RESOURCE

INCORPORATING EQUITY FRAMEWORKS INTO MATERNAL HEALTH IMPLEMENTATION RESEARCH

Given the complex and multifactorial nature of health inequity, it is important to ground research within an equity-focused theory, model, or framework (TMF). A TMF can provide a helpful guide on how to embed equity within each step of the research process, rather than treat it as a secondary consideration (Kerkhoff *et al*, 2022).

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Achieving Maternal Equity and Transforming Health through Implementation Science and Training

Equity Frameworks in Maternal Health Implementation Research One-Pager

Equity Throughout the Research Process

- Equity is essential to research and should be embedded thoroughly – from conception of the study through implementation and dissemination.

- Equity frameworks allow for the integration of health disparities research and can be used alongside other theories, models, and frameworks.

Equity Theories, Models, and Frameworks

- The continuum of equity-focused implementation theories, models, and frameworks (TMFs) range from an explicit focus on equity to applied in research focused on health disparities.

- TMFs can be determinant (what factors influence IS outcomes), process (how to plan and carry out IS activities), or evaluation (guides planning and evaluation of implementation).

Explicit — Implicit — Applied
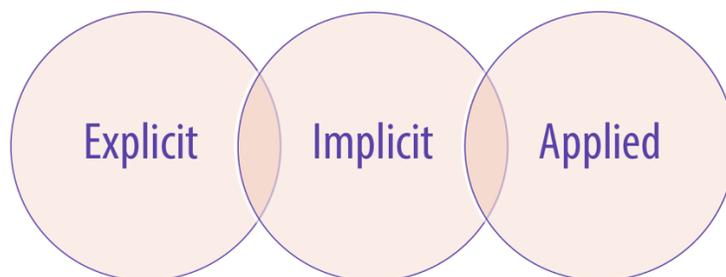
How Can an Equity TMF Help My Research?

- Equity TMFs provide guidance and insights for selecting study variables, designing qualitative interview guides, tailoring intervention approaches to a population, and/or determining areas to repeatedly assess throughout the intervention to detect changes in disparities.

- An equity-focused TMF contributes to more equitable and effective health disparity research practices by adding nuance and depth to study design, implementation, and evaluation.

Where Can I Find Equity-focused TMFs?

The full *Incorporating Equity Frameworks into Maternal Health Implementation Research Resource Document* describes equity-focused TMFs and provides examples of their use in health disparity research.

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Embedding Equity Frameworks throughout the Research Process

A health equity framework can be used in developing hypotheses about which domains and determinants within them must change to lead to success in equity and implementation. Factors in your health equity model may *directly* influence the success and equity of your implementation effort or they may *indirectly* affect outcomes, as mechanisms through which success or equity are enhanced.

