HEARTs and PAHO-WHL indicators related to hypertension control programs

Norm Campbell

Benefits of a standardized monitoring framework

The ability to

- evaluate the effort to prevent and control hypertension.
- compare interventions on a national, regional or clinic basis and across time.
- learn from best (and worst) practices to optimize care and scale up of the best practices.
- assess 'care gaps' and revise program.
- determine public health priorities based on need.
- predict future caseloads of chronic diseases.

Monitoring and evaluation

Analogy of a journey

We are going on a journey.

- We do not know where we are,

- We do not know where we are going,

- We do not know how we are going to travel

- We will not know when or if we get to our destination.

Do something crazy.

Monitoring and evaluation

Hypertension Control

We are going to improve hypertension control.

- We do not know the current control rate,

- We do not know how we are going to improve the control rate,

- We will not know when or if the control rate will be increased

- We do not have a target control rate.

Monitoring and evaluation with a target destination and timeline is critical to both journeys.
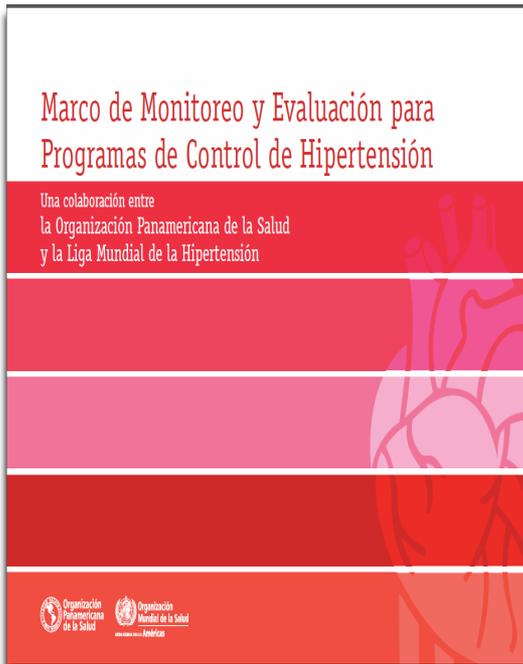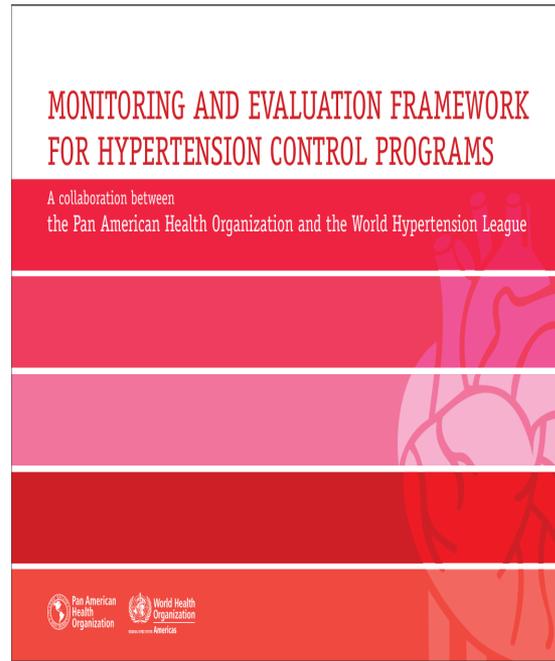
Monitoring and evaluation

- Core indicators vs. optional indicators

- Baseline- where we are.

- Target and timeline- where we are going and when we plan to get there.

- Process and structure indicators- the vehicle, map and plan for the journey.

- Quantitative indicators to monitor progress towards the target- the gas gage, GPS, altimeter, compass, speedometer and odometer.
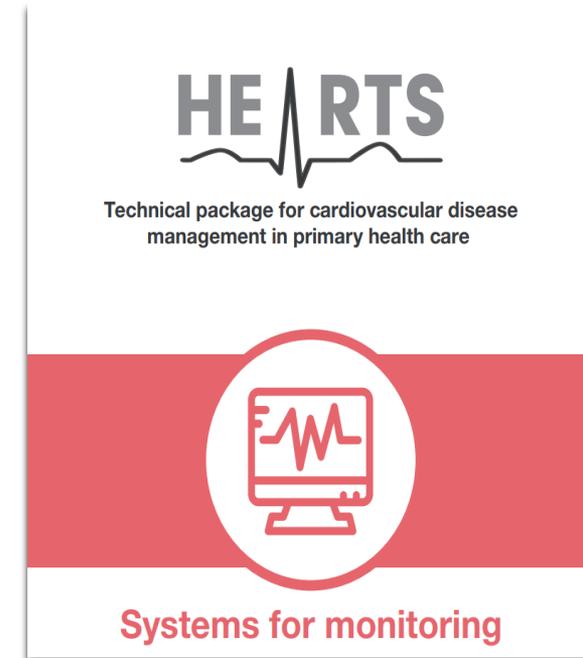
PAHO-WHL and HEARTS Monitoring Indicators - new March 2018

