Improving Clinical Management and NCD Surveillance in the Context of COVID-19 through HEARTS Implementation

Saint Lucia – 15-18 May, 2023

HEARTS
in the Americas

HEARTS Monitoring and Evaluation System

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"Without data there is no progress and Without data there is no program"

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For a Primary Health Care Center – *What does this mean?*

- Identifying the problem and all its components ***with data!***
- Breaking-down each component and implementing a corrective strategy ***with data!***
- Monitor and evaluate if there is ***room for improvement*** in the PHC's application of corrective strategies ***with data!***

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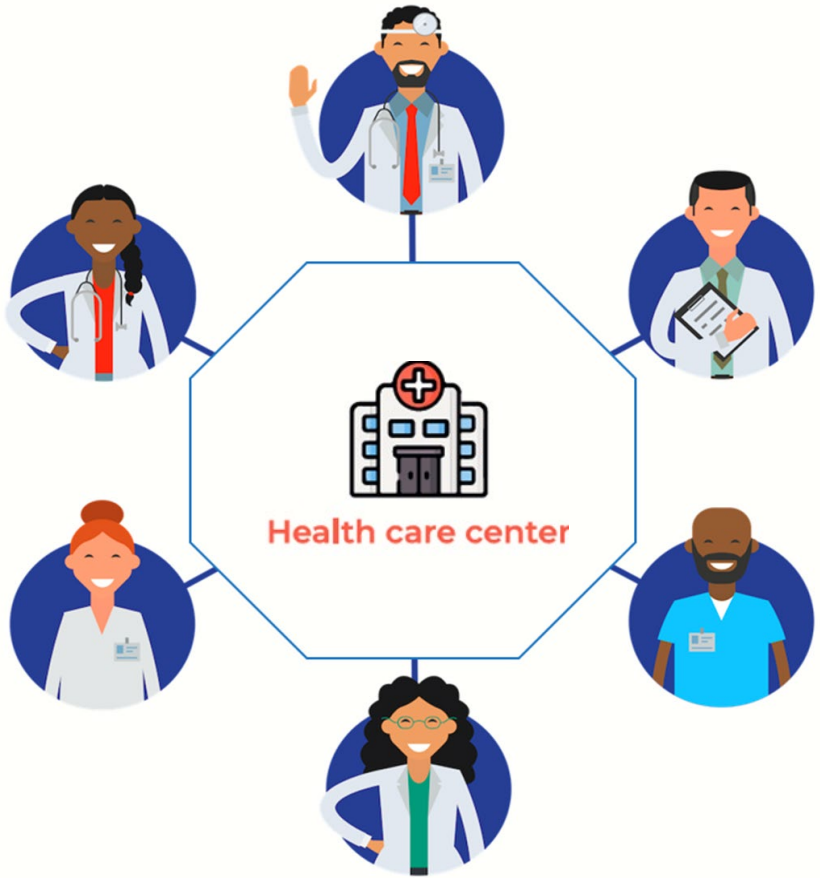
HEARTS Conceptual Framework in the PHC setting

STRUCTURE VARIABLES	1	PHC existing work force
	2	Access to validated BPMD
	3	Access to medications
PROCESS VARIABLES	4	Use of the Clinical Pathway
	5	Implementation of the HNT drivers
	6	Team-based care
	7	Education & Training
	8	SM&E for Quality Improvement
	9	PHC Reporting
OUTCOME VARIABLES	10	Coverage
	11	Control/Treated

Assessing the situation & establishing a baseline



- *What is the size of the **population** served by our PHC?*
- *What is the size and composition of our center's **workforce**?*
- *Do we have **validated BPMDs**, and if so, how many?*
- *What **medications do we have** available, and what is **our supply**?*

- *Are we adhering to the HEARTS **Clinical Pathway**?*
- *How many HEARTS **hypertension control drivers** are we implementing*
- *Are we maximizing the benefits of **task-sharing via team-based care**?*
- *Are we taking steps to maintain a standard of quality of care by requiring continual **training and education**.*

- *Are we collecting data to assess how well are we **adhering** to the **Clinical Pathway** and how well are we **implementing** the **hypertension control drivers**?*
- *Are we using the data to make **improvements?***