For example…

An implementation of a perinatal mental health screening at a hospital where there is a disparity in screening received by Black and White patients
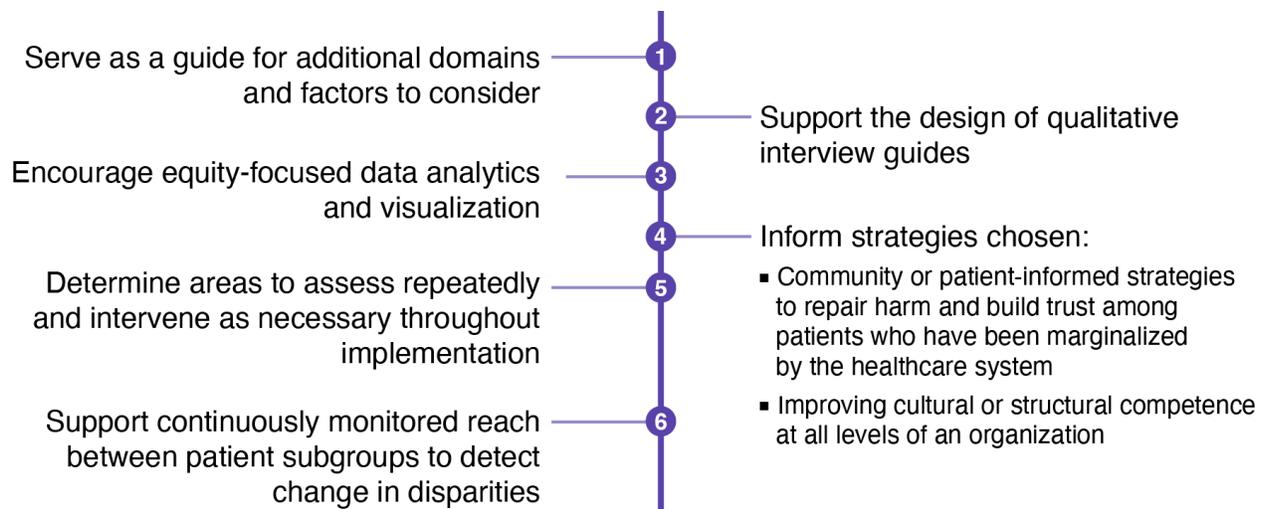
Characteristic of the innovation: the screening was developed or tested in samples of mostly White patients and is not effective or acceptable for Black patients

Provider factors: providers don't offer the screening as often to Black patients as they do to White patients

Patient factors: Mistrust towards the medical team and culturally bound stigma related to mental health

Structural factors: the protocol and hospital policy surrounding mental health screening is insufficient

Equity Framework during Design and Implementation Phase

1. Serve as a guide for additional domains and factors to consider
2. Support the design of qualitative interview guides
3. Encourage equity-focused data analytics and visualization
4. Inform strategies chosen:
   - Community or patient-informed strategies to repair harm and build trust among patients who have been marginalized by the healthcare system
   - Improving cultural or structural competence at all levels of an organization
5. Determine areas to assess repeatedly and intervene as necessary throughout implementation
6. Support continuously monitored reach between patient subgroups to detect change in disparities

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Which Equity Framework is Right for You?
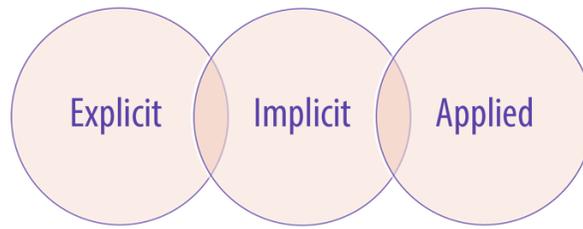
There is a continuum of equity-focused implementation frameworks, with some having an explicit focus on equity and others that can and have been applied in health disparities research. Explore the various equity-focused TMFs with consideration for which might align well with your study. This could mean using an explicit health equity framework or adapting an existing framework (Gustafson et al., 2023). As described below, there are quite a few health equity-focused frameworks to choose from when designing your study.

Another resource for finding a framework is the online webtool: https://dissemination-implementation.org/

Explicit Equity TMFs

ConNECT Framework

Alcaraz et al., 2018

Type of TMF: Process model

Description: A model that links the sciences of behavioral medicine and health equity, focusing on five broad and synergistic pillars:

Integrating **CON**text: appreciate situational and interactive influences on health
Fostering a **N**orm of Inclusion: consistently engage and examine diverse groups
Ensuring **E**quitable diffusion of innovations: facilitate real-world benefit for all
Harnessing **C**ommunication technology: optimize e-communication for wide reach
Prioritizing specialized **T**raining: integrate education, training, and mentoring

