

Evidence-based Transfer of Success: Lessons Learned from Community Health Worker Experiments in Bangladesh & Ghana



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Overview

1) Why is there a need for research on CHW?

- The CHW typology
- A systems perspective

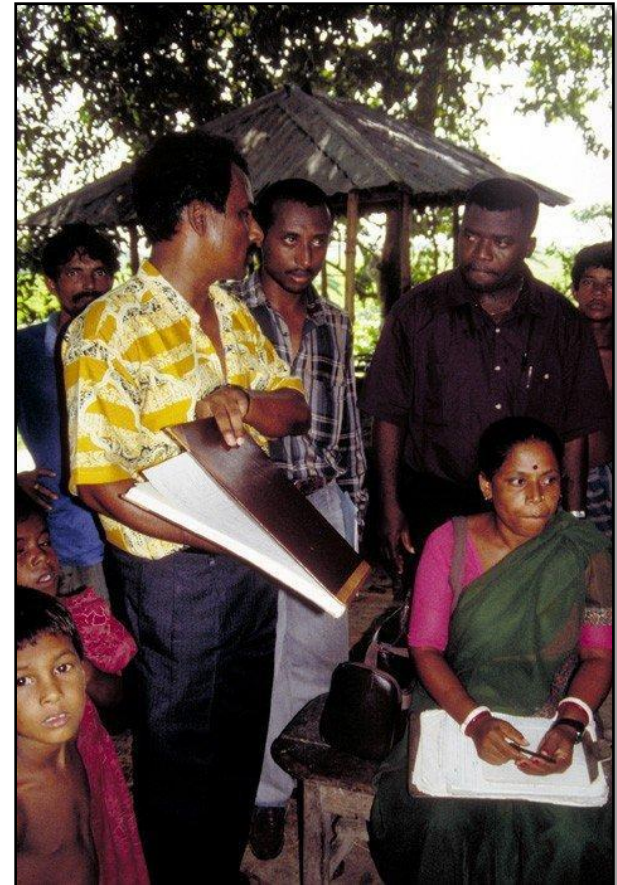
2) The Bangladesh example:

- Learning from failure: The Matlab Contraceptive Distribution Project
- The Matlab Experiment
- Replication: The MCH-FP Extension Project
- Scaling up: “Population & Health Project #3”

3) The Ghana example: Learning from Matlab

- Baobab Planning
- The Navrongo experiment
- Nkwanta replication
- Scaling up: The CHPS Initiative

4) Conclusions & implications



Why do we need CHW?

Activating supply & demand by developing comprehensive service accessibility

To mobilize the system, curative and preventive services are provided by workers who are...

... **"passive"** (based in fixed facilities) and....

... **"active"** (seeking clients in their homes or communities)

When children fall ill or need preventive services, parents ...

...are passive about seeking care.

...actively seek services

Developing supply of
community-based outreach

Developing Demand by
improving service *quality* and health
promotion

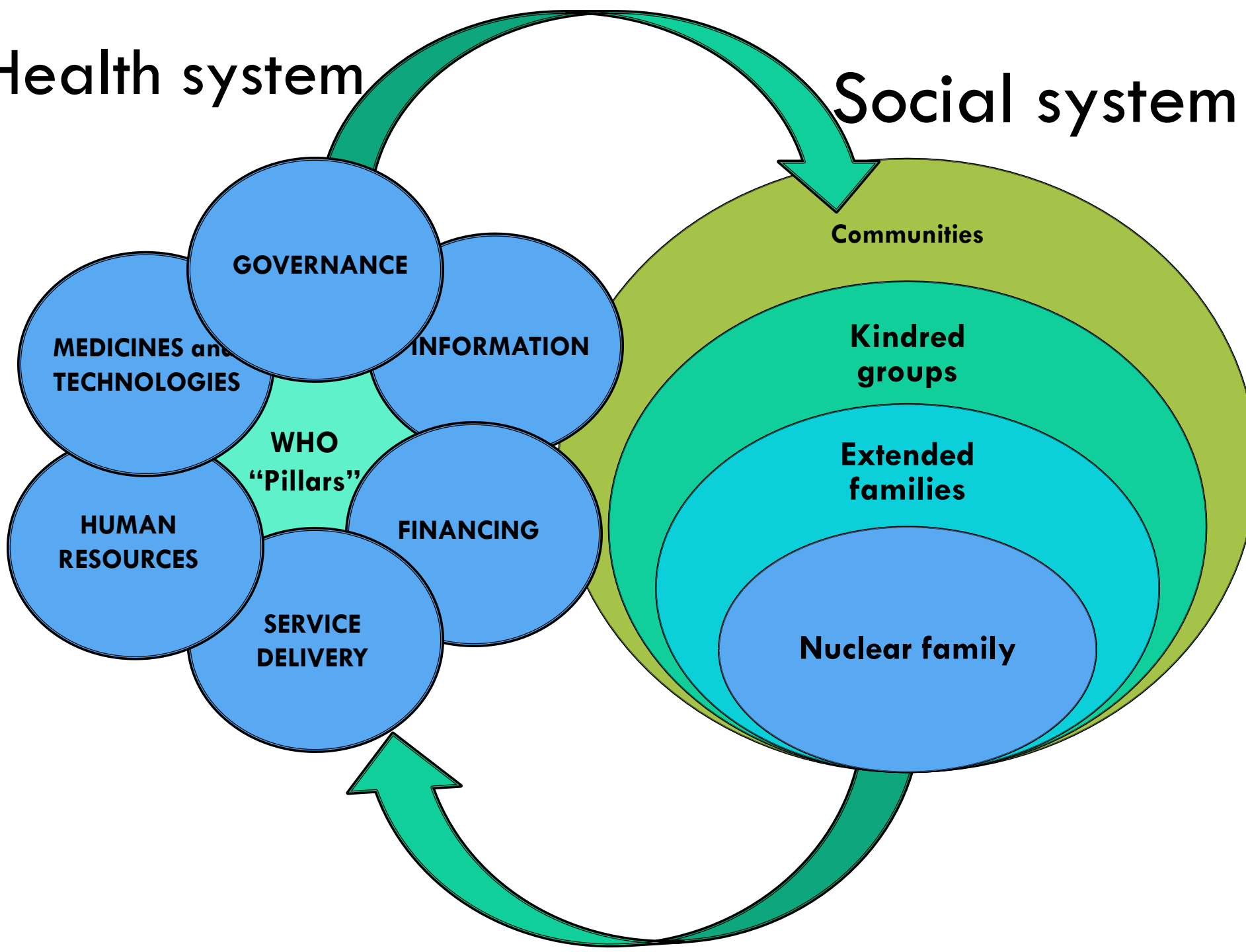
Type 1:
Promoting services

Type 2:
Promoting access

Type 3:
*Accessible community-based
services that also foster
demand*

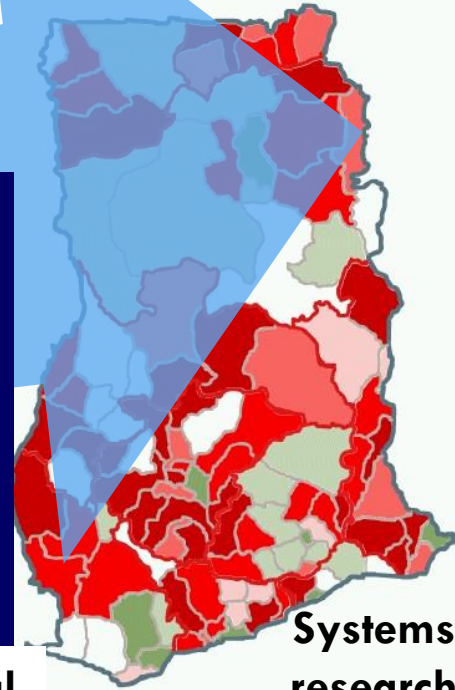
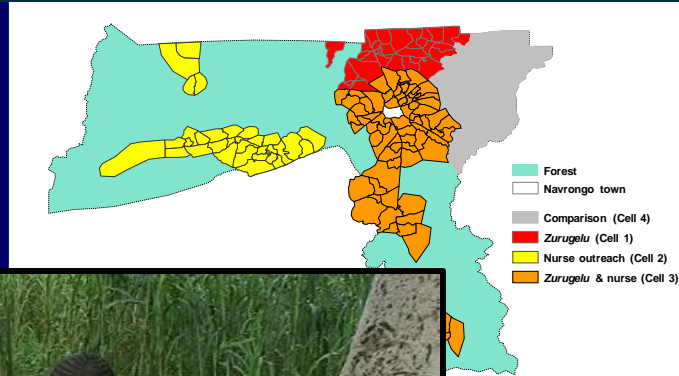
Health system

Social system



Research strategies for dealing with complexity:

Phases with Mixed methods



Experimental research



Survey research



Qualitative appraisal

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The Matlab Contraceptive Distribution Project (CDP)

A Plausibility Trial of the Ravenholt Hypothesis



Reimert T. Ravenholt,
MD MPH

The hypothesis dominated USAID policies in the 1970s: Accelerating access to oral contraception will foster reproductive change.

Assumptions....

- **Crisis.** There is a global population crisis. Careful trial was too time consuming.
- **Push pills.** “Pills for all” will fulfill “latent demand” for contraception.
- **Simplicity.** Access and cost are the key constraints to reproductive change.
- **Vertical programming.** Addressing latent demand does not require attention to distracting complexities (health components, development needs, gender issues)

Problem: Controversy

- Controversy about the “crisis” and how to solve development problems: Bucharest
- Why pills?
- Credibility: Is the problem all that simple?
- What about health?

