GACD Implementation Science e-Hub

ADVANCED PROGRAMME

GLOBAL ALLIANCE FOR CHRONIC DISEASES
AN ALLIANCE OF HEALTH RESEARCH FUNDERS

MODULE 2 | LECTURE 2D

Assessing the context of NCD interventions at scale

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Lecture overview

- Factors influencing scale up in LMICs
- Example: Context in two Nigerian hypertension studies
- The context assessment toolbox
- Building on the pilot study context assessment
- Considerations for NCD programmes

Background

- Context is defined as everything else that is not the intervention, but may influence the intervention implementation and outcomes
- Knowing which context factors that will help or hinder scale up of different changes would help implementers, managers, policymakers, regulators and purchasers of healthcare
- It could help them to:
  - Judge the likely success of possible improvements
  - Decide conditions that should be modified to make scale up more effective

For those unfamiliar with context assessment, please see these this lecture from the **GACD e-Hub Fundamentals Programme**:

https://implementationscience-gacd.org/fundamentals-programme/

Factors influencing the scale up of public health interventions in LMICs

Factors influencing a change in structure	Factors influencing a change in culture	Factors influencing a change in practice
• Advocacy • Resources • Political will • Supply chains • Policies and guidelines • Characteristics of the intervention • Health systems and governance	• Sociocultural environment • Need or demand for intervention	• Strategy • Training and supervision • Collaborations • Monitoring and evaluation • Politics • Leadership

Bulthuis S et al. (2020) Health Policy Plan. 35(2):219-234.

Importance of contextual factors in decision to scale differs between policymakers vs researchers

Five top ranked **contextual factors** influencing policymakers' decisions about whether to scale up interventions are:

- Availability of ongoing funding
- Political acceptability
- Fit with government and relevant agency policy directions
- Compatibility with existing interventions and organizational structures and relevant agency policy directions and
- Acceptability of the intervention to community

Policymakers most important factor

- Fit with government and relevant agency policy directions

Researchers most important factor

- Availability of an ongoing funding source

Milat AJ et al. (2013) Health Promot Int. 28(3):285-98.

The scale up context assessment toolbox

Process frameworks:

- Describe and guide the process of translating effective intervention and research evidence into practice e.g. PRECED-PROCEED

Determinant frameworks:

- Analyze what influences implementation: EPIS, CFIR, Theoretical Domains Framework [TDF]

Outcomes frameworks:

- Evaluate implementation efforts: REAIM, Proctor's Framework

The scale up context assessment toolbox

It is theory-informed compilation of implementation frameworks (e.g., CFIR, RE-AIM)

It will be used to support mapping from contextual factors; strategies; to proposed mechanisms to achieve implementation, system, and clinical outcomes

The RE-AIM framework extension that is included within the Implementation Research Logic Model will be used to guide the primary and secondary implementation outcomes. Outcomes will be calculated on the appropriate program, center, and individual level

RESEARCH Open Access

Stakeholder perspectives to inform adaptation of a hypertension treatment program in primary healthcare centers in the Federal Capital Territory, Nigeria: a qualitative study

Rosemary C. B. Okoli[1], Gabriel Shedul[2], Lisa R. Hirschhorn[3], Ikechukwu A. Orji[2], Tunde M. Ojo[2], Nonye Egenti[2], Kasarachi Omitiran[2], Blessing Akor[2], Abigail S. Baldridge[3], Mark D. Huffman[3], Dike Ojji[2] and Namratha R. Kandula[3*]

Orji et al. BMC Health Services Research (2021) 21:322
https://doi.org/10.1186/s12913-021-06320-8

BMC Health Services Research

RESEARCH ARTICLE Open Access

Capacity and site readiness for hypertension control program implementation in the Federal Capital Territory of Nigeria: a cross-sectional study

Ikechukwu A. Orji[1*], Abigail S. Baldridge[2], Kasarachi Omitiran[1], Mainzhao Guo[2], Whenayon Simeon Ajisegiri[3], Tunde M. Ojo[1], Gabriel Shedul[1], Namratha R. Kandula[2], Lisa R. Hirschhorn[2], Mark D. Huffman[2,3] and Dike B. Ojji[1,4]

Example project: Transforming hypertension management in Nigeria

- 60 primary health care centres in the Federal Capital Territory (FCT) of Nigeria
- Collaborative work between University of Abuja, Washington University in St Louis, and Northwestern University
- Other collaborators: Federal Ministry of Health of Nigeria, WHO (Nigeria), Resolve to Save Lives

Aim: To build a system for hypertension care and treatment that that is centred on patient and non-physician health care workers.