Equity considerations: This model is actionable and provides targeted strategies and recommendations focused on marginalized groups to inform practice and policy. All principles of the framework are equity-focused, and the model is meant to be used from the discovery to dissemination stage of the research process.
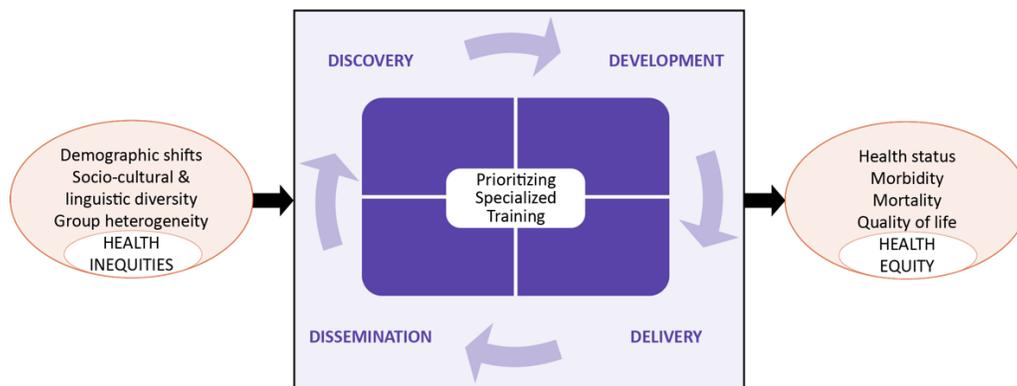
The ConNECT Framework

Resource: Alcaraz KI, Sly J, Ashing K, et al. (2017) The ConNECT Framework: a model for advancing behavioral medicine science and practice to foster health equity. *Journal of Behavioral Medicine* **40**(1):23–38.
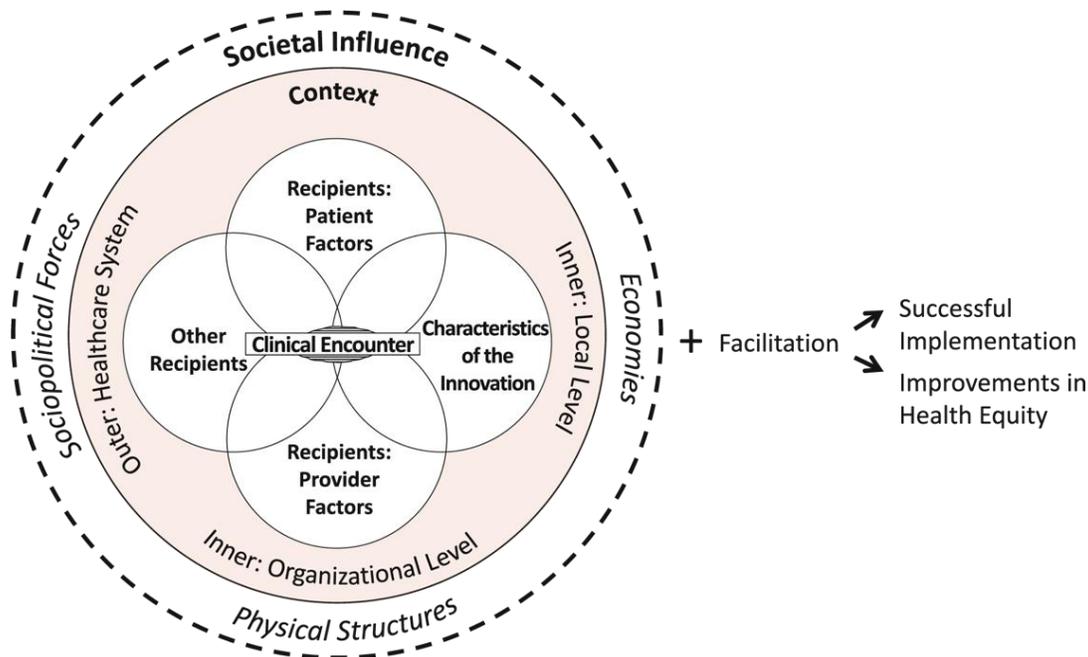
Health Equity Implementation Framework (HEIF)

Woodward *et al.*, 2021

Type: Determinant framework

Description: A framework that centers on health equity determinants believed to predict successful and equitable implementation. The framework is designed to help clarify barriers, facilitators, moderators, and mediators to implementation and health equity access. It was developed for use in healthcare and clinical practice settings.