Solution: Test the hypothesis in a challenging setting

The Matlab Experiments: CDP (1975-77) and FPHSP (1979-2009)

Matlab Thana

The setting:

- Pervasive poverty & illiteracy
- Geographic isolation
- “Natural fertility” (TFR=6.8)

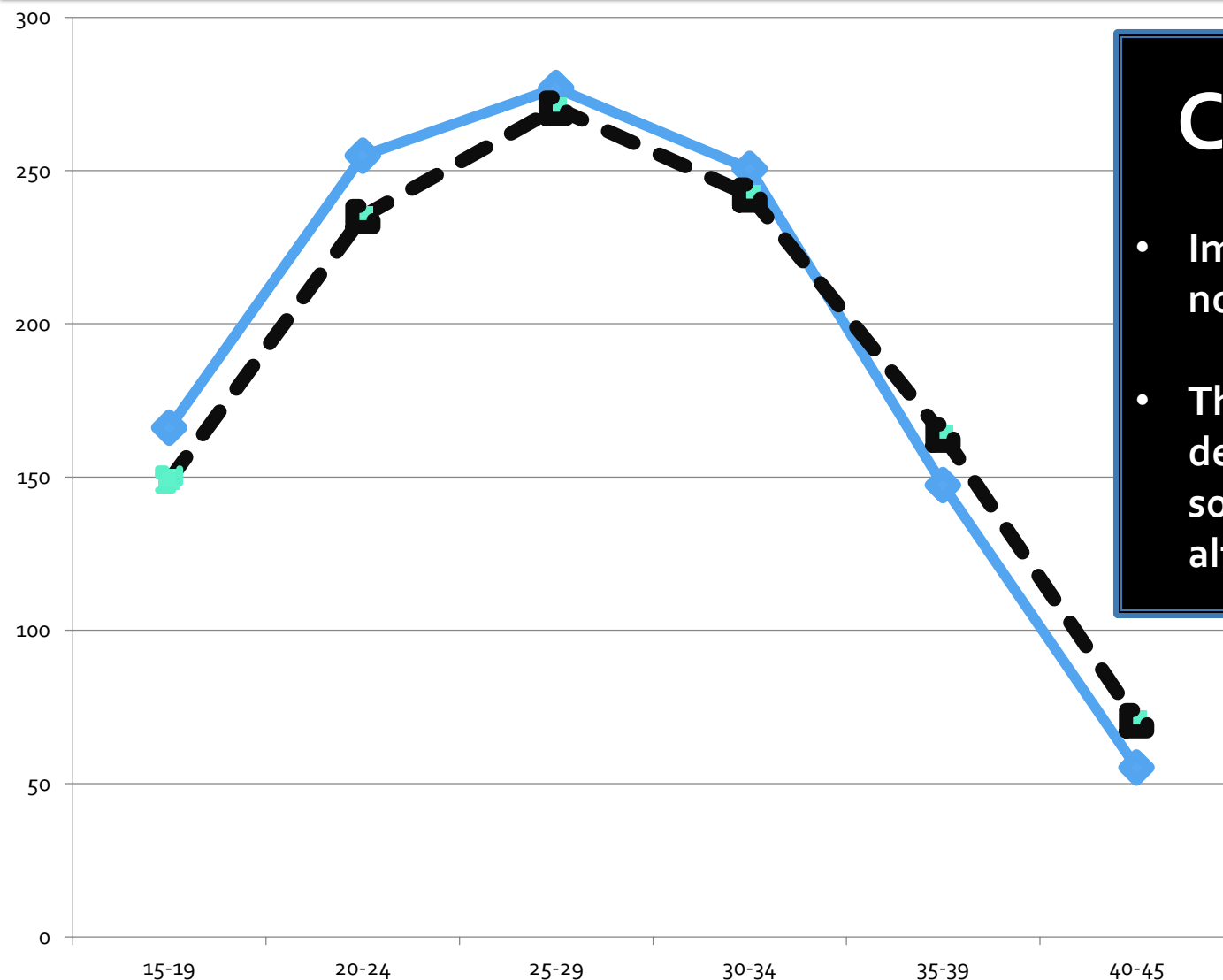


The CDP Approach:

- Challenging & complex setting
- Minimize costs and complexity
- CDP approach utilized TBAs for distribution of family planning
- Demand driven



CDP Results: In the final year, treatment fertility was higher than the comparison!



Conclusion:

- Imported strategies do not work.
- There was a need to develop and test a socially informed alternative to the CDP

Family Planning Health Services Project



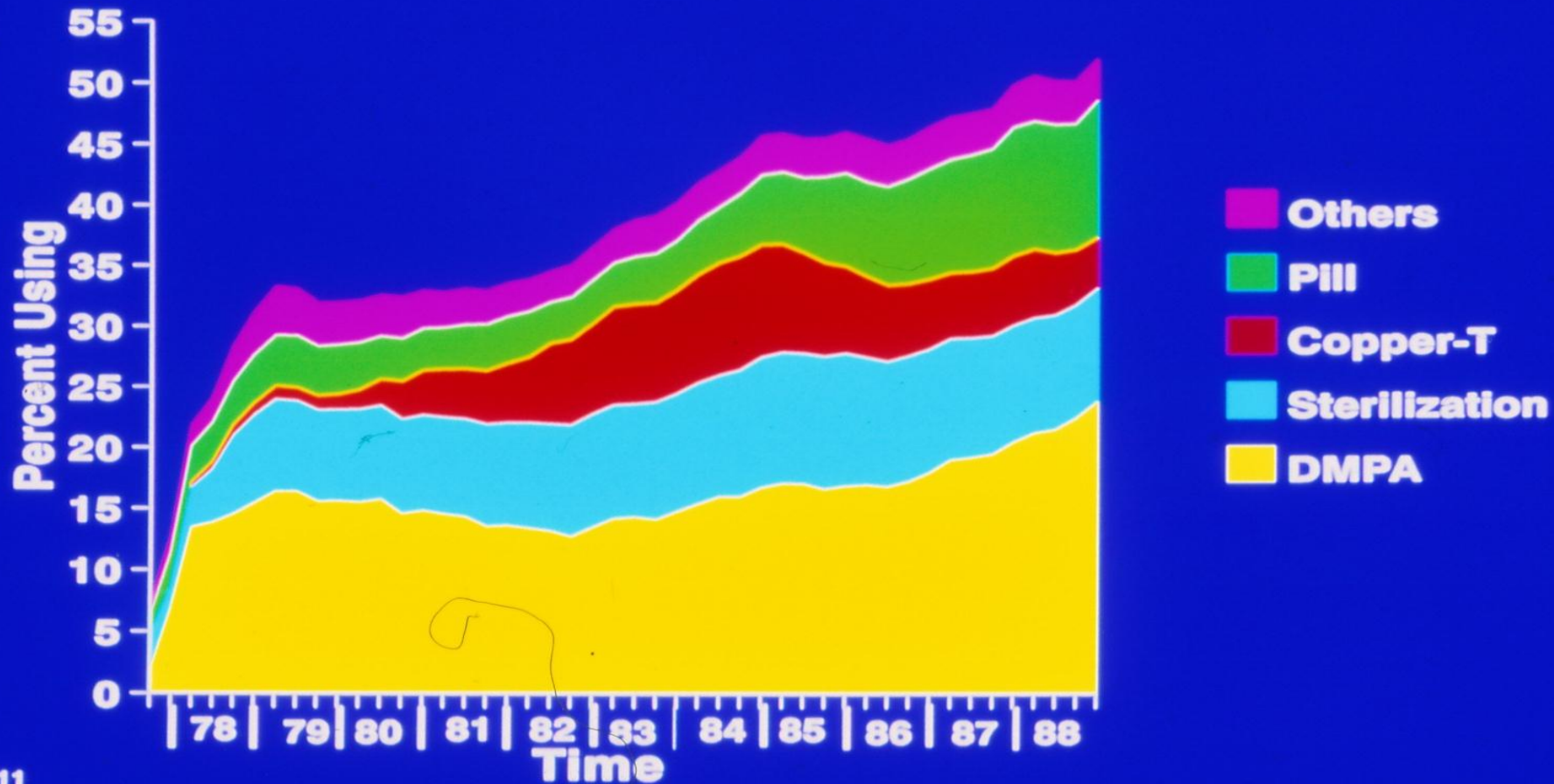
Diagnostic social research to determine what went wrong with the CDP. Evidence-based changes were....

- **Workforce:** Young educated CHW
- **Training:** Extended training
- **Integration:** Health promotion + health care
- **Multiple methods:** “The User’s Perspective”

Family Planning Health Services

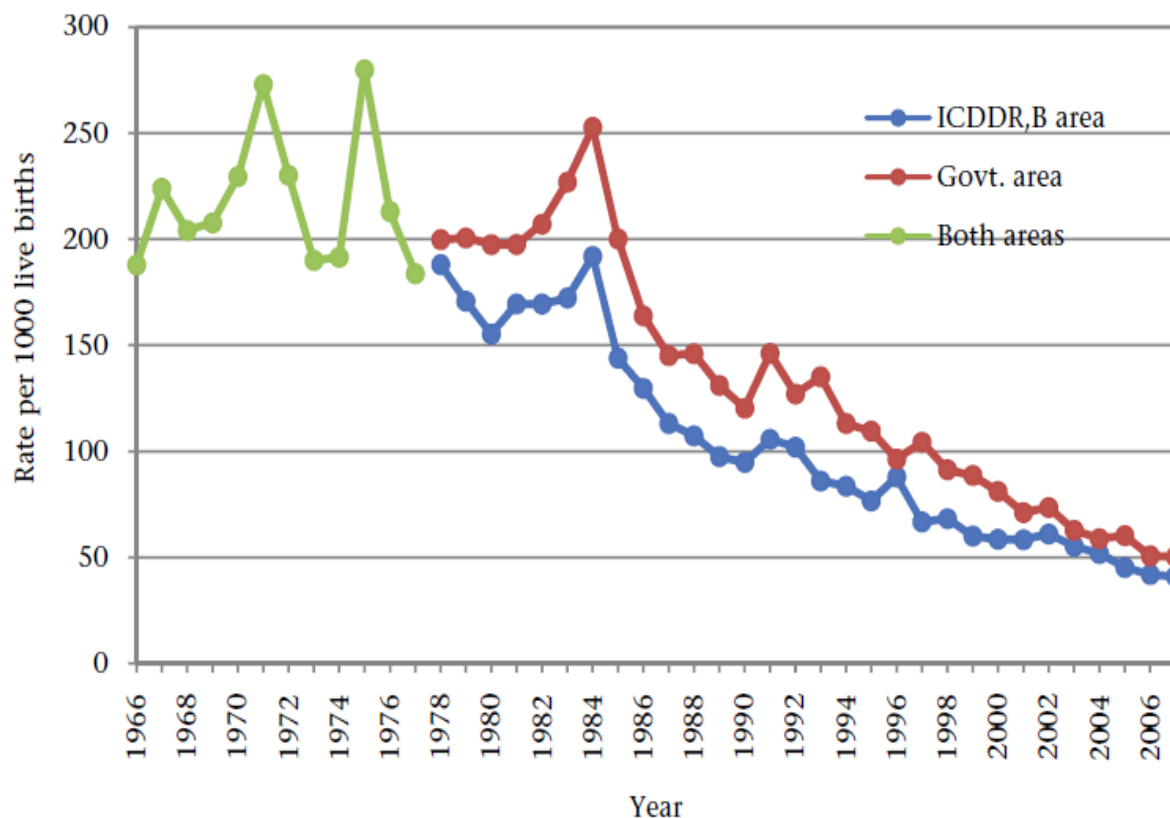
Project Results:

Contraceptive Prevalence by Method Matlab, 1977-1988



Mortality trends

Figure 2.5 Under-five Mortality Rates (U5MR) in Matlab by area, 1966-2007



Conclusions:

- CHW deployment accelerated under-5 mortality improvement
- As the Government phased in CHW deployment, mortality trends converged.

