



HEARTS EN LAS AMÉRICAS



OPS

RESOLVE
TO SAVE LIVES
AN INITIATIVE OF VITAL STRATEGIES



HEARTS EN LAS AMÉRICAS

Core indicators for hypertension program evaluation. Concepts, methodology and practice.

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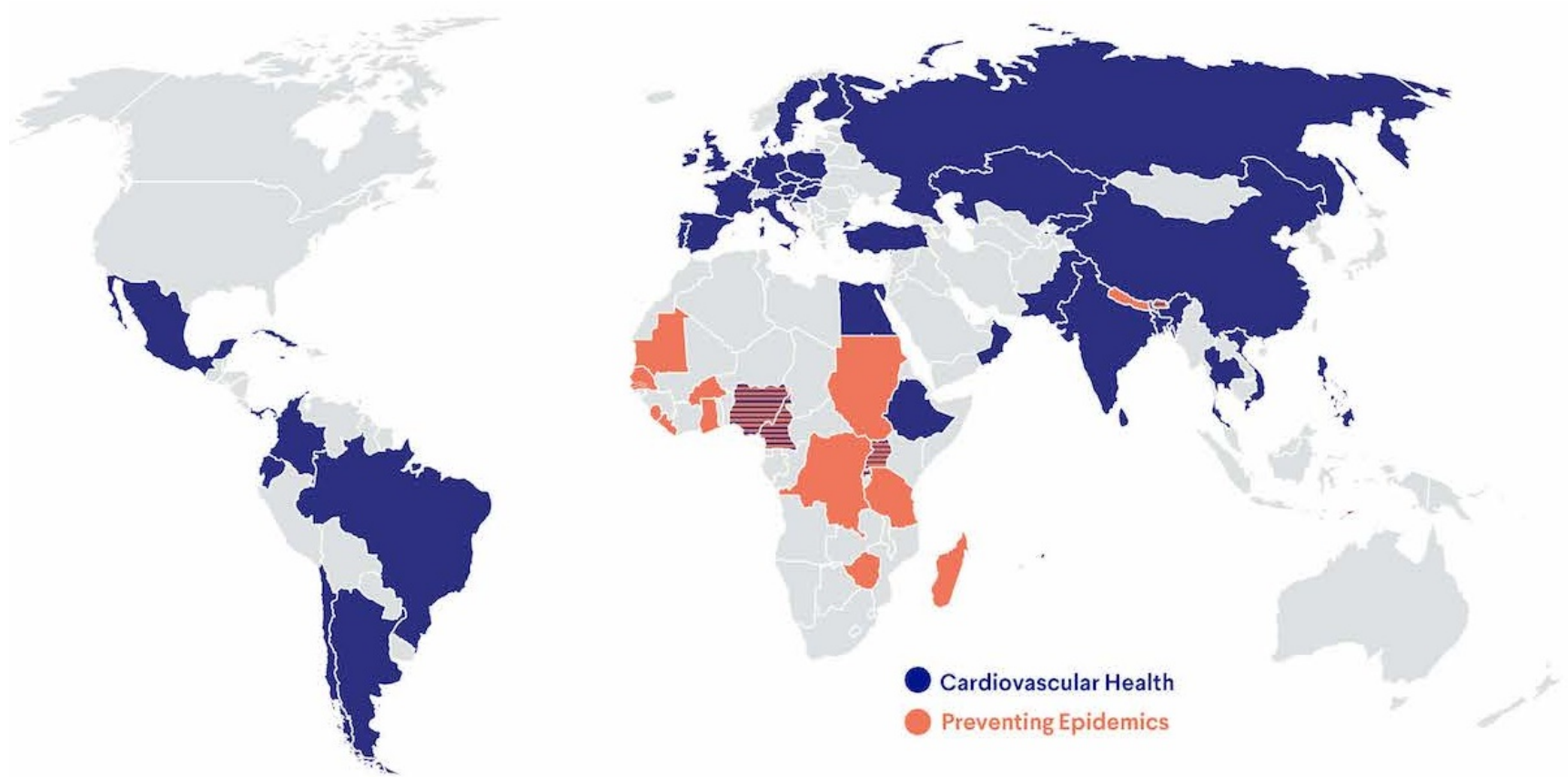


