
**HEARTS in the Americas
2021 – 2025
National Scale Up Plan Guide
Saint Lucia**

The HEARTS Initiative in the Americas is currently being implemented in 16 countries of the Region, at different stages of development, reaching 739 primary care health centers. A full description of the current status of the HEARTS Initiative can be found on the website: <https://www.paho.org/en/hearts-americas>

The basic premises of the HEARTS Initiative are:

HEARTS in the Americas is an initiative of the countries, led by the Ministries of Health with the participation of local stakeholders and with technical cooperation from PAHO.

The Initiative seeks to integrate seamlessly and progressively into already existing health delivery services to promote the adoption of global best practices in the prevention and control of cardiovascular diseases (CVD) and improve the performance of the services through better control of high blood pressure and the promotion of secondary prevention, including diabetes, with emphasis on the primary health care.

HEARTS in the Americas may be the front-line program to strengthen, integrate, and improve the quality of care for noncommunicable diseases (NCDs) in primary health care in the post-COVID 19 recovery.

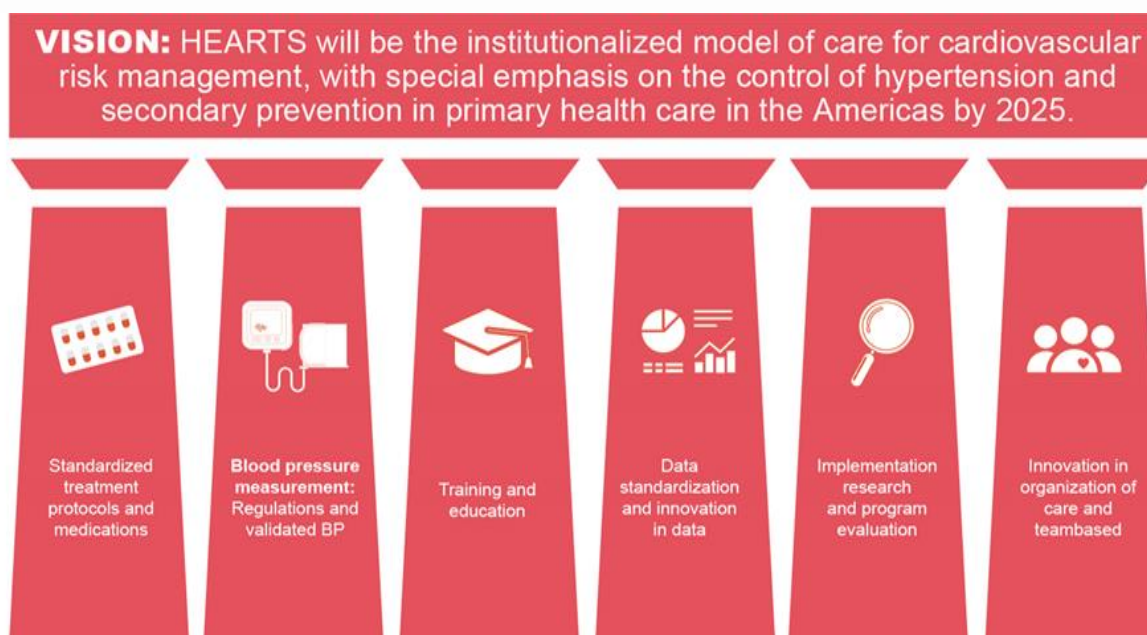
Methodology to update the national strategy and expansion plans for the period 2021 - 2025

The updating of the national strategy, the projections for 2025 and the plans for the expansion of the countries needs to be aligned with the HEARTS programmatic priorities; considering the new context in a post-COVID 19 world which has required a rapid reorganization of

healthcare services. Additionally, this update needs a strong interprogrammatic approach between PAHO entities and between the relevant areas of the Ministry of Health and the key health care providers.

Please use this template to guide the update of the HEARTS expansion plan and consult additional resources and references listed on the last page of this template.