Equity considerations: Each domain, and the determinants within, are known to affect health disparities and equity. Includes culturally relevant factors, the clinical encounter, and societal context.

Health Equity Implementation Framework

Resource: Woodward EN, Singh RS, Ndebele-Ngwenya P., *et. al* (2021) A more practical guide to incorporating health equity domains in implementation determinant frameworks. *Implement Sci Commun* **2**:61; Woodward EN, Matthieu MM, Uchendu US, *et al.* (2019) The health equity implementation framework: proposal and preliminary study of hepatitis C virus treatment. *Implementation Sci* **14**:26

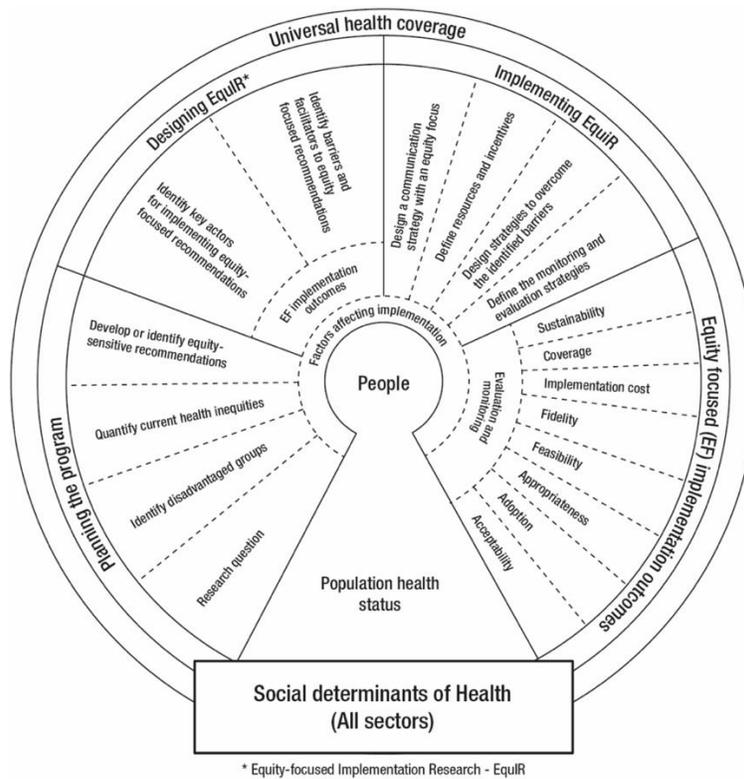# Equity-based Framework for Implementation Research (EquIR)

Eslava-Schmalback *et al.*, 2019

Type: Process model

Description: A conceptual framework that was designed for use by decision makers and researchers during the implementation of programs, policies, or health interventions with a focus on equity. It aims to reduce and prevent the increase of existing inequalities during implementation.

Equity considerations: This framework includes elements of equity-focused implementation research and links population health status and relevant aspects of health equity before, during, and after the implementation. It includes various health sectors and offers a step-by-step proposal to facilitate the process of embedding equity issues in the implementation research of interventions or programs contained in health policies.

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Conceptual framework of Equity-focused Implementation Research – EquIR.

Resource: Eslava-Schmalbach J, Garzón-Orjuela N, Elias V, *et al.* (2019) Conceptual framework of equity-focused implementation research for health programs (EquIR). *Int J Equity Health* **18**:80

Transcreation Framework
Nápoles & Stewart, 2018

Type: Process model

Description: A 7-step process for designing, delivering, and evaluating interventions and programs that will fit the needs and resources of communities, to reduce health disparities and bring health equity to communities with fewer resources.

