

# Effective Diagnosis, Treatment, and Monitoring of Hypertension in Primary Care

## Participant Guide

# 1

## Burden of Cardiovascular Disease and Hypertension around the Globe and in [COUNTRY]

Content should be adapted with country-specific information prior to use.

**Red text** denotes places where modification may be required. Guidance on how to adapt the training is provided in the Course Overview.

## Expected competency on completion of session:

*Ability to convey to patients, health care workers, and leaders the importance of improved treatment of hypertension.*

## Target users:

Health care providers

Facility managers

District supervisors

## In this session, you will gain knowledge on:

- The burden of cardiovascular disease and hypertension – globally and in [COUNTRY]
- Reasons to focus on hypertension
- Essential components of a scalable hypertension programme.

## 1.1 Global burden of cardiovascular disease and hypertension

Noncommunicable diseases (NCDs) are responsible for 70% of all deaths in the world – approximately 40 million people each year. Cardiovascular diseases (CVDs) account for most NCD deaths and are the world’s leading killer, causing 1 in every 3 deaths. While the CVD burden is decreasing in rich countries, it is increasing in poor countries. Half of CVD deaths in poorer countries are among people under 70 years.

CVD can lead to heart attack and stroke. Heart attacks are caused by blockage of blood flow to the heart, resulting in parts of the heart becoming damaged or dying. Strokes are caused by blockage of blood flow to the brain, resulting in parts of the brain dying. For every CVD death, there are approximately two people who survive a heart attack or stroke, but they may have a permanent disability, such as finding it difficult, or being unable, to walk, talk, or work. Disability resulting from CVD increases medical care costs, undermines economic productivity, and decreases quality of life.

Hypertension, or high blood pressure (BP), is a leading risk factor for CVD and causes more than half of all CVD deaths – an estimated 10 million deaths per year globally. This is nearly as many deaths each year as all infectious diseases combined. Deaths due to hypertension are largely preventable.

Effective hypertension control for even half of the patients at medium-to-high CVD risk could prevent 77 million deaths.

Figure 1: High blood pressure is the world’s leading killer

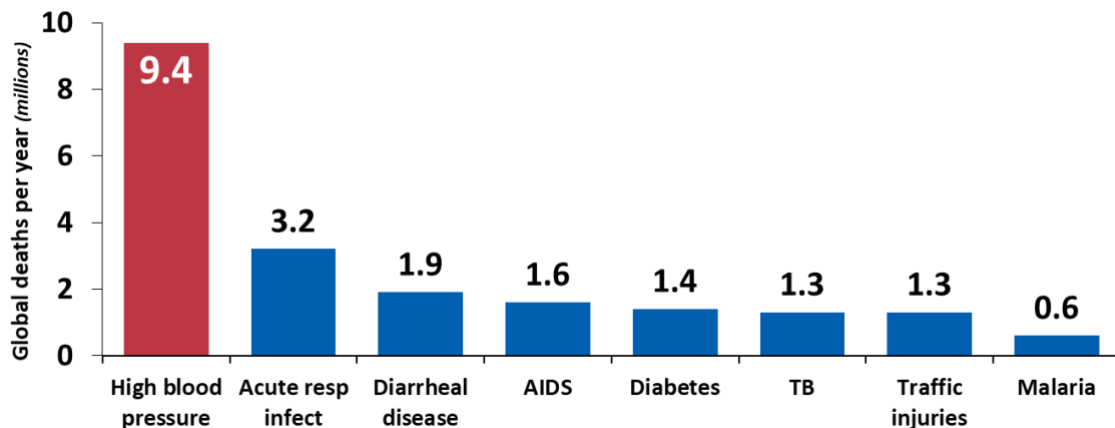
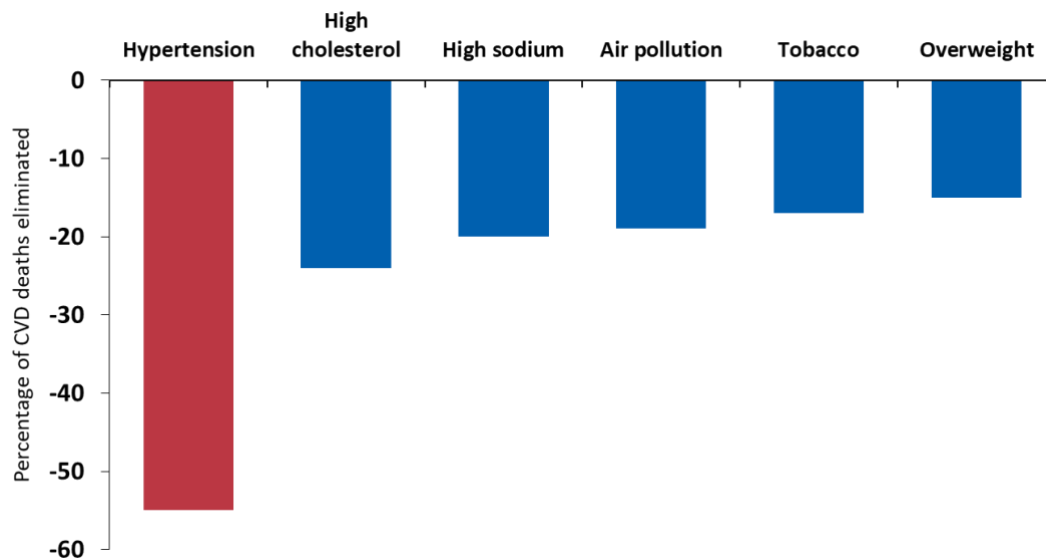


Figure 2: Hypertension control is key to reducing CVD deaths



To strengthen prevention and control of CVDs, the World Health Organization and collaborating agencies launched the Global Hearts Initiative in 2016. The Global Hearts Initiative has three components:

1. The **MPOWER** package to reduce tobacco use
2. The **SHAKE** package to reduce sodium use
3. The **HEARTS** package for treatment of hypertension in primary care services.