HEARTS Vision and Technical Pillars



Based on the vision of HEARTS in the Americas and its technical pillars, please describe the main strategic lines to achieve the institutionalization of HEARTS as a model of care for the management of cardiovascular risk in Primary Health Care in your country. (Please summarize the strategic guidelines in a maximum of 500 words)

Strategic Axes:

- 1) Inclusivity of all settings - Capacity building sessions should not focus exclusively on primary care settings in the public sector, but should include the private sector and hospital. A key example is the implementation of standardized treatment protocols. The development and standardization of the protocols should be done in consultation with representatives from public and private care, primary and secondary care. Subsequent implementation should be in all settings where possible.**
- 2) Integration into the existing structure and processes in the Ministry of Health - HEARTS should never be viewed as a stand alone programme and should be a part of systems strengthening. HEARTS should be integrated into existing programmes in the primary care settings and vice versa. eg HEARTS should be a part of the current existing standards and procedures in the health setting and similarly other programmes should act as a referral mechanism for HEARTS eg tobacco cessation, Chronic Disease Self-Management.**
 - Medications on the acceptable and preferred protocols should be available in the national formulary.**
 - Capacity building sessions should be included in the Continuous Medical Educational Sessions.**
 - HEARTS training sessions should be a part of the curriculum for health professionals and allied health professionals.**
- 3) Data standardization - The HEARTS indicators and reporting process should be incorporated into the routine reporting system in the Ministry of Health and form part of the indicators to be reported on at a regular basis, which will support sustainability.**
- 4) Implementation Research and Programme Evaluation - HEARTS should be an agenda item at the NCD and senior managers meeting. Here an update of the programme is presented and feedback is solicited for strengthening the programme. It supports accountability.**
- 5) Communication at all levels - It is crucial that all members of the health team and users of the service are aware of the HEARTS technical package, its purpose, exceptions and how it applies to them. This will facilitate buy-in from all levels. It is also important to solicit feedback from all levels and encourage creativity. The implementation of the HEARTS technical package facilitates creativity.**
- 6) Provision of enabling environments - Ensure that that the appropriate legislation, policies and standards are in place to support implementation. eg in applying task shifting you may be limited as only Pharmacist are allowed to dispense medications under the law.**

I. Organizational capacity / general governance structure

Describe the general organizational structure and how the Ministry of Health is integrating the HEARTS model into existing services and structures (please attach an organization chart)

The Ministry of Health is headed by the Minister of Health. The Chief Medical Officer reports to the Minister and the Senior Managers reports to the Chief Medical Officer. The managers at each health facility reports to the respective senior managers.

Administratively, the HEARTS technical committee is led by the NCD Coordinator (senior manager) and general oversight is provided by the CMO.

Technically, implementation of the HEARTS programme is under the guidance of the national HEARTS Coordinating Committee. The NCD Coordinator chairs this committee and reports back to the managers meeting being held by the Ministry of Health. Currently, the committee comprises members of the Ministry of health, PAHO and academia. Decisions made at the committee meetings are also actioned at the HEARTS demonstration sites.

I.a Description of the composition of the national HEARTS coordination team

Please describe the composition of the national HEARTS coordinating team, including the bodies/agencies that are represented and the structure of the group. (Include the administrative levels that are represented, and the titles of the Ministry of Health officials who will be responsible for the execution of this national scale plan. Specifically indicate the entities and administrative levels who endorse and commit to the execution of this scale up plan.)

The national HEARTS Coordinating Committee is made up of the following persons:

Senior Medical Officer and Non Communicable Disease Focal Point - Chair

Principal Nursing Officer

Health Information Systems Focal Point

District Nurse and Chronic Disease Self-Management focal point

Senior District Nurse

Academia

PAHO Country Programme Specialist

PAHO NCD Advisor

Chief Pharmacist

Health Promotion Officer

II. Health policy frameworks and inclusion of HEARTS within national NCD plans and other national plans

Please describe the steps that are being taken to institutionalize the HEARTS model by incorporating the HEARTS model / strategy into existing planning instruments in the country, for example, within national plans for Noncommunicable Diseases (NCDs), National Response to COVID-19 Plan, among others.

