

***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 Federation, International Council of Cardiovascular Prevention and Rehabilitation, International Society of Nephrology***



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Increased blood pressure is the 2<sup>nd</sup> leading risk factor for death and for disability Globally according to the Global Burden of Disease Study <sup>1</sup>.

**Increased blood pressure was the cause of an estimated 10.3 million deaths and 208 million years of disability (DALYs) in 2013 (1) and the cause of <sup>2-10</sup>:**

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

**Hypertension is a public health epidemic <sup>2, 11, 12</sup>**

- Approximately 4 in 10 adults over age 25 have hypertension, and in many countries another one in 5 have prehypertension.
- An estimated 9 out of 10 adults living to 80 years of age will develop hypertension.
- One half of blood pressure related disease occurs in people with higher levels of blood pressure despite being within the normal range.

**Hypertension now disproportionately impacts low and middle income countries <sup>2</sup>**

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

**Blood pressure related disease has a major impact on health care spending <sup>13</sup>**

- An estimated 10% of health care spending is directly related to increased blood pressure and its complications.
- Nearly 25% of health care spending in Eastern Europe and Central Asia is due to blood pressure related disease.

**Unhealthy choices in unhealthy environments play a major role in increasing blood pressure <sup>14, 15</sup>**

- Unhealthy diet is estimated to be related to about half of hypertension.
  - About 30% related to increased salt consumption, and about 20% related 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 related to about 20% of hypertension.
- Obesity is related to about 30% of hypertension.
- Excess alcohol consumption also causes hypertension.
- Being tobacco free is especially important for people with hypertension.

**Clinical interventions have not been systematically applied in both economically developed and developing countries <sup>2, 16, 17</sup>**

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

### **Investments in prevention are often cost saving** <sup>18-23</sup>

- Policy interventions at a population level to improve diet and physical activity are often cost saving and allow people to make healthy choices.
- Recommended policies 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 those at higher risk** <sup>24, 25</sup>

- Most people with clinical hypertension have additional cardiovascular risks and/or evidence of blood pressure related damage (heart disease, stroke, and/or kidney damage).
- Treating increased blood pressure in the range defined as hypertension ( $\geq 140/90$  mmHg) is effective in reducing stroke and heart disease.
- Managing increased blood pressure in those at moderate to high risk of hypertension is cost effective and blood pressure lowering to targets below 140 systolic (e.g. less than 130 or 120 mmHg may need to be considered given emerging evidence <sup>26, 27</sup>).
- Normalizing blood pressure in people with diabetes is especially important to prevent kidney and eye disease as well as heart attack and stroke. Blood pressure lowering treatment in people with diabetes and hypertension is often cost saving.
- 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 SPRINT trial results emphasize that, in general, lower blood pressure levels are beneficial for most <sup>27</sup>.

### **Policy Inertia**

- Many countries have not implemented effective public policies to prevent and control hypertension (<http://www.wcrf.org/int/policy/nourishing-framework>, accessed Dec 16 2015).
- 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** <sup>28</sup>

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

**A TRANSFORMATIVE APPROACH REFOCUSING EFFORTS ON PREVENTION AND CONTROL IS REQUIRED. THE WORLD HYPERTENSION LEAGUE RECOMMENDS THE FOLLOWING STEPS BE CONSIDERED.**

### **National Hypertension Organizations:**

- Develop strategic plans for the prevention and control of hypertension, national fact sheets, and calls to action <sup>29-32</sup>.

- Advocate for healthy public policies; especially those that reduce dietary salt/sodium, and promote healthy diets and smoking cessation <sup>22</sup>.
- Restructure hypertension meetings and congresses to drive a hypertension prevention and control agenda <sup>33</sup>.
- 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 <sup>34-40</sup>.
- Work with community organizations to develop high capacity blood pressure screening programs that link people with high readings to health care <sup>41</sup>.
- Advocate for regulations to ensure the use of accurate and appropriate blood pressure devices and cuffs <sup>42-44</sup>.
- Ensure there are hypertension management guidelines adapted to the country's population. In low resource settings the WHO PEN program is effective and low cost <sup>45, 46</sup>.
- 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 <sup>47</sup>.
- Encourage the use of hypertension registries and performance feedback in clinics that care for people with hypertension.
- Develop strong partnerships with the organizations that represent health care providers who diagnose and manage hypertension.
- Ensure there is standardized monitoring and evaluation of efforts to prevent and control hypertension <sup>48</sup>.
- Nominate deserving programs and individuals for World Hypertension League recognition awards for Population Salt Reduction and for Blood Pressure Control ([www.whleague.org](http://www.whleague.org)).
- Recognize national/regional leaders and programs that prevent and control hypertension.

#### **Health care professionals:**

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

#### **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 blood pressure 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 well-being.
- There are effective policies that could facilitate people making healthy choices, and if implemented, could largely prevent hypertension from occurring.
- 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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