Together, these three initiatives have the potential to save tens of millions of lives. With the successful implementation of HEARTS, heart attacks, strokes, kidney failure, and other serious conditions can be prevented.

## 1.2 Burden of CVD and hypertension in [COUNTRY]

[Example text from India provided below. Replace with country-specific text.]

India has almost 200 million adults with hypertension. Hypertension contributes to an estimated 1.6 million deaths annually in India, due to ischaemic heart disease and stroke. The number of people with hypertension in India appears to be increasing, while the rates of control remain low.

A 2016 study showed that about 30% of adult Indians have hypertension (34% in urban and 28% in rural areas). The rate has almost doubled in the past 20 years, and the rural and urban gap is closing. Troublingly, fewer than 40% of people had any general awareness about hypertension. Only one-tenth of rural Indians and one-fifth of urban Indians with high BP had it under control.

The Government of India has adopted a national action plan for the prevention and control of noncommunicable diseases, with specific targets to be achieved by 2025.

These include:

- 25% relative reduction in overall mortality from cardiovascular diseases
- 30% relative reduction in mean population intake of salt/sodium
- 25% relative reduction in prevalence of raised BP.

In order to achieve a 25% relative reduction in the prevalence of raised BP by 2025, approximately 48 million additional people will need to have their BP effectively treated.

### 1.3 Reasons to focus on treatment of hypertension

Hypertension is the leading cause of death globally. Medicines to treat hypertension are safe, effective, and affordable. However, globally only about 14% of people with hypertension – fewer than one in seven – have it under control. In [COUNTRY], X% of hypertensive people have it under control.

Improving BP treatment will:

- **Save lives** by preventing fatal heart attacks and strokes
- **Reduce disability** by preventing non-fatal heart attacks and strokes
- **Reduce medical costs** spent on caring for patients having heart attacks and strokes and on the rehabilitation and nursing care needed after a stroke or heart attack
- **Improve productivity** by reducing the number of people who are disabled by CVD and are unable to work
- **Increase capacity and build trust** in the primary care system.

In a similar way to which vaccination and oral rehydration therapy prevents fatal illnesses among children, hypertension treatment prevents fatal illnesses among adults. **Treatment of hypertension in primary care can save more adult lives than any other primary care treatment programme.**

There are misconceptions that hypertension treatment is too expensive, too complicated, or unnecessary because not all people with hypertension will develop CVD or may not develop it for many years.

Each of these concerns can be addressed with facts:

- **Hypertension treatment is affordable.**  
The medicines to treat hypertension are inexpensive. All are generic, and patients in all countries have access to the same medications, which are safe and effective. When programmes select one protocol and order medications in large quantities, the cost of medications can be further reduced.

- **Hypertension treatment is simple.**

Treatment of hypertension does not need to be complicated. Practice-based, precise protocols follow evidence generated from thousands of clinical trials over several decades to give medicine that is safe and effective at lowering blood pressure and preventing CVD.

- **Hypertension treatment is essential.**

Just as we give vaccines to children who may never have developed the illness for which we are vaccinating, we treat people with hypertension because there is, at present, no way to predict which patients will have a heart attack or stroke. Although many heart attacks and strokes occur among older people, death or disability from CVD at a younger age is tragic and preventable.



### **EXERCISE 1: EXAM ROOM ROLE PLAY**

*In pairs, take turns so that each person plays each role.*

*Person 1 plays the role of a patient newly diagnosed with hypertension.*

*Person 2 plays the role of the health worker explaining why treatment is necessary.*

## 1.4 Five essential components of scalable treatment of hypertension

Most patients' hypertension can be successfully managed by following five key components of care\*:

- **Simple, detailed protocols** that establish a standard treatment for patients, including a specific medication dosage and schedule for titration (providing additional medication if condition is not controlled)
- **Administrative and operational procedures** in place that enable task sharing so that health workers can provide and, following physician orders and/or protocols, adjust and intensify medication regimens
- **Regular and uninterrupted supply** of quality-assured medications
- **Patient-centred services** that reduce the barriers to adherence:
  - Reduction (preferably elimination) of costs for medications and medical visits
  - Increasing patient convenience of medical visits and medication refills
  - Use of once-daily treatment regimens
  - Use of fewer tablets, including through combination medications

- Improving access to BP monitoring, including in public places
- Public education to increase awareness of the importance of control of BP
- **An information system that allows real-time feedback** on adherence and BP control among individual patients and different treatment systems to facilitate continuous programme improvement.

\*Note: These five components are based on [HEARTS Technical Package](#)

## Sources

- Global health estimates: deaths by cause, age, sex and country, 2000–2012. Geneva: World Health Organization; 2014.
- A global brief on hypertension. Geneva: World Health Organization; 2013.
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- HEARTS Technical Package. Geneva: World Health Organization; 2016.
- Frieden T, Coleman SM, Wright JS. Protocol-based treatment of hypertension: A critical step on the pathway to progress. *JAMA*. 2017;331:21-22.