Several steps are being taken to institutionalize the HEARTS model. These include the following:

- **Inclusion in existing plans:** The technical pillars for the HEARTS model are included in the workplans for the Ministry of Health and in particular NCDs. Strengthening of the pillars is also included in the Biennial workplan with PAHO/ECC Office and the Ministry of Health.
- **Inclusion of all Health Centres in the approach:** Despite the project commencing with 6 demonstration centres, all the health centres were involved in the capacity building initiatives. Monitoring and evaluation of the project was limited to the demonstration sites. Such an approach makes it easy to scale up and include additional clinics in the programme.
- **Inclusion of the private sector:** During the development of the protocol, both private and public sector professionals were included. Additionally, when initial capacity building sessions were held for the public sector, evening sessions were held for the private sector, and sessions were very well attended. Added to this, most physicians who work in the public sector also work in the private sector. The HEARTS Treatment protocol has been formally disseminated to all doctors through the St Lucia Medical and dental Association (SLMDA). The HEARTS Technical online course has been disseminated on multiple occasions to all dentists, doctors and pharmacists and was recognised for the fulfillment of continuous medical education credits. New doctors who provide service through the public sector are briefly trained on use of Protocol and are encouraged to do online HEARTS course if they have not yet done so.

- Use of local expertise: Most of the capacity building sessions were conducted by persons who were employed by the Government and had expertise in the related field. Efforts were made to ensure sustainability with this approach. Further refresher training for the private sector and hospital staff has been planned and local experts have been contacted however there have been limitations in access of human resources due to the current covid 19 pandemic.

III. How and why the HEARTS methodology works in your country, what is your "program theory"

Present a brief explanation of how the HEARTS model works in your country, which is the basic "logic model" describing step by step the operation of HEARTS, showing the chain of the "cause and effects" of the previously described overall strategy or strategic axes and the main short, medium and long term goals. (A graphic representation can be attached)

1) Technical Working Group meets on a monthly basis. This group comprises of managers that are relevant to each technical pillar. The overall long term goal is defined - 75% control in 75% of the population. Indicators are selected that facilitates measurement of these goals.

2) Medium-term strategies are defined and implemented specifically to meet these goals for each specific pillar.

Capacity building sessions for all levels of staff at HEARTS sites are currently ongoing. These sessions are targeted. They are based on the analysis of the data on control of the patients but also on the in person assessment of the sites. Evaluation of sites includes access to medicines on the acceptable treatment protocol, uninterrupted use of validated Blood Pressure Machines at each demonstration site, use of appropriate BP measurement techniques, short (2 week) follow up of recently diagnosed hypertensives or those recently started on treatment or with treatment titration and appropriate task shifting.

3) Monthly meetings are held, where the implementation data collected is reviewed as the country moves forward to achieving the long-term goals. Implementation of the medium term strategies is reviewed and challenges and gaps are identified. Short term initiatives are then defined to address these challenges and gaps.

4) The outcome indicators (75% control in 75% of the population) continue to be reviewed and analyzed on a monthly basis, ensuring that the long and medium term strategies defined are being implemented.

5) The initiatives implemented at the demonstration sites are now implemented at the other sites as part of the scale-up or expansion of the HEARTS technical package.

- 6) The control and coverage indicators are reported to the PAHO HEARTS Advisory team in WDC on a six-monthly basis.
- 7) Interim implementation research and assessments are conducted.

HEARTS in the Americas Main Programmatic Priorities

1. Advance towards the institutionalization of the HEARTS model by expanding the number of primary care centers by implementing the HEARTS technical package.

1.a **Projection of growth of primary health care centers implementing HEARTS from now until 2025.** Based on the projections previously presented to PAHO. [PAHO Country Office NMH Advisor can access the data submitted by each country in SharePoint:

https://paho.sharepoint.com/:x:/r/sites/NMH/_layouts/15/guestaccess.aspx?email=giraldoglo%40paho.org&e=4%3Am7YdyC&at=9&CID=FA132444-C23B-4C43-B439-2AB1AD63CB15&wdLOR=c3DDDE484-DC97-41C1-A909-DDC4D6C7EF34&share=EUIwink9Cv5MqB4CG90orroBoMiiXiAprtPKj-d2FGe2w]

Please see the format that has been used recently to make country scale up projections.