HTN Program implementation strategies

Based on WHO HEARTS technical package and Kaiser Permanente's Northern California model

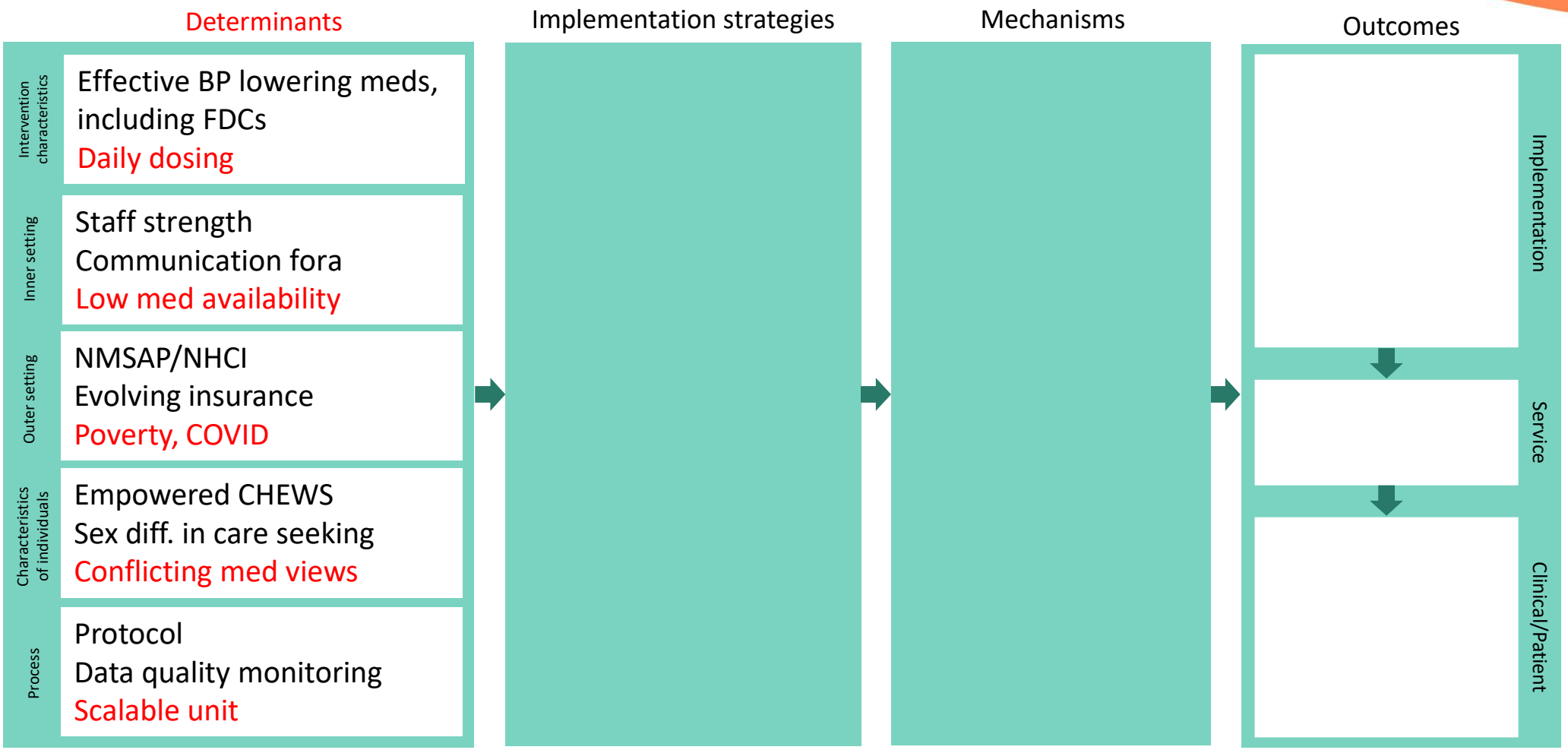
- Standard treatment protocol (national policy level)
- Patient registration and empanelment (health system level)
- Prioritization of fixed-dose combination therapy (health system level)
- Team-based care (health worker level)
- Home blood pressure monitoring and health coaching (patient-level)

Additional strategy: Free or reduced cost medications from Dec 2020

Jaffe MG, Young JD. J Clin Hypertens. 2016;18:260–261.
World Health Organization. WHO HEARTS technical package for cardiovascular disease management in primary health care. WHO: Geneva, Switzerland; 2016.

