

# **WORLD HEART FEDERATION ROADMAP FOR HYPERTENSION – UPDATE**

**Informing health systems approaches to CVD by  
prioritizing practical, proven, cost-effective action**

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# HYPERTENSION



**K**nown as the ‘**silent killer**’ because there are often no symptoms until significant damage has been done, raised blood pressure accounts for about half heart disease and stroke related deaths. Despite this, there remain low levels of awareness, treatment and control in all regions of the world.

## ABOUT HYPERTENSION

Raised blood pressure is considered to be any systolic blood pressure greater than 115 mmHg. The level of blood pressure at which treatments have been shown to be effective in reducing risk is generally accepted as more than 140 mmHg systolic and/or more than 90 mmHg diastolic: this level is known as ‘hypertension’, the term used in this Roadmap.

## THE MAGNITUDE OF THE PROBLEM

Due to the ageing and expanding global population, the size of the burden of complications due to raised blood pressure continues to rise. Globally, hypertension was estimated to affect 1.3 billion adults in the productive age group of 30-79 years in 2019. Further, 4.06 billion adults had raised blood pressure, which is the leading cause of death globally, claiming approximately 10.8 million lives in 2019. Hypertension causes over 50% of heart disease, stroke, and heart failure cases. Importantly, blood pressure increases with age, such that up to 90% of adults living to 80 years of age are likely to develop hypertension. Uncontrolled hypertension imposes an enormous economic burden on society, in terms of both direct health care costs and substantial productivity losses resulting from disability and premature mortality. An estimated 10% of global health care spending is directly related to raised BP and its complications such as ischemic heart disease, heart failure, and stroke.



**4.06 BILLION**

adults affected by high systolic blood pressure in

**2019**

**1.3 BILLION**

adults (30-79 years) affected by hypertension in

**2019**

**10.8 MILLION**

deaths associated with raised blood pressure in

**2019**

Approximately

**60%**

of adults develop hypertension by

**60 YEARS**

of age

**UP TO 90%**

of adults living to

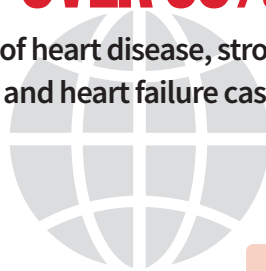
**80 YEARS**

of age are likely to develop hypertension\*

Hypertension causes

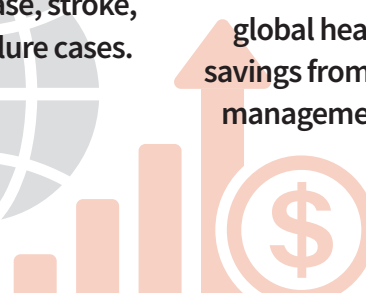
**OVER 50%**

of heart disease, stroke, and heart failure cases.



**\$100 BILLION PER YEAR**

global healthcare savings from effective management of BP



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\*In England (2011) >56% from age 60. Lancet :2014 ;383:1912-1919

**Common consequences of uncontrolled hypertension include:**

Increased mortality and morbidity through:-

- Heart attack, stroke, kidney failure and heart failure
- Dementia
- Reduced quality of life.



**Effective prevention and detection of HT includes:**

- Robust screening policies (Initial screening for hypertension from the age of 18, with repetitions at regular intervals; opportunistic screening whenever relevant; settings-based screening (workplace, schools, barbershops etc)
- Population-wide interventions, such as fostering weight control through healthier diets and easy access to healthy foods, introducing salt-reduction strategies implementing healthy environment policies, or controlling indoor and outdoor air pollutions and urban designs
- Lifestyle interventions (diet, physical activity...)

**Effective management of HT includes:**

- Non-pharmacological interventions (weight management, diet, reduced intake of dietary sodium, enhanced intake of dietary potassium, physical activity, moderation in alcohol intake)
- Pharmacological interventions according to the most recent guidelines
- Strengthening patient and HCP education and awareness to improve knowledge of and adherence to treatment.