- *Are **coverage** and **control** rates improving?*

Collecting the data to answer these questions

STRUCTURE VARIABLES	1	PHC existing work force
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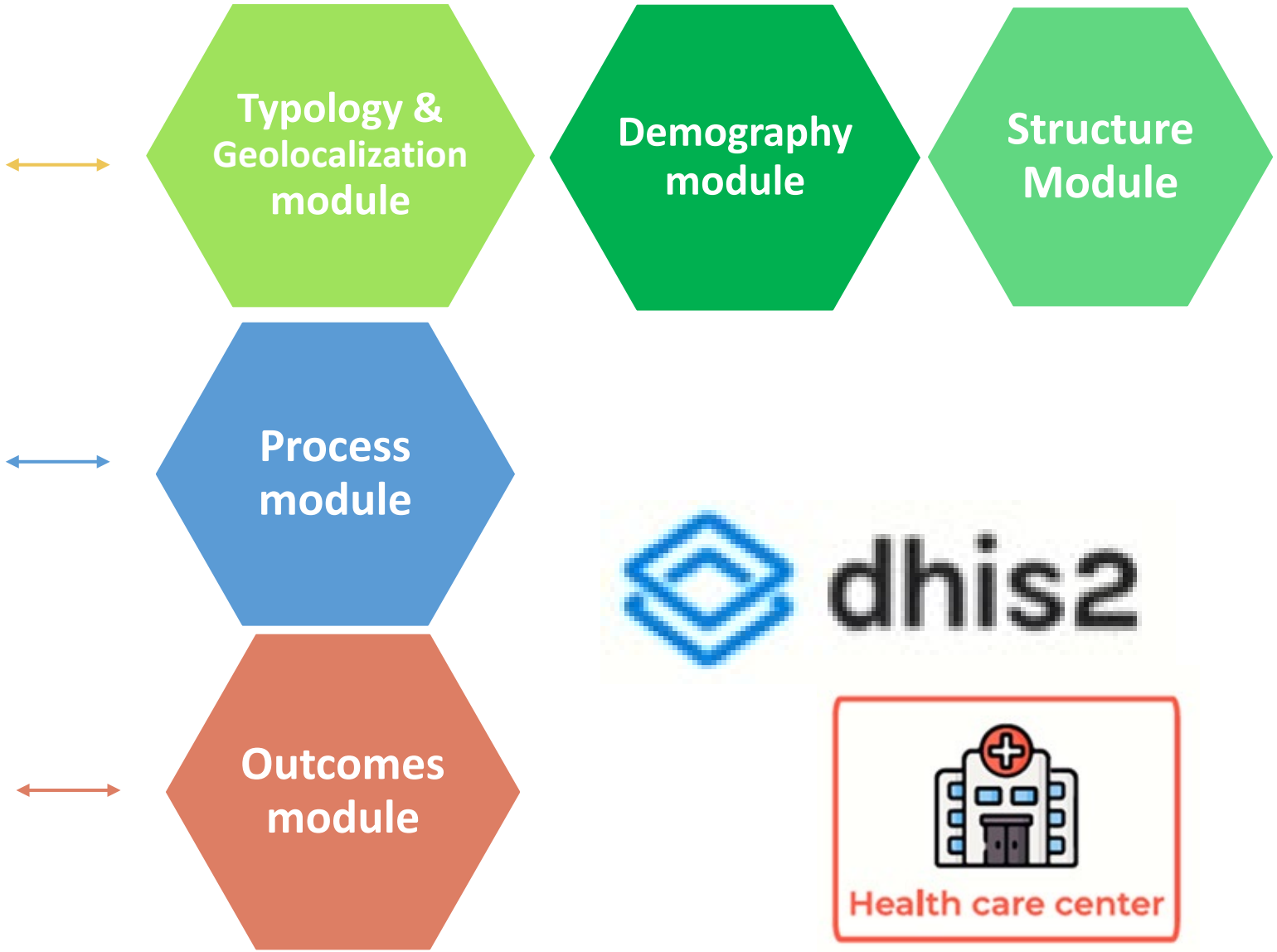


DHIS2 Structural Modules

Geolocalization & typology

Filled once

- Location
- setting (rural/urban)
- complexity of PHC services provided

Demographics

Annually

- Sex and age distribution
- Socioeconomic community profile
- Race and ethnicity