Equity considerations: This framework focuses on community partnerships to identify the best strategies and develop approaches that are acceptable to the community, establish trust and increase rapport with the population, and build local capacity.

1. Identify community infrastructure & engage partners
2. Specify theory
3. Identify multiple inputs for new program
4. Design intervention prototype
5. Design study, methods, & measures for community setting
6. Build community capacity for delivery
7. Deliver "transcreated" intervention & monitor implementation process

The Transcreation Framework: A Seven-Step Process.

This figure depicts the seven steps involved in designing, delivering and evaluating behavioral interventions in communities to reduce health disparities.

Resource: Nápoles AM and Stewart AL (2018) Transcreation: an implementation science framework for community-engaged behavioral interventions to reduce health disparities. *BMC Health Serv Res* **18**:710

The Howell Framework

Description: A model that considers pathways to racial and ethnic disparities in severe maternal morbidity and mortality throughout the cycle of preconception, antenatal, delivery, and postpartum.

Equity considerations: The model highlights the importance of social determinants and includes patient factors (e.g., socioeconomic status, race and ethnicity, gender, behaviors), community and neighborhood factors (e.g., social networks, housing,), provider factors (e.g., knowledge, implicit bias, communication) and system factors (e.g., access to high quality care, structural racism, social and political policies).
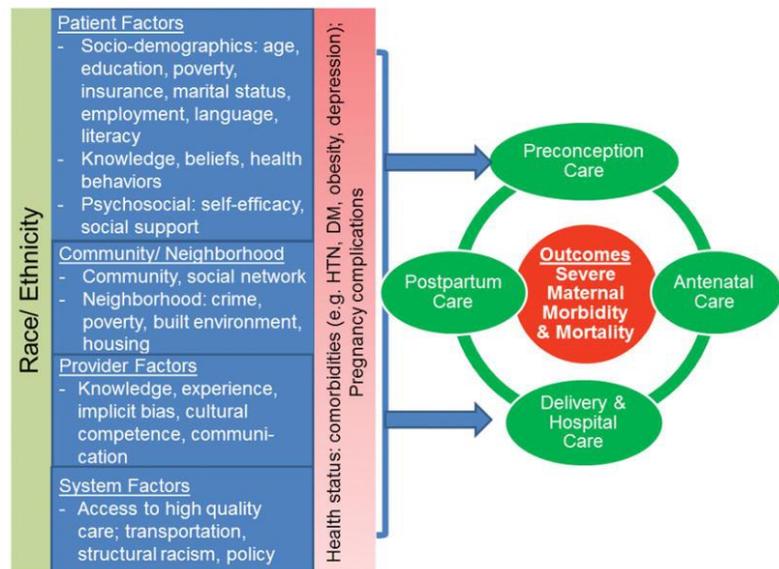
Pathways to racial and ethnic disparities in severe maternal morbidity and mortality.

Resource: Howell EA (2018). Reducing disparities in severe maternal morbidity and mortality. *Clinical Obstetrics and Gynecology* **61**(2):387–399.
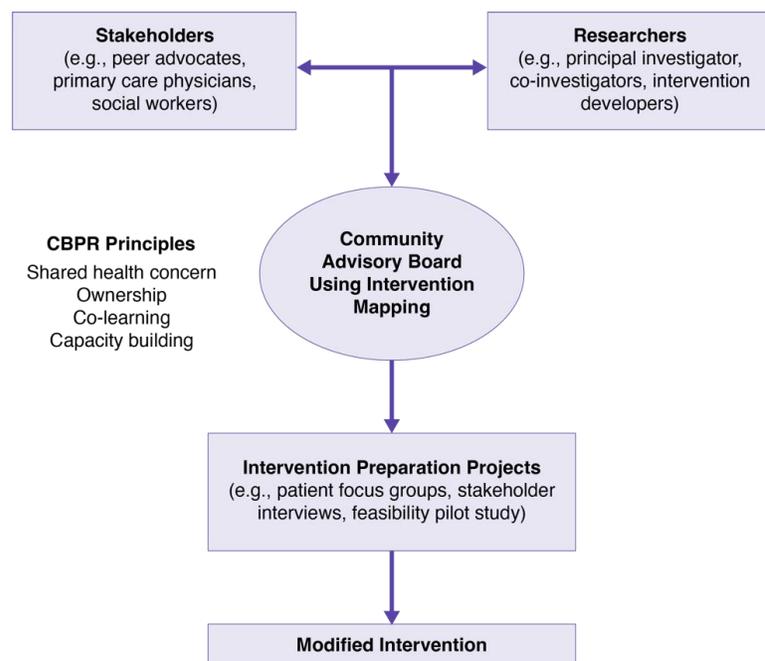