# WHF MEMBER SURVEY

**46**

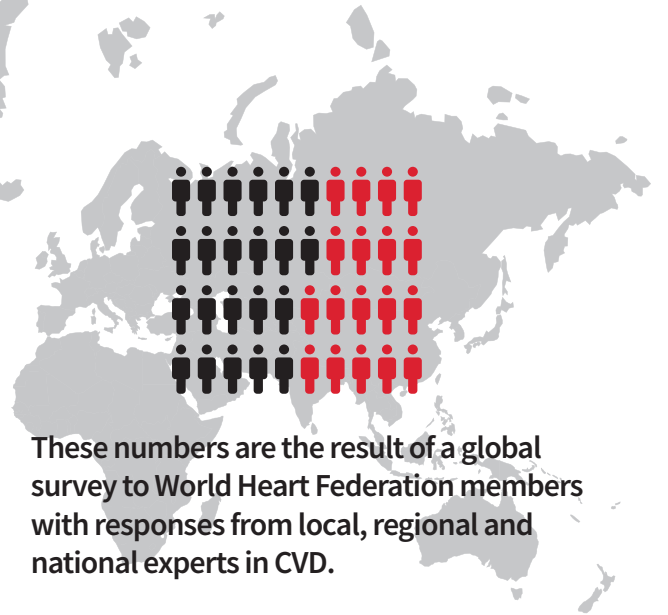
**COUNTRIES**

**106**

**RESPONSES**



from cardiologists and other physicians and health professionals as well as, to a smaller extent, from policy makers.



These numbers are the result of a global survey to World Heart Federation members with responses from local, regional and national experts in CVD.

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Globally,

**74%**

report that patients are unaware that they are at risk of HT/unaware of their HT status.



In LMICs,

**92%**

report that patients are unaware that they are at risk of HT/unaware of their HT status.



**65%**

report their patients DO NOT adhere to their treatment.



**71%**

report that priority interventions are not available.



**63%**

report a lack of political leadership and partnerships with relevant organisations.



Only

**1 IN 4**

respondents report that at least 75% of their patients achieve BP control.



**29%**

report that less than half of their patients achieve BP control.



# PATIENT STORY

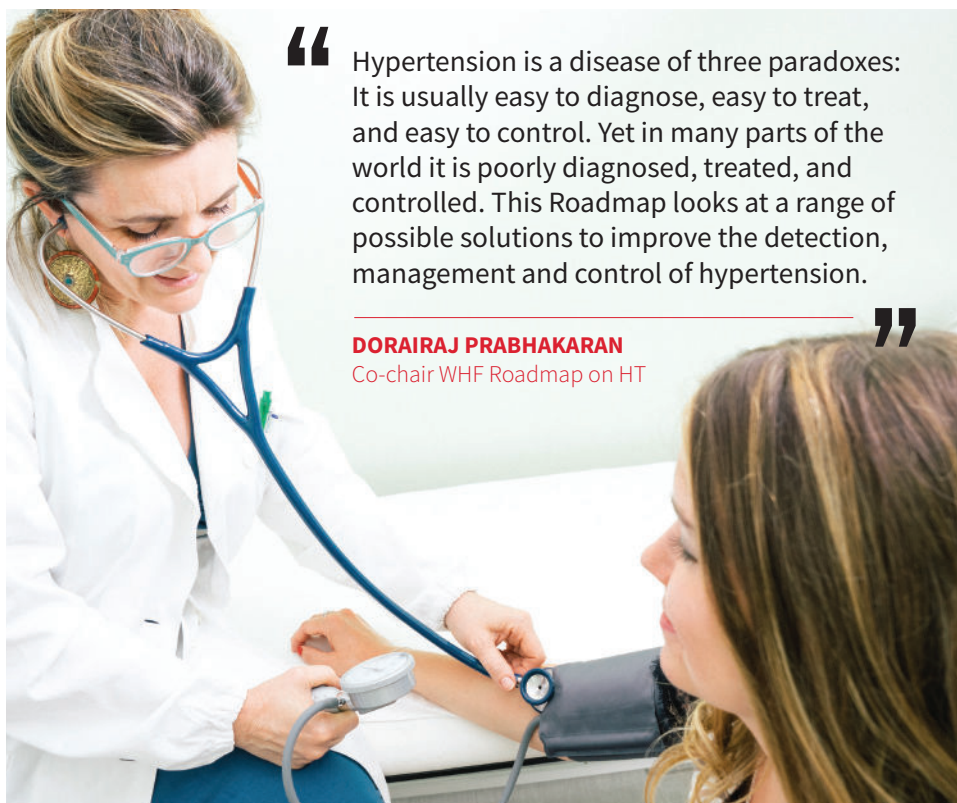
## HOW MY ACCIDENTAL DIAGNOSIS PUT ME ON THE PATH TO HEART HEALTH

Finding out I had hypertension was a shock. I'd always thought I was fairly healthy for my age and put anything out of the ordinary down to simply getting older.