Structure module

Annually

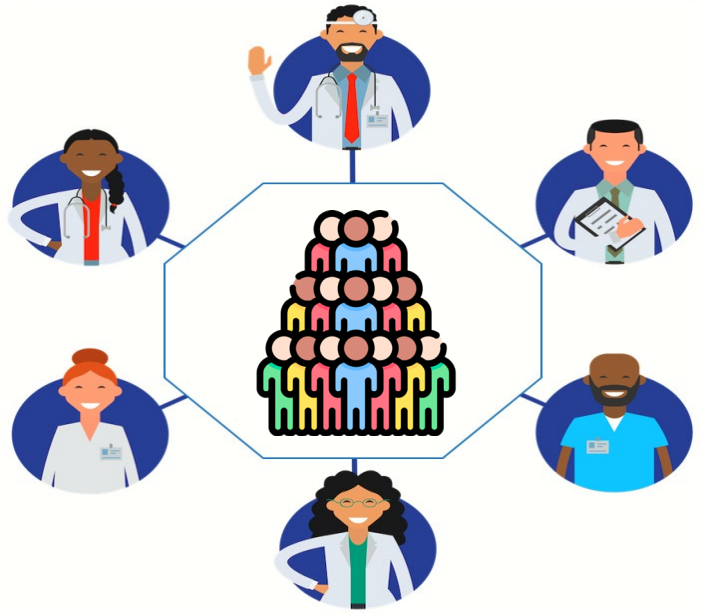
- Access to pharmacies
- Access to laboratories
- M&E system used

Semi-annually

- Human resources
- Available BPMDs
- Telemedicine use

Monthly

- Available medications
- Prescription frequency



DHIS2 Process Module

Process Indicators

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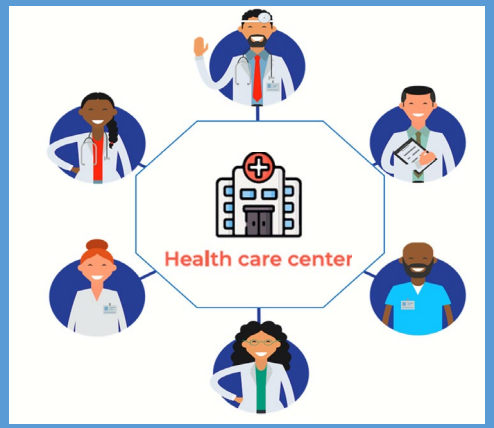
Evaluate how well the HTN drivers and recommendations are being implemented



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Drivers		Recomendations
BP measurement accuracy	1A 1B 1C	• BP measurement training every six months for all staff involved with BP measurement. • BP measurement protocols, and repeated BP measurement if the first BP reading is elevated. • Exclusive use of validated automatic BPMD
CVD risk assessment	2A 2B	• Assess the CVD risk in all patients with hypertension to guide BP goal and frequency of follow-up. • Use of combination BP medication, statin, aspirin (as needed) in high CVD risk patients, including those with diabetes and CKD.
Standardized Treatment Protocol	3A 3B	• Standardized treatment protocol with specific medications and doses. • Established protocol using FDC medication.
Treatment intensification	4A 4B	• Initiate pharmacological treatment immediately after the diagnosis of HTN is confirmed. • Medication must be added or intensified as per standard protocol if BP ≥ 140/90 or SBP ≥130 mmHg for high-risk patients.
Continuity of care and follow up	5A 5B 5C	• Follow-up of elevated BP within 2-4 weeks if not controlled. • BP visit within six months for all patients with hypertension stable and well-controlled. • BP visit within 3 months for all patients with hypertension and high CVD risk, including diabetes and CKD
Team-based care and task-shifting	6A 6B 6C	• BP measurement by NPHW appropriately trained and certified. • Follow-up BP visits with NPHW under supervision and guided by protocol. • Medication titration by a NPHW under supervision and guided by protocol
Medication refill frequency	7A	• 3-month refill intervals for all BP medication prescriptions for patients stable and controlled
System for performance evaluation with feedback	8A	• Monthly performance evaluation for racking, prevent substantial deviations and promote timely program corrections. (Bi-monthly evaluation and feedback can be acceptable for small facilities. Three months is the minimum acceptable)