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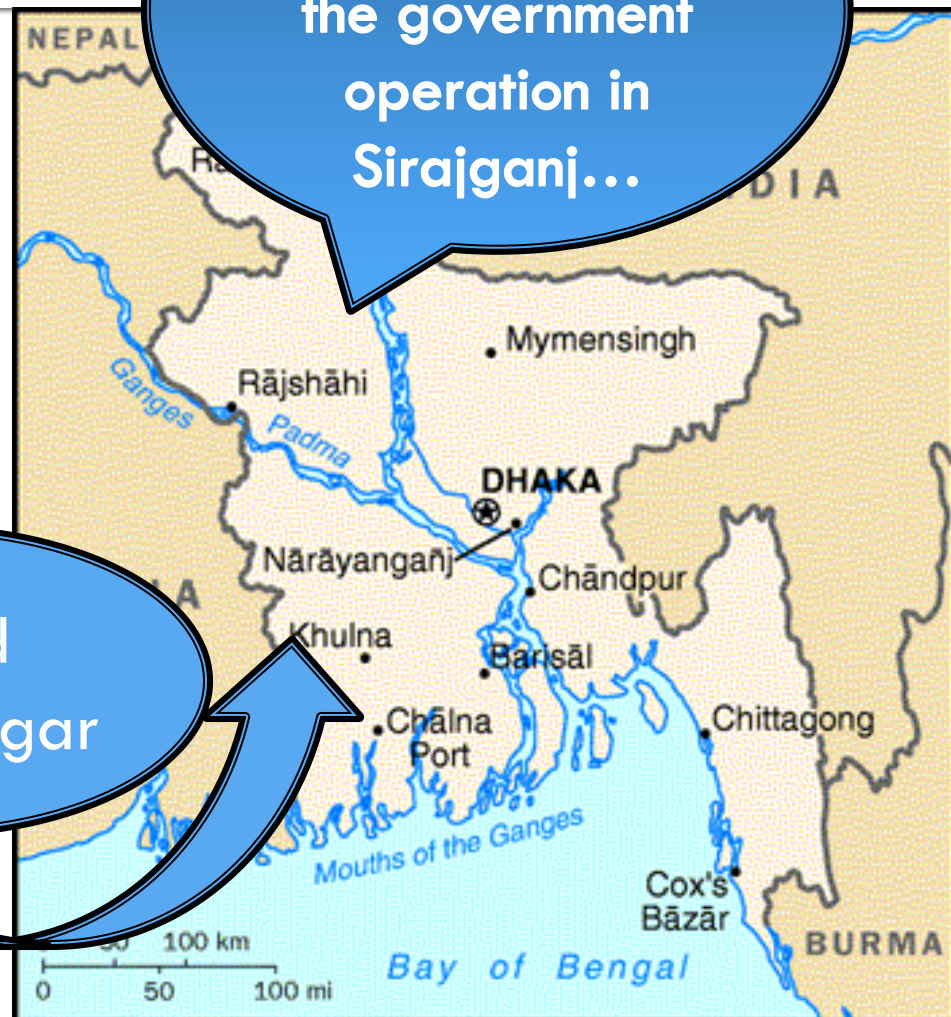
3) The Ghana example: Learning

- Baobab Planning
- The Navrongo experiment
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Transfer the Matlab system to the government operation in Sirajganj...

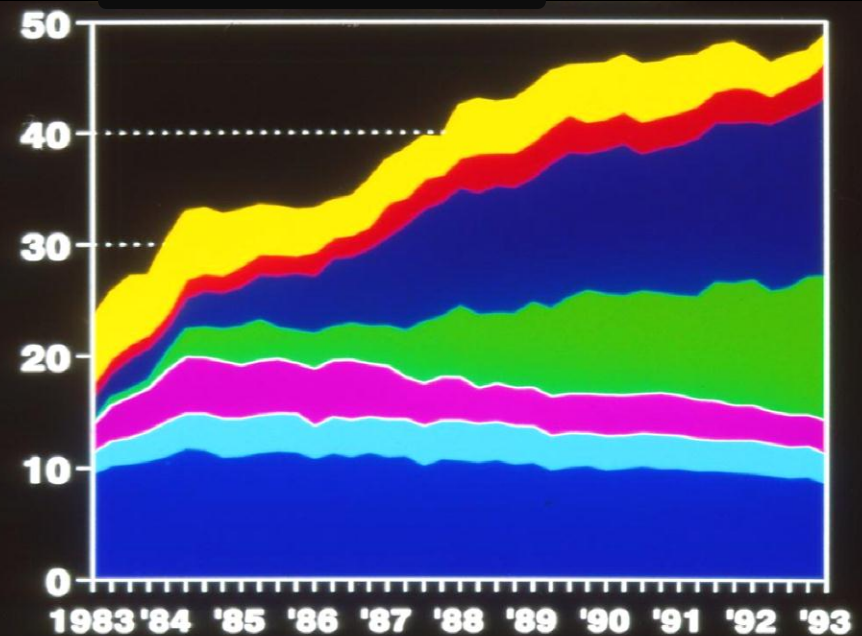
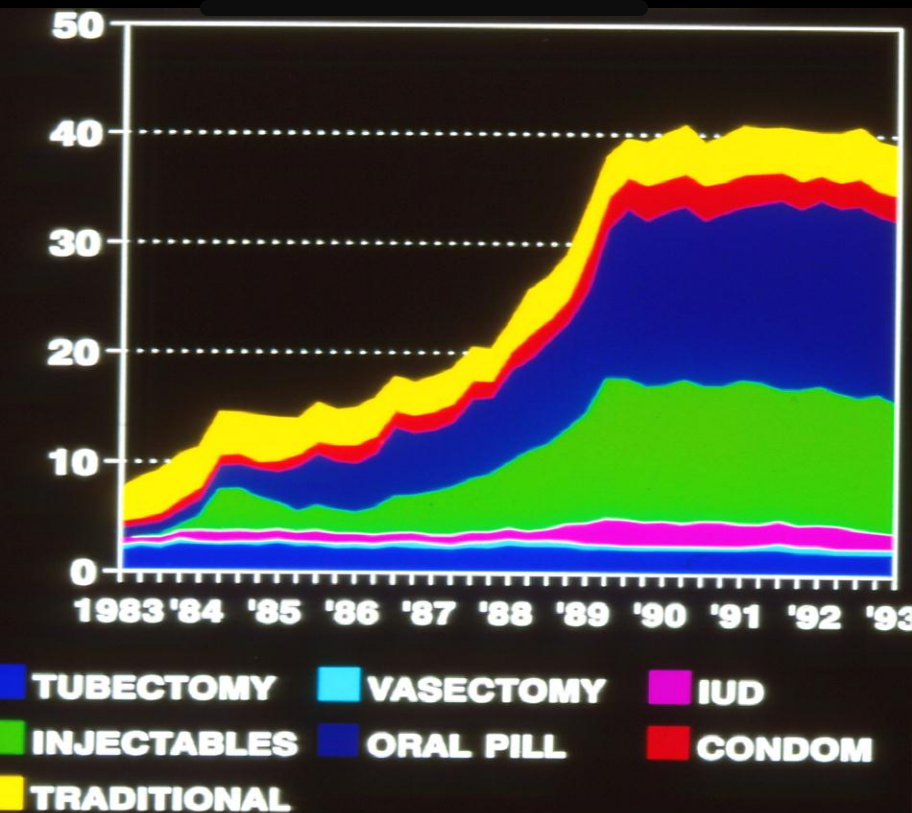
...and Abhoynagar



Phase 3: Transfer of Matlab worked

Sirajganj

Abhoynagar





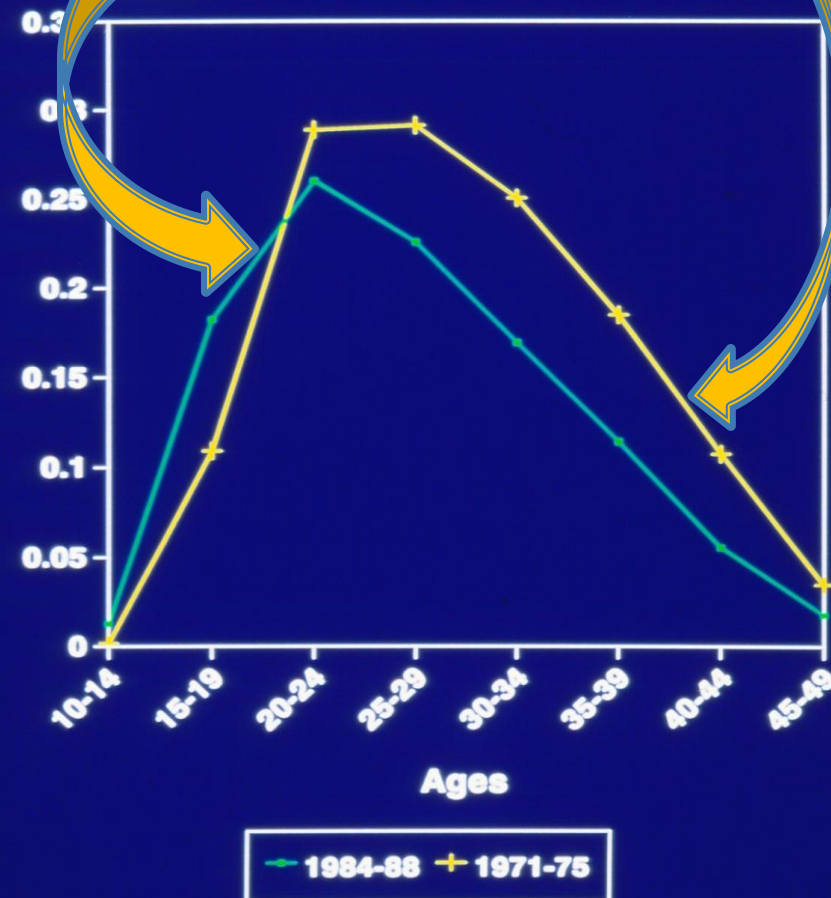
Phase 4: National Scale-up replicated Matlab results

Scaling up involved “top down” financing and command-driven action....