OPS





Resolve to Save Lives' Global Activities



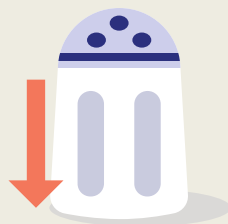
When does

$$50 + 30 + 0 = 100?$$

Globally, we can save 100 million lives over the next 30 years



Increase global control of blood pressure from 14% to 50%

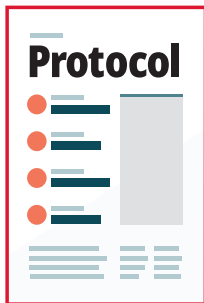


Reduce global dietary sodium intake by 30%

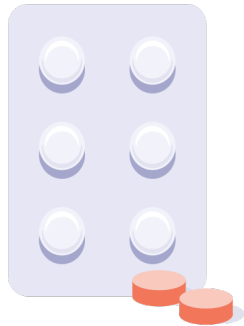


Eliminate artificial trans fats 0%

5 components of successful hypertension control programs



Simple,
Practical
Protocol



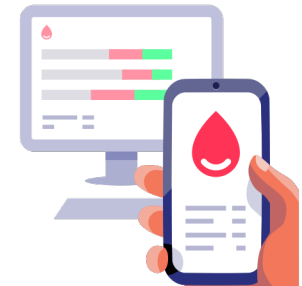
Medication
and
Equipment
Supply



Team-
Based Care



Patient-
Centered
Services



Information
Systems

Information systems for hypertension control programs



Quality **health information systems** create feedback loops and strengthen a data-driven culture of accountability and quality improvement

Hypertension program indicators

1

TREATMENT INITIATION-BASED HYPERTENSION CONTROL:

Cohort definition of registry-based hypertension control

*Adapted from the WHO HEARTS "S" module's indicator 1**

NUMERATOR Patients first registered in the hypertension registry 3-6 months previously AND had controlled blood pressure (SBP <140 and DBP <90 mmHg) at the most recent clinical visit within the previous 3 months

DENOMINATOR Patients first registered in the hypertension registry 3-6 months previously

2A

CROSS-SECTIONAL REGISTRY-BASED HYPERTENSION CONTROL:

Cross-sectional definition of registry-based hypertension control

Adapted from the WHO HEARTS "S" module's indicator 2

NUMERATOR Patients in the hypertension registry AND had controlled blood pressure (SBP <140 and DBP <90 mmHg) at the most recent clinical visit within the prior 12 months

DENOMINATOR Patients registered in the hypertension registry at any time

2B

ANNUAL REGISTRY-BASED COMMUNITY-LEVEL HYPERTENSION CONTROL:

Cross-sectional definition of registry-based hypertension control

Adapted from the WHO HEARTS "S" module's indicator 2

NUMERATOR Patients in the registry AND had controlled blood pressure (SBP <140 and DBP <90 mmHg) at the most recent clinical visit within the previous 3 months

DENOMINATOR Estimated number of people with hypertension in the catchment area*

3

SURVEY-BASED COMMUNITY-LEVEL HYPERTENSION CONTROL:

Prevalence of controlled hypertension in the community, as determined via survey approximately every 5 years

Adapted from the WHO HEARTS "S" module's indicator 3

NUMERATOR Number of respondents with controlled blood pressure (SBP <140 and DBP <90 mmHg) who report currently being treated with medications for hypertension*

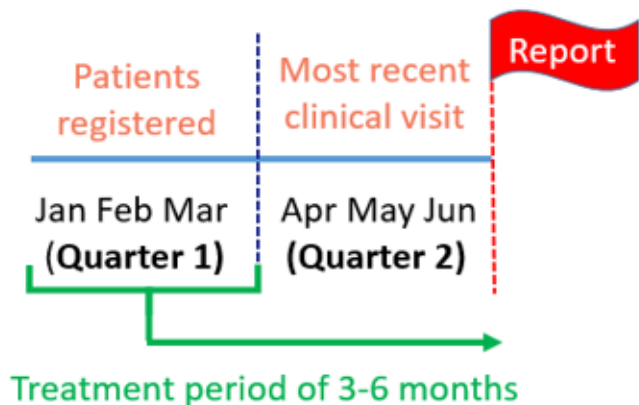
DENOMINATOR Community-dwelling respondents with elevated blood pressure (SBP ≥140 or DBP ≥90mmHg) OR who report currently being treated with medications for hypertension

Indicator 1: HTN control in a treatment cohort

1. Treatment initiation-based hypertension control: Cohort definition of registry-based hypertension control (adapted from the WHO HEARTS “S” module’s indicator 1)

Numerator	Patients first registered in the hypertension registry 3-6 months previously AND had controlled blood pressure (SBP <140 and DBP <90 mmHg) at the most recent clinical visit within the previous 3 months*
Denominator	Patients first registered in the hypertension registry 3-6 months previously*