My diagnosis was completely accidental. I thought I had an eye infection and had called my optician to cancel my annual eye test because of it. He insisted I came in, took a look and told me that it wasn't an infection... it was burst blood vessels caused by high blood pressure. I called my doctor, had a blood pressure test straight away and was told that I had hypertension. It turned out that my cholesterol was also very high, and the doctor said I was at high risk of a heart attack or a stroke.

My doctor prescribed some medications and told me to lose weight, get more active and eat healthily. In a few months I'd managed to lose around 5kg through diet and gentle exercise, but my blood pressure and cholesterol were still too high. I bought myself a monitor so that I could keep track of what was helping to lower my blood pressure along with the tablets. The answer was exercise. I joined a gym and now, five year later, I've managed to get my blood pressure and cholesterol levels under control. If I stop exercising, I know that my blood pressure goes up, so I'm determined to carry on so that my medicines can be kept at a low dose.

The fact that I'm still here and feeling better than before is all thanks to my optician for insisting on that eye test.

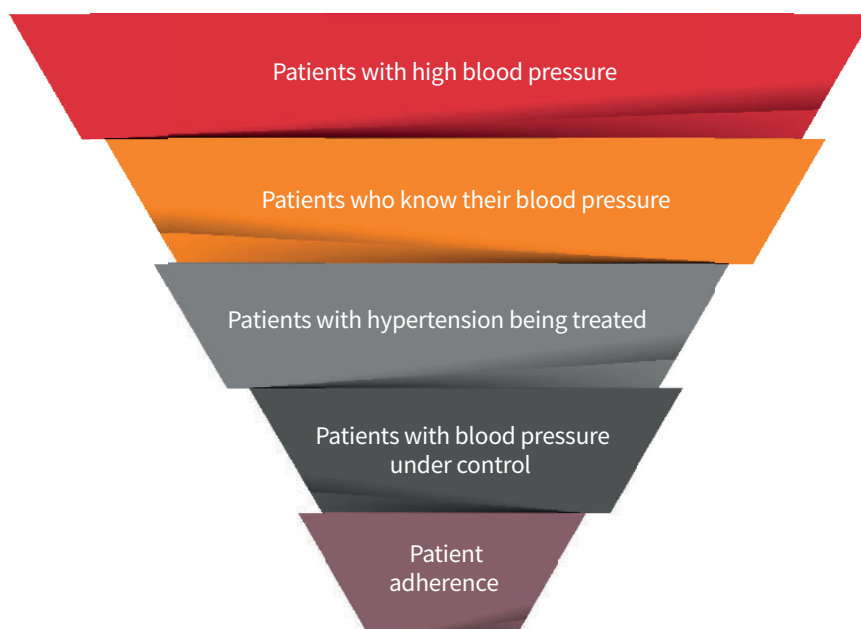


“ Hypertension is a disease of three paradoxes: It is usually easy to diagnose, easy to treat, and easy to control. Yet in many parts of the world it is poorly diagnosed, treated, and controlled. This Roadmap looks at a range of possible solutions to improve the detection, management and control of hypertension. ”