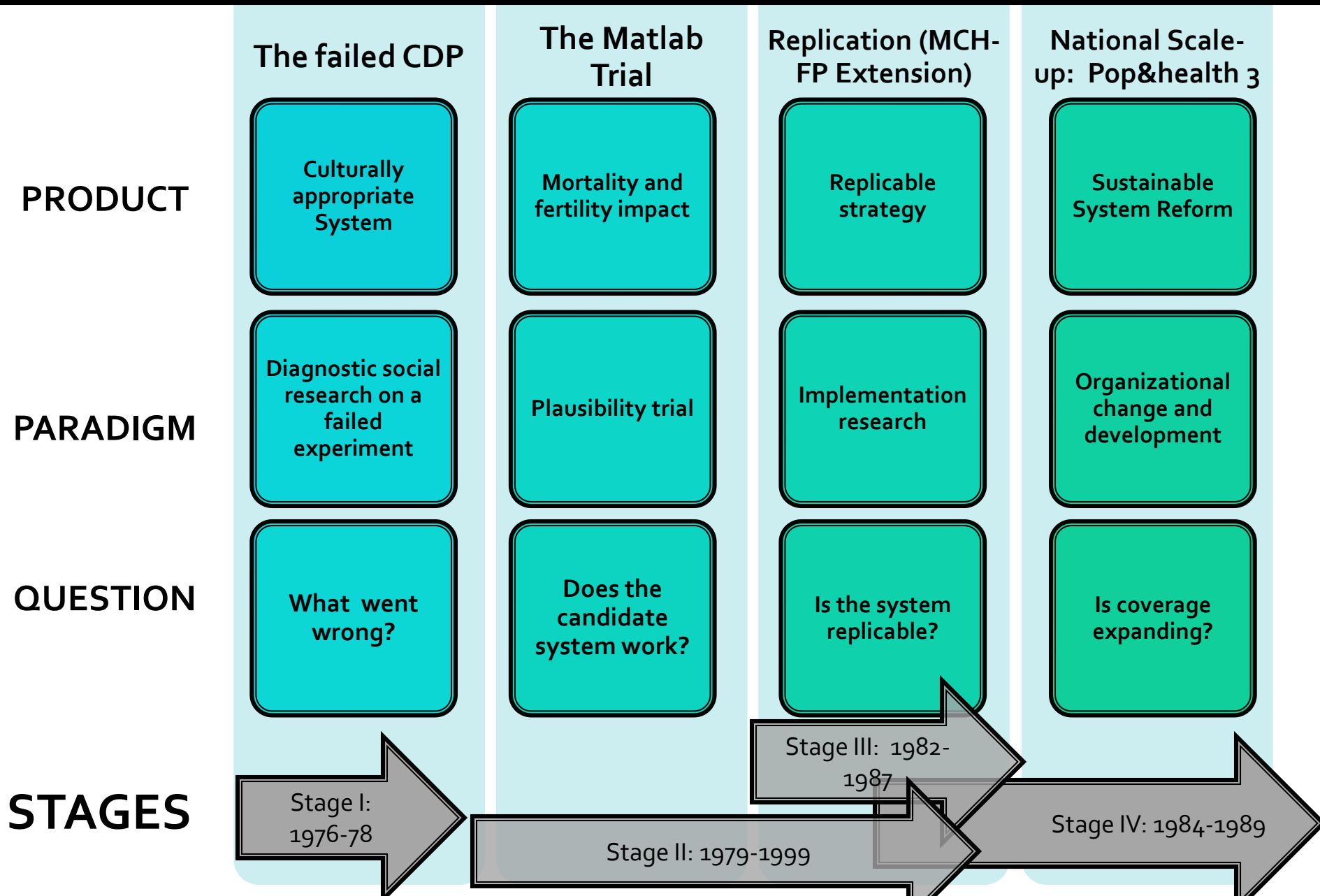
- 1) Translating MCH-FP Extension “Implementation Research” into text for the “World Bank Pop-Health Project #3”
- 2) Hiring and training 28,000 CHW
- 3) Deploying CHW with support systems nation-wide
- 4) Shifting research from operations research in 2 districts to i) process monitoring and ii) national scale-up.

Results: Dramatic reproductive and child health improvement

Age specific fertility rates before & after scale-up



Lessons from the Bangladesh experience: Phased research



Outline

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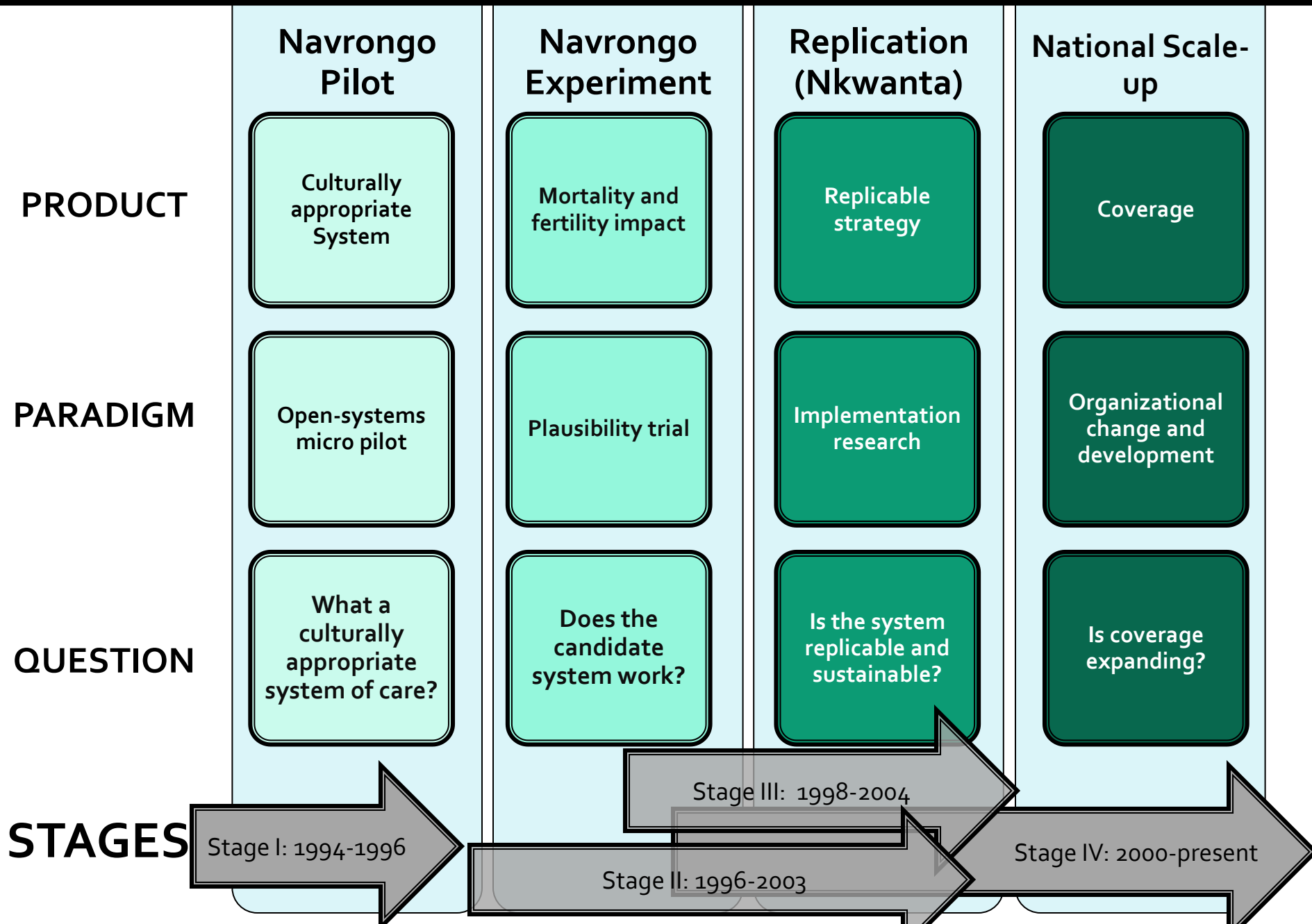
4) Conclusions & implications



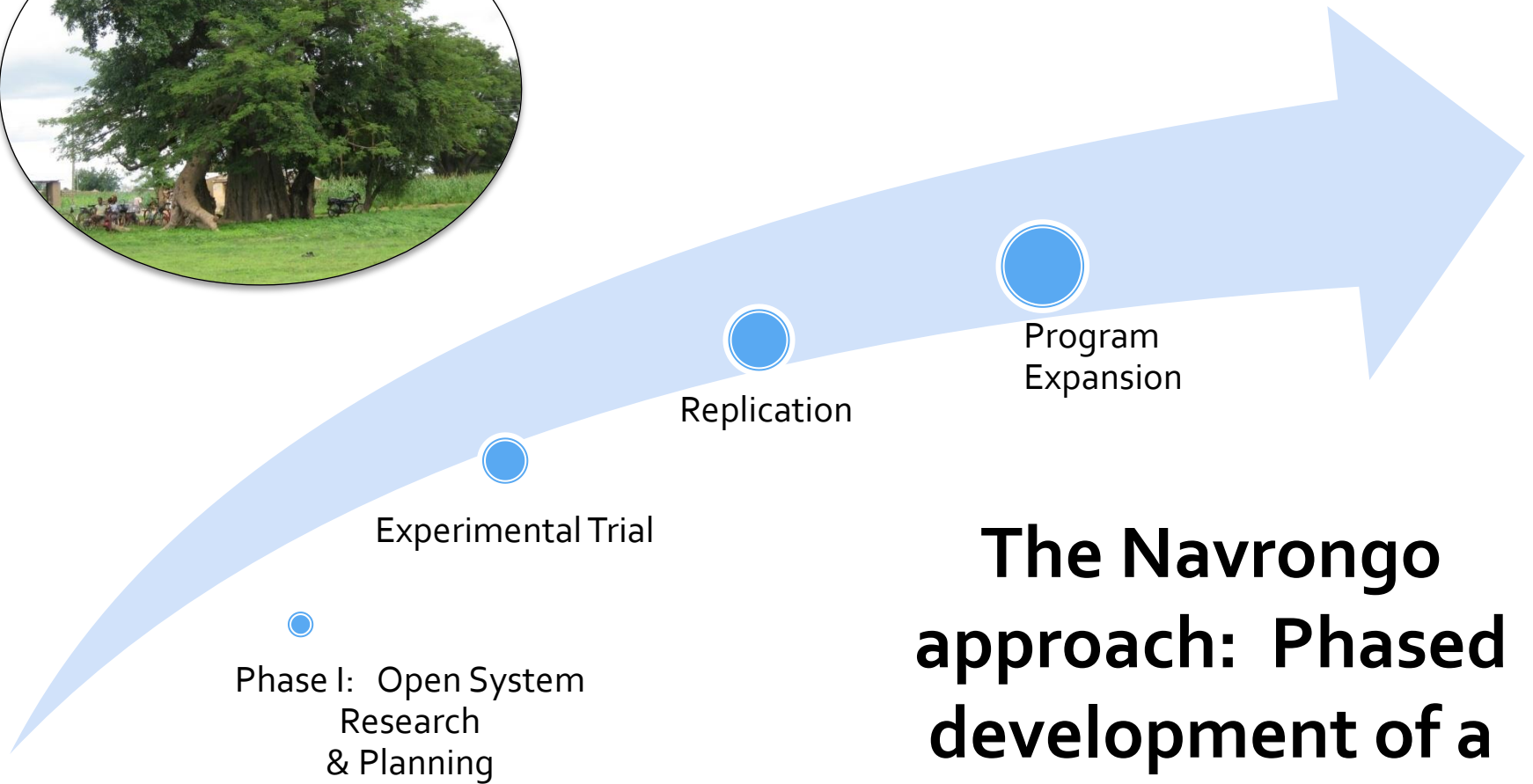
Can the “Matlab Model” work in Africa?



Avoiding the Bangladesh mistakes: Phased research in Ghana



Phase I: “Baobab Planning”



**The Navrongo
approach: Phased
development of a
national system**



Mixed Methods (Baobab planning):

Qualitative & quantitative

Diagnose problems, develop strategies, develop hypotheses

Describe problems, test hypotheses, evaluate solutions



The Zurugelu dimension

The Zurugelu dimension mobilizes traditional...