Example:



Indicator 2a: hypertension control in a cross section

2a. When electronic health records available—rolling cross-section-based hypertension control:

Cross-sectional definition of registry-based hypertension control
(adapted from the WHO HEARTS “S” module’s indicator 2)

Patients in the hypertension registry AND had controlled blood pressure (SBP <140 and DBP <90 mmHg) at the most recent clinical visit within the prior 12 months

Patients registered in the hypertension registry at any time

Indicator 2b: hypertension control in a cross section

2b. Annual clinic-based community level hypertension control: Annual *cross-sectional* definition of community-based hypertension control (based on the WHO HEARTS “S” module’s indicator 2)

Patients in the registry AND had controlled blood pressure (SBP <140 and DBP <90 mmHg) at the most recent clinical visit within the previous 3 months

Estimated number of people with hypertension in the catchment area*

**Defined as the number of adults in the catchment area multiplied by the prevalence of hypertension in the catchment area. If the regional prevalence is not known, use the national prevalence.*

Indicator 3: population-based estimate of hypertension control

3. Survey-based community-level hypertension control: Prevalence of controlled hypertension in the community, *as determined via survey* approximately every 5 years (Based on the WHO HEARTS “S” module’s indicator 4)

Numerator	Number of respondents with controlled blood pressure (SBP <140 and DBP <90) who report currently being treated with medications for hypertension [§]
Denominator	Community-dwelling respondents with elevated blood pressure (SBP ≥140 or DBP ≥90) OR who report currently being treated with medications for hypertension

§ Omit persons who self-report a hypertension diagnosis, are currently normotensive, but are not treated with medications; most likely this represents mis-diagnosis as very few people with hypertension have blood pressure controlled by way of lifestyle change alone.

Population coverage and program performance


Indicator	Country A	Country B
Adult population aged ≥ 40 years	100,000	100,000
Adults with Hypertension	20,000	20,000
Registered in program in the past quarter	5,000	15,000
Proportion covered by the program	25%	75%
Hypertensive with controlled blood pressure	4,000	7,500
Percent controlled hypertension (Indicator 2a)	80%	50%
Percent controlled hypertension (Indicator 2b)	20%	38%

Hypertension registries 1: paper-based




Hypertension registries 1: paper-based

BRING THIS PASSPORT FOR EVERY VISIT



BP Passport
682 0063

Patient ID



Patient name

Return for your next blood pressure check-up on

Date	Date	Date	Date	Date

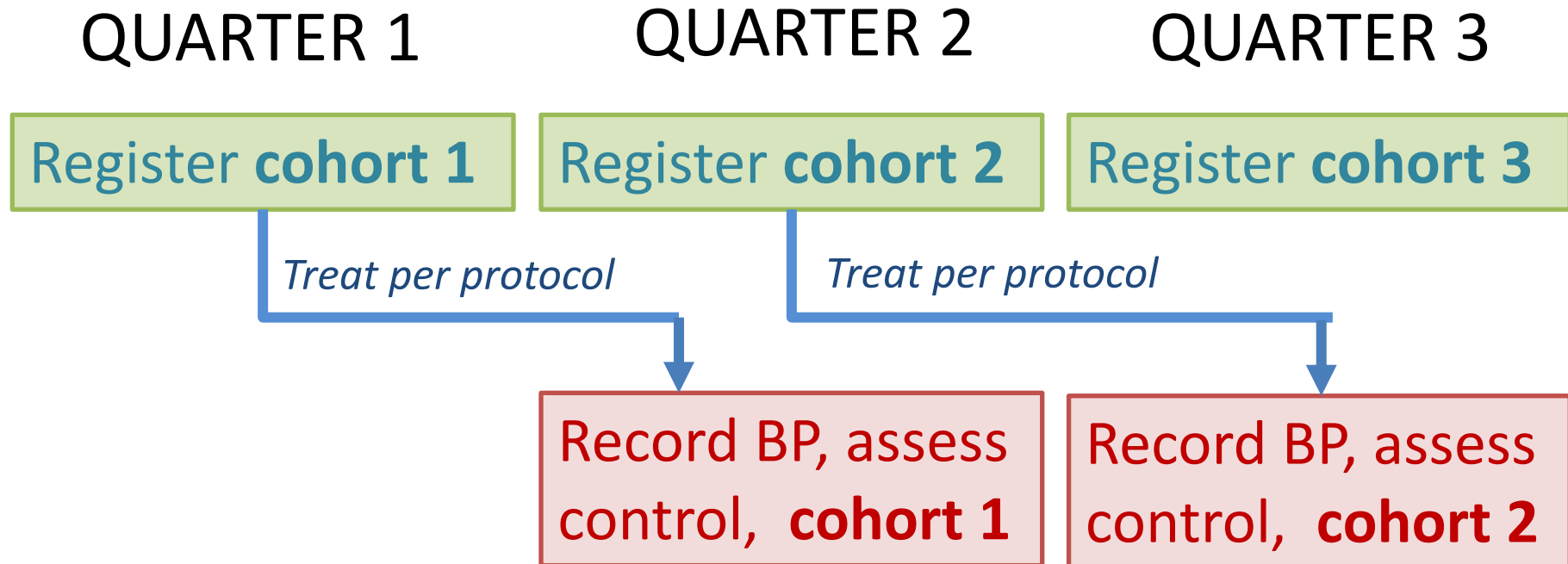
Record BP exactly as displayed on BP device, without rounding.

