

Managing cardiovascular disease with WHO HEARTS

HEARTS: an overview

- A technical package from the World Health Organization (WHO) with six practical, step-by-step modules and an implementation guide
- Goal: support ministries of health to strengthen cardiovascular disease management in primary health care settings
- Target audience: policy-makers and program managers

The WHO HEARTS approach to effective hypertension care

1. Simple, practical treatment protocol

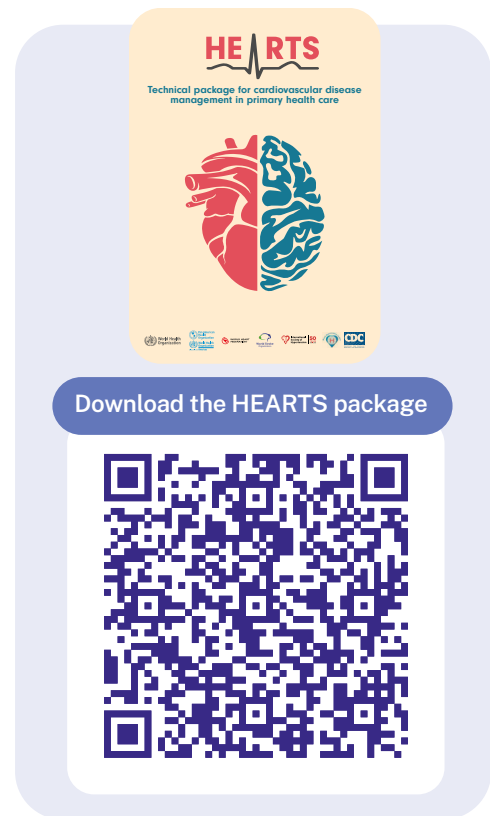
- Standard adopted at the national or regional level, including medications, dosages, and action steps
- Empowers non-clinical staff and reduces workload for doctors
- Simplifies drug procurement and streamlines care delivery, improving adherence and outcomes

2. Accessible, affordable, life-saving medications

- Hypertension can be controlled with safe, low-cost medication.
- Support for regulations, procurement, supply chain management and other strategies to make affordable medication consistently available

3. Team-based care and task sharing

- Standard protocols and training enable more health care workers to manage patients.
- Expands access to care to remote areas and reduces patient travel time, improving adherence
- Improves quality of care



Gujarat

Hypertension Protocol

Health & Family Welfare Department Government of Gujarat

Measure blood pressure of **all adults over 30 years**

High BP: **SBP ≥ 140 or DBP ≥ 90 mmHg**

Check for compliance at each visit before titration of dose or addition of drugs

Step 1 If BP is high:*
Prescribe Amlodipine 5mg

Step 2 After 30 days measure BP again. If still high:
Increase to Amlodipine 10mg

Step 3 After 30 days measure BP again. If still high:
Add Telmisartan 40mg

Step 4 After 30 days measure BP again. If still high:
Increase to Telmisartan 80mg**

Step 5 After 30 days measure BP again. If still high:
Add Chlorthalidone 12.5mg***

... After 30 days measure BP again. If still high:
Check if the patient has been taking medications regularly and correctly. If yes, refer to a specialist.

Pregnant women and women who may become pregnant

▲ DO NOT give Telmisartan or Chlorthalidone.

- Statins, ACE inhibitors, angiotensin receptor blockers (ARBs), and thiazide/thiazide-like diuretics should not be given to pregnant women or to women of childbearing age not on effective contraception.
- Calcium channel blocker (CCB) can be used. If not controlled with intensification dose, refer to a specialist.

Diabetic patients

- Treat diabetes according to protocol.
- Aim for a BP target of < 140/90 mmHg.

Heart attack in last 3 years

- Add beta blocker to Amlodipine with initial treatment.

Heart attack or stroke, ever

- Begin low-dose aspirin (75mg) and statin.

People with high CVD risk

- Consider aspirin and statin.

Chronic kidney disease

- ACEI or ARB preferred if close clinical and biochemical monitoring is possible.

* If SBP > 160 or DBP > 110, refer patient to a specialist after starting treatment.

** If SBP 160-179 or DBP 100-109, start treatment on the same day.

*** If SBP 140-159 or DBP 90-99, check on a different day and if still elevated, start treatment.

*** Hydrochlorothiazide 25 mg can be used if Chlorthalidone 12.5 mg is not available.

Lifestyle advice for all patients

Avoid tobacco and alcohol

Exercise 2.5 hr/week

Reduce salt, under 1 tsp/day

Eat less fried foods

Additional advice:

- Eat 5 servings of fruits and vegetables per day.
- Avoid papads, chips, chutneys, dips, and pickles.
- Use healthy oils: sunflower, mustard, or groundnut.
- Limit consumption of foods containing high amounts of saturated fats.
- Reduce weight if overweight.
- Reduce fat intake by changing how you cook.
- Remove the fatty part of meat.
- Eat, cream, or butter instead of fry.
- Limit meat or fat frying.
- Avoid processed foods containing trans fats.
- Avoid added sugar.