	Date of formalization of the commitment between the MoH and PAHO to implement HEARTS	Start date of HEARTS implementation in the first health center/centers	Total number of Primary Health Care Centers in the country	Total number of Primary Care Centers that started the implementation of HEARTS					Total number of Primary Care Centers that will be initiating the implementation of the HEARTS Initiative				
				2017	2018	2019	2020	2017-2020	2021	2022	2023	2024	2025
COUNTRY	2019	2019	32	0	0	6	0	6	2	12	12	N/A	N/A

Please describe specifically how the projected expansion will be achieved following the following basic model:

Key programmatic and evaluative question	Goals	Specific measurable objectives	Main activities	Product / deliverable with your time frame	Responsible entity
How will the adoption of the HEARTS model be extended to the new projected primary health care centers?	<i>The HEARTS in the Americas Programme promoted, developed and implemented in all public primary care</i>	<i>To implement HEARTS in the Americas programme in all 32 public wellness centres</i>	<i>Annual scale-up or expansion of the HEARTS technical package into the wellness centres</i>	<i>2021- HEARTS technical package fully implemented in 8 Wellness Centres (achieved) 2022- HEARTS technical package fully implemented in 20 Wellness Centres. 2023- HEARTS technical package implemented in 32 Wellness Centres</i>	<i>Ministry of Health and Wellness</i>

	<i>facilities in St Lucia</i>				
	<i>5% of clients with hypertension seeking care at the public primary care facilities will have a Blood pressure reading of 130/90 or less.</i>	<i>To increase the annual BP control rate by 10 % each year of persons accessing care at the wellness centres that are a part of the HEARTS programme</i>	<i>Monthly review of the control indicator at each health facility and implement strategies to increase the control rate.</i>	<i>June 2021- Participating HEARTS centres have a minimum BP control rate of 25% December 2021- Participating HEARTS wellness centres have a minimum BP control rate of 30% December 2022- Participating HEARTS Wellness Centres have a minimum BP control rate of 50% December 2023 - Participating HEARTS Wellness Centres have a minimum BP control rate of 60% December 2024- Participating HEARTS Wellness Centres Have minimum BP control rate of 70%</i>	<i>Ministry of Health and Wellness</i>
	<i>5% of clients in St Lucia with hypertension will have a blood pressure readings that are part of the HEARTS M&E framework</i>	<i>To increase the percentage of clients in the community who seek care at the wellness facilities by 10% each year. - To facilitate increased reporting by Private Physicians by at least five private physicians</i>	<i>- To strengthen outreach activities in the communities. - To develop and implement innovate ways to encourage physician reporting</i>	<i>Each year, there will be a 10% increase in registration at the wellness facilities when compared to the previous year.</i>	<i>Ministry of Health and Wellness</i>
	<i>The general population will have greater access to blood pressure measurement and referral mechanisms</i>	<i>To increase the number of NGOs participating in the HEARTS Initiative as a partner by 10% each year.</i>	<i>Inclusion of NGOs as a part of the HEARTS Initiative. This involves setting up Blood Pressure booths at their establishment</i>	<i>December 2021- 5 partners implementing HEARTS December 2022 - 10 partners implementing HEARTS December 2023 - 15 partners implementing HEARTS</i>	<i>Ministry of Health and Wellness</i>

BASIC INDICATORS: HYPERTENSION COVERAGE AND CONTROL

Background: Increasing coverage is the greatest challenge facing all the countries of the Region.

Please describe:

I. COVERAGE INDICATOR

What are the main activities to increase the coverage of the program to treat people with hypertension?

Proportion of people in the catchment area (clinical facility, municipality, district) who have been registered as hypertensive based on the best estimate of expected prevalence in the catchment area or larger geographical unit in a specific period of time (month, quarter, year)

Increasing the coverage indicator is primarily being done through strengthening of the HEARTS outreach programme and establishing mechanisms to support private sector reporting.

Non-governmental Organizations inclusive of churches and workplaces will be asked to set up hypertension booths where the general population and community can easily measure their blood pressure and referral mechanisms established.

II. CONTROL INDICATOR

What are the main activities to increase control among people with receiving hypertension?