Today's Date	BP	Amlodipine	Telmisartan	Calcium blockers	Other	Other
	/	mg	mg	mg		
	/	mg	mg	mg		
	/	mg	mg	mg		
	/	mg	mg	mg		
	/	mg	mg	mg		
	/	mg	mg	mg		
	/	mg	mg	mg		
	/	mg	mg	mg		

Hypertension registries 1: paper-based

Registration date	Patient ID	Age	Date of last visit	SBP	DBP	Protocol step	Med #1	Med #2	Med #3	BP controlled at last visit (0,1)
10/2/2019	3545454	51	3/28/2020	140	80	2	amlodipine 5mg	losartan 50mg	N/A	0
1/1/2019	3545455	53	3/29/2020	159	81	1	amlodipine 5mg	N/A	N/A	0
10/29/2019	3545456	51	2/3/2020	130	70	1	amlodipine 5mg	N/A	N/A	1
10/30/2018	3545457	51	2/4/2020	122	99	3	amlodipine 10mg	losartan 100mg	N/A	0

Paper registry: work-flow



Hypertension registries 1: electronic

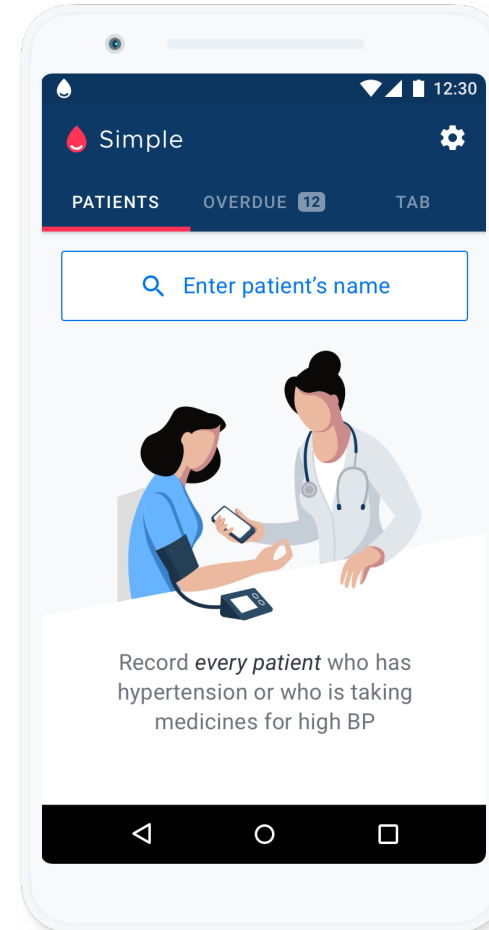


Simple

A radically simple app for healthcare workers to record patients' blood pressures.

An “ultrathin” electronic health record devoted to controlling hypertension.