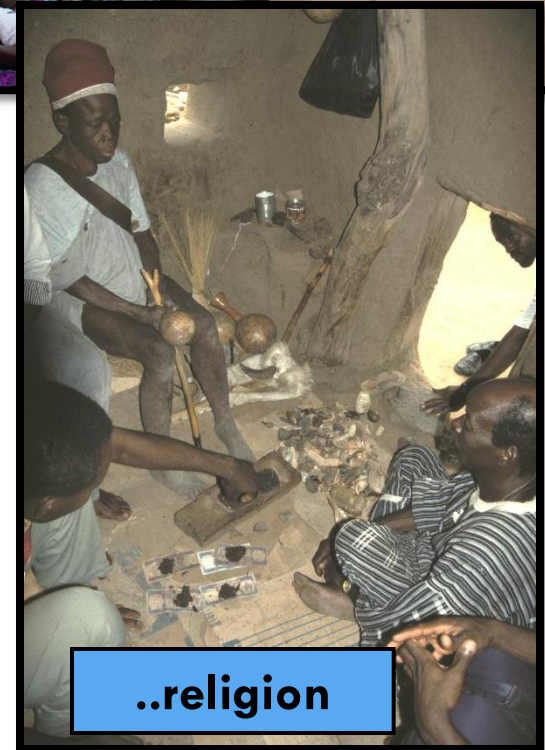
..patriarchy...



communication



male social networks



..religion

The Zurugelu dimension



Women's groups



Zurugelu = Bamako Initiative



Health committees



Volunteers

The community health service dimension



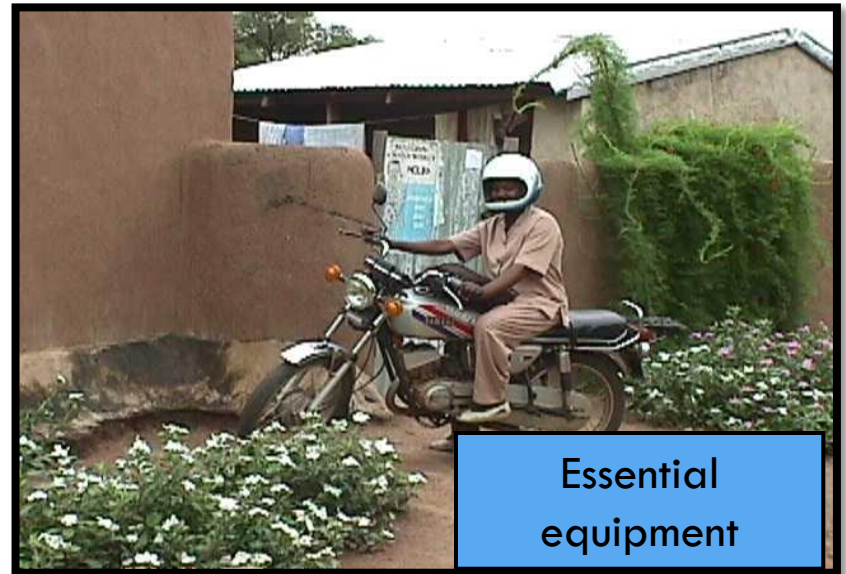
Health infrastructure



Relocated nurses



Community-constructed health centers



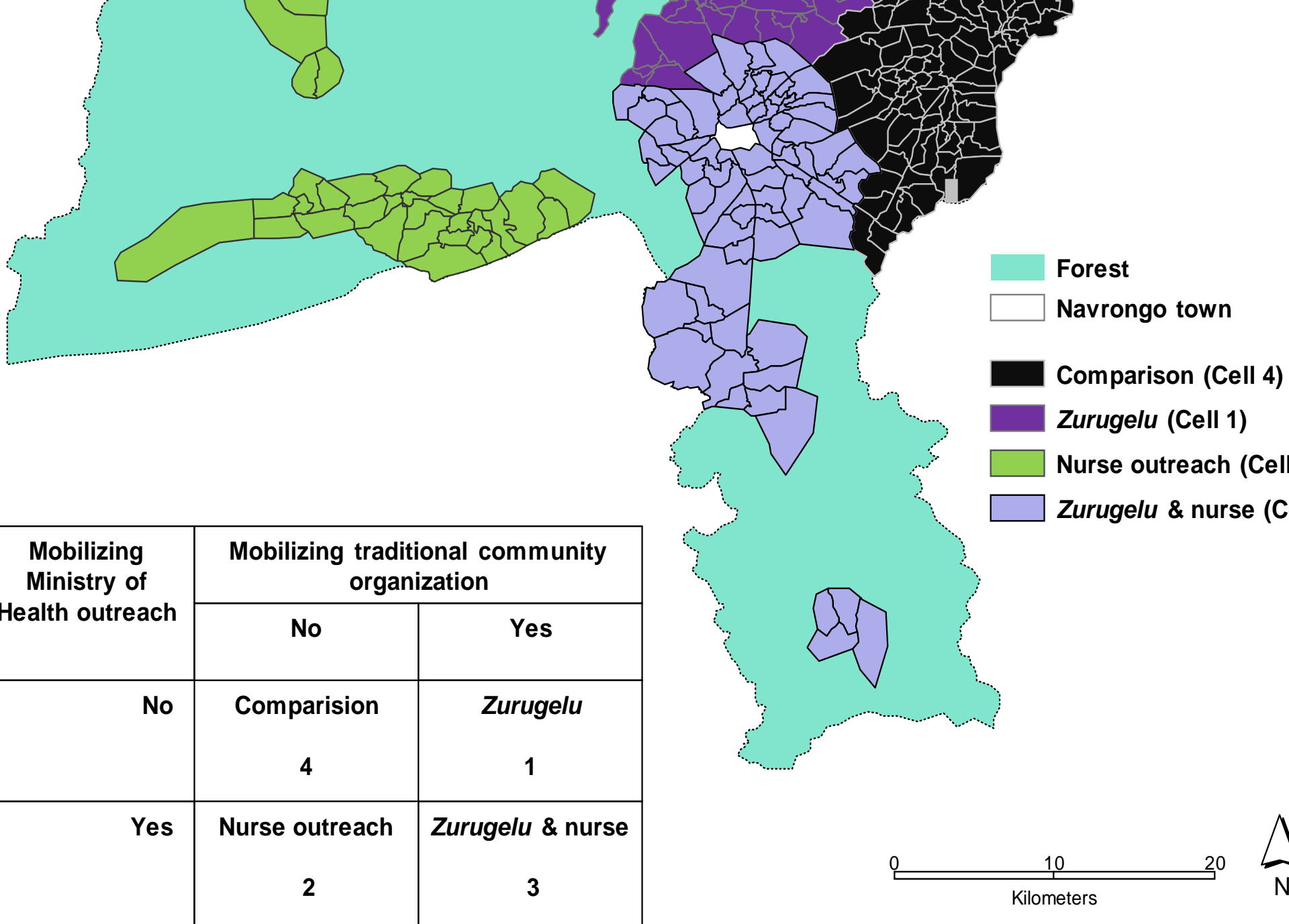
Essential equipment

Phase II: Will the system work?