Smith JD, et al. Imp Sci 2020; 15:84.

IRLM applied to the HTN Program (1)



Smith JD, et al. Imp Sci 2020; 15:84.

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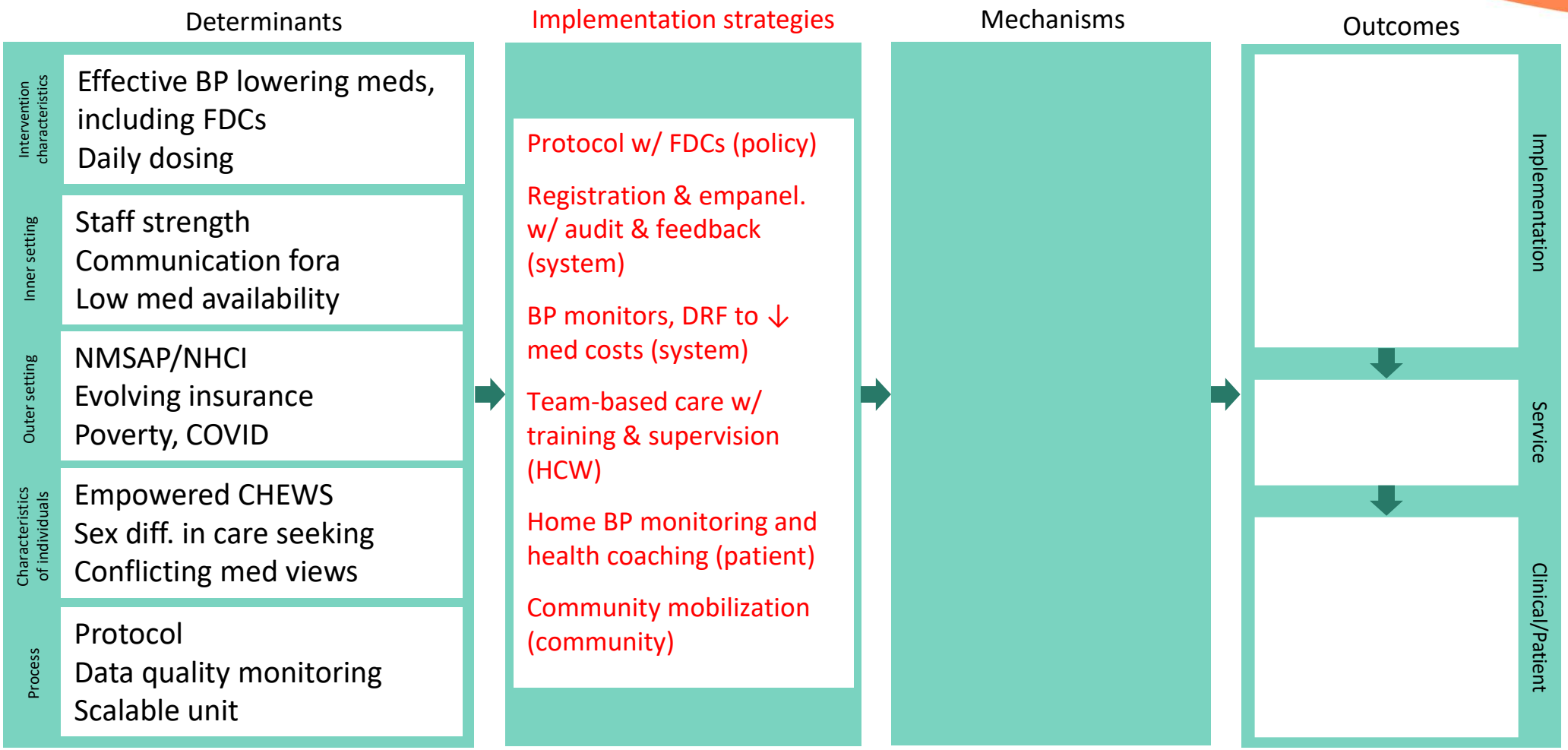

Smith JD, et al. Imp Sci 2020; 15:84.