simple.org



Our approach

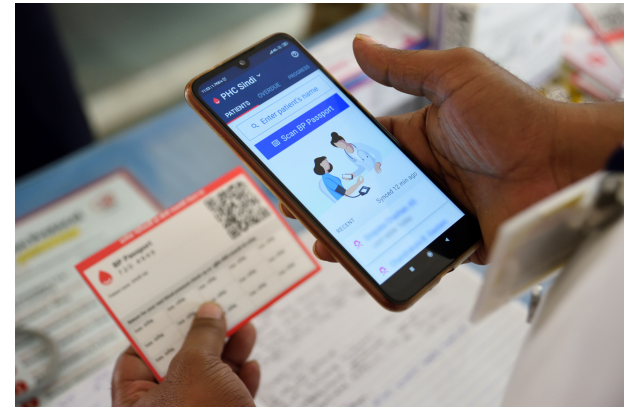
 Can be used on personal devices

 Designed to be very fast

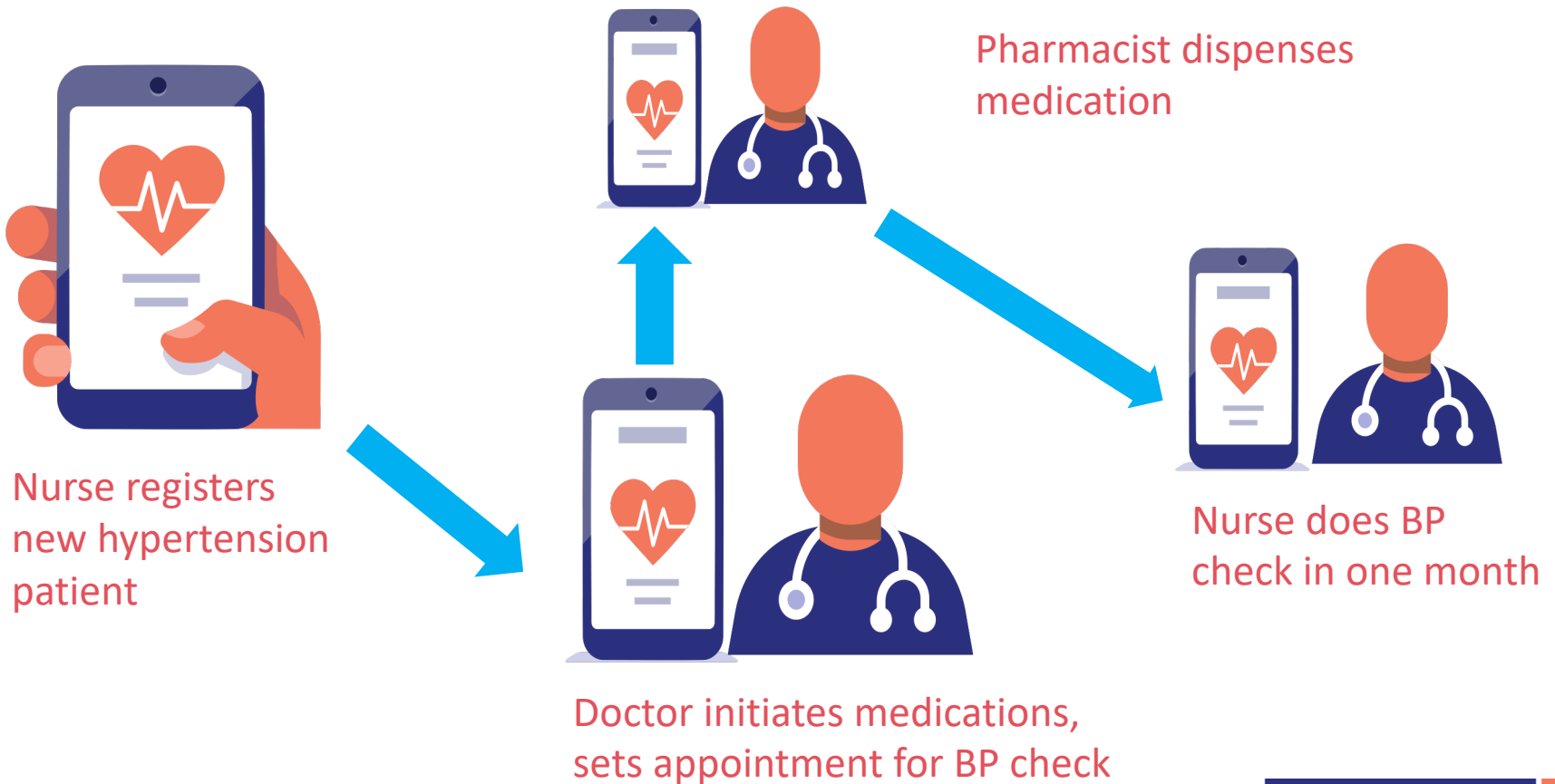
 Offline-first

 Fuzzy patient search

 Multi-lingual



Electronic registry: workflow





LINKS

A global community for cardiovascular health



An online community and resource center for people working to improve cardiovascular health across the globe



www.linkscommunity.org

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Gracias por su atención

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