

Implementation science for global cancer prevention and control

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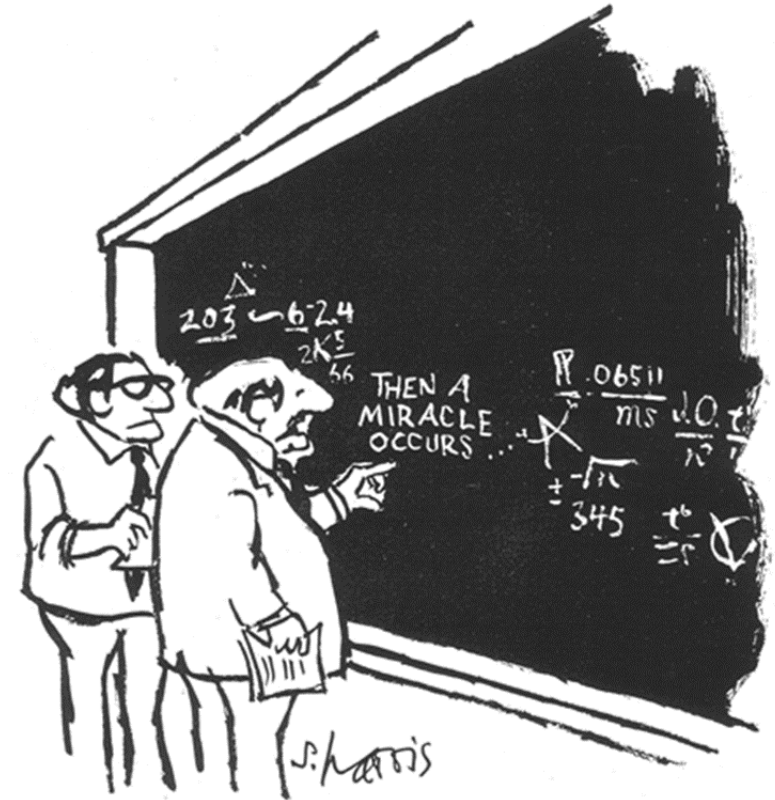
Clinical Practice <> Populations <> Implementation Science

- Clinical practice as a primary care physician in a several resource-limited healthcare settings in India
- Cancer Prevention
- Fogarty/ National Institutes of Health funded – Global Health Equity Scholar
- National Cancer Institute- Cancer Prevention Fellow with a focus on Implementation science
- Assistant Professor at the University of New Mexico's Comprehensive Cancer Center, Cancer Control and Populations Sciences



Evidence is only as good as how and whether:

- Systems and providers adopt it
- Providers are trained to deliver it
- Trained providers actually deliver it
- Eligible patients receive it
- Populations utilize it...



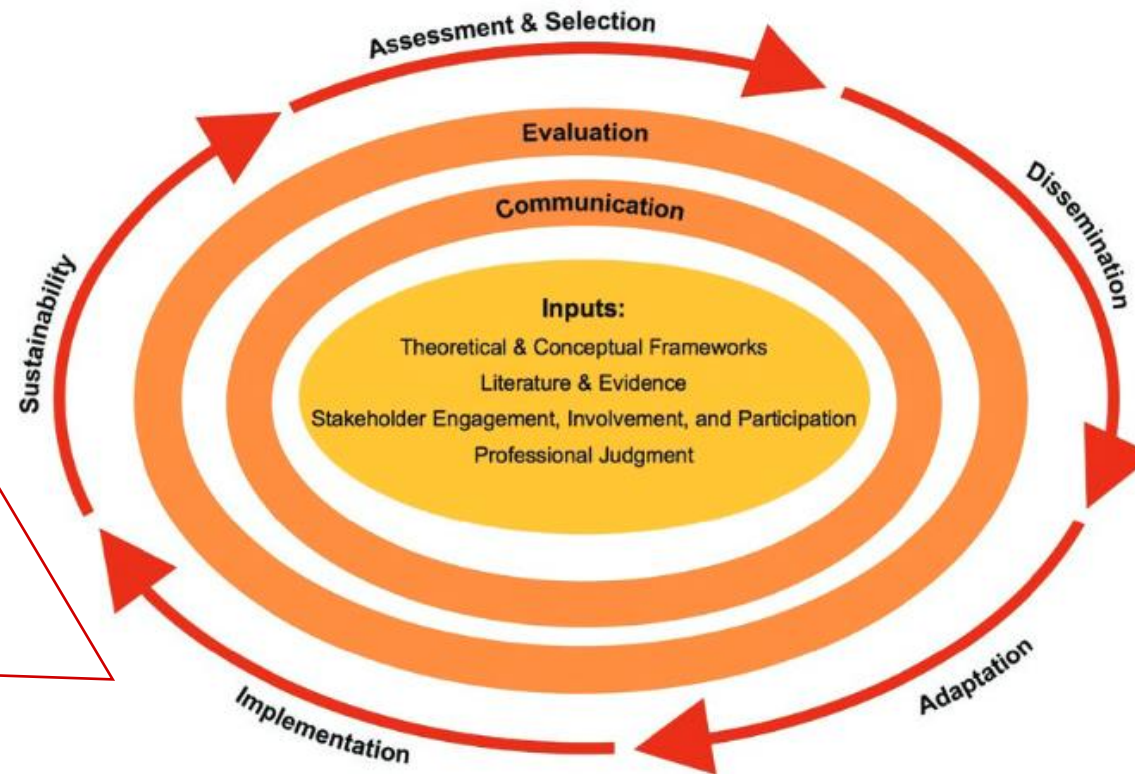
"I THINK YOU SHOULD BE MORE EXPLICIT HERE IN STEP TWO."