**DORAIRAJ PRABHAKARAN**  
Co-chair WHF Roadmap on HT

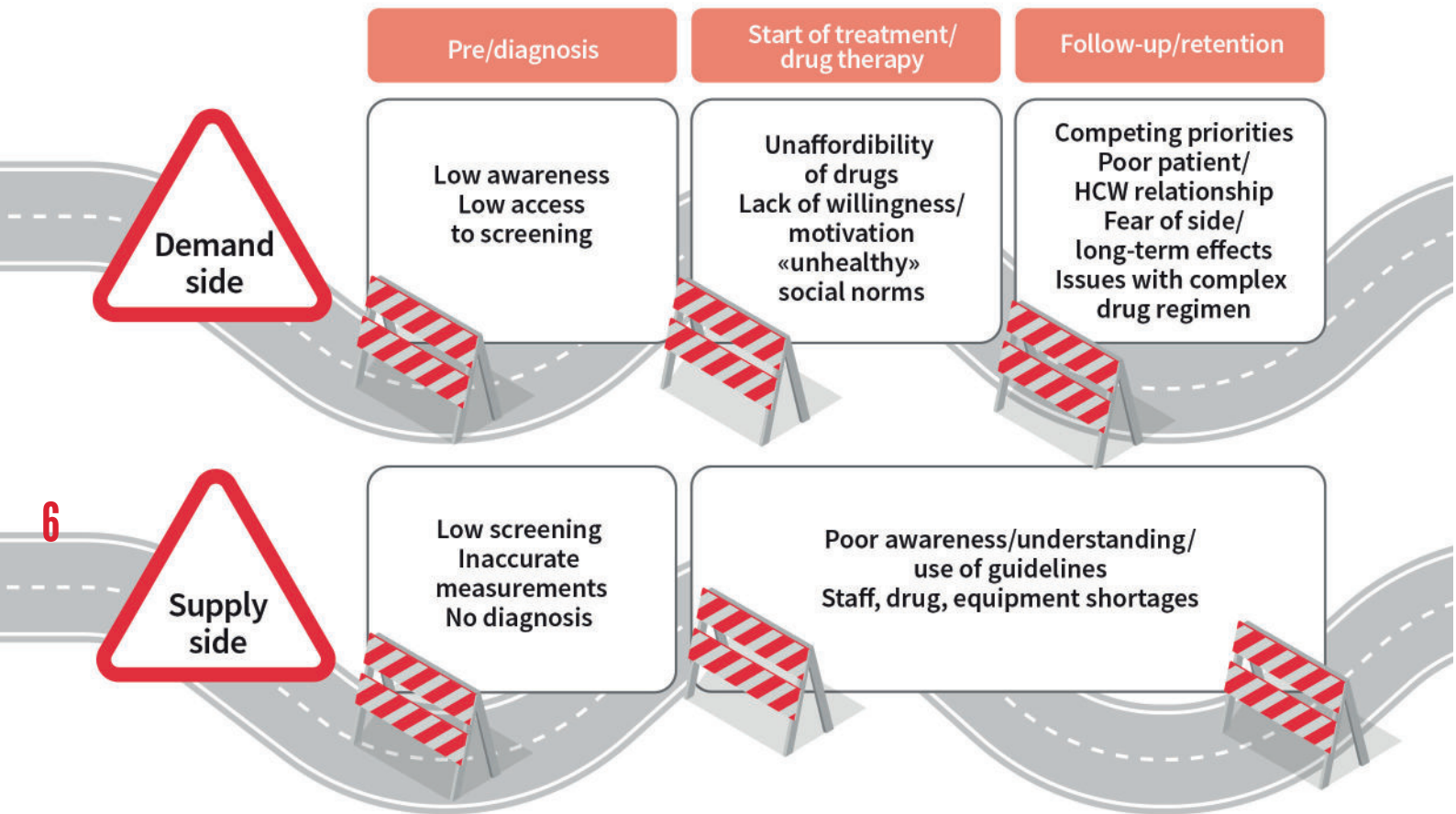
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### TREATMENT CASCADE FOR PATIENTS WITH HYPERTENSION





# OBSTACLES TO EFFECTIVELY PREVENTING, MANAGING AND CONTROLLING HYPERTENSION INCLUDE:



## POTENTIAL SOLUTIONS

to overcome obstacles include:



- Develop population-wide prevention and control programmes, including availability and distribution of essential anti-hypertensive drugs
- Roll out opportunistic screening
- Encourage out-of-office BP measurements (especially home BP monitoring)
- Strengthen primary care
- Promote and implement task-sharing and team-based care
- Deliver people-centred care
- Strengthen patient and carer education
- Facilitate adherence to pharmacological therapy. Improve medication supply management, for example by including affordable high-quality long-acting evidence-based and preferably single pill combination generic anti-hypertensive drugs in national lists of essential medicines
- Foster the use of novel technologies (m-health, e-health, apps etc).