(Proportion of patients registered for hypertensive treatment at the health facility whose blood pressure is controlled 6 months after treatment initiation.)

The main activities to increase control are as follows:

- Define and implement evidence-based long and medium term strategies that have been shown to work in improving blood pressure control eg self-management programme, education of patients and providers, short follow up after start (within 2-4 weeks after diagnosis) and titration of medication, identification of patients at high cardiovascular risk and manage appropriately.

- Where possible ensure that there is an enabling physical and legislative environment eg regulations to support the use of validated BP devices, adequate physical space for measuring BP control.
- Identify gaps and challenges hindering progress and define strategies and initiatives to address them.

2. Strengthen the technical pillars of HEARTS with special emphasis on:

- Implementation throughout the country of acceptable and then preferred standardized treatment protocols and inclusion of combined fixed-dose antihypertensive drugs.
- Improve blood pressure (BP) measurement by training and certifying staff in primary care and promoting a regulatory framework for the registration of validated automatic BP measurement devices,
- improve procurement mechanisms to ensure the exclusive use of validated measurement devices in primary health care facilities.



Key programmatic and evaluative question	Goals	Specific measurable objectives	Main activities	Product / deliverable with your time frame	Responsible entity
a. How the implementation of the preferred standardized treatment protocol will be accomplished and how the inclusion of combined fixed-dose antihypertensive medications will be carried out?	<i>All primary care wellness facilities will be utilizing the preferred treatment protocol for patients with uncontrolled hypertension</i>	<i>By 2022, 32 Health Centres will be utilizing the preferred standardized treatment protocols.</i>	<ul style="list-style-type: none"> - Inclusion of the Chief Pharmacist and the Manager of Central Medical Stores in the HEARTS capacity building initiatives. - Lobby for the inclusion of the combined fixed dose antihypertensives on the listing of essential medicines (OECS/PPES) 	<i>By 2022, the listing of drugs on the preferred treatment protocol will be available</i>	<i>Ministry of Health and Wellness</i>

Key programmatic and evaluative question	Goals	Specific measurable objectives	Main activities	Product / deliverable with your time frame	Responsible entity
b. How will the implementation of improved measurement of blood pressure (BP) be improved through the training and certification of personnel in primary care.	<i>Staff at the demonstration sites are trained in BP control</i>	<i>At least 75% of staff at all primary care facilities will be trained and certified on the measurement of BP</i>	<i>Training on BP measurement is carried out as a part of routine training. - Regular audits will be carried out to ensure staff are trained</i>	<i>By December 2025, at least 75% of all staff at the demonstration sites would have received training at least twice a year.</i>	<i>Ministry of Health and Wellness</i>

Key programmatic and evaluative question	Goals	Specific measurable objectives	Main activities	Product / deliverable with your time frame	Responsible entity
c. How to obtain a regulatory framework for the registration of validated automatic BP measurement devices, (To improve procurement mechanisms to ensure the exclusive use of validated measurement devices in primary health care facilities.)	All BP monitors to be validated according to approved validation databases	-Percentage of monitors imported which are validated -Percentage of monitors brought in to SLBS for verification -Percentage of BP monitors validated on routine inspection	-Dissemination of reputable sites which inform validation -Dissemination of information regarding importance of use of validated monitors	All BP monitors available for BP checks in clinics validated by 2023	St Lucia Bureau of Standards



3. Innovation in the provision of health services to achieve the full potential of the team-based care approach with special attention to non-clinical providers. Use the table below with focus areas/drivers as a model for changes that have led to improved care to fill out the planning table that follows:

DRAFT

(Ask Dr Cyr to complete)

