



Hypertension & CVD Disparities within Healthcare: Lessons From Barbados

November 2, 2022



Health Quality Innovation Network















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This HQIN **HEARTS** in **America** series is delivered by **HEARTS** subject matter experts. They are introducing the pillars of the <u>HEARTS Technical Package</u> while beginning the conversation about HEARTS in America.

If you would like to speak to a HEARTS Advisor, learn more about the initiative, and discuss possibilities for your organization, please connect with your HQIN Quality Improvement Advisor to begin the next steps.



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All non-physicians will receive a certificate of participation.









Disclosures

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Invited Faculty:

Kenneth Connell MD PhD No Financial Relationships Were Declared





Kenneth Connell, MBBS DM, PhD, FACP, FACC



Dr. Kenneth Connell is a Consultant Internist/ Hypertension Specialist. He currently is the Deputy Dean of Internationalization and Recruitment of Medical Sciences at Cave Hill Campus of the University of the West Indies. He also chairs the Cave Hill Campus' Health & Wellness Committee. As a Consultant Physician at the Queen Elizabeth Hospital, Barbados, he manages both general internal medicine inpatient care and the Resistant Hypertension clinic.

He is the immediate past, and inaugural Governor of the American College of Physicians Caribbean Chapter. For his outstanding public service, he received the Principal's Award for Excellence in Public Service in 2019. He has been published in numerous peer review journals on hypertension and the PAHO - WHO HEARTS program, and is a guideline writer for the WHO 2021 Guideline for the Pharmacological Management of Hypertension in Adults.

His professional recognitions include:

- Fellowship of the American College of Physicians (ACP)
- Fellow of the Royal College of Physicians UK (FRCP)
- Fellowship of the American College of Cardiology (FACC)









Hypertension & CVD Disparities within Healthcare: Lessons From Barbados

Dr. Kenneth Connell MD PhD FACP FACC HEARTS Consultant/ WHO HTN Guideline Writer



Learning Objectives

- 1. Review population health disparities that impact chronic conditions and the healthcare industry (ie hypertension, CVD, Diabetes, CKD)
- 2. Discuss opportunities for community and public health to support and improve disparities in healthcare delivery
- 3. Identify opportunities to reduce disparities while delivering direct care to patient populations





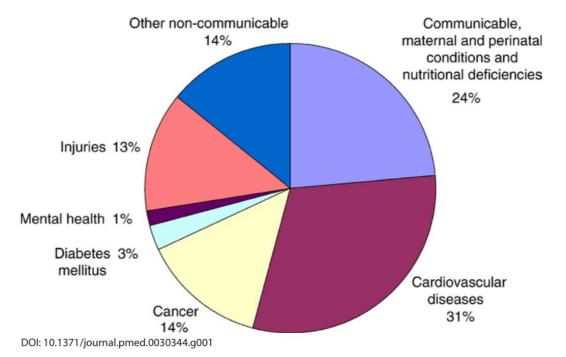
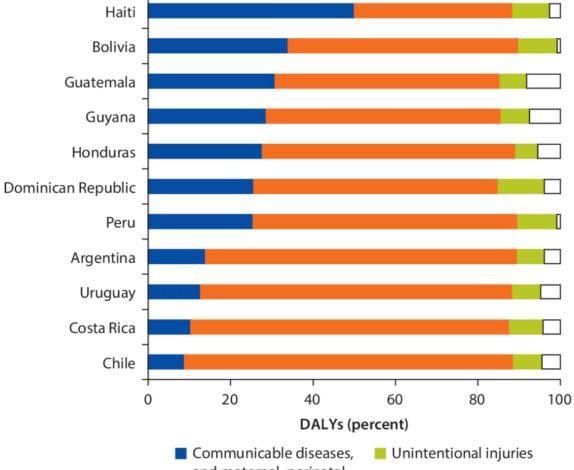


Figure 1. Distribution of Total Deaths (3,537,000) by Major Causes in LAC Countries in 2000, Estimated by the Global Burden of Disease Study

The Latin American and Caribbean countries included are Anguilla, Antigua and Bermuda, Argentina, Aruba, Bahamas, Barbados, Belize, Bolivia, Brazil, British Virgin Islands, Cayman Islands, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, French Guiana, Grenada, Guadalupe, Guatemala, Guyana, Haiti, Honduras, Jamaica, Martinique, Mexico, Montserrat, Netherlands Antilles, Nicaragua, Panama, Paraguay, Peru, Puerto Rico, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, Suriname, Trinidad and Tobago, Turks and Caicos Islands, Uruquay, US Virgin Islands, and Venezuela.