Collaborative Intervention Mapping Framework

Type: Process model

Description: Combining aspects of community-based participatory research and intervention mapping, this framework provides a 6-step process for modifying interventions for new patient and provider populations with the goal of reducing health disparities.

Equity Considerations: This framework emphasizes the voices of the community through the development of a community advisory board that acts in equal partnership with the research team to develop context-appropriate intervention adaptation and collaborative implementation plan development.

Collaborative planning approach: blending community-based participatory research (CBPR) and intervention mapping.

Resources: Cabassa LJ, Druss B, Wang,Y, *et al.* (2011) Collaborative planning approach to inform the implementation of a healthcare manager intervention for hispanics with serious mental illness: a study protocol. *Implementation Sci* **6**, 80 ;

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Cabassa, LJ, et al. (2014) Using the collaborative intervention planning framework to adapt a health-care manager intervention to a new population and provider group to improve the health of people with serious mental illness. *Implementation Sci* **9**, 178


Integrated Practical, Robust Implementation and Sustainability Model (PRISM) and Socio-Ecological Model (SEM) Framework

Henderson *et al.*, 2020

Type: Determinant framework

Description: An integrated approach that combines an implementation framework and a behavioral health framework to describe different levels of influence on health behaviors and outcomes.

Equity considerations: This framework includes individual (patient perspectives and characteristics), interpersonal (community and organizational perspectives and characteristics), as well as organizational (policy) considerations. It was specifically developed to guide the implementation of a breast cancer screening and patient navigation program for minoritized ethnic populations.
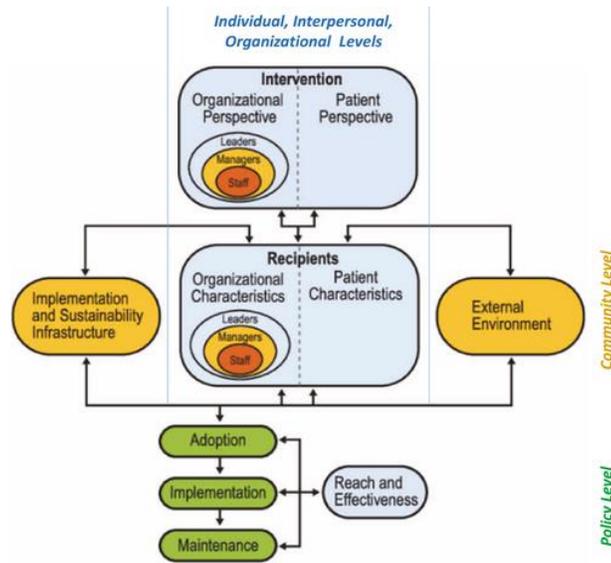
Mi-MAMO breast cancer screening and navigation integrated PRISM and SEM framework.

Resource: Henderson, *et al.* (2020) Implementation of an integrated framework for a breast cancer screening and navigation program for women from underresourced communities *Cancer* **126**(S10):2481–2493.