Implementation Science

“study of methods to promote the adoption and integration of evidence-based practices, interventions, and policies into routine health care and public health settings to improve the impact on population health”

Dissemination and Implementation Research

“... use of strategies to adopt and integrate evidence-based health interventions into clinical and community settings to improve individual outcomes and benefit population health ”



“...targeted distribution of information and intervention materials to a specific public health or clinical practice audience”

Implementation Research Methods

What?

Evidence Based
Interventions

Health Outcomes

Satisfaction
Function
Health status/
symptoms

Another cheat sheet -

When defining implementation science, some very non-scientific language can be helpful...

- The intervention/practice/innovation is **THE THING**
- *Effectiveness* research looks at whether **THE THING** works
- *Implementation* research looks at how best to help people/places **DO THE THING**
- Implementation strategies are the stuff we do to try to help people/places **DO THE THING**
- Main implementation outcomes are **HOW MUCH** and **HOW WELL** they **DO THE THING**

Fundamental concepts to further clarify -

- Effectiveness research (which many of us are used to) looks at “what intervention works” while implementation research is focusing on “how to help places/people implement the intervention”
- Implementation Research is different from actual implementation (as providers and programmers that is what we are used to doing!)
- Evidence based interventions can have different forms – programs, policies, pills, procedures, practices, principles, products
 - Caveat here is that – in some cases we may not have the “evidence,” consider the following resources then:
 - [Curran, G., et al. 2012](#), describes hybrid study designs that allow a focus on effectiveness and implementation at the same time
 - [Brownson, R, et al. 2022](#), describes the challenges with considering evidence in implementation research

How can
implementation
science help
global cancer
prevention and
control?