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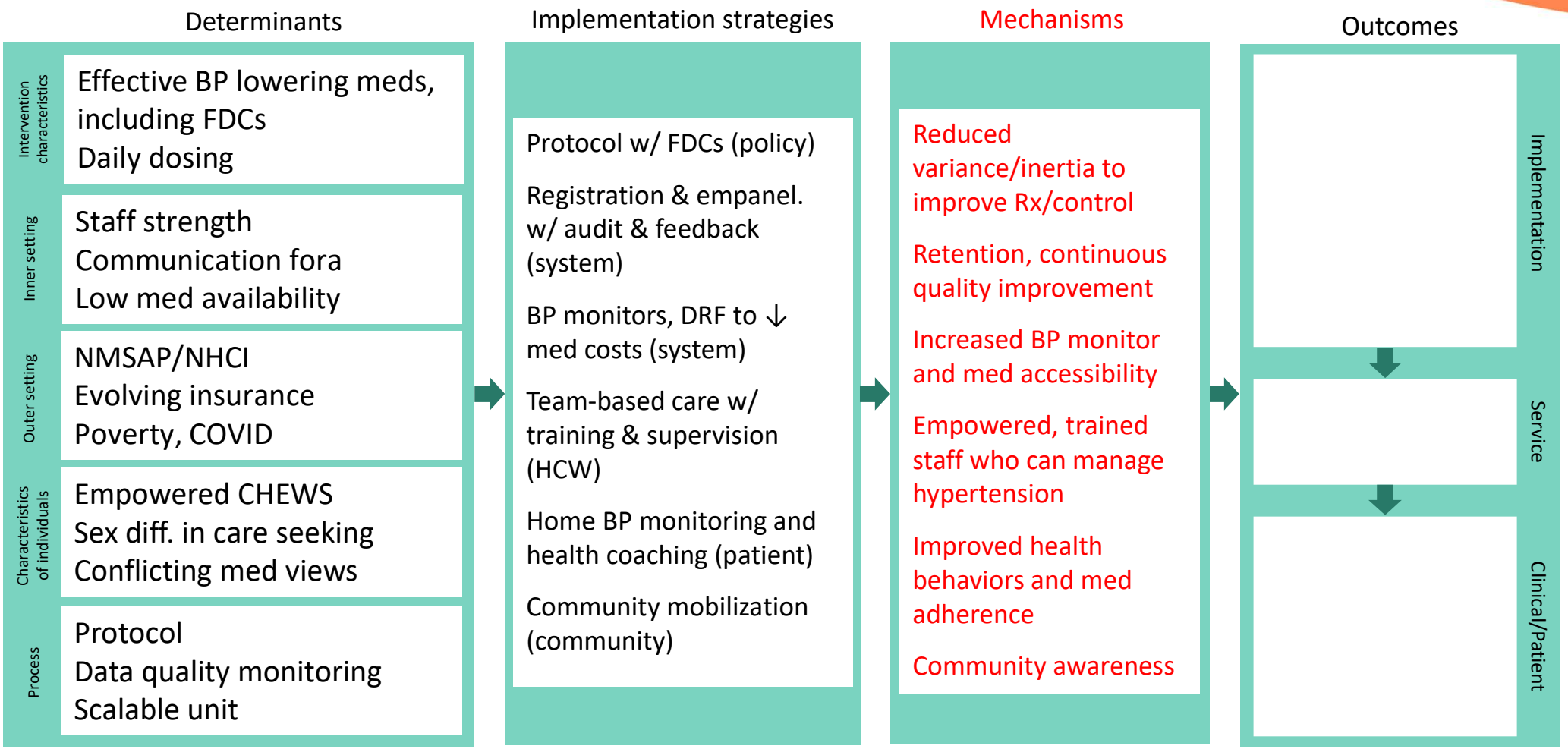