DHIS2 Outcome Module

Outcome

Filled Monthly

HTN control and coverage rates

Health care center

Goal: A learning healthcare system

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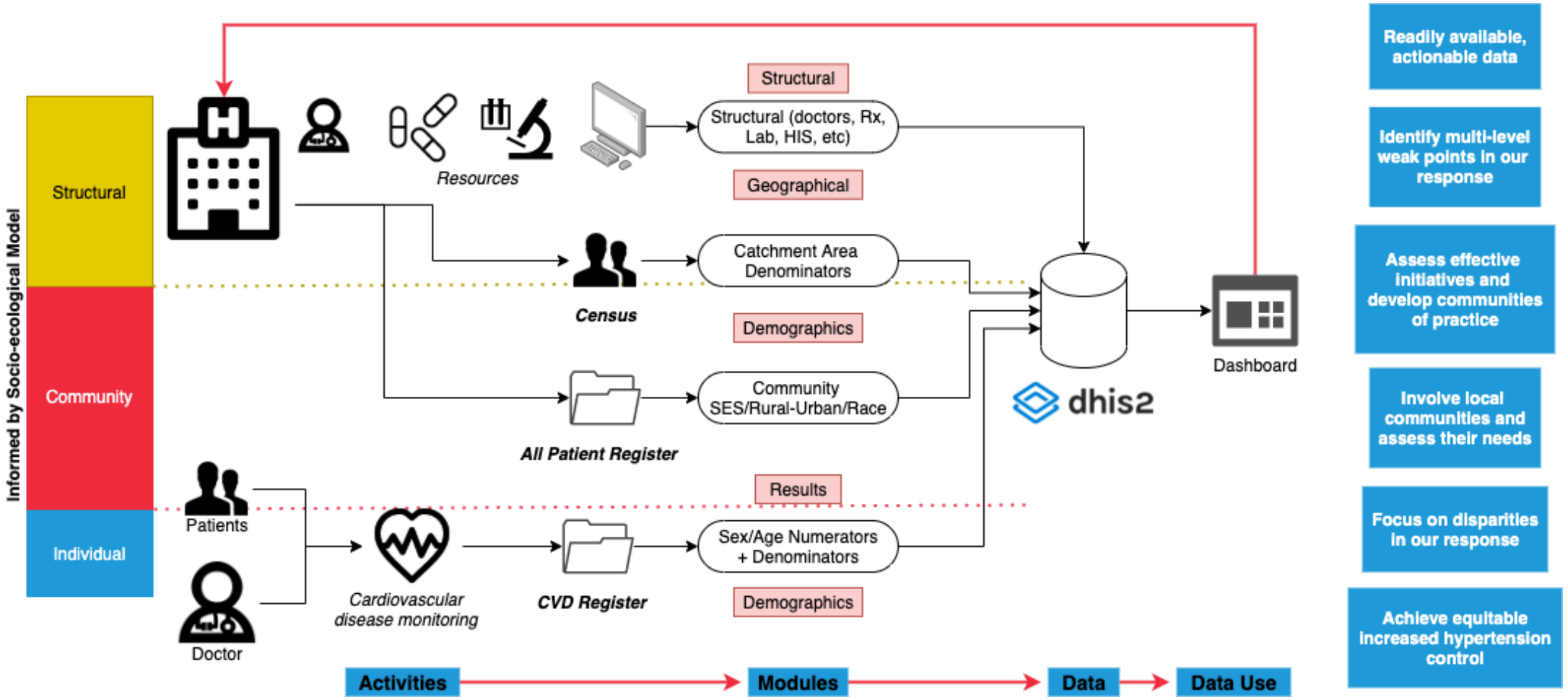
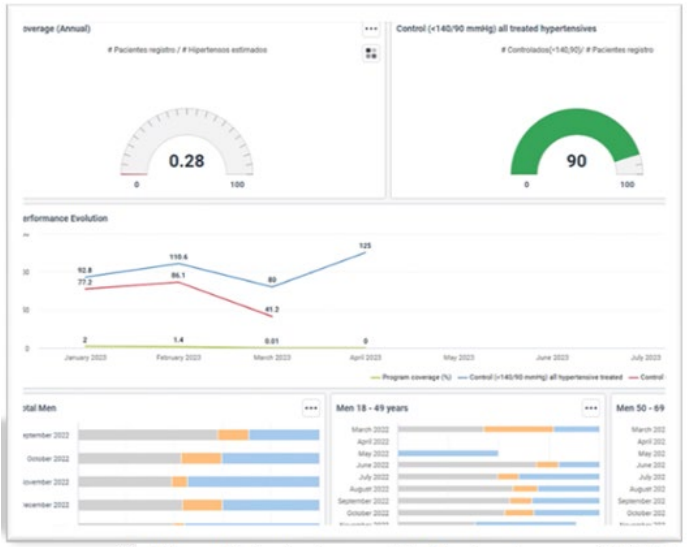
THE FRAMEWORK



- Readily available, actionable data
- Identify multi-level weak points in our response
- Assess effective initiatives and develop communities of practice
- Involve local communities and assess their needs
- Focus on disparities in our response
- Achieve equitable increased hypertension control

System for Monitoring and Evaluation

HOW CAN YOU MAKE THE HEARTS PROGRAM SUCCESSFUL IF YOU DON'T HAVE COVERAGE AND CONTROL DATA?



