High Blood Pressure 2016: Why Prevention and Control Are Urgent and Important. The World Hypertension League, International Society of Hypertension, World Stroke Organization, International Diabetes Foundation, International Council of Cardiovascular Prevention and Rehabilitation, International Society of Nephrology

Norm R. Campbell, MD, FRCPC;[1] Tej Khalsa, MD, MSc;[2] World Hypertension League Executive:[3] Daniel T. Lackland, DrPH; Mark L. Niebylski, PhD, MBA, MS; Peter M. Nilsson, MD, PhD; Kimbree A. Redburn, MA; Marcelo Orias, MD; Xin-Hua Zhang, MD, PhD; International Society of Hypertension Executive:[4] Louise Burrell, MD, MBChB, MRCP, FRACP; Masatsugu Horiuchi, MD, PhD ; Neil R. Poulter, MBBS, MSc, FRCP, FMed Sci; Dorairaj Prabhakaran, MD, DM, MSc, FRCP, FNASc; Agustin J. Ramirez, MD, PhD; Ernesto L. Schiffrin, MD, PhD, FRSC, FRCPC ; Rhian M. Touyz, PhD, MBBCh, FRCP, FRSE; Ji-Guang Wang, MD, PhD; Michael A. Weber, MD; World Stroke Organization;[5] International Diabetes Federation;[6] International Council of Cardiovascular Prevention and Rehabilitation;[7] International Society of Nephrology[6,8]

From the Libin Cardiovascular Institute of Alberta, University of Calgary, Calgary, Alberta, Canada;[1] Department of Medicine, University of Calgary, Calgary, Alberta, Canada;[2] WHL, Corvallis, MT;[3] ISH Secretariat, c/o The Conference Collective Ltd., Teddington, Middlesex, UK;[4] WSO Administrative Office, c/o Kenes International, Geneva 6, Switzerland;[5] IDF, Brussels, Belgium;[6] York University, Toronto, Ontario, Canada;[7] and ISN, Cranford, NJ[8]

Increased blood pressure (BP) is the second leading risk factor for death and disability globally according to the Global Burden of Disease Study.[1]

Increased BP was the cause of an estimated 10.3 million deaths and 208 million disability-adjusted life years in 2013 (1) and the cause of[2–10]:

- 50% of heart disease, stroke, and heart failure.
- 19% of deaths overall and more than 40% of deaths in persons with diabetes.
- Hypertension is a leading risk for fetal and maternal death in pregnancy, dementia, and renal failure.

Hypertension is a public health epidemic[2,11,12]

- Approximately four in 10 adults older than 25 have hypertension, and in many countries another one in five have prehypertension.
- An estimated nine of 10 adults who live to 80 years will develop hypertension.
- One half of BP-related disease occurs in persons with higher levels of BP despite being within the normal range.

Hypertension now disproportionately impacts low- and middle-income countries[2]

- Two thirds of those with hypertension are in economically developing countries.
- Heart disease and stroke occur in younger persons in economically developing countries.

BP-related disease has a major impact on healthcare spending[13]

- An estimated 10% of healthcare spending is directly related to increased BP and its complications.

Address for correspondence: Mark Niebylski, WHL, 415 Bass Lane, Corvallis, MT 59828
E-mail: mniebylski@yahoo.com

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- Nearly 25% of healthcare spending in Eastern Europe and Central Asia is caused by BP-related disease.

Unhealthy choices in unhealthy environments play a major role in increasing BP[14,15]

- Unhealthy diet is estimated to be associated with about half of hypertension cases.
- About 30% of cases are associated with increased salt consumption and about 20% to low dietary potassium (low fruit and vegetable intake).
- A high ratio of saturated fats to polyunsaturated fatty acids also contributes to hypertension.
- Physical inactivity is associated with about 20% of hypertension cases.
- Obesity is associated with about 30% of hypertension cases.
- Excess alcohol consumption also causes hypertension.
- Being tobacco free is especially important for patients with hypertension.

Clinical interventions have not been systematically applied in both economically developed and developing countries[2,16,17]

- About half of individuals with hypertension are unaware that their BP is high.
- Some of those who are aware that their BP is high remain untreated. Even when treated, most have suboptimally controlled BP.

Investments in prevention are often cost-saving[18–23]

- Policy interventions at a population level to improve diet and physical activity are often cost-saving and allow persons to make healthy choices.
- Recommended polices to prevent or manage hypertension through improved diet and increased physical activity are outlined by the World Health Organization (WHO).
- The World Health Assembly has agreed to a 2025 goal of reducing hypertension by 25% and dietary sodium by 30%.