THE UNIVERSITY OF NEW MEXICO COMPREHENSIVE CANCER CENTER

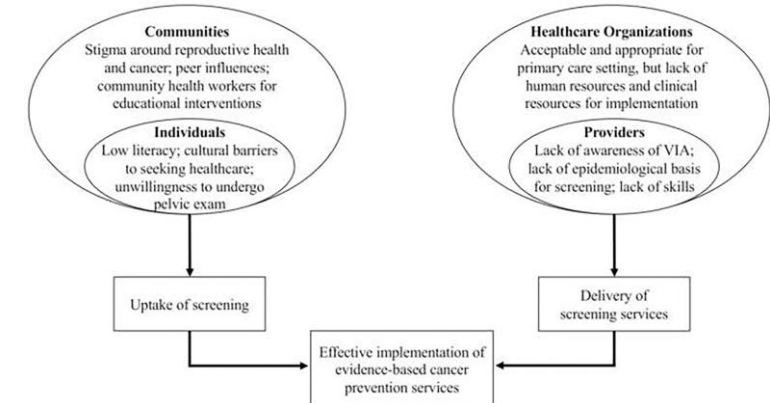
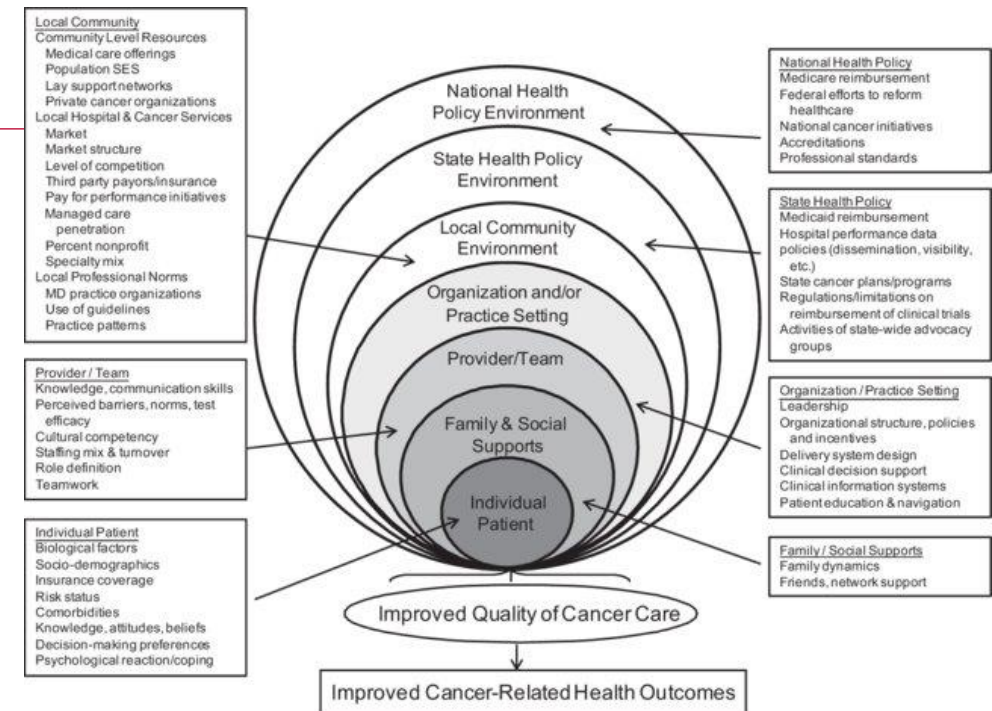
1. Consider the National Cancer Control Plans as a strategy to promote adoption of evidence-based interventions

- Engage partnerships for shared mental models of what priorities need to be and can be addressed in the current context
 - [Participatory implementation science](#) for cancer control
 - [Participatory Systems Dynamics](#) for Implementation Science
 - **Example:** Integrative Systems Praxis for Implementation Research (INSPIRE): An Implementation Methodology to Facilitate the Global Elimination of Cervical Cancer ([Gravitt, P., et. al. 2020](#))
- Incorporate specific evidence-based interventions in the cancer control plans
 - [Cochrane library](#) of evidence-based interventions in cancer (806 as of Sep 2022)
 - Repositories such as the [Evidence-based Cancer Control Programs](#) good starting point

A key implementation outcome could be to assess partner's perceptions of acceptability and appropriateness towards ADOPTION