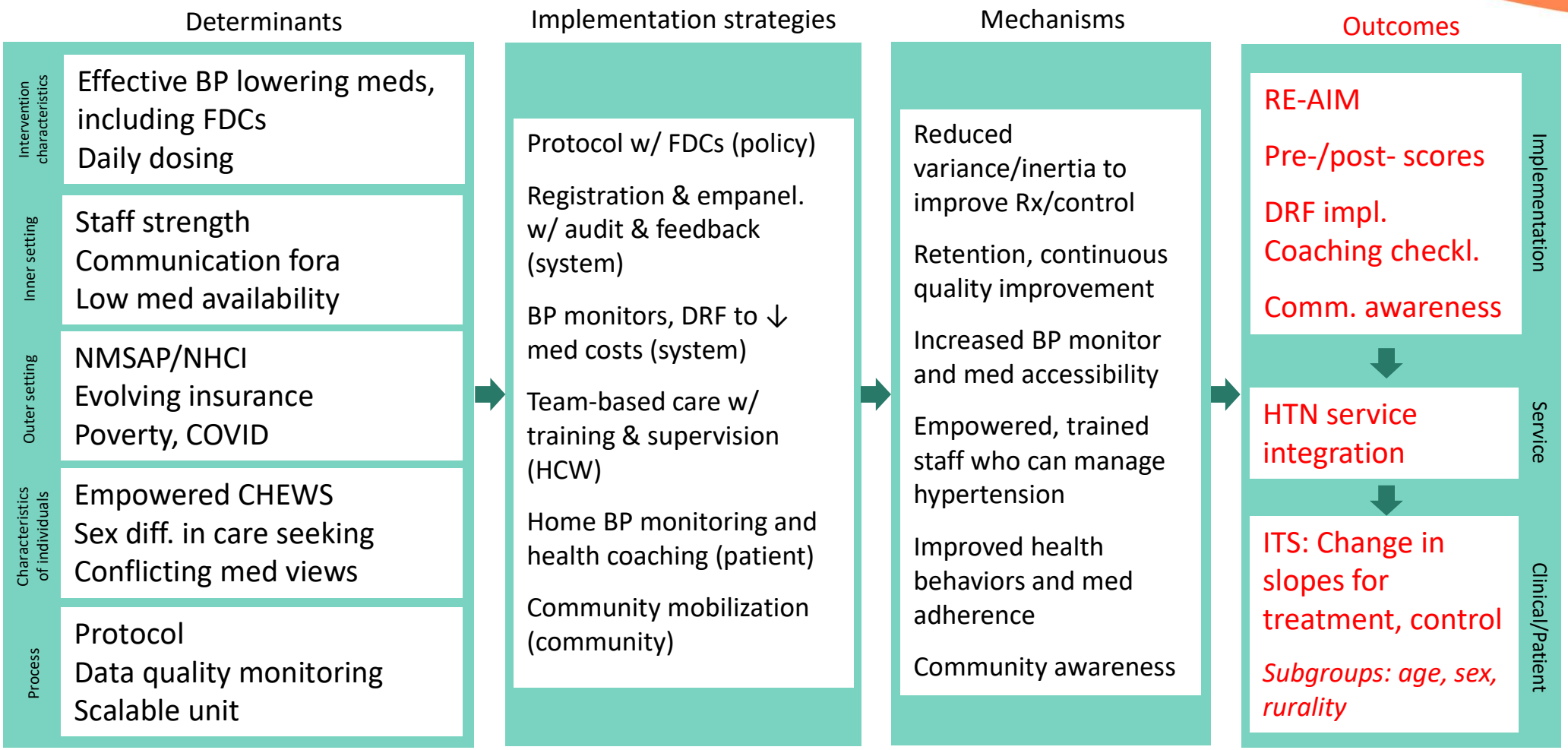
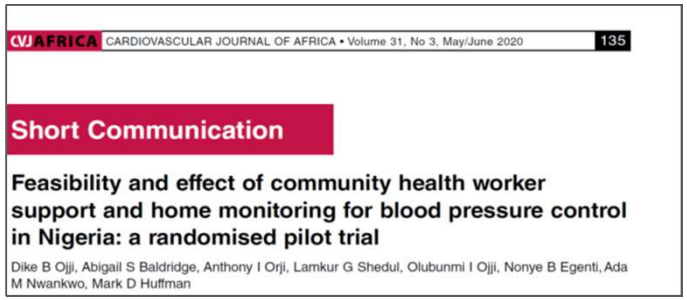


