Measurements in Family Planning with Existing Data: Thoughts and Evidence

Mahesh Karra IUSSP Panel: Rethinking Family Planning Measurement June 21, 2023

Measurement

- Measures set the agenda
- Different measures have different purposes
 - Capturing individual- or population-level outcomes
 - Assessing program-level performance
 - Prioritizing resources, funding
- FP/RH has made considerable advances in a number of areas
 - Program design, impact evaluation, advocacy, scale-up
- But (I would argue) less so in measurement...
- **Possible reasons:** sources of data, conceptual approaches to measurement remain (largely) unchanged

Two Examples with DHS

- 1. Unwanted family planning (SFP Special Issue, Mar. 2023)
 - Women who want to have a child soon (within the next 9 months) but who are using contraception
 - Parallels approach used to measure unmet need
 - Uses the same DHS data as current measure of unmet need
 - Highlights limitations when mapping static, stated preferences to outcomes
 - Women who are uncertain
 - Women who are never asked about their preferences (e.g. sterilized)



Unwanted FP Use



Two Examples with DHS

2. Counterfactual approach to unmet need (SFP, Dec. 2022)

- What would the contraceptive prevalence be in a "perfectly contracepting society"? And how different is current contraceptive prevalence from this "ideal" contraceptive prevalence? (Sarah Bradley and John Casterline, 2014)
- The difference between these two prevalences is **unmet need**

 $UN = iCP_{ct} - CP_{ct}$

- Calculate iCP_{ct} among subsample of "ideal" women whose characteristics, environment reflect contraceptive and reproductive empowerment
- Only requires 6-8 commonly used survey items

Additional Thoughts and Ways Forward

Tensions in Measurement

- Ongoing debates between:
 - What is ideal vs. what is feasible
 - Program-centered vs. person-centered
 - How we should change existing approaches to measurement vs. how we should reinterpret measures with the data that we currently have

Need for New Approaches...

Need for new data and approaches to measurement:

- Disentangling contraceptive preferences from fertility preferences (from Malawi experimental work)
 - **Panel data:** the mismatch between static and dynamic preferences
 - What women say they want (stated) versus what they actually do (revealed)

Operationalizing "person-centered" approaches to measurement

• Conceptually more developed than empirically – probably needs new data

Engage with new approaches from beyond our field

• Walking the walk when taking multidisciplinary, multimethod approaches

Motivation from Malawi

Change in Ideal Method over Time:

	Baseline	Pre-Counseling	Post-Counseling
Baseline	Х	Х	X
Pre-Counseling	44.41% (306/689)	Х	X
Post-Counseling	45.72% (315/689)	17.12% (120/701)	X
Follow-up Sessions	55.65% (394/708)	44.86% (301/671)	41.58% (279/671)

Change in Method Use over Time:

	Baseline	Counseling	Follow-up Sessions
Baseline	X	X	X
Counseling	$18.97\% \ (129/680)$	X	X
Follow-up Sessions	$24.26\% \ (165/680)$	$18.03\% \ (115/638)$	X

Innovating in Measurement

- Holding ourselves to higher standards
 - "This is the best that we currently have" is not good enough
 - Neither is "This is what we have always used."
- Measures from data sources that have become standards are at a high risk of overinterpretation
- But innovations come at a (significant) cost, with uncertain value added
 - Innovations in data collection can reduce some costs to measurement
 - Risks of innovating for the sake of innovation without sufficient scrutiny, assessment of the implications
- What are we willing to trade off?

SFP Special Issue

- Special Issue in Studies in Family Planning, March 2023
- 16 papers
 - Across papers, a focus on the need for measures to reflect person-centered, rights-based approaches to FP/RH
 - Critical reflections of existing measures
 - Testing and validation of newly proposed measures using cross-sectional (e.g. DHS) and longitudinal (e.g. PMA) data
- Highlight ways in which ongoing measurement efforts can be improved
 - Some more feasible than others

STUDIES IN FAMILY PLANNING

Thank you!

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Appendix

Measure 1

Unmet Need: A Counterfactual Approach

(open access in Studies in Family Planning)

UN: A Counterfactual Approach

Thinking about unmet need in another way:

- What would the contraceptive prevalence be in a "perfectly contracepting society"? And how different is current contraceptive prevalence from this "ideal" contraceptive prevalence? (Sarah Bradley and John Casterline, 2014)
- The difference between these two prevalences is unmet need
- Unmet need, at the population level, is therefore:

 $UN = iCP_{ct} - CP_{ct}$

This Study

Estimate unmet need with the counterfactual approach using data on 2 million women from 80 DHS surveys covering 56 countries from 2010-2019

Calculate iCP_{ct} among the subsample of "ideal" women who:

- 1. Belong to highest wealth quintile (high SES, better access)
- 2. Currently married or sexually active
- 3. Attained at least tertiary level of schooling (better information, access)
- 4. Know of at least one contraceptive method (informed about FP/RH)
- 5. Do not report distance as a barrier (perceived access)

Unmet Need Comparisons

Preference for this approach...

- 1. Conceptually appealing, grounded in revealed preferences and behavior
- 2. Independent of biases from the use of reported / stated preferences
- 3. Simple to derive: only requires 6-8 commonly used DHS survey items
- 4. Flexible to be used for cross-country comparisons
- 5. Can be tailored to be more context-specific (choice of indicator)
- 6. Estimates unmet need as a *population-level point prevalence*
 - As a population-level metric, unmet need should not be used for inference at a disaggregated (i.e. individual) level!

Measure 2

Unwanted Family Planning

with David Canning (open access in Studies in Family Planning)

Motivation

- Two types of discordance:
 - 1. Women who want to use, but who are not using
 - 2. Women who do not want to use, but who are using
- First is proxied (imperfectly) by unmet need, but there is no corresponding measure for the second
 - All contraceptive use is assumed to fulfill a "met need"

Measuring Unwanted FP

- We propose a definition for unwanted FP: women who want to have a child soon (within the next 9 months) but who are using contraception
 - Parallels approach used to measure unmet need
 - Uses the same DHS data as current measure of unmet need
- If have prevalence estimate for unwanted FP, then can remove these women from observed contraceptive prevalence to get wanted FP

Unwanted FP Use

Findings

- 12.2 percent of women have unmet need, 2.1 percent have unwanted FP
- Unwanted FP varies from 0.4 percent (Gambia) to 7.1 percent (Jordan)
- Women who report unwanted FP more likely to be using condoms, withdrawal and abstinence
 - Couple-dependent methods: discordance in preferences? HIV/STI?
- In Jordan, method mix among unwanted FP women is withdrawal and IUDs
 - Issues with or lack of removal services?

Tensions in Measurement

- Reconciling theory with empirics
 - We, as a field, are quite disconnected in our ability to conceptualize measures and follow through with operationalizing them
- To what extent are we capturing the latent constructs of interest?
 - An obvious example: preferences!
 - What would the ideal metric / measure even look like? Would we even recognize such a metric if it were feasible to measure?
- Understanding, being transparent about the constraints

Moving Forward...

- Taking time to step back, remind ourselves of the objectives
- Giving ourselves the space to consider the thought experiment before we add (economic, ethical, social, political) constraints
 - What would the ideal metric / measure even look like? E.g. preferences?
 - Would we even recognize such a metric if it were feasible to measure?
- Understanding, being transparent about the constraints
 - Resource, ethical, political costs to measurement
 - In what specific ways would these constraints limit measurement?

Moving Forward...

- We should learn from fields where there are direct incentives to measure things well
- Hard to know how much better the first-best measure is relative to alternatives if we have never observed the first-best measure to begin with