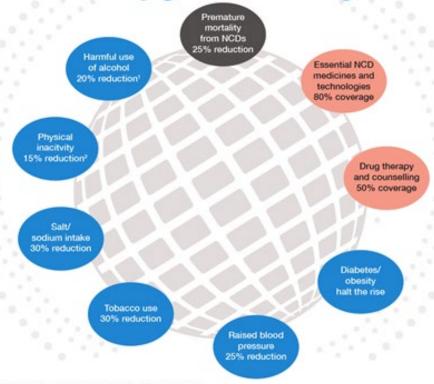








Set of 9 voluntary global NCD targets for 2025



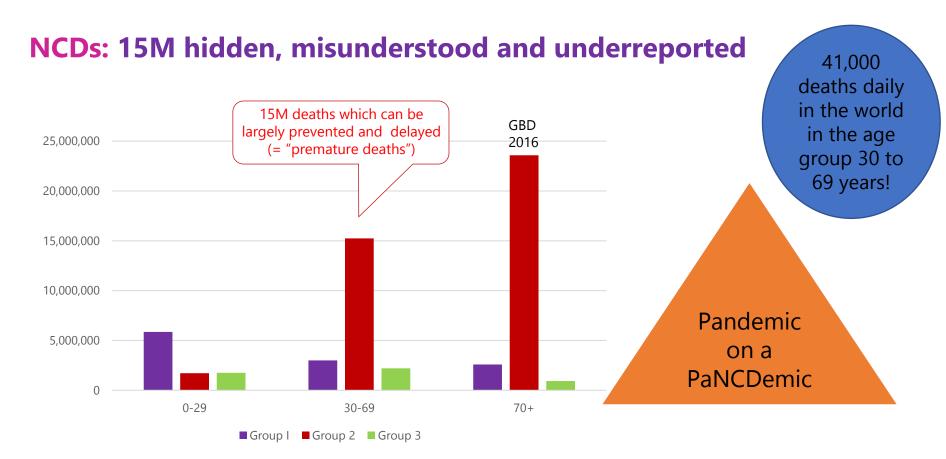
*By 2000. Target updated in 2022 (https://apps.who.int/gb/ebwha/pdf_files/EB150/E150_7Add1-en.pdf)
*By 2000. Target updated in 2018 (https://apps.who.int/gb/ebwha/pdf_files/WHA71/A71_PB-en.pdf)

















The momentum of progress in curbing the **NCD epidemic has** dwindled since 2010. The COVID-19 pandemic has become an amplifier for health systems to better respond to NCDs.