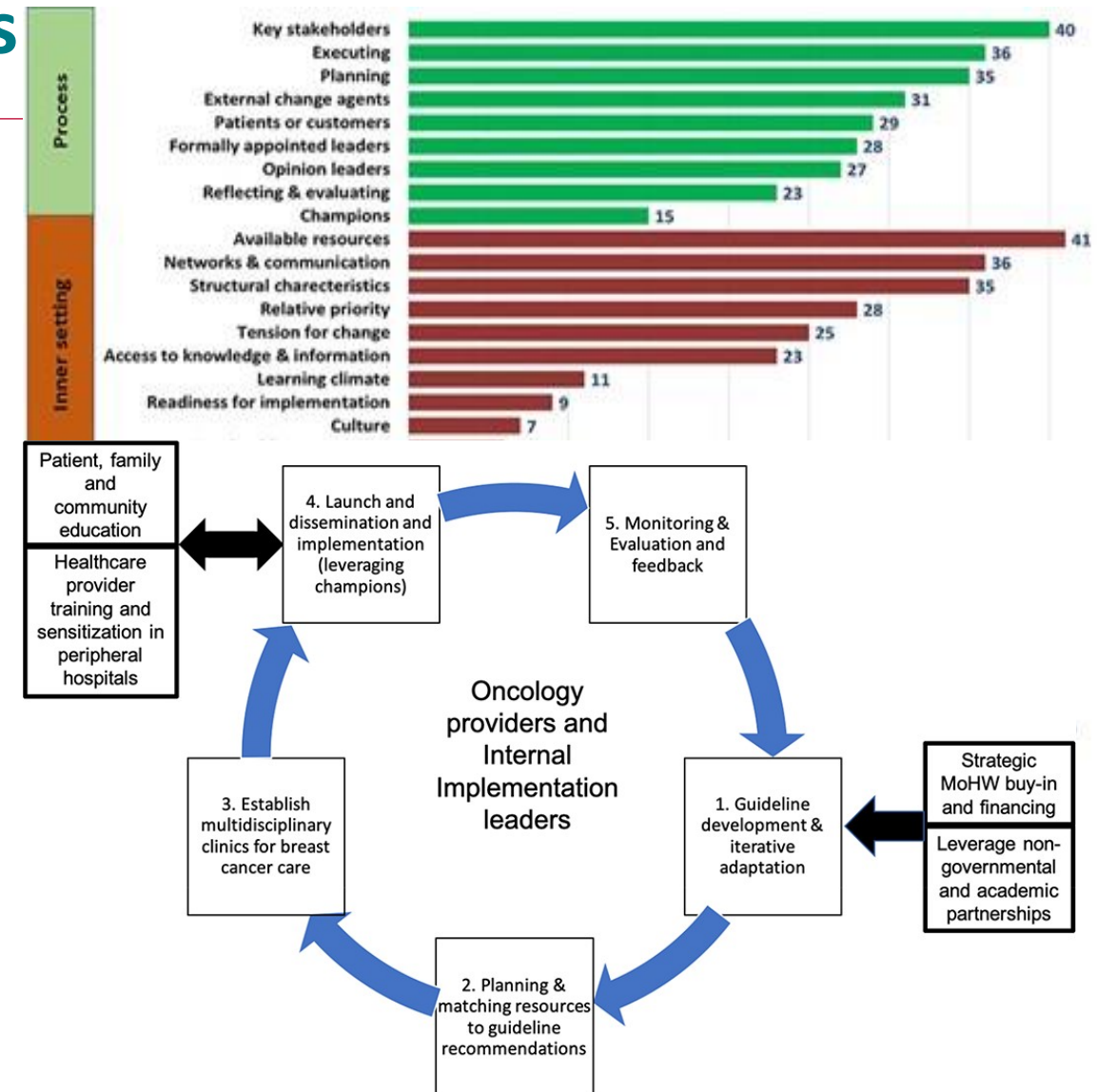
2. Systematically analyze the implementation context for health care, with a multilevel focus

- Frameworks can help guide implementation context assessments
 - Provides a rationale for why it is important to assess context in global oncology ([Koczwara, B., et al. 2016](#))
 - Multilevel factors across the Cancer Control Continuum ([Taplin, et al., 2012](#))
 - **Example:** From the perspectives of physicians, we were able to identify multilevel factors that could influence cervical cancer prevention ([Adsul, P., et al., 2022](#))
- Consider how to integrate these contextual assessments into an action plan or an implementation blue print
 - Methodology for generating a tailored implementation blueprint ([Lewis, C.C., 2018](#))