# COMMITMENTS/TO EFFECTIVELY PREVENT, MANAGE AND CONTROL HYPERTENSION

## SUPPLY SIDE

(Governments and health systems)

- Governmental and societal willingness to make hypertension control a priority
- Shaping healthy environments to facilitate the choices of individuals towards healthier lifestyles
- Availability of treatment with cost-effective – and affordable medications

## DEMAND SIDE

(Individuals and patients)

- Individual awareness of own BP
- Individual lifestyle modifications
- Adherence to treatment



- Education of both healthcare professionals and patients to address awareness, facilitate and encourage adherence to treatment and understanding that blood pressure control is a lifelong commitment.

“ Screening campaigns are an affordable, yet very powerful tool to increase awareness of hypertension and for early identification of individuals with hypertension. Real-life examples such as the ‘May Measurement Month’ (MMM) have shown that it is possible not only to increase the awareness about hypertension but also facilitate blood pressure measurements in large groups of adult participants and detect hypertension or high blood pressure for the first time in a large proportion of them.

**NEIL POULTER**  
co-chair WHF Roadmap on HT



# TAKING ACTION AGAINST HYPERTENSION

A global framework for regional and national action, WHF Roadmaps can also be used to convene country-specific Roundtables through WHF and our Members. They allow relevant stakeholders to come together to identify obstacles and potential solutions that are relevant to their settings, and produce national plans.



## ADAPTING THE HYPERTENSION ROADMAP IN KENYA

The need to address hypertension in Kenya is urgent. According to Professor Elijah Ogola, PASCAR Secretary General: “An estimated 75% of Kenyans who live with hypertension do not know they suffer from it, and only 4% are controlled.”

To drive action, WHF in partnership with our Member the Kenya Cardiac Society (KCS) convened a Roundtable bringing together representatives from the Ministry of Health

and country health directorates, primary health care, civil society, the private sector, academia and faith-based organizations.

Drawing on the WHF Hypertension Roadmap, the Roundtable focused on a pressing need to put people living with CVD at the centre of hypertension prevention and management by involving communities in gathering health data, exploring public-private partnerships and rethinking financing for healthcare. Real concerns were also raised around funding and the need to better enable all levels of the health care system to achieve diagnosis and

appropriate treatment of hypertension. As a direct result of the WHF Hypertension Roadmap and Roundtable, four clear calls to action were agreed in Kenya.

The Ministry of Health (MoH) then requested that WHF and KCS collaborate to disseminate and implement the recently launched Kenya National Guidelines for CVD Management. In 2019, through funding from WHF, KCS in collaboration with the MOH, embarked on a project to disseminate the guidelines across all counties in Kenya. The project has so far reached 11 counties and directly trained



55 trainers of trainees (TOT). Close to 1000 health workers have been updated on the National CVD guidelines both directly and indirectly and efforts to scale this up are ongoing. The health care providers trained disseminated the knowledge as well as copies of the guideline to health workers from 130 county health facilities. The project also conducted advocacy targeting policy makers at both national and sub-national level urging them to improve access to essential medicines and technologies for CVD management.

In addition, there have been two programmes to increase awareness in Kenya. These are the ISH coordinated May Measurement Month (MMM) and the Healthy Heart Africa (HHA) programmes. As a result of these, the 2019 MMM survey data show improvements in awareness, treatment and control rates.

From the starting part of the WHF Hypertension Roadmap and Roundtable, we have been able to empower key national stakeholders to achieve real progress in the fight against CVD in Kenya.



### THE CALLS TO ACTION AGREED IN KENYA



“ Roadmaps are scientific documents for translating science into policy. They help all people to get the best science for promoting health, for preventing and controlling disease, and for rehabilitating patients. It is time for ‘Health in All Policies’ worldwide. As not only doctors but also world citizens, we are proud to be part of this World Heart Federation initiative.

**DANIEL PINIERO**  
Roadmap Liaison Officer to the World Heart Federation Board

“ WHF Roadmaps provide a global framework to focus the minds of national and local stakeholders on how in-country progress can be achieved in the fight against CVD. By convening at Roundtables, we can kick-start essential action to overcome obstacles and agree tangible solutions for positive change.