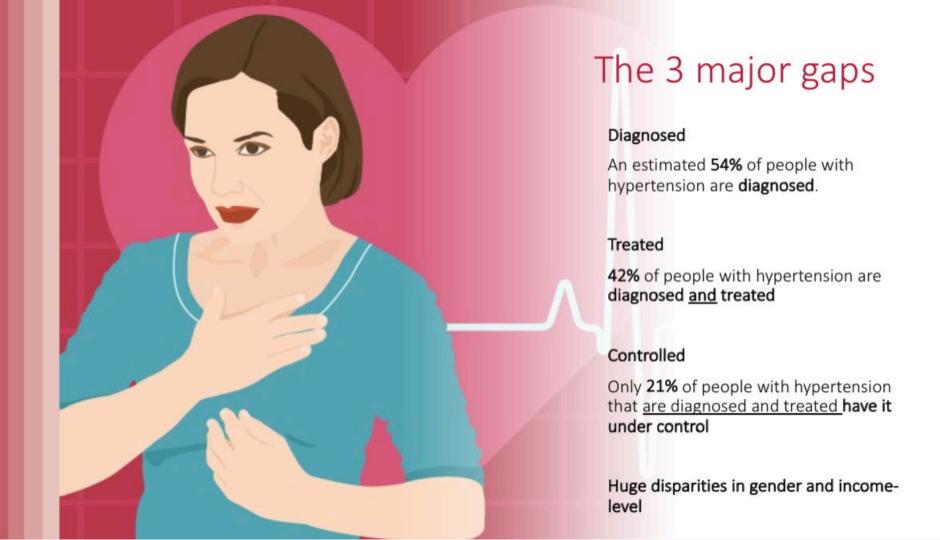
WORLD **HEALTH STATISTICS**

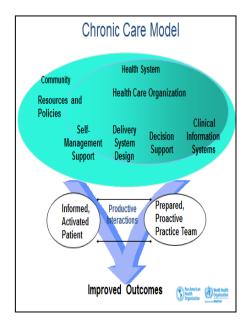
HEALTH FOR THE SDGs





- Despite the considerable progress made in 2000-2010 in the prevention and treatment of NCDs, the momentum of change has dwindled since 2010. The annual decline of the risk of dying from a major NCD between the ages of 30 and 70 is **slowing**.
- SDG target 3.4 on NCDs is **off track**.
- **Diabetes** is showing a 5% increase in premature mortality.
- **Pre-COVID:** Substantial reductions in NCD mortality require a strengthened health system to deliver NCD services that **improve** diagnosis, treatment, rehabilitation and palliation, including hypertension control, and policies that drastically reduce risk factors for NCDs.





Identify a core set of medications Improve widespread availability of medication

Improve care delivery and medication







Healthy lifestyle

Counsel on tobacco cessation, diet, harmful use of alcohol, physical activity and self-care



Evidence-based treatment protocols

Simple and standardized protocols



Access to medicines and technologies

Access to a core set of affordable medicine and basic technology



Risk-based management

Total cardiovascular risk assessment, treatment and referral



Team-based care and task sharing

Patient-centered care through a team approach and community participation



${\bf S} {\it ystems} \ for \ monitoring$

Patient registries and program evaluation





Cascade of treatment to improve control hypertension promoted by HEARTS

 Detection/Diagnosis of persons with hypertension

 Treatment among detected with hypertension

Control among treated



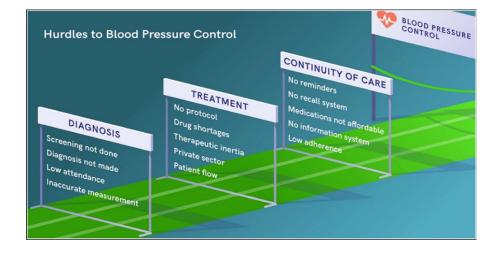


Element	Description
Hypertension Registry	Validated and comprehensive
Clinic Level Performance Feedback	Facilitates operational and system level change, transparent & visible
Treatment Algorithm	Based on evidence-based guidelines, simple & implementable
Medical assistant visits for BP measurement	Appropriate use of staff skills and reduced barriers to patients
Single Pill Combination Therapy	Increased efficiency and increased adherence