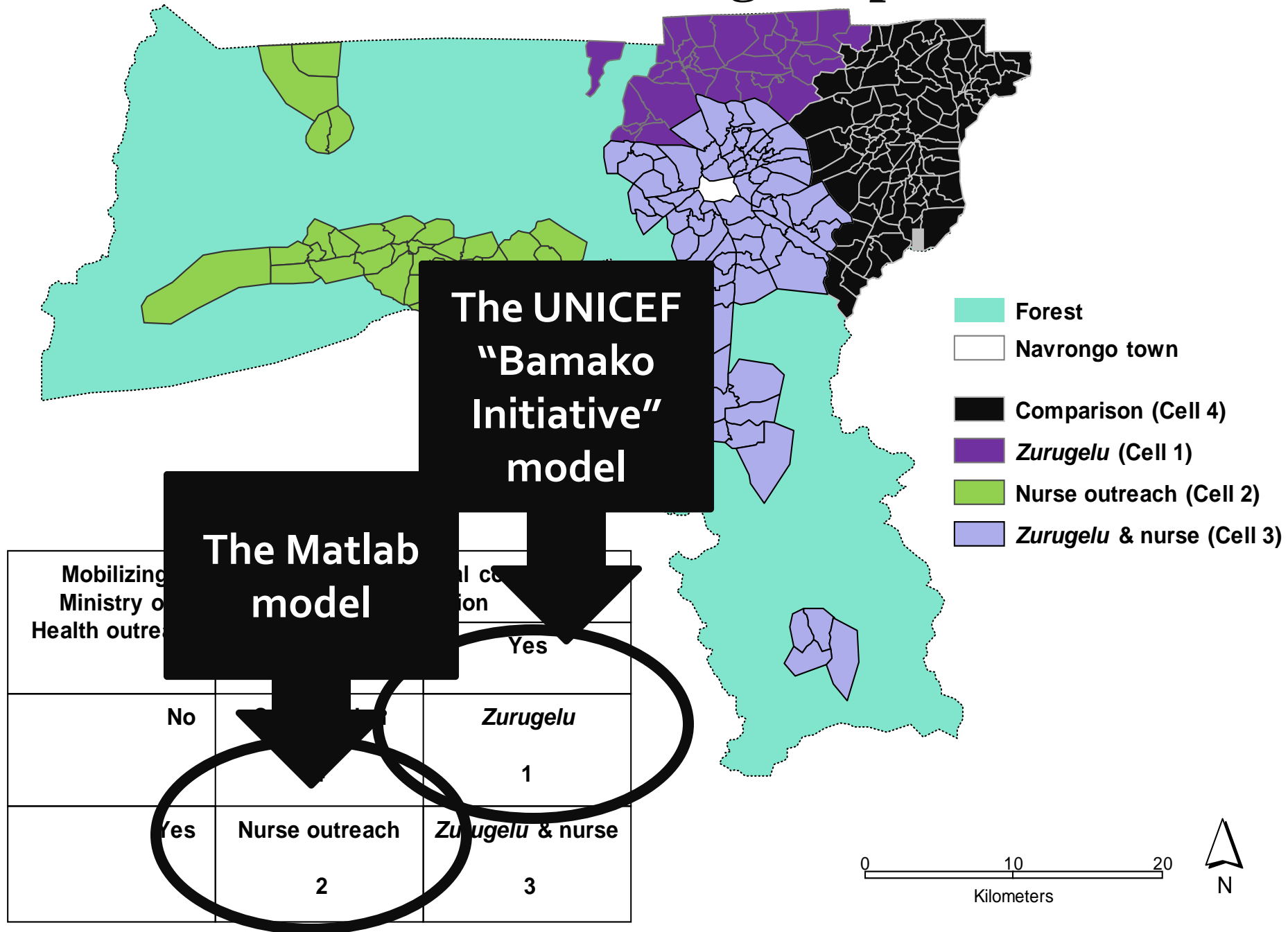
The Navrongo Experiment



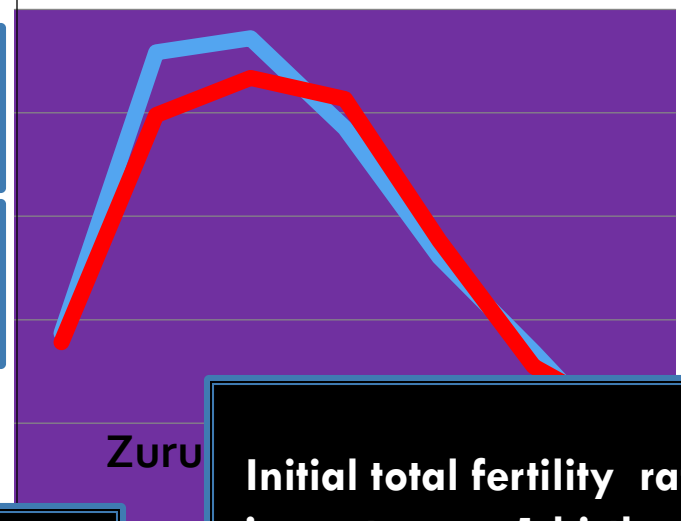
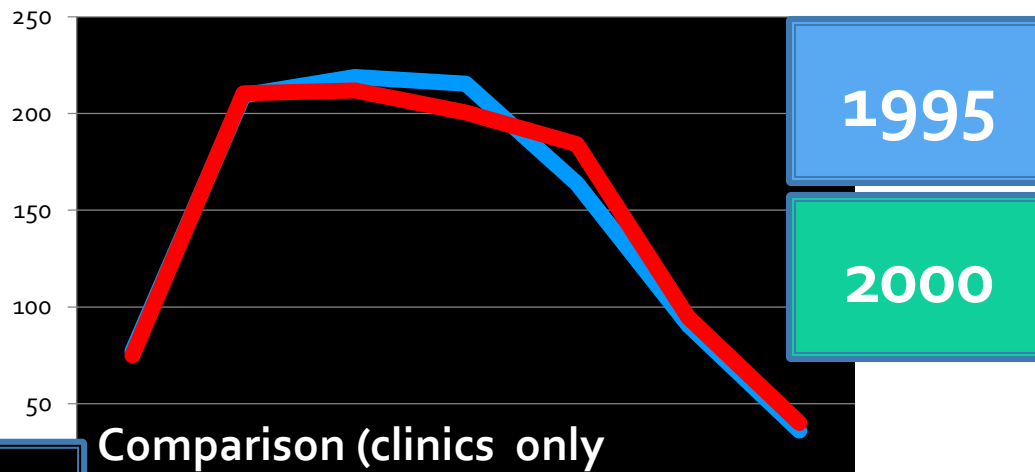
Mobilizing resident community nurse health services	Mobilizing Traditional Community organization & deploying volunteers	
	No	Yes
No	Comparison 4	Zurugelu 1
Yes	Nurses resident in community 2	Combined 3



Phase 2: The Navrongo Experiment



Age specific fertility rates by Navrongo experimental cell

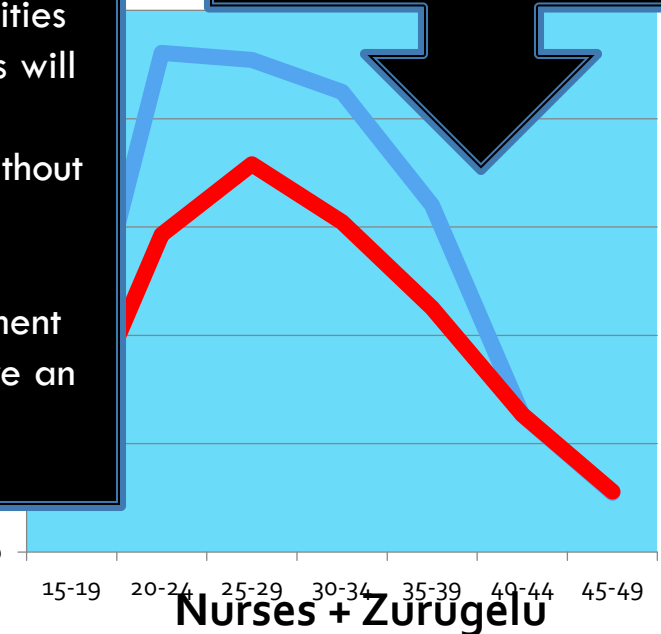
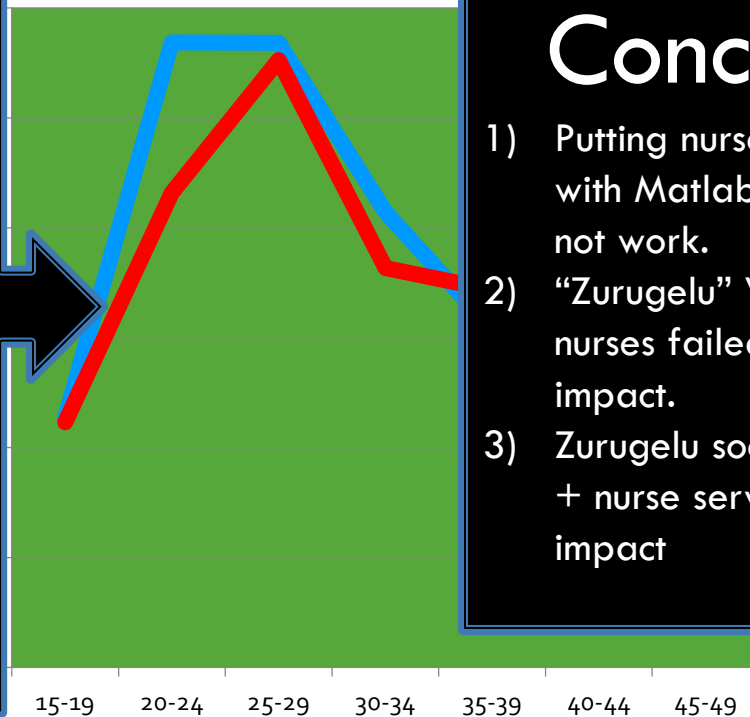


Initial total fertility rate impact: over 1 birth off TFR of 5.2

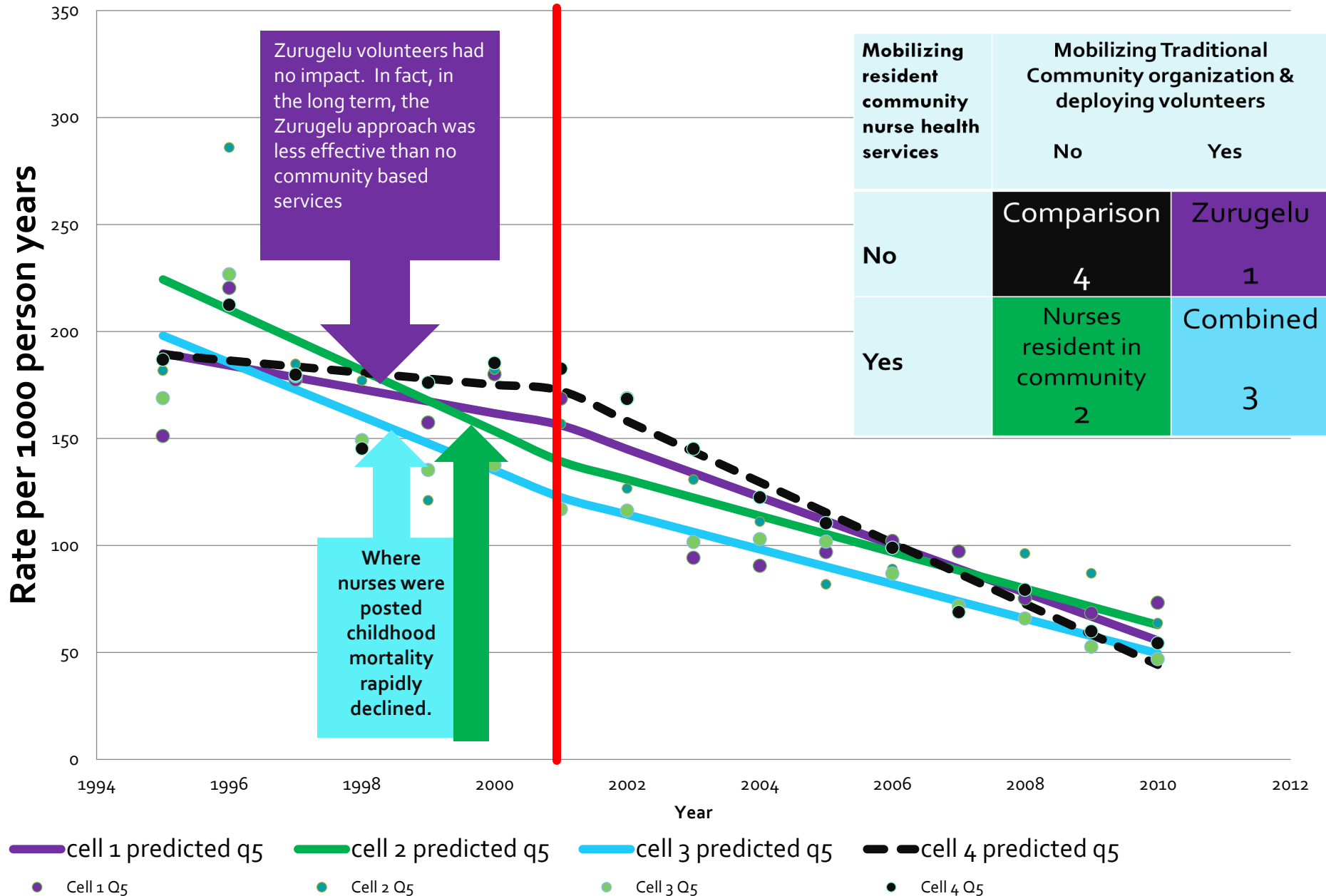
Conclusion:

- 1) Putting nurses in communities with Matlab-like services will not work.
- 2) "Zurugelu" Volunteers without nurses failed to have an impact.
- 3) Zurugelu social engagement + nurse services can have an impact