Marco de Monitoreo y Evaluación para Programas de Control de Hipertensión

Una colaboración entre la Organización Panamericana de la Salud y la Liga Mundial de la Hipertensión

MONITORING AND EVALUATION FRAMEWORK FOR HYPERTENSION CONTROL PROGRAMS

A collaboration between the Pan American Health Organization and the World Hypertension League

HE RTS

Technical package for cardiovascular disease management in primary health care

Systems for monitoring

http://iris.paho.org/xmlui/handle/123456789/34910

http://iris.paho.org/xmlui/handle/123456789/34877

http://www.who.int/cardiovascular_diseases/hearts/en
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MONITORING AND EVALUATION FRAMEWORK FOR HYPERTENSION PROGRAMS. A collaboration between the Pan American Health Organization and World Hypertension League Journal of Clinical Hypertension. Submitted

Key resources

- World Health Organization, *HEARTS: Technical package for cardiovascular disease management in primary health care*. 2016: Geneva, Switzerland. p. 1-73.

- *Improved Blood Pressure Control to Reduce Cardiovascular Disease Morbidity and Mortality: The Standardized Hypertension Treatment and Prevention Project.* J Clin Hypertens (Greenwich), 2016: p. 1284-1294.

- *Improved blood pressure control associated with a large-scale hypertension program.* JAMA, 2013. **310**(7): p. 699-705.

- *Standards for the Uniform Reporting of Hypertension in Adults Using Population Survey Data: Recommendations From the World Hypertension League Expert Committee.* The Journal of Clinical Hypertension, 2014. **16**(11): p. 773-781.

- *Implementing standardized performance indicators to improve hypertension control at both the population and healthcare organization levels.* J Clin Hypertens (Greenwich), 2017. **19**(5): p. 456-461.

- *The Outcomes Research Task Force and the Canadian Hypertension Education Program.* Can J Cardiol, 2006. **22**(7): p. 556-558

MONITORING AND EVALUATION FRAMEWORK FOR HYPERTENSION PROGRAMS. PAHO-WHL collaboration

CORE Indicators

- Intended to be used in all national hypertension control programs.

- 5 from HEARTs and 1 from PAHO-WHL.

Optional PAHO-WHL indicators

- 14 qualitative indicators and 33 quantitative indicators.

HEARTs CORE Health facility level indicator

- **Six-monthly control of blood pressure among people treated for hypertension** (Proportion of patients registered for hypertensive treatment at the health facility whose blood pressure is controlled 6 months after treatment initiation).
  - **A=** Number of patients with controlled blood pressure (SBP <140 and DBP<90) at the last clinical visit in the most recent quarter (just before the reporting quarter) out of B.
  - **B=** Number of patients registered for treatment of hypertension during the quarter that ended 6 months previously.
  - Calculation: **A÷B**

- **To monitor short term progress towards improved hypertension control in the facility (compare facilities and time trends).**

- **Should be used with performance reporting.**

- **Recommended to have a local target (e.g. 50% control rate by April 2019)**

- **Uses data from the hypertension treatment register in the facility**

- **Reported every 3 months**

HEARTs CORE Subnational level aggregated indicators

- Control of blood pressure among people with hypertension within the programme (e.g. district, province, or state)
  - **A=** Cumulative number of registered patients with controlled blood pressure (SBP <140 and DBP <90) in the most recent quarter at all health facilities in a given geographical area, such as a district, province, or state.
  - **B=** Estimated number of people with hypertension at the subnational level.
  - Calculation: **A÷B.**
- To monitor progress towards population hypertension control with programme (disaggregate to compare facilities)
- Uses aggregated reports from all the health facilities reporting the hypertension indicator in a defined subnational area and an estimation of hypertension prevalence
- Recommended to have a local target
- Reported annually

HEARTs CORE Subnational level aggregated indicators

- Availability of core cardiovascular disease/diabetes drugs within the programme (e.g. district, province, or state)
  - **A=** number of health facilities in the programme reporting "no stock-out" of core CVD/Diabetes Mellitus drugs in the last quarter
  - **B=** Number of health facilities participating in the programme
  - Calculation: **A÷B.**

- To facilitate managers ensuring an uninterrupted core drug supply

- Reported quarterly

- Target is no stock outs of thiazide type diuretics, long acting calcium channel blocker, long acting angiotensin converting enzyme inhibitor (ACE-I) and angiotensin receptor blocker (ARB).