Investments in treatment and control are cost-effective if targeted to patients at higher risk[24,25]

- Most patients with clinical hypertension have additional cardiovascular risks and/or evidence of BP-related damage (heart disease, stroke, and/or kidney damage).
- Treating increased BP in the range defined as hypertension (≥140/90 mmHg) is effective in reducing stroke and heart disease.
- Managing increased BP in persons at moderate to high risk for hypertension is cost-effective, and BP lowering to targets <140 mm Hg systolic (eg, <130 mm Hg or 120 mm Hg may need to be considered given emerging evidence[26,27]).
- Normalizing BP in persons with diabetes is especially important to prevent kidney and eye disease as well as heart attack and stroke. BP-lowering treatment in persons with diabetes and hypertension often provides cost savings.
- Management of hypertension should be based on an assessment of cardiovascular risk and can be integrated into programs to cost-effectively manage noncommunicable diseases.
- The recent Systolic Blood Pressure Intervention Trial (SPRINT) emphasize that, in general, lower BP levels are beneficial for most patients.[27]

Policy Inertia

- Many countries have not implemented effective public policies to prevent and control hypertension (http://www.wcrf.org/int/policy/nourishing-framework).
- Some national hypertension organizations do not have policy statements and do not advocate for policies aligned with those developed by the WHO for the effective prevention and control of hypertension.

Clinical inertia[28]

- Some national hypertension organizations do not have published strategic plans for diagnosing, treating, and controlling hypertension.
- Many clinicians do not routinely assess BP and do not initiate or titrate treatment in patients with elevated BP readings.

A TRANSFORMATIVE APPROACH TO REFOCUS EFFORTS ON PREVENTION AND CONTROL IS REQUIRED. THE WORLD HYPERTENSION LEAGUE RECOMMENDS THE FOLLOWING STEPS.

National Hypertension Organizations

- Develop strategic plans for the prevention and control of hypertension, national fact sheets, and calls to action.[29–32]
- Advocate for healthy public policies, especially those that reduce dietary salt/sodium and promote healthy diets and smoking cessation.[22]
- Restructure hypertension meetings and congresses to drive a hypertension prevention and control agenda.[33]
- Feature the role of food/salt industry financial conflicts of interest and the role of low-quality science in educational forums updating the science on dietary salt.[34–40]
- Work with community organizations to develop high-capacity BP screening programs that connect persons with high readings to health care.[41]
- Advocate for regulations to ensure the use of accurate and appropriate BP devices and cuffs.[42–44]
- Ensure that there are hypertension management guidelines adapted to the country's population. In low-resource settings, the WHO Package of Essential Noncommunicable program is effective and low cost.[45,46]

- Develop resources to aid the implementation of hypertension guidelines such as simple, easy-to-use algorithms or care maps.
- Advocate for easy access to affordable antihypertensive drugs for all patients.[47]
- Encourage the use of hypertension registries and performance feedback in clinics that care for patients with hypertension.
- Develop strong partnerships with the organizations that represent healthcare providers who diagnose and manage hypertension.
- Ensure that there is standardized monitoring and evaluation of efforts to prevent and control hypertension.[48]
- Nominate deserving programs and individuals for World Hypertension League recognition awards for population salt reduction and blood pressure control (www.whleague.org).[49]
- Recognize national/regional leaders and programs that prevent and control hypertension.

Healthcare professionals

- Measure BP at all relevant clinical encounters.
- Assess cardiovascular risk in patients diagnosed with hypertension.[45,50]
- Treat patients at high cardiovascular risk to controlled BP levels.[45,50]
- Assess tobacco use. Advise and assist all users to stop.
- Assess hypertensive disorders of pregnancy.
- Advocate for healthy public policy.
- Encourage and assist community BP screening programs.[41]

Individuals

- Eat unprocessed or minimally processed foods most often.
- Choose low-sodium options and do not add salt to food.
- Be tobacco free.
- Be physically active.
- Attain and maintain a healthy body weight.
- Avoid exceeding the recommendations for maximum daily and weekly alcohol intake.
- Get BP checked regularly and understand what it should be.
- Advocate for healthy public policies.

KEY MESSAGES

- Hypertension may often be preventable and remains a constant threat to patient well-being.
- There are effective policies that could facilitate people making healthy choices, and, if implemented, could largely prevent hypertension.
- Hypertension is easy to screen for BUT only about 50% of adults with hypertension are aware of their condition.
- Effective lifestyle and drug treatments are available that could control hypertension in most individuals.

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