Intervention and Research Readiness Engagement and Assessment of Community Health Care tool (I-RREACH)

Maar *et al.*, 2015

Type: Process Model

Description: This tool was developed guide the process of identifying factors that influence implementation in low-resource settings by facilitating dialogue between the community and implementation team. Its primary aims are to 1) pinpoint key domains required for dialogue between the community and the research team to facilitate implementation of complex health interventions and 2) to identify existing strengths and areas requiring further development for effective implementation.

Equity considerations: This tool, rooted in participatory principles, allows information to be gathered through connection with local community where the intervention is to be implemented. It can be used alongside community-based participatory research methodology to prioritize the value of the knowledge and perspectives that both researchers and community members hold.

Resources: Maar M, Yeates K, Barron M, *et al.* (2015) I-RREACH: an engagement and assessment tool for improving implementation readiness of researchers, organizations and communities in complex interventions. *Implementation Sci* **10**, 64 ; Wali S, Ssinabulya I, Muhangi CN, *et al.* (2023) Bridging community and clinic through digital health: Community-based adaptation of a mobile phone-based heart failure program for remote communities in Uganda. *BMC Digit Health* **1**, 20.

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Consolidated Framework for Implementation Research (CFIR)

Damschroder *et al.*, 2022

Type: Determinant framework

Description: This framework was developed to identify facilitators and barriers to implementation, describing 39 constructs across five domains that determine implementation success.

Equity considerations: CFIR does not have an explicit equity focus but has been utilized in populations who experience ethnicity-related health inequities. The domains that are evaluated represent micro-, meso-, and macro-level influences on implementation outcomes (intervention characteristics, inner setting, outer setting, characteristics of individuals, and the process).

Resources:

Damschroder, LJ, Reardon, CM, Widerquist, MAO, *et al.* (2022) The updated Consolidated Framework for Implementation Research based on user feedback. *Implementation Sci* **17**, 75.

Goff, SL, Moran, MJ, Szegda, K, *et al.* (2020) Development and pilot testing of an adaptable protocol to address postpartum depression in pediatric practices serving lower-income and racial/ethnic minority families: contextual considerations. *Implement Sci Commun* **1**, 66.

Allen M, Wilhelm A, Ortega LE, *et al.* (2021) Applying a race(ism)-conscious adaptation of the CFIR framework to understand implementation of a school-based equity-oriented intervention. *Ethn Dis.* **31**(S1):375-388.

Gordon EJ, Romo E, Amórtegui D, *et al.* (2020) Implementing culturally competent transplant care and implications for reducing health disparities: A prospective qualitative study. *Health Expect.* **23**(6):1450-1465.

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Reach, Effectiveness, Adoption, Implementation, and Maintenance (RE-AIM)

Glasgow *et al.*, 1999

Type: Evaluation Framework

Description: This framework is widely used to guide intervention and implementation planning and evaluation. It includes five domains of implementation that can be assessed quantitatively and qualitatively.

Equity considerations: While it was not developed with an explicit equity focus and centers on mostly micro- and meso-level factors, RE-AIM has been used to plan and evaluate interventions delivered to minoritized populations experiencing health equity issues. It has also been adapted to focus on sustainability and equity and has been used in combination with PRISM with an explicit focus on equity.

Resources:

Re-Aim

Merewood A, Burnham L, Berger J, *et al.* (2022) Assessing the impact of a statewide effort to improve breastfeeding rates: A RE-AIM evaluation of CHAMPS in Mississippi. *Matern Child Nutr.* **18**(3):e13370