SPECIFIC HT CONTROL DRIVERS TO IMPROVE THE QUALITY OF CARE FOR PEOPLE WITH HYPERTENSION BASED ON WORK IN MULTIDISCIPLINARY TEAMS					
1. Accuracy of BP measurement					
1.1 Training certification every 6 months (20 minute PAHO course in accurate measurement of blood pressure)					
1.2 Repeat the measurement of the BP if it is elevated in each encounter					
1.3 Exclusive use of validated automated devices					
2. Intensification of treatment					
2.1 Initiation of treatment within 2-4 weeks after diagnosis of hypertension					
2.2 Use of the recommended algorithm for new clients and for increases (titration) of medication					
2.3 Dose increase or new drug added when blood pressure is not controlled					
3. Continuity of care and follow-up					
3.1 Follow-up of elevated BP in 2 weeks if uncontrolled (with nurse or physician)					
3.2 Medical clinic visit in the last 3-6 months for all patients with hypertension					
3.3 Medical consultation in the last 3 months for patients at high risk of CVD					
4. Attention in a team: changing tasks					
4.1 BP measurement with non-clinical personnel (done by Community Health Aides, trained in accurate BP measurement)					
4.2 Follow-up BP control with non-MDs (Family Nurse Practitioner)					
4.3 Intensification of medication by non-MD staff (family Nurse Practitioner)					
5. CVD risk					
5.1 All patients with HTN evaluated for CVD risk (done manually with charts or using EHR)					
5.2 BP consultation in the last 3 months for patients with HBP and Diabetes					
5.3 Use of combination medication for BP, statin, aspirin (as needed) in patients at high risk of CVD					

Key programmatic and evaluative question	Goals	Specific measurable objectives	Main activities	Product / deliverable with your time frame	Responsible entity
b. How to innovate in the provision of	-BP measurement	-All Health Aides trained in accurate BP measurement	-Routine training face to face	Routine training for all staff including Health Aides by 2022	

health services to achieve the full potential of the teamwork approach with special attention to non-clinical provider?	done by Health Aides		-Virtual PAHO training every 6 months -Audits for Health Aides		



4. Strengthen capacity-building activities at the first level of care by optimizing the use of HEARTS training resources available at PAHO virtual campus for public health and with the use of local resources

Key programmatic and evaluative question	Goals	Specific measurable objectives	Main activities	Product / deliverable with your time frame	Responsible entity
How to strengthen capacity-building activities at the first level of care by optimizing the use of HEARTS training resources available at PAHO's virtual campus for public health and using local resources?	<i>All Health Care workers receive a certificate of completion of the online HEARTS course available at the PAHO's virtual campus</i>	<i>At least 80% of nurses, nursing assistants and physicians at each demonstration site for HEARTS completed the online training</i>	<i>-Promote the HEARTS online course at all training forums. - Inclusion of the course as part of the CME credits</i>	<i>By December 2021, 50% of HCW at demonstration sites completed the online HEARTS course By December 2022, 65% of HCW at participating sites completed the HEARTS online course By December 2023, 80% of HCW at participating sites completed the HEARTS online course</i>	<i>Ministry of Health and Wellness</i>

5. Boosting the HEARTS Monitoring and Evaluation System by promoting innovation in data collection and reporting as the basis for a strategy to improve the quality of services in hypertension care.



Key programmatic and evaluative question	Goals	Specific measurable objectives	Main activities	Product / deliverable with your time frame	Responsible entity
How the HEARTS Monitoring and Evaluation System will be promoted by promoting innovation in data collection and reporting as the basis for a strategy to improve the quality of services in hypertension care?	<i>To update Hypertension control data monthly automatically</i>	<i>Percentage of hypertensives documented into EHR vs number actually seen at PHC</i>	<i>Educate staff in adequate data entry including Hypertension diagnosis</i>	<i>100% of data collected in PHC accurately reflected in HER and analyzed and reported</i>	<i>Supervising Nurses Health Management Information System Personnel Data Analyst</i>
	<i>To report hypertension control data to technical team and to clinical teams on the ground</i>				

6. Please describe other activities that specifically respond to unique country conditions that must have a differentiated approach.

Key programmatic and evaluative question	Goals	Specific measurable objectives	Main activities	Product / deliverable with your time frame	Responsible entity

<p><i>Communication Strategy (Creole)</i></p>	<p><i>To educate population of hypertensives who speak Creole</i> <i>To dispel myths relating to conventional drug therapy</i></p>	<ul style="list-style-type: none"> - <i>Number of educational sessions done for high risk creole speaking patients</i> - <i>Completion of anonymous feedback forms by external auditor</i> 	<p><i>-Educational sessions geared towards creole speaking elderly hypertensives</i></p> <p><i>-Routine survey of creole speaking elderly population at primary care clinics</i></p>	<p><i>Clear and effective Communication Strategy by 2022</i></p>	

X. Risks and Mitigation

Please describe the possible risks that could prevent you from achieving the expected results and how you will mitigate those risks. Maximum 500 words.