HEARTs CORE Population-level indicators of control of hypertension

- Hypertension control in the population
  - **A=** Number of respondents with SBP <140 and DBP <90 who are EITHER (being currently treated with medications for hypertension OR have been diagnosed with hypertension.
  - **B=** Number of survey respondents with SBP ≥140 or DBP ≥90 OR who are currently treated with medicines for hypertension OR who report having been diagnosed with hypertension by a health professional.
  - Calculation: **A ÷ B.**
- The primary target for hypertension program
- Population-based sample survey (STEPS or similar survey)
- Reported once in 3-5 years
- Locally developed target

HEARTs CORE Population-level indicators of control of hypertension

- Proportion of eligible persons receiving drug therapy and counseling.
  - **A** = Number of eligible survey participants who are receiving drug therapy and counselling.
  - **B** = Total number of eligible survey participants. (defined as aged 40 years and older with a 10-year cardiovascular risk. ≥30%, including those with existing cardiovascular disease)
  - Calculation: A÷B.
- Surrogate target to achieve hypertension control.
- Population-based sample survey (STEPS or similar survey).
- Reported once in 3-5 years.
- Recommended target is a 5% increase/year.

MONITORING AND EVALUATION FRAMEWORK FOR HYPERTENSION PROGRAMS. PAHO-WHL collaboration

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Organización Panamericana de la Salud
Organización Mundial de la Salud
Américas

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Pan American Health Organization
World Health Organization
Américas

HEARTs and PAHO-WHL Framework for hypertension control programs

Introduction:
- Rationale for monitoring and evaluation program.
- Hypertension as a model for transforming the health care system.

Indicators
- Process and structure indicators
- Outcome indicators

Each indicator: a brief rationale for the indicator, evidence of its usefulness if any, and clear definitions. A mechanism for tracking progress for countries to use in implementing indicators.

References and resource section
- References and resources for assessing indicator.

Framework was pilot tested in Cuba, Colombia and Chile

PAHO-WHL Framework for hypertension control programs

- Intended to be used in conjunction with the HEARTs, Core indicators to enhance monitoring and evaluation

- The framework outlines various optional components for evaluating Hypertension Control Programs and proposes countries use it to select components for their evaluation based on national context depending on expertise, resources and infrastructure.

- Acknowledges each country will implement and evaluate their hypertension program somewhat differently.

PAHO-WHL Framework for hypertension control programs

- Indicators can be added to over time as surveillance mechanisms are enhanced.

- May be used in community, municipal, provincial or national programs but may need modification as existing (national) survey mechanisms may not be designed for the geographical location of the program.

- Especially important is implementation in clinics with performance reporting !!!

- Provides standardized indicator definitions to allow comparison between justifications and over time.

PAHO-WHL CORE indicator for facilities and subnational programmes

- Proportion of people who have been registered as hypertensive of those estimated to have hypertension in the catchment area.
  - **A=** Number of adult patients who have been registered as diagnosed with hypertension (>140 mm Hg and >90 mm Hg or taking medications) in the catchment area in a specific period of time (month, quarter, year)
  - **B=** Expected number of adults with hypertension based on best estimate of age-adjusted prevalence of hypertension (based on physical measures surveys) in the catchment area in a specific period of time (month, quarter, year
  - Calculation: **A÷B * 100**
- To assess the ability of the program to identify people with hypertension in the area served
- Health facility register for hypertension AND physical measures surveys
- Quarterly to annually

Optional PAHO—WHL Quantitative, Process and structure indicators

- PAHO—WHL Process and structure indicators
  - 14 steps that outline processes and structures that are believed necessary for a successful programme
- Quantitative indicators
  - Test the baseline and progress towards the programme target
  - Blood pressure physical measures- 7 indicators (prevalence, diagnosis, treatment and control)
  - Questionnaire surveys- 4 indicators
  - Antihypertensive drugs prescriptions- 2 indicators
  - Death rates associated with hypertension- 4 indicators
  - Clinic- health facilities- 5 indicators

Closing Comments

- We are going on a journey to control hypertension.
- We know the baseline data (hypertension prevalence, treatment and control rate), has a detailed action plan on what is going to be done, by whom and when and a target and timeline.
- Especially important is implementation in clinics combined with performance reporting !!!
- We will use global best standards to achieve our targets for the control of hypertension.