Dashboard Monitoring and Evaluation System HEARTS

- ✓ **HEARTS' SM&E was developed and has already provided an analytical report of the program's maturity and performance.**
- ✓ **The SM&E was designed to respond to the implementation of HTN Control Drivers and the Clinical Pathway. It is instrumental to guide the QI process.**
- ✓ **The SM&E was built using DHIS2, which ensures interoperability with most existing electronic medical records.**
- ✗ **Most countries' information systems fail to capture data to manage the HEARTS program successfully.**
- ✗ **Lack of priority and technical capacity to obtain data to guide program implementation.**
- ✗ **Most countries have not yet developed a plan to implement the SM&E.**

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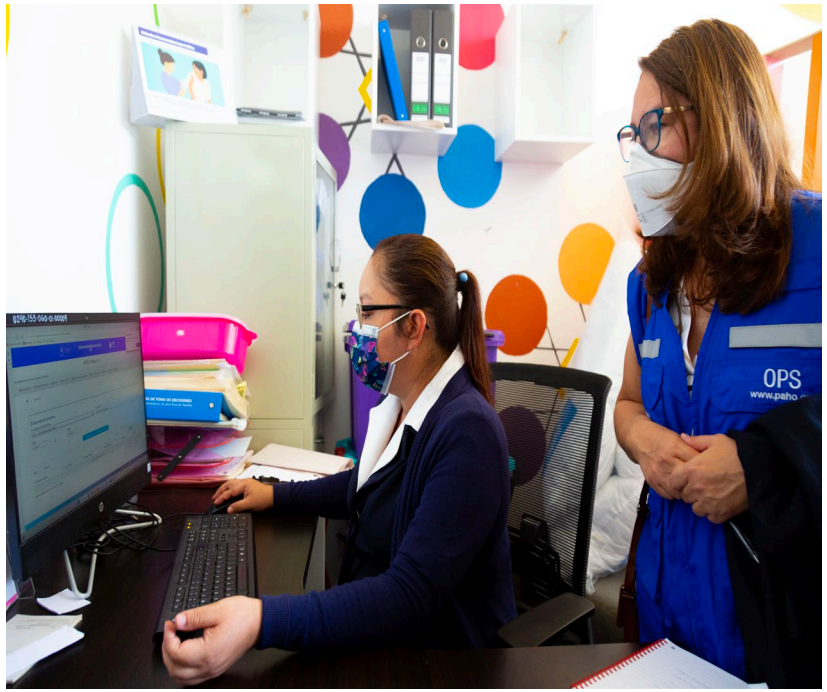
System for Monitoring and Evaluation