Medications should be taken at the same time each day

Discontinue drugs for 30 days and give appointment after 4 weeks

IHCI Health Intervention and Community Initiative

Hypertension management protocol used in Gujarat

4. Patient-centered care

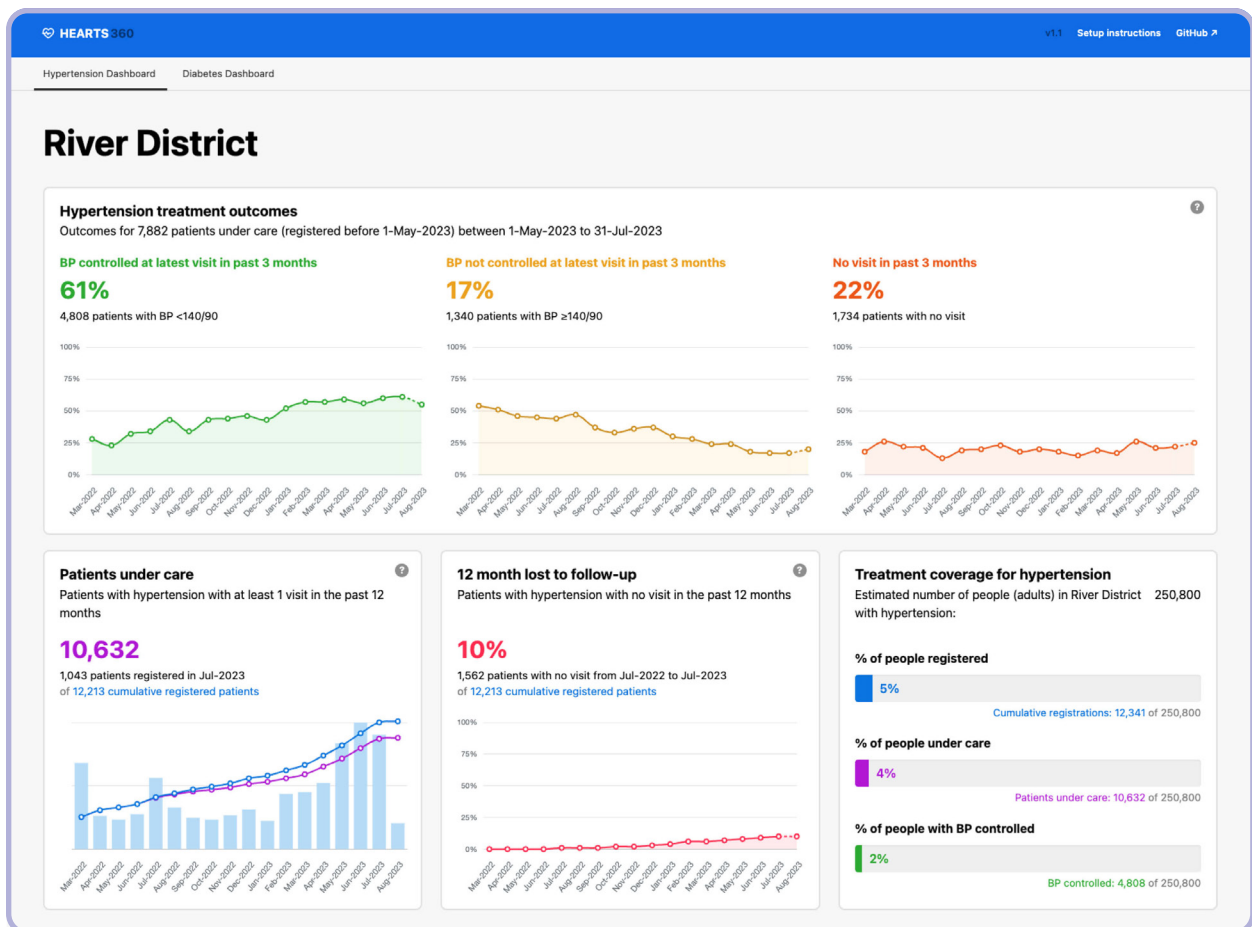
- Patients need to take their medication every day.
- Programs break down barriers to support patients.
- Simple medication regimens, multi-month prescriptions, closer-to-home care, and free medications all improve outcomes.

5. Information systems

- Reliable, long-term patient records improve outcomes.
- Digital systems allow continuity across health care facilities.
- [HEARTS 360 dashboard](#) facilitates real-time program monitoring.
- Feedback loops lead to steady improvement.

For more resources on cardiovascular health,

[Visit Resolve To Save Lives >](#)



The HEARTS 360 dashboard clearly displays the most important indicators.