HEARTS Technical Package to overcome the hurdles

















counselling



treatment protocols









Access to essential medicines and technology

Risk-based CVD management

Team-based care

Systems for monitoring

























HEARTS pillars and technical package

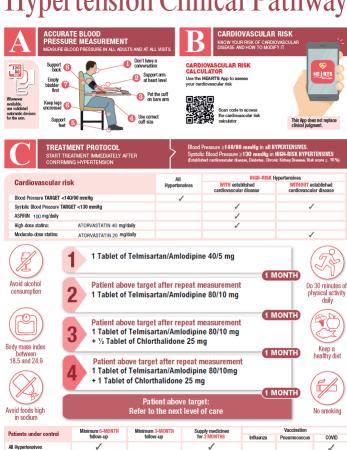
2021 WHO Hypertension Guidelines

Hypertension Drivers and Scorecards

Maturity and Performance Indexes

HIGH-RISK Hypertensives

Hypertension Clinical Pathway



System for Monitoring and Evaluation

Regulatory Framework on BPMDs

HEARTS App – CVD Risk
Calculator

Access to medicines through the Strategic Fund

NOT INDICATED in WOMEN of CHILDBEARING AGE

Module		Who are the target users?			
	What does it include?	National	Subnational	Primary care	
ealthy-lifestyle counselling	Information on the four behavioural risk factors for CVD is provided. Brief interventions are described as an approach to providing counselling on risk factors and encouraging people to have healthy lifestyles.		✓	√	
vidence-based protocols	A collection of protocols to standardize a clinical approach to the management of hypertension and diabetes.	~	~	~	
ccess to essential medicines and technology	Information on CVD medicine and technology procurement, quantification, distribution, management and handling of supplies at facility level.	√	✓	√	
isk-based CVD management	Information on a total risk approach to the assessment and management of CVD, including country-specific risk charts.		✓	~	
eam-based care	Guidance and examples on team-based care and task shifting related to the care of CVD. Some training materials are also provided.		~	V	
ystems for monitoring	Information on how to monitor and report on the prevention and management of CVD. Contains standardized indicators and data-	V	~	√	





MODULES OF THE HEARTS TECHNICAL PACKAGE					
		Who are the target users?			
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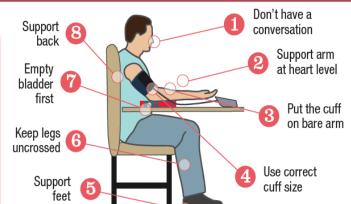
Hypertension Clinical Pathway



ACCURATE BLOOD PRESSURE MEASUREMENT

MEASURE BLOOD PRESSURE IN ALL ADULTS AND AT ALL VISITS







CARDIOVASCULAR RISK

KNOW YOUR RISK OF CARDIOVASCULAR DISEASE AND HOW TO MODIFY IT

CARDIOVASCULAR RISK CALCULATOR

Use the **HEARTS** App to assess your cardiovascular risk



Scan code to access the cardiovascular risk calculator



clinical judgment.



TREATMENT PROTOCOL START TREATMENT IMMEDIATELY AFTER

CONFIRMING HYPERTENSION

Blood Pressure ≥140/90 mmHg in all HYPERTENSIVES.

Systolic Blood Pressure ≥130 mmHg in HIGH-RISK HYPERTENSIVES
(Established cardiovascular disease, Diabetes, Chronic Kidney Disease, Risk score ≥ 10%)

Oawdiawaa awlaw wiale	All	HIGH-RISK Hypertensives		
Cardiovascular risk	Hypertensives	WITH established cardiovascular disease	WITHOUT established cardiovascular disease	
Blood Pressure TARGET <140/90 mmHg	/			
Systolic Blood Pressure TARGET <130 mmHg		✓	✓	
ASPIRIN 100 mg/daily		√		
High-dose statins: ATORVASTATIN 40 mg/daily		√		
Moderate-dose statins: ATORVASTATIN 20 mg/daily			√	

Patients under control Minimum 6-MONTH follow-up	Minimum 6-MONTH	Minimum 3-MONTH follow-up	Supply medicines for 3 MONTHS	Vaccination		
	follow-up			Influenza	Pneumococcus	COVID
All Hypertensives	√		1			/
HIGH-RISK Hypertensives		/	√	/	/	1

Country name Entity name



ASSESS TREATMENT ADHERENCE AT EACH VISIT

TAKE ALL MEDICATIONS AT THE SAME TIME EVERY DAY

This protocol is
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MODULES OF THE HEARTS TECHNICAL PACKAGE					
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WHO Guideline for the Pharmacological Treatment of Hypertension in Adults and HEARTS: Closing thoughts

Guideline for the pharmacological treatment of hypertension in adults



- Lower and lower blood pressure pharmacological blood pressure treatment thresholds and targets
- Increasing use of cardiovascular risk in blood pressure treatment decisions (thresholds and targets)
- Importance of the use of standardized, straightforward, and simple treatment algorithms/protocols
- Stronger consideration for the use of two medications (two-pills or better yet single-pill, fixed dose combination) in the initial treatment
- Importance of timely patient follow-up and implementing team-based care