The way forward



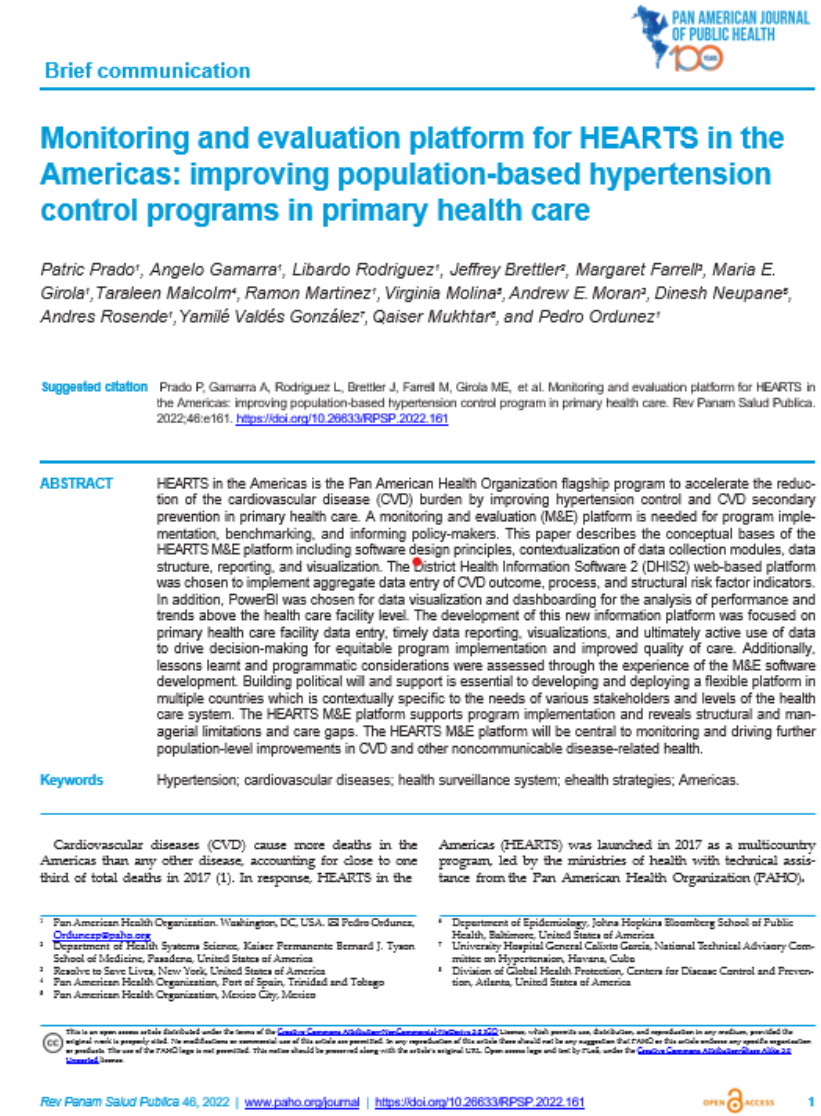
Main action: Timely implementation of a reliable SM&E which is able to document the progress of program implementation with focus on PHC facilities.

How? Implementing the HEARTS' SM&E in all PHC implementing HEARTS.

In the meantime: Forming a team, building capacity, and developing a plan to implement the SM&E.

But also: Investing resources and promoting budget allocation to strengthen information systems.

CONCLUSION



Brief communication

PAN AMERICAN JOURNAL OF PUBLIC HEALTH

Monitoring and evaluation platform for HEARTS in the Americas: improving population-based hypertension control programs in primary health care

Patric Prado[1], Angelo Gamarra[1], Libardo Rodriguez[1], Jeffrey Brettler[2], Margaret Farrell[3], Maria E. Girola[1], Taraleen Malcolm[4], Ramon Martinez[1], Virginia Molina[5], Andrew E. Moran[3], Dinesh Neupane[6], Andres Rosende[1], Yamilé Valdés González[7], Qaiser Mukhtar[8], and Pedro Ordunez[1]

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ABSTRACT HEARTS in the Americas is the Pan American Health Organization flagship program to accelerate the reduction of the cardiovascular disease (CVD) burden by improving hypertension control and CVD secondary prevention in primary health care. A monitoring and evaluation (M&E) platform is needed for program implementation, benchmarking, and informing policy-makers. This paper describes the conceptual bases of the HEARTS M&E platform including software design principles, contextualization of data collection modules, data structure, reporting, and visualization. The District Health Information Software 2 (DHIS2) web-based platform was chosen to implement aggregate data entry of CVD outcome, process, and structural risk factor indicators. In addition, PowerBI was chosen for data visualization and dashboarding for the analysis of performance and trends above the health care facility level. The development of this new information platform was focused on primary health care facility data entry, timely data reporting, visualizations, and ultimately active use of data to drive decision-making for equitable program implementation and improved quality of care. Additionally, lessons learnt and programmatic considerations were assessed through the experience of the M&E software development. Building political will and support is essential to developing and deploying a flexible platform in multiple countries which is contextually specific to the needs of various stakeholders and levels of the health care system. The HEARTS M&E platform supports program implementation and reveals structural and managerial limitations and care gaps. The HEARTS M&E platform will be central to monitoring and driving further population-level improvements in CVD and other noncommunicable disease-related health.

Keywords Hypertension; cardiovascular diseases; health surveillance system; ehealth strategies; Americas.

Cardiovascular diseases (CVD) cause more deaths in the Americas than any other disease, accounting for close to one third of total deaths in 2017 (1). In response, HEARTS in the Americas (HEARTS) was launched in 2017 as a multicountry program, led by the ministries of health with technical assistance from the Pan American Health Organization (PAHO).

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- The system is ready to be implemented
- Advocate for the importance of data.
- Investment (HR and Technology)
- Political will.

HEARTS IN THE AMERICAS