Smith JD, et al. Imp Sci 2020; 15:84.

IRLM applied to the HTN Program (4)



Publications



CVJAFRICA CARDIOVASCULAR JOURNAL OF AFRICA • Volume 31, No 3, May/June 2020 135

Short Communication

Feasibility and effect of community health worker support and home monitoring for blood pressure control in Nigeria: a randomised pilot trial

Dike B Ojji, Abigail S Baldridge, Anthony I Orji, Lamkur G Shedul, Olubunmi I Ojji, Nonye B Egenti, Ada M Nwankwo, Mark D Huffman

Orji et al. BMC Health Services Research (2021) 21:322
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Baldridge et al.
Implementation Science Communications (2022) 3:84
https://doi.org/10.1186/s43058-022-00328-9

Implementation Science Communications

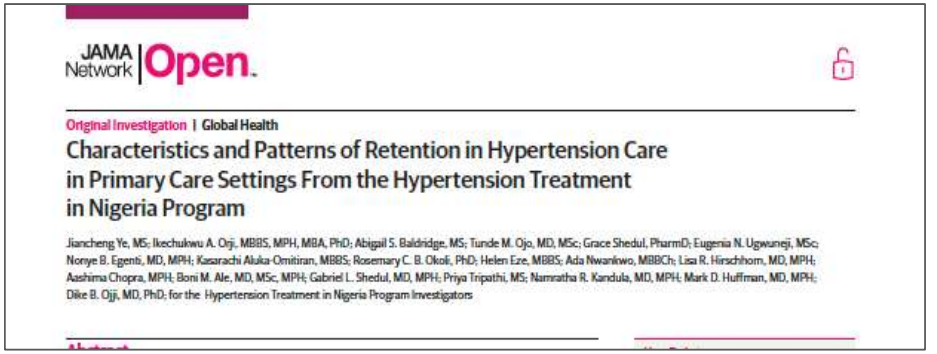
STUDY PROTOCOL Open Access

Hypertension Treatment in Nigeria (HTN) Program: rationale and design for a type 2 hybrid, effectiveness, and implementation interrupted time series trial

Abigail S. Baldridge[1*], Kasarachi Aluka-Omitiran[2], Ikechukwu A. Orji[2], Gabriel L. Shedul[2], Tunde M. Ojo[2,3,4], Helen Eze[2], Grace Shedul[2], Eugenia N. Ugwuneji[2], Nonye B. Egenti[2,4], Rosemary C. B. Okoli[5], Boni M. Ale[2,6], Ada Nwankwo[2], Samuel Osagie[4], Jiancheng Ye[1], Aashima Chopra[1], Olutobi A. Sanuade[1,7], Priya Tripathi[8], Namratha R. Kandula[1], Lisa R. Hirschhorn[1], Mark D. Huffman[1,9,10†] and Dike B. Ojji[2,4†]

Characteristics, treatment, and control of hypertension in public primary healthcare centers in Nigeria: baseline results from the Hypertension Treatment in Nigeria Program

Dike B. Ojji[a,b], Abigail S. Baldridge[c], Ikechukwu A. Orji[a], Gabriel L. Shedul[a], Tunde M. Ojo[a], Jiancheng Ye[c], Aashima Chopra[c], Boni M. Ale[a], Grace Shedul[a], Eugenia N. Ugwuneji[a], Nonye B. Egenti[a,b], Kasarachi Aluka-Omitiran[a], Rosemary C.B. Okoli[d], Helen Eze[a], Ada Nwankwo[a], Bolanle Banigbe[e], Priya Tripathi[c], Namratha R. Kandula[c], Lisa R. Hirschhorn[c], Mark D. Huffman[c,f,g], on behalf of the Hypertension Treatment in Nigeria Program Investigators



