric antihypertensive medications has become restricted; essential agents such as methyldopa and hydralazine are no longer manufactured domestically, and labetalol faces severe supply constraints. Resolving this pharmaceutical supply chain instability is an urgent priority.

Suboptimal Control Rates in High-Risk Cohorts: While the overall treatment rate is high, the strict blood pressure control rate among patients at high risk for cardiovascular and cerebrovascular complications remains low at 28.6% (according to the 2023 Fact Sheet, applying the stringent target of <130/80 mmHg). Elevating the qualitative management of these high-risk cohorts represents the next critical frontier in long-term chronic disease control.

Ultimately, addressing these emerging public health bottlenecks requires the consolidation of robust, collaborative partnerships. For international healthcare systems seeking to replicate Korea's epidemiological success, it is imperative that government bodies, academic medical societies, and primary care clinicians actively construct a unified governance model to co-establish, evaluate, and evolve adaptive chronic disease management strategies.

References:

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