**PROFESSOR ELIJAH OGOLA**  
Secretary General, Pan-African Society of Cardiology

### ADAPTING THE HYPERTENSION ROADMAP IN COLOMBIA

The WHF, together with the Colombian Society of Cardiology and Cardiovascular Surgery (SCCCC), held a Roundtable in Bogotá, Colombia in January 2020 based on the original WHF Roadmap to identify obstacles and find solutions to them at the national level.

**To advance efforts towards the control and management of hypertension in Colombia, WHF and the SCCCC identified a series of locally relevant roadblocks:**

- The health system lacks data on incidence and prevalence of hypertension in Colombia
- BP measurement is not standardized
- The population lacks awareness of hypertension

- The population is not sufficiently aware of the risks caused by sodium-rich foods
- Patients are unaware that they are at risk of hypertension/unaware of the hypertension status
- Health technologies are not sufficiently accessible.

A series of strategies and solutions were then delineated based on the previously identified roadblocks. Those are yet to be implemented.

**As a first step, based on the observation that an efficient hypertension control programme cannot be optimal without an adequate BP measurement system, an extensive campaign was launched in August 2020, to**

- (1) increase the proportion of people who know their BP readings,
- (2) certify health professionals, such as physical therapists, nutritionists, respiratory

therapists, physical educators, dentists, and caregivers in BP measurement through a free online course and

(3) offer lifestyle recommendations to prevent and control hypertension. In addition, work was initiated among different academic actors involved in the management of hypertension.

A course was developed by experts in hypertension on virtual platforms to increase the knowledge of the medical community for patient care. In addition, a national multi-society consensus was developed, which includes different specialties such as internal medicine, cardiology, nephrology, family medicine, endocrinology and Geriatrics, being the first project of this magnitude in the country.

Finally, the development of the Latin American book on arterial hypertension was initiated to expand the standardization of clinical practice in hypertension.



“

WHF Roadmaps are scientific documents for translating science into policy. They provided a global framework which can be adapted locally to achieve progress in the fight against CVD.

”

**FERNANDO LANAS**  
WHF Roadmaps Liaison Officer



<https://world-heart-federation.org/news/whf-and-scccc-develop-guidelines-for-the-prevention-and-control-of-hypertension-in-colombia/>

# WORLD HEART FEDERATION ROADMAPS

Already the **world's number one killer**, deaths from cardiovascular disease (CVD) are increasing globally.

CVD and related conditions can often be prevented, but if not, can be detected early

and treated cost-effectively, preventing costly hospitalizations and death. But this requires coordinated national policy and health systems responses built around evidence-based strategies. Health resources are limited and so cost-effective interventions for the prevention, detection and management of CVD must be prioritized in order to plan effective health systems responses.



## WHAT ARE ROADMAPS?

WHF Roadmaps are a global framework that can be adapted and used at national or regional level.

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### THEIR PURPOSE IS TO:

1. Summarize current recommendations to reduce the burden of CVD that are proven, practical and cost effective
2. Highlight obstacles to implementing these recommendations
3. Propose potential solutions for overcoming these obstacles
4. Provide tools and strategies to adapt solutions to local needs.



### HOW DO THEY WORK?

WHF Roadmaps offer a global framework, tools and solutions that can then be used and adapted, through stakeholder collaboration, to meet the specific needs of individual regions and nations.

#### This requires:

- A situation analysis of the current health system based on tools such as WHF CVD Scorecards
- Roundtables with multiple stakeholders to discuss obstacles, solutions and appropriate strategies

- A plan to implement and evaluate the proposed strategies

### WHO ARE THEY FOR?

WHF Roadmaps empower our Members, including CVD foundations, societies and patient associations, to lead country specific, action-oriented initiatives, including Roundtables.

#### These involve diverse stakeholders, such as:

- Governments and policy makers
- NGOs, health activists and advocates

- Healthcare professionals
- Corporate entities
- Academic and research institutions
- Patients and patient groups

### WHY ARE THEY IMPORTANT?

To trigger effective action that can measurably reduce premature deaths and the associated global economic burden caused by CVD.

**TO DOWNLOAD THE FULL ROADMAP PLEASE VISIT – [CVDROADMAPS.ORG](http://CVDROADMAPS.ORG)**

We also thank the Access Accelerated consortium for their sponsorship of the WHF Roadmap on Hypertension.

# HYPERTENSION ROADMAP

## ROADMAP FOR HYPERTENSION – UPDATE



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