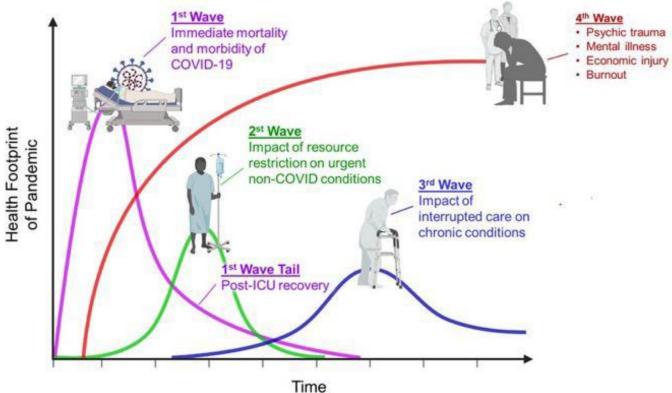
The Problem: A Burning Platform







The **DEADLY** Waves







"Many people who need treatment for diseases like cancer, CVD and diabetes have not been receiving the health services and medicines they need since the COVID-19 pandemic began. It's vital that countries find innovative ways to ensure that essential services for NCDs continue, even as they fight COVID-19."







Disruption of services for the prevention and treatment of NCDs



What: WHO conducted a rapid assessment survey of service delivery for NCDs during the COVID-19 pandemic among 194 Ministries of Health. Responses were received from 158 Ministries (81%).

When: Between 1 May 2020 and 25 May 2020.

Why: To get a snapshot of the situation, following deepening concerns that many people living with NCS are no longer receiving appropriate treatment or access to medicines during the COVID-19 pandemic.

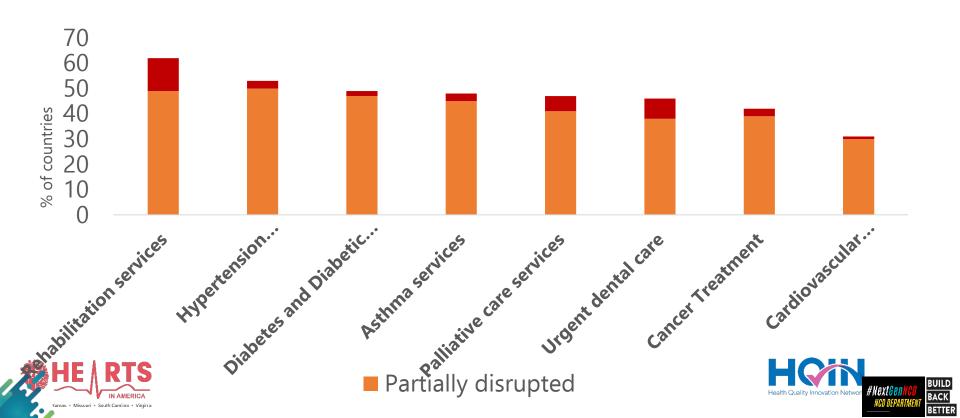
The findings are presented in the next slides.





121 countries reported that NCD services are disrupted





The more severe the transmission phase of the COVID-19 pandemic, the more NCD services are disrupted





PHASE 2: SPORADIC CASES

39% of countries disrupted services for hypertension management 33% of countries disrupted services to treat **diabetes** and complications 39% of countries disrupted services to treat cancer 22% of countries disrupted services to treat cardiovascular emergencies



PHASE 3: CLUSTER TRANSMISSION

55% of countries disrupted services for hypertension management 50% of countries disrupted services to treat **diabetes** and complications 43% of countries disrupted services to treat cancer 25% of countries disrupted services to treat cardiovascular emergencies