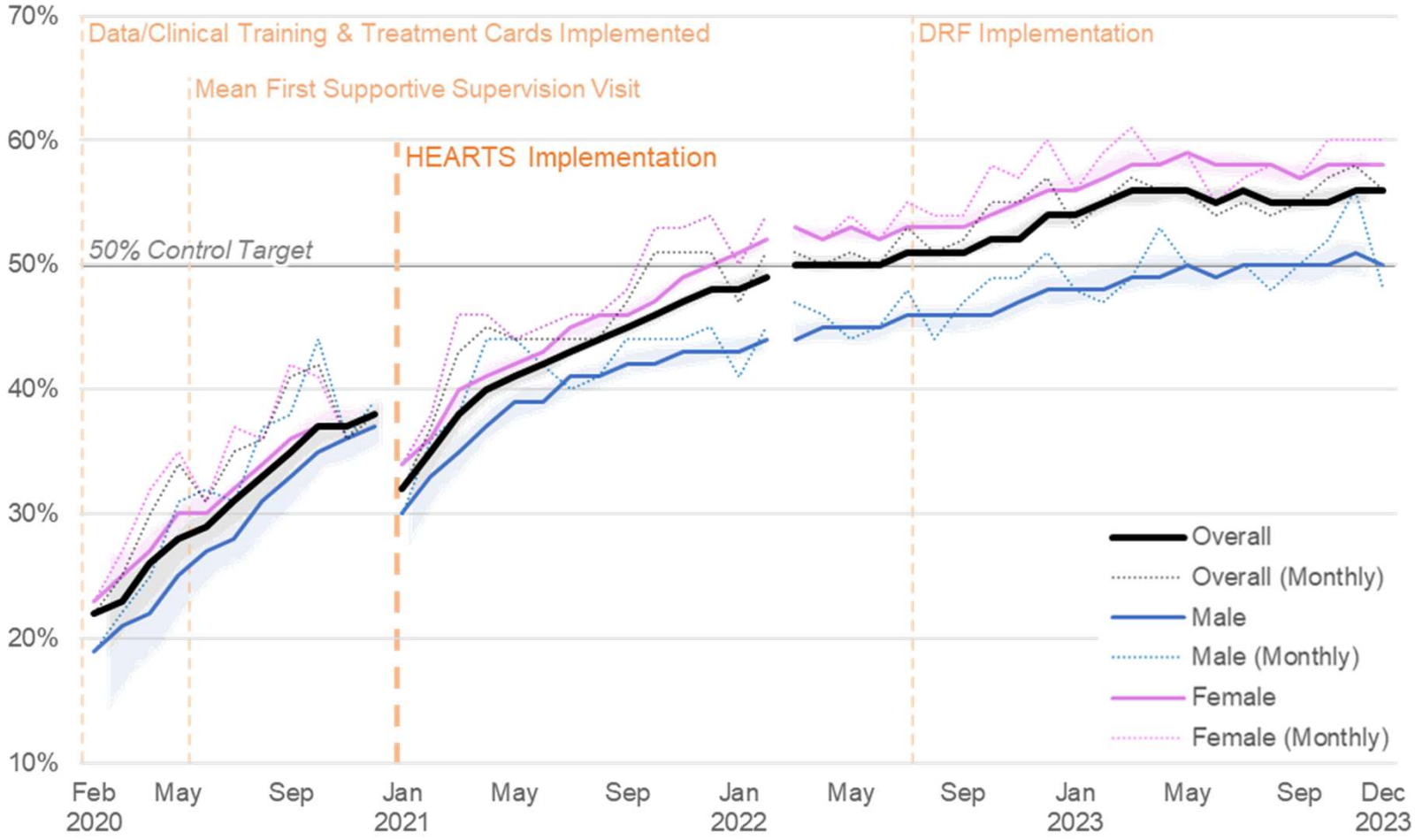
JAMA Network Open.

Original Investigation | Global Health

Characteristics and Patterns of Retention in Hypertension Care in Primary Care Settings From the Hypertension Treatment in Nigeria Program

Jiancheng Ye, MS; Ikechukwu A. Orji, MBBS, MPH, MBA, PhD; Abigail S. Baldridge, MS; Tunde M. Ojo, MD, MSc; Grace Shedul, PharmD; Eugenia N. Ugwuneji, MSc; Nonye B. Egenti, MD, MPH; Kasarachi Aluka-Omitiran, MBBS; Rosemary C. B. Okoli, PhD; Helen Eze, MBBS; Ada Nwankwo, MBBCh; Lisa R. Hirschhorn, MD, MPH; Aashima Chopra, MPH; Boni M. Ale, MD, MSc, MPH; Gabriel L. Shedul, MD, MPH; Priya Tripathi, MS; Namratha R. Kandula, MD, MPH; Mark D. Huffman, MD, MPH; Dike B. Ojji, MD, PhD; for the Hypertension Treatment in Nigeria Program Investigators