Risk / Assumption	Mitigation Strategy
<i>Covid 19 pandemic and the associated strain on resources with limited human resources for management and follow up</i>	<i>Retention of core set of essential workers for primary care clinics</i>
<i>External factors which affect [procurement of essential antihypertensive drugs</i>	<i>Continuous auditing Exploration of other avenues for drug procurement</i>
<i>Lack of funding for subsidised drugs</i>	<i>External Support</i>

Resources to be consulted for the preparation of the national scale up plan

1. HEARTS in the Americas. <https://www.paho.org/en/heart-america>
2. Martinez R, Lloyd-Sherlock P, Soliz P, Ebrahim S, Vega E, Ordunez P, McKee M. **Trends in premature avertable mortality from non-communicable diseases for 195 countries and territories, 1990-2017: a population-based study.** Lancet Glob Health. 2020 Apr;8(4):e511-e523. <https://pubmed.ncbi.nlm.nih.gov/32199120>
3. Giraldo GP, Joseph KT, Angell SY, et al. Mapping stages, barriers and facilitators to the implementation of HEARTS in the Americas initiative in 12 countries: A qualitative study [published online ahead of print, 2021 Mar 18]. J Clin Hypertens (Greenwich). 2021;10.1111/jch.14157. doi:10.1111/jch.14157
4. Valdés González Y, Campbell NRC, Pons Barrera E, Calderón Martínez M, Pérez Carrera A, Morales Rigau JM, Afonso de León JA, Pérez Jiménez V, Landrove Rodríguez O, DiPette DJ, Giraldo G, Orduñez P. **Implementation of a community-based hypertension control program in Matanzas, Cuba.** J Clin Hypertens (Greenwich). 2020 Feb;22(2):142-149. <https://pubmed.ncbi.nlm.nih.gov/31967722/>
5. DiPette DJ, Goughnour K, Zuniga E, Skeete J, Ridley E, Angell S, Brettler J, Campbell NRC, Coca A, Connell K, Doon R, Jaffe M, Lopez-Jaramillo P, Moran A, Orias M, Pineiro DJ, Rosende A, González YV, Ordunez P. **Standardized treatment to improve hypertension control in primary health care: The HEARTS in the Americas Initiative.** J Clin Hypertens (Greenwich). 2020 Oct 12. <https://pubmed.ncbi.nlm.nih.gov/33045133/>
6. Lombardi C, Sharman JE, Padwal R, Picone D, Alcolea E, Ayala R, Gittens A, Lawrence-Williams P, Malcolm T, Neira C, Perez V, Rosende A, Tesser J, Villacres N, Campbell NRC, Ordunez P. **Weak and fragmented regulatory frameworks on the accuracy of blood pressure-measuring devices pose a major impediment for the implementation of HEARTS in the Americas.** J Clin Hypertens (Greenwich). 2020 Oct 6. <https://pubmed.ncbi.nlm.nih.gov/33022866/>
7. Campbell NRC, Khalsa T, Ordunez P, Rodriguez Morales YA, Zhang XH, Parati G, Padwal R, Tsuyuki RT, Cloutier L, Sharman JE. **Brief online certification course for measuring blood pressure with an automated blood pressure device. A free new resource to support World Hypertension Day Oct 17, 2020.** J Clin Hypertens (Greenwich). 2020 Oct;22(10):1754-1756. <https://pubmed.ncbi.nlm.nih.gov/32882074/>
8. Skeete J, Connell K, Ordunez P, DiPette DJ. **Approaches to the Management of Hypertension in Resource-Limited Settings: Strategies to Overcome the Hypertension Crisis in the Post-COVID Era.** Integr Blood Press Control. 2020 Sep 28;13:125-133. <https://pubmed.ncbi.nlm.nih.gov/33061561/>