PHASE 4: COMMUNITY TRANSMISSION

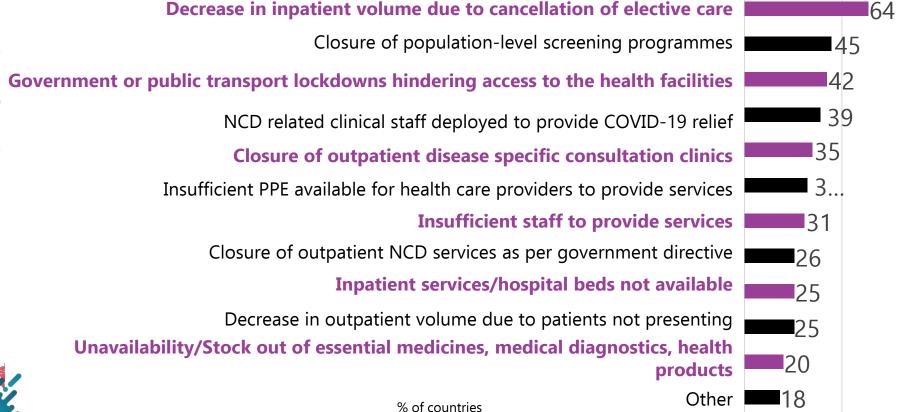
64% of countries disrupted services for hypertension management 62% of countries disrupted services to treat **diabetes** and complications 53% of countries disrupted services to treat cancer 45% of countries disrupted services to treat cardiovascular emergencies



Main causes of NCD service disruption: 77% of countries reporting disruptions



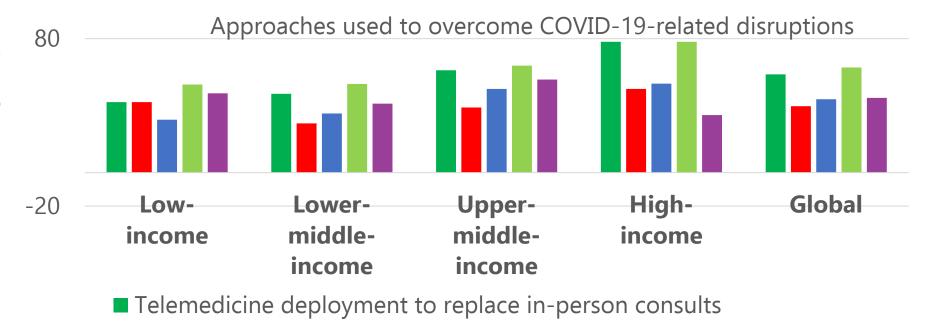




Telemedicine and triaging are the mitigation strategies most often used to overcome disruptions

■ Task shifting / role delegation







Countries are asking for urgent guidance and support from WHO

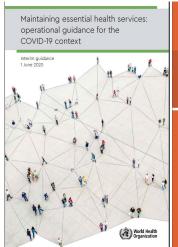


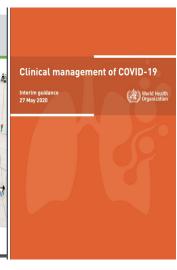


- Guidance on how to provide continuity for NCD programs:
- How to include NCDs in public health emergencies protocols?
- How to develop national NCDs tool kits for use in emergencies?
- How to provide ambulatory essential NCD services during lockdown?
- How to provide medical care for NCDs through telemedicine and digital solutions?
- How to protect people living with NCDs? (e.g. clinical guidelines, drug interactions)

Communication materials Better Data











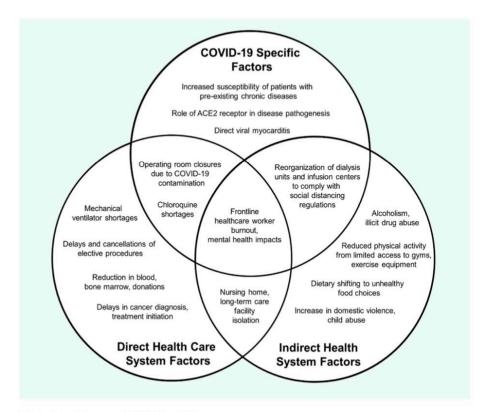


Fig. 1 Example impacts of COVID-19 on NCDs.