Increased and sustained hypertension control rates to >50% for nearly 2 years



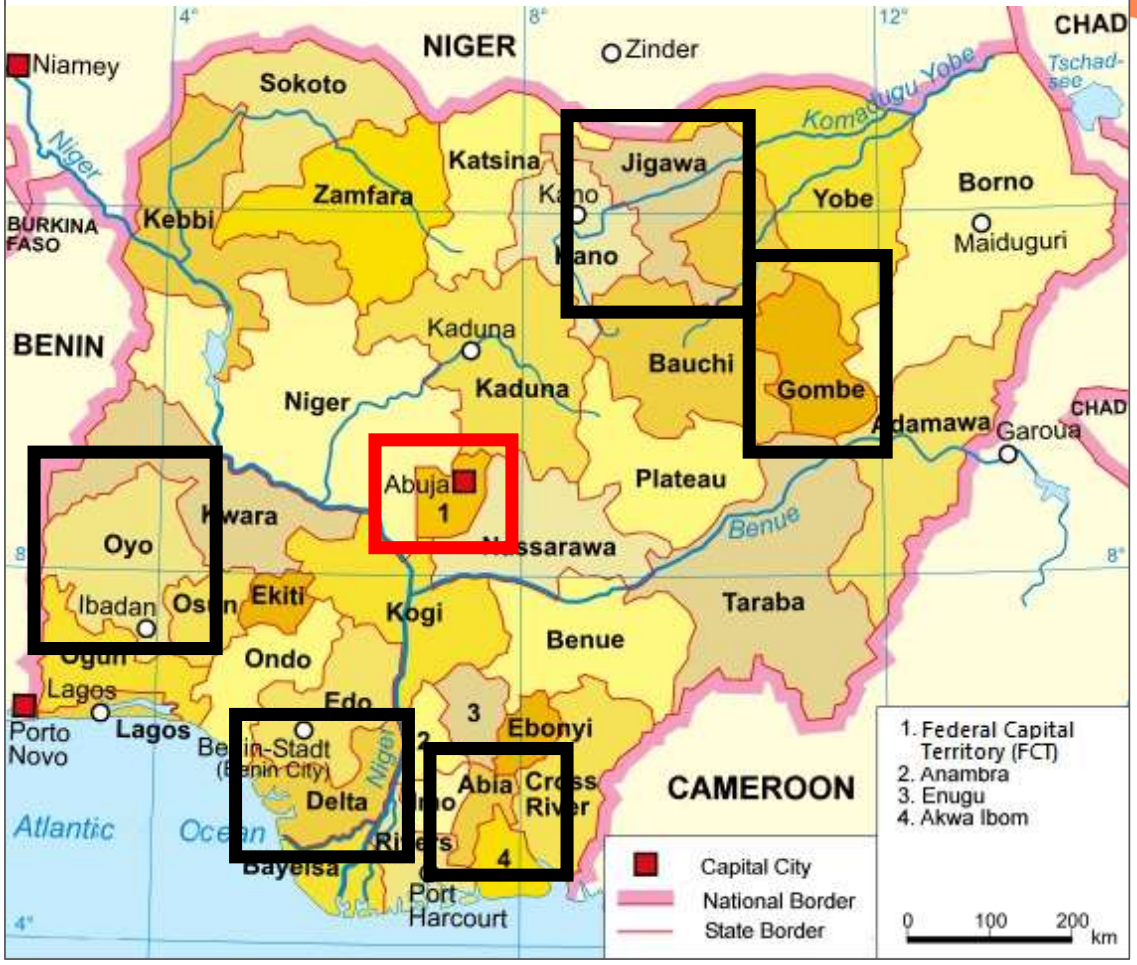
Example project:

Transforming hypertension management in Nigeria

Scaling out the HTN Program to five Nigerian states

Aim: To evaluate the effectiveness and implementation of **national horizontal scale-up** of HEARTS to 5 new states in the 5 other geopolitical zones in Nigeria: Abia, Delta, Gombe, Jigawa, and Oyo in addition to ongoing research in the FCT.

Figure 1. Map of Nigeria and included states. (Wikipedia)
HEARTS implementation=black; HEARTS-D=red



Applying context in the choice of state and study facilities

We sought states and corresponding sites to participate based on the following eligibility criteria, including:

- **Political will:** functioning SPHCDA; expression of interest in writing by SMOH or the ES of the SPHCDA; availability of community-based health insurance scheme or with a plan that was at an advanced stage; and a functioning Basic Healthcare Provision Fund
- Experienced physician-researcher availability and willingness
- Primary care physicians' availability and willingness to provide training, monitoring, and supportive supervision

SPHCDA- State Primary Health Care Development Agency; SMOH-State Ministry of Health; ES-Executive Secretary

Reflections on scale up context

- For effective scale up of any intervention in a setting, the context of that scale up has be to be considered
- Such context will determine above others, the acceptability of the intervention in each sociocultural environment
- All such identified factors should be thoroughly considered when scaling up public health interventions in LMICs
- The different factors are strongly interlinked, and most of them are related to one crucial first step: the development of a scale-up strategy before scaling up

Key Messages

Context, in relation to implementing EBIs, is the environment or setting in which the proposed change is to be implemented

Understanding context is crucial for successful implementation

EBIs are implemented in complex, multi-faceted and dynamic environments, which arguably means that the same intervention would rarely work in the same way in different contexts.

Such context will determine above others, the acceptability of the intervention in each sociocultural environment.

All identified contextual factors should be taken into account for such an intervention to be effectively implemented

Without the above measure it might be difficult to scale up NCD interventions

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