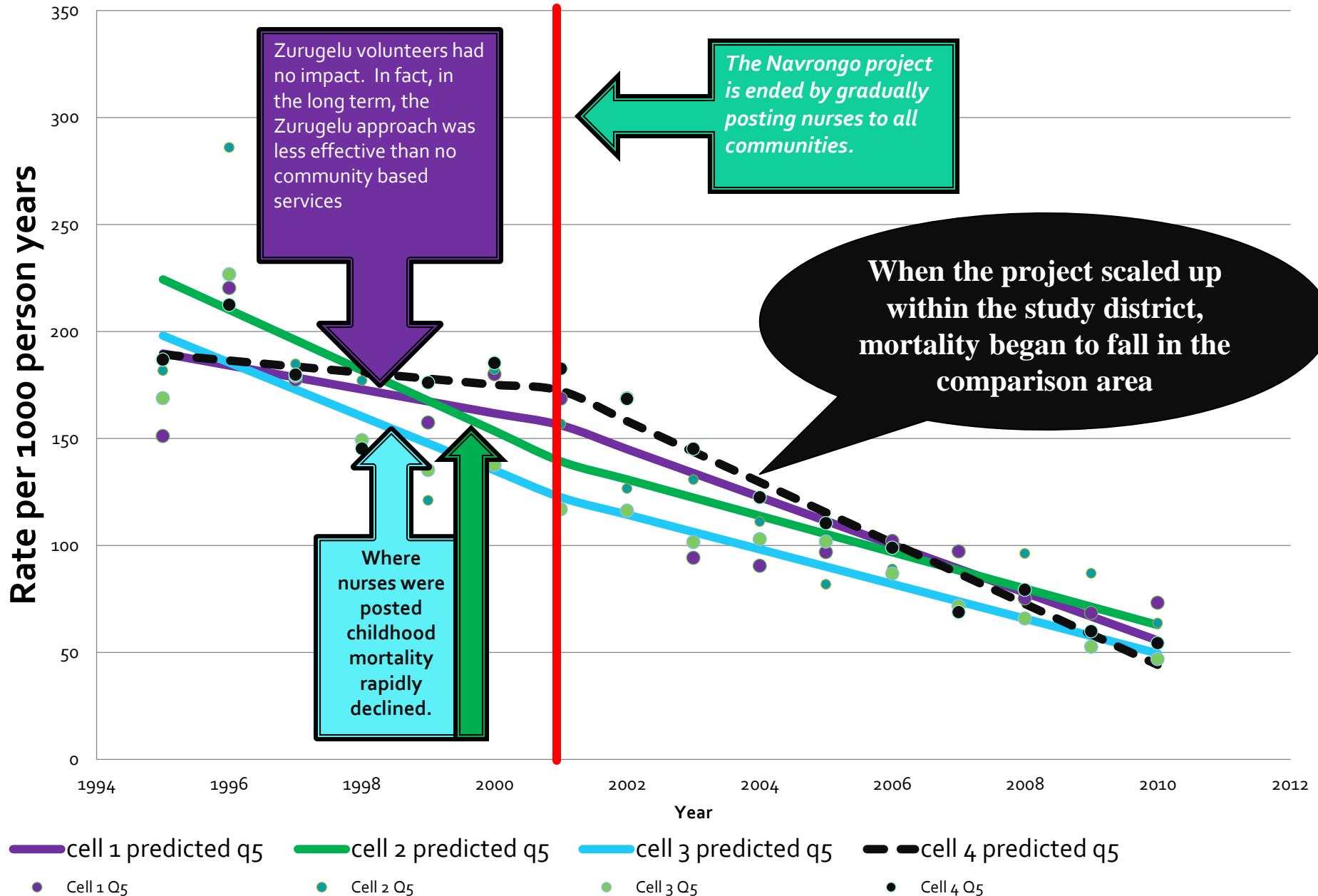
Initial impact among young women only, no long term fertility effect



Trends in the Under-5 mortality rate, by Cell 1995-2010



Trends in the Under-5 mortality rate, by Cell 1995-2010



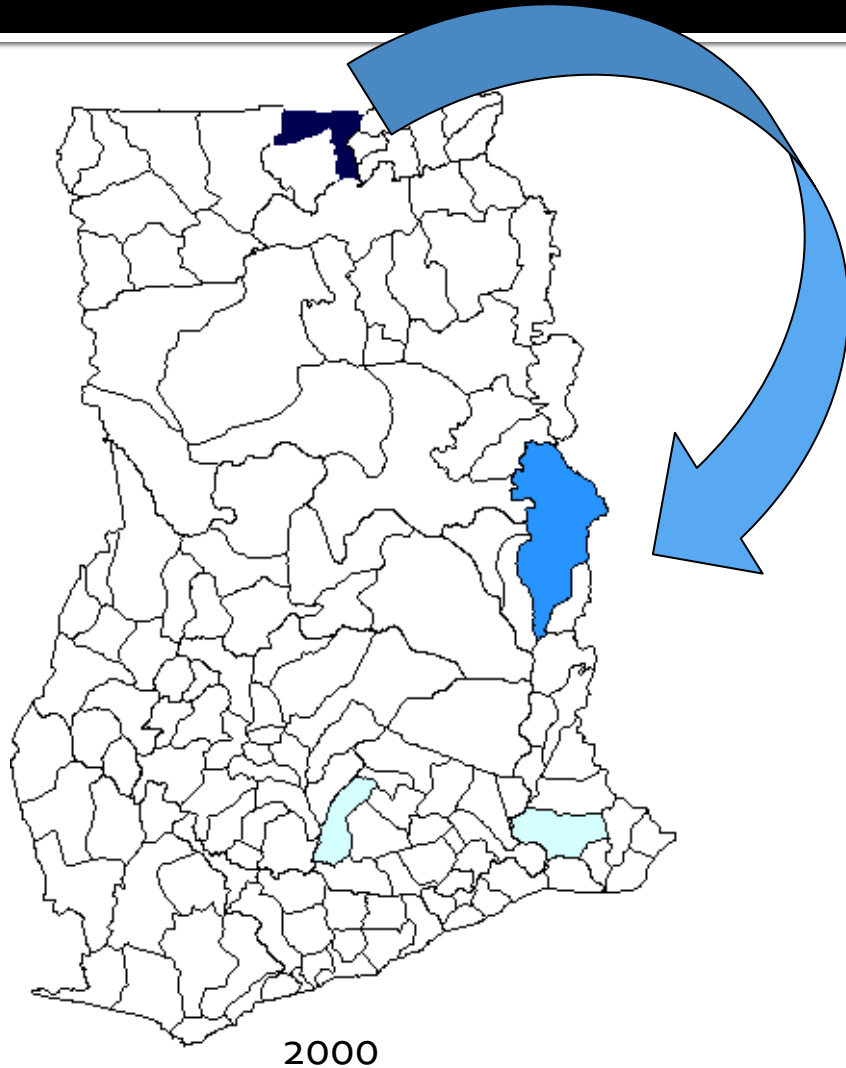
Phase II: Results

The Navrongo Experiment



Mobilizing resident community nurse health services	Mobilizing Traditional Community organization & deploying volunteers	
	No	Yes
No	Comparison	Zurugelu
		<i>No impact</i>
Yes	Matlab in the Sahel	Combined:
	Limited fertility impact but major mortality impact)	Fertility + major mortality impact

Phase 3: Transferring the Navrongo model to Nkwanta: The creation of CHPS



Research results from Navrongo lacked credibility. Establishing impact was not sufficient

- Would the system work in a setting that lacked research resources?
- Was the model uniquely suited to the Navrongo cultural environment?
- How do you scale up Navrongo?



Phase 3 research in Nkwanta:

- 1) Survey research** assessed the replicability of Navrongo results and the sustainability of the model in a non-research environment.
- 2) Implementation research** determined the appropriate steps in transferring CHPS from one district to another.
- 3) Qualitative research** identified strategies for adapting the Navrongo model to complex socially diverse circumstances

