



AMETHIST

AMETHIST@Penn:
Achieving Maternal
Equity and
Transforming
Health through
Implementation
Science and
Training

RESOURCE

MEASURING REACH IN MATERNAL HEALTH IMPLEMENTATION RESEARCH

Reach comes from the RE-AIM planning and evaluation framework (Glasgow et al., 1999). It is seen as the combination of both the **number of people reached by a policy or intervention** and **how representative they are of the target population**. Other terms that are commonly used include penetration, spread, and service access.

What is reach?

The **absolute number, proportion, and representativeness** of individuals who are willing to participate in a given initiative, intervention, or program, and the reasons why or why not

Most studies report the sample size and the proportion of individuals willing to participate, but few report on the representativeness.

Representativeness indicates the similarities and differences between those who participate in the study and those who are eligible, but do not (Glasgow, 2018).

MEASURING REACH

Quantitatively

Percentage of individuals who chose to participate based on a valid denominator

Exclusion criteria (percent excluded or characteristics)

Qualitatively

Characteristics of participants compared to non-participants

Motivations/beliefs/attitudes of participants compared to non-participants

WHY IS REACH IMPORTANT?

Indicator of Equity

- Along with other metrics, reach of evidence-based care can serve as a measurable indicator of equitable access (Proctor *et al.*, 2023)
- Can stratify by sociodemographic variables (e.g., race, ethnicity, insurance status) as a way to evaluate reach in the context of health equity
- If differences exist between those who participate and those who do not, a given intervention may have a differential impact based upon these variables that cannot be determined due to the lack of representativeness of the sample.

Generalizability

If differences do not exist, then a stronger case for the generalization of the intervention into real-world settings may be made.

Rich Information for Future Reach Efforts

Measuring reach through quantitative and qualitative methods can provide rich and nuanced information that can be used to inform future recruitment and reach efforts

MATERNAL HEALTH EXAMPLES

A study is examining the implementation of a standardized mental health screening protocol for patients in OB/GYN clinics.

Ways to measure reach include:

- The percentage of participants who completed the screening compared to those who were given the screening but did not complete it.
- The percentage of providers who gave patients the screening compared to the total number of providers expected to give patients the screening
- Follow-up interviews with participants, providers, and staff exploring the motivations of those who did and did not participate

A study evaluating the implementation of a Maternal and Child Health Handbook (MCH-HB) in Angola (Aoki *et al.*, 2022).

The intervention was a package of distribution of the MCH-HB to pregnant women at health facilities, training of health workers on the MCH-HB operation, and community sensitization targeting pregnant women on the MCH-HB use.

Reach was evaluated through a health facility survey that looked at the percent of MCH-HB distribution among new visitors to antenatal/delivery/postnatal care services compared to the number of all pregnant women in the region (pulled from census data).



Additional Ways to Evaluate Reach

Provider-level:

- Proportion of providers who distributed MCH-HB materials to patients to those who were eligible but did not
- Proportion of providers who participated in the MCH-HB training to those who were eligible but did not

Stratify the proportions of patients who received the MCH-HB distribution materials by sociodemographic variables to understand if there were differences in those who received them compared to those who did not.

MOVING FORWARD WITH REACH

Understanding and utilizing the concept of “reach” in implementation science provides a concrete pathway for advancing public health interventions.

Data on reach can:

- **Highlight disparities in service delivery**
- **Inform targeted outreach and dissemination efforts**
- **Evaluate accessibility and acceptability of an intervention**
- **Support the development of culturally responsive practices**
- **Inform intervention scalability and sustainability across populations**

By focusing on who an intervention reaches, researchers and practitioners can adapt strategies to ensure broader access and equity. Moving forward, consistent monitoring and reporting of reach can facilitate more inclusive and effective public health initiatives.

References

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