Shelton RC, Chambers DA, Glasgow RE (2020) An extension of RE-AIM to enhance sustainability: Addressing dynamic context and promoting health equity over time, *Front. Public Health* **8**
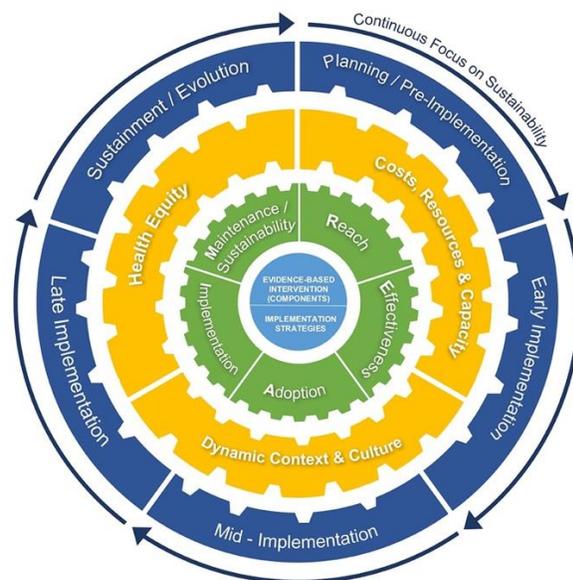
Extending and reframing "maintenance" within RE-AIM to include recent conceptualizations of sustainability as an outcome

Research Example

What is the equity-focused project?

Develop and implement a perinatal mood and anxiety disorders screening and referral protocol at newborn pediatrician appointments to address maternal mental health disparities in Black patients.

What framework is chosen?

Integrated theoretical framework of the [Practical, Robust Implementation and Sustainability Model (PRISM) and the Social Ecological Model (SEM).](#)

How can the framework impact project planning?

The theoretical framework can guide and inform what to consider as you move ahead with implementation. For instance:

> **Individual factors** influencing screening, early detection, and treatment of perinatal mental health disorders include patient knowledge about symptoms, cultural or religious beliefs, stigma that may hinder engagement, and mistrust of the medical team.

> **Organizational factors** encompass the healthcare team's ability to implement screening, interpret results, and facilitate referrals.

Considering these factors may aid researchers in developing multi-level implementation strategies that will specifically target these equity concerns. For instance:

Strategies for individual factors:
- Develop culturally tailored education for patients focused on increasing health literacy and knowledge about symptoms
- Collaborate with local community organizations to develop culturally competent health messaging to address barriers to engagement like stigma, cultural, or religious beliefs

Strategies for organizational factors:
- Partner with local perinatal mental health providers to meet the growing needs of the community and increase referral options
- Collaborate with community organizations to understand barriers to sustained engagement in mental health treatment and develop targeted interventions
- Work alongside the healthcare team to develop a screening protocol that is feasible within their specific organization and workflow

How does the use of an equity framework impact outcomes?

Using an equity framework offers a comprehensive and integrated approach to addressing the multiple factors that contribute to maternal health disparities. By engaging with the community and considering both individual and organizational factors, research can provide a deeper and more nuanced understanding of the key elements necessary to improve maternal health equity.

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Gustafson P, Aziz YA, Lambert M, *et al.* (2023). A scoping review of equity-focused implementation theories, models, and frameworks in healthcare and their application in addressing ethnicity-related health inequities. *Implementation Science* **18**(51). https://implementationscience.biomedcentral.com/articles/10.1186/s13012-023-01304-0

Henderson V, Tossas-Milligan K, Martinez E, *et al.* (2020). Implementation of an integrated framework for a breast cancer screening and navigation program for women from underresourced communities. *Cancer* **12**6(Suppl 10):2481-2493. https://acsjournals.onlinelibrary.wiley.com/doi/10.1002/cncr.32843

Kerkhoff AD, Farrand E, Marquez C, Cattamanchi A, & Handley MA (2022). Addressing health disparities through implementation science – a need to integrate an equity lens from the outset. *Implementation Science* **17**(13). https://implementationscience.biomedcentral.com/articles/10.1186/s13012-022-01189-5

Killbourne AM, Switzer G, Hyman K, Crowley-Matoka M, & Fine MJ (2006). Advancing health disparities research within the health care system: A conceptual framework. *American Journal of Public Health* **96**:2113-2121. https://pmc.ncbi.nlm.nih.gov/articles/PMC1698151/

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