Phase 2

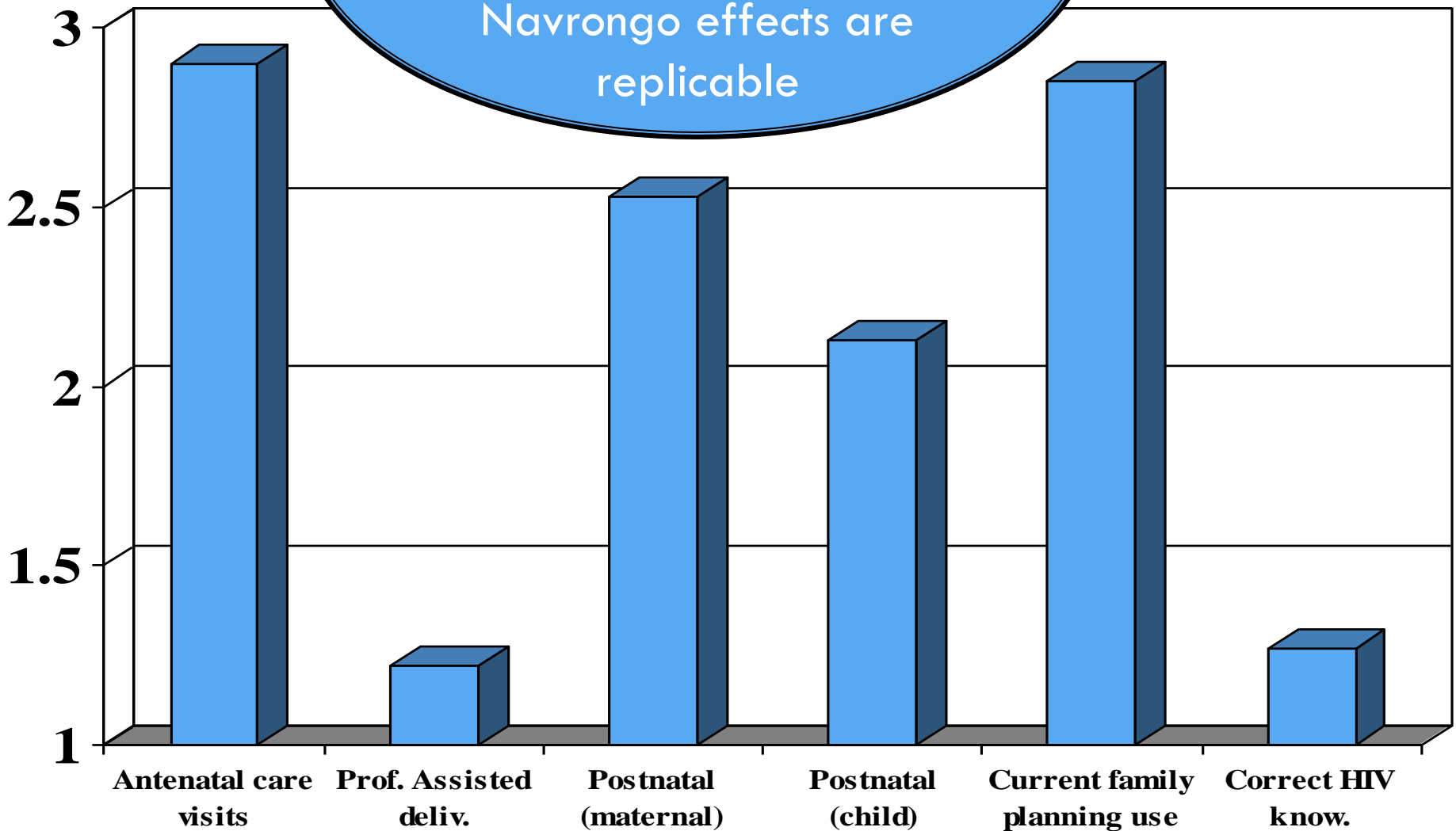
Lesson learned: If
implementations

RESEARCH

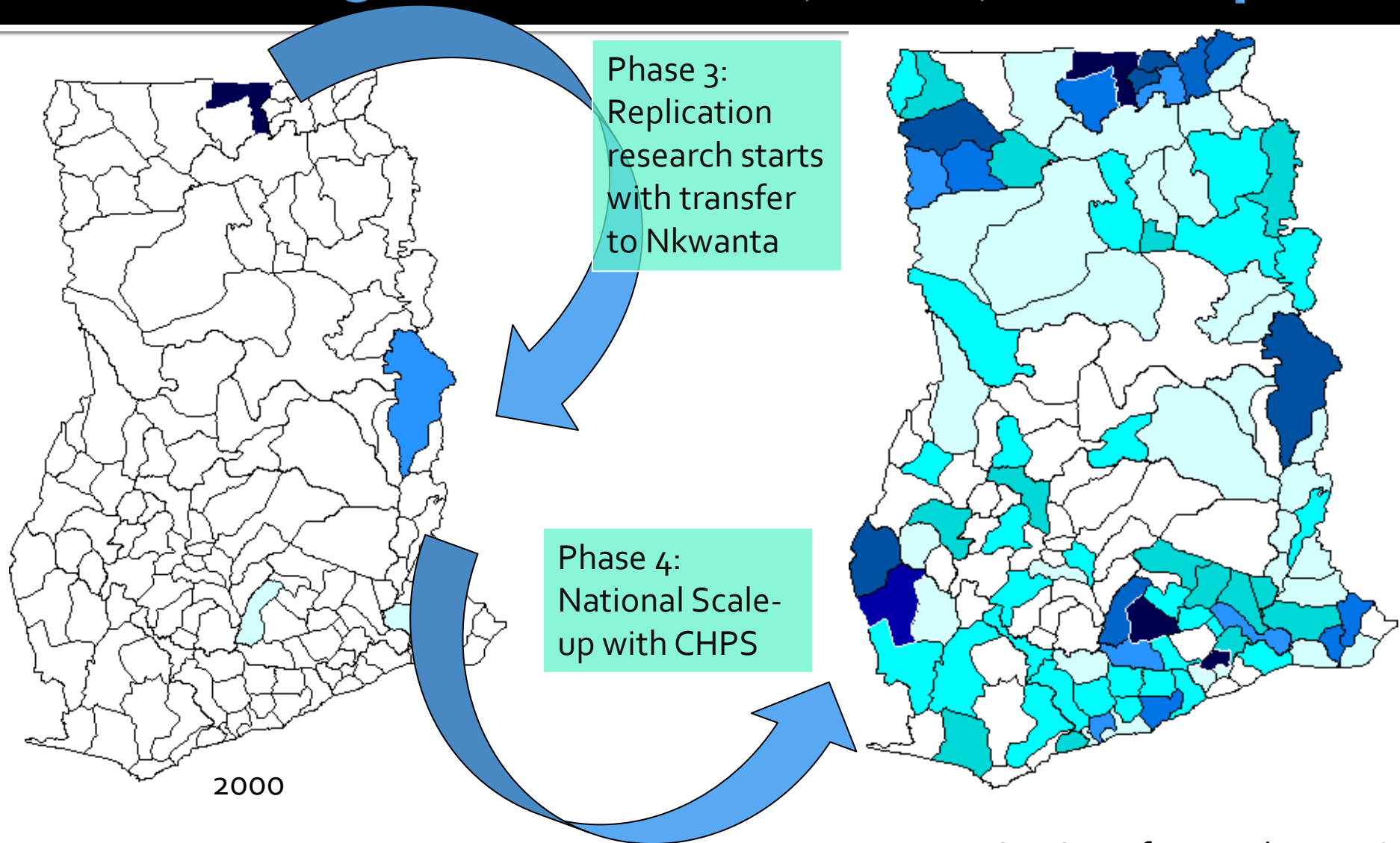
Odds Ratio

adaptations are made to
local conditions,
Navrongo effects are
replicable

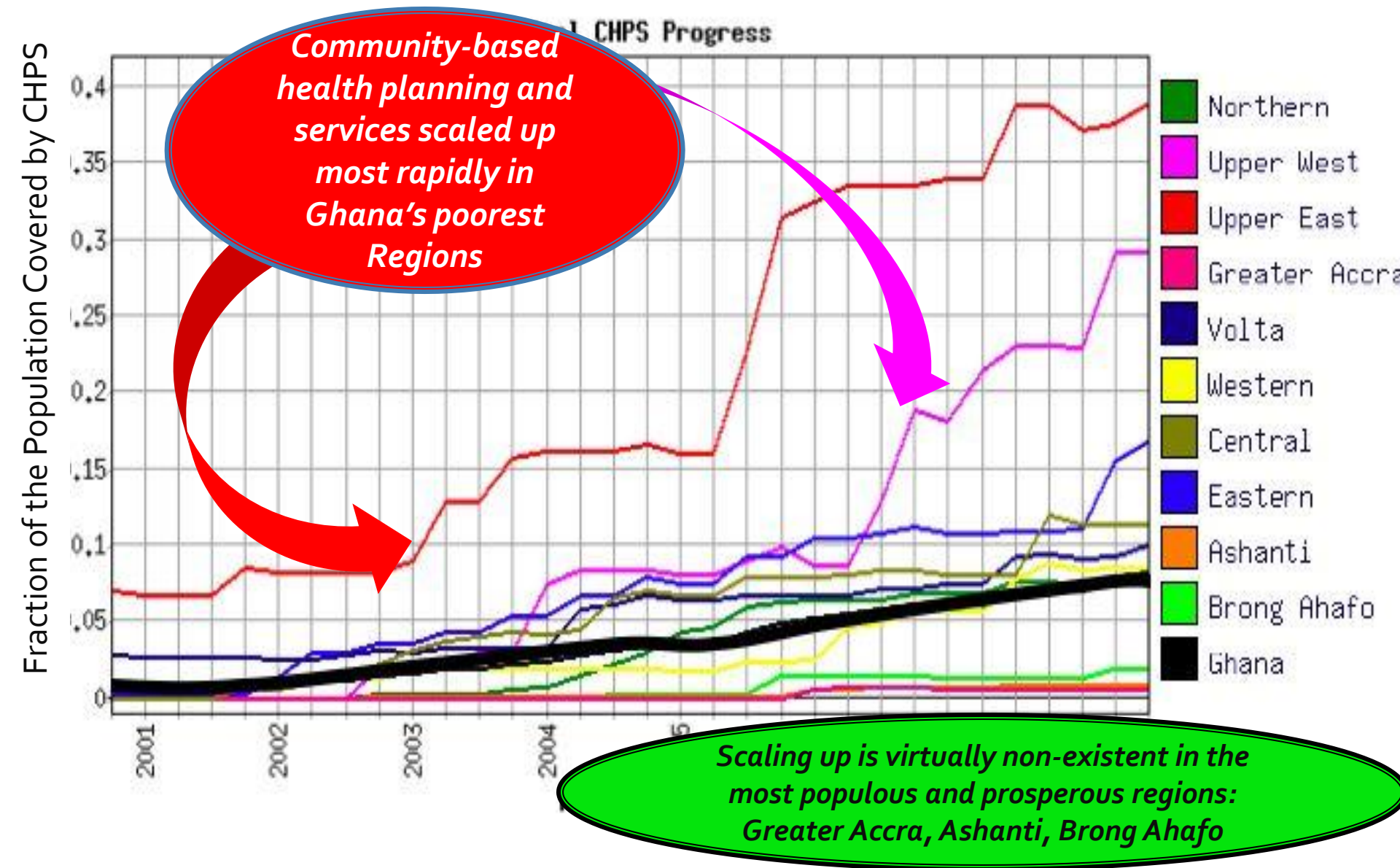
uses in one district:



Phase 4: Community-based Health Planning and Services (CHPS) Scale-up



Phase 4: Slow pace of CHPS scale up



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Now what?

Navrongo Pilot

Culturally appropriate System

Open-systems micro pilot

What a culturally appropriate system of care?

1

GEHIP Project

Mortality and fertility impact

Plausibility trial

Does the candidate system work?

2

GEHIP Replication

Replicable strategy

Implementation research

Is the system replicable and sustainable?

3

National Scale-up

Coverage

Organizational change and development

Is coverage expanding?

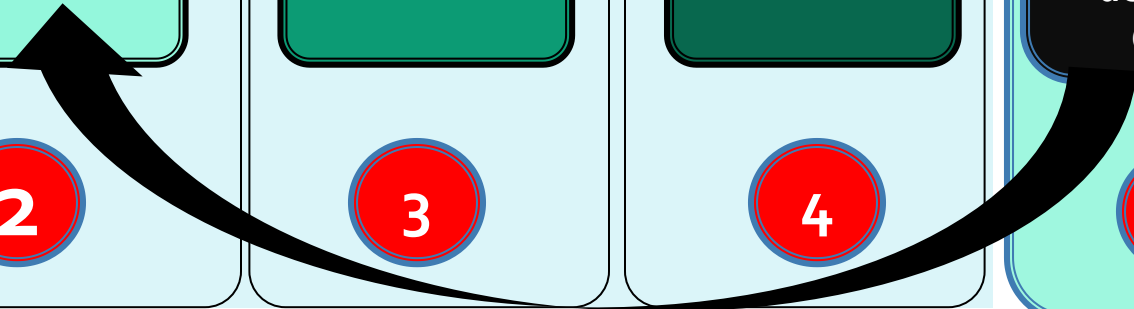
4

Model for accelerating CHPS

Systems diagnosis

How can systems strengthening accelerate CHPS?

5



The global initiative approach is a “Top Down” approach that is driven by an answer to a major challenge or question



The evidence-based alternative is a “Bottom-Up” model that is motivated by questions at each stage.

Idea about ways to develop systems

Consensus building conference

Regional Program & Budget

Country program,
country planning conference, national action agenda

Implementation
at the periphery

Evaluation



Questions come last

idea

How can it be implemented?
Micro-implementation & qualitative appraisal

Trial:
Does it work?

Replication:
Is it transferable? Sustainable?

Scale up:
Is change happening? What is the pace, coverage, and content of change?

Evaluation: Are people better off?

Context matters:



Conclusion:

The Exchange worked, but...

Importing a high profile strategy is risky, even if advocates are internationally acclaimed and well financed.

- *The process* of developing an appropriate system is transferable but **service strategies** are not.
- **Controlled trial** is essential, but
- A **phased evidence-based process** approach is more likely to succeed than a single study.
- Community-based primary health care is complex: **Mixed method** research offsets risk.

Thank you



Acknowledgement:

The projects described in this case study comprised a program of the Population Council (1979-2007) that was funded by the United States Agency for International Development, The Rockefeller Foundation, The Finnish International Development Agency, and the World Bank.