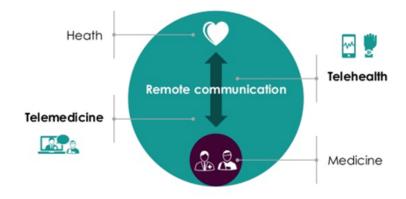




• Telehealth - wholistic. Integrated use of communication devices - Clinical & Non-Clinical

• Telemedicine- practice of medicine to deliver care at a (physical) distance

Telehealth vs Telemedicine



Visuals by infoDiagram.com









M-Health & BP





- 1) Determine the type of patient to see
- 2) Coaching & Training patients & staff!
- 3) Provide support
- 4) "Front-end" the consultation
- 5) Set an agenda
- 6) Send them reminders!
- 7) Close the consultation





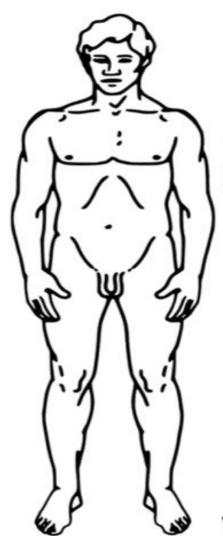


- 1. The right attitude
- 2. A Platform
- 3. Training ask your neighborhood university
- 4. ITC Support
- 5. EMR versus paper
- 6. Dry run











Ocular devices



Blood pressure

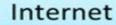


Ultrasound



Vital signs









SERVER



Rural Hospital

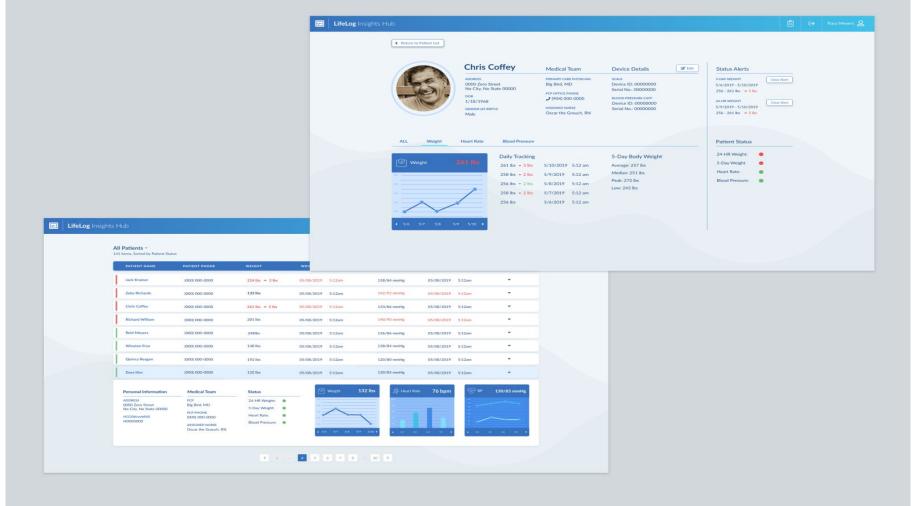












- 1. COVID19 represents a contemporaneous and unpredictable public health challenge
- 2. Public health mitigation measures only defense
- 3. This poses challenges for non-COVID cases
- 4. Delayed care will influence mortality related to NCDs including hypertension + _____
- 5. Remote management is a possibility for management of blood pressures







- 6. Telemedicine allows for remote management of blood pressure but requires planning
- 7. Training and auditing are important in the process
- 8. Standardized treatment algorithms reduce inertia doctor and patient
- 9. Mobile health may offer an innovative way to monitor blood pressure & other metrics







Questions?





Join us for our next HEARTS in America session: November 16th, 2022

Hypertension Clinical Pathway: The Importance of Hypertension control in Primary Care

Andres Rosende, MD, MSc(c) PAHO/WHO Consultant





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- Southern Medical Association (SMA) will create an online account for you including your unique login, using the email address you provided during registration (your username/ID is your email address).
- Upon receipt of your post-meeting email, click the link provided, and please make sure that
 your name and email address appear at the top of the form before completion.
- <u>After</u> you complete and submit your evaluation and attendance documentation, your certificate will be emailed to you as a .pdf attachment from <u>customerservice@sma.org</u> within 24 hours.









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