3. Adapt and demonstrate implementation fit and feasibility for evidence-based interventions

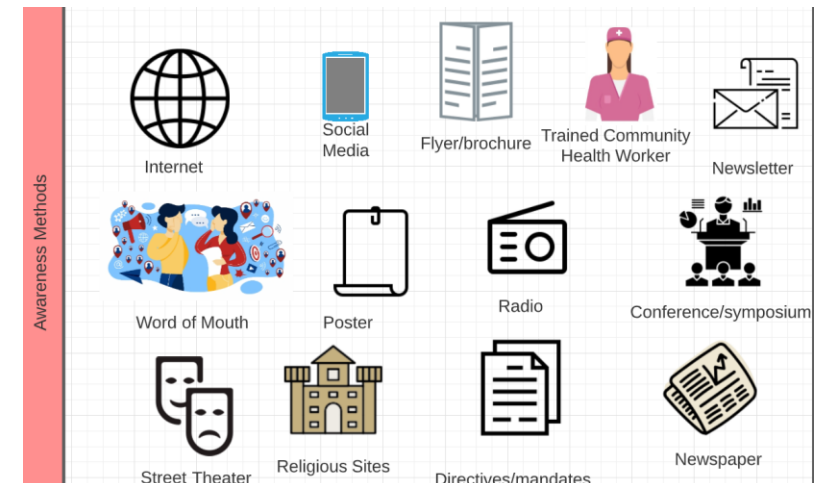
- Local contextual evidence is important for implementation of evidence-based intervention ([Parascandola, M., et al. 2022](#))
- Use frameworks such as Consolidated Framework for Implementation Research (Damschroder, L., et al., [2009](#) and [2022](#)) to generate this evidence like this **example** from Botswana looking at the delivery of guideline-concordant breast cancer therapy ([Ralefala, T., et al., 2021](#))
- More info on CFIR: <https://cfirguide.org/>
- Adaptations will be a key component to integrating evidence from high-income countries
- Example:** Culturally-adapted SMS smoking cessation treatment among smokers in Viet Nam ([Shelley, D., et al., 2021](#))



4. Employ dissemination strategies to promote evidence-based interventions across the cancer control continuum

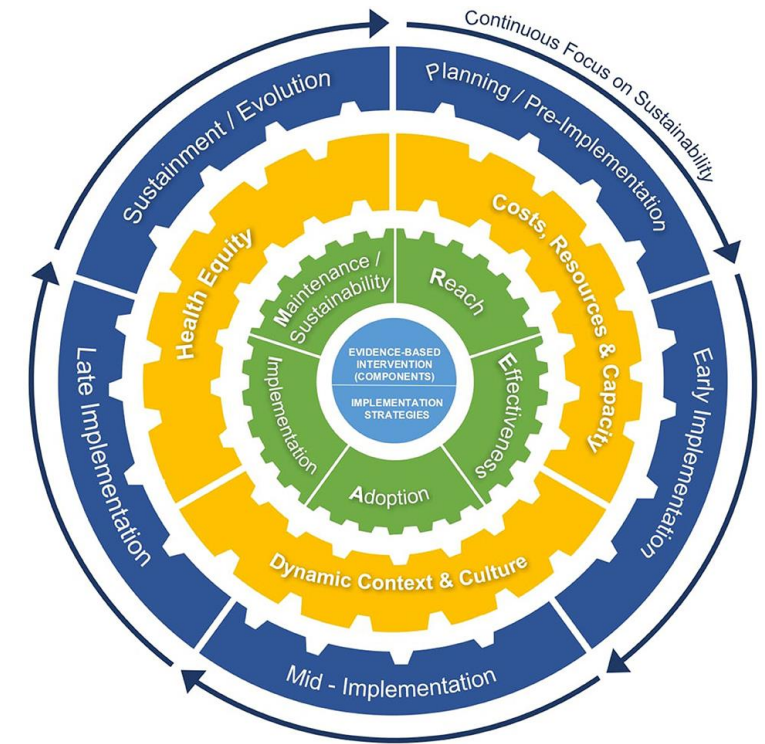
- Dissemination is beyond publications and conference presentations!
 - *Dissemination is “the scientific study of the targeted distribution of information to a specific professional person or group of professionals” ([Baumann, et al., 2022](#))*
 - **Example:** Randomized trial ([Huchko, M., et. al. 2017](#)) to compare community campaigns vs healthcare settings for HPV testing, found that community campaigns reached more individuals ([Olwanda, et al., 2020](#))
- Moderate-certainty evidence to support the use of invitation letters to increase the uptake of cervical screening ([Staley, H., et al., 2021](#))
- Currently, under exploration in an ongoing WHO project!

A key dissemination outcome would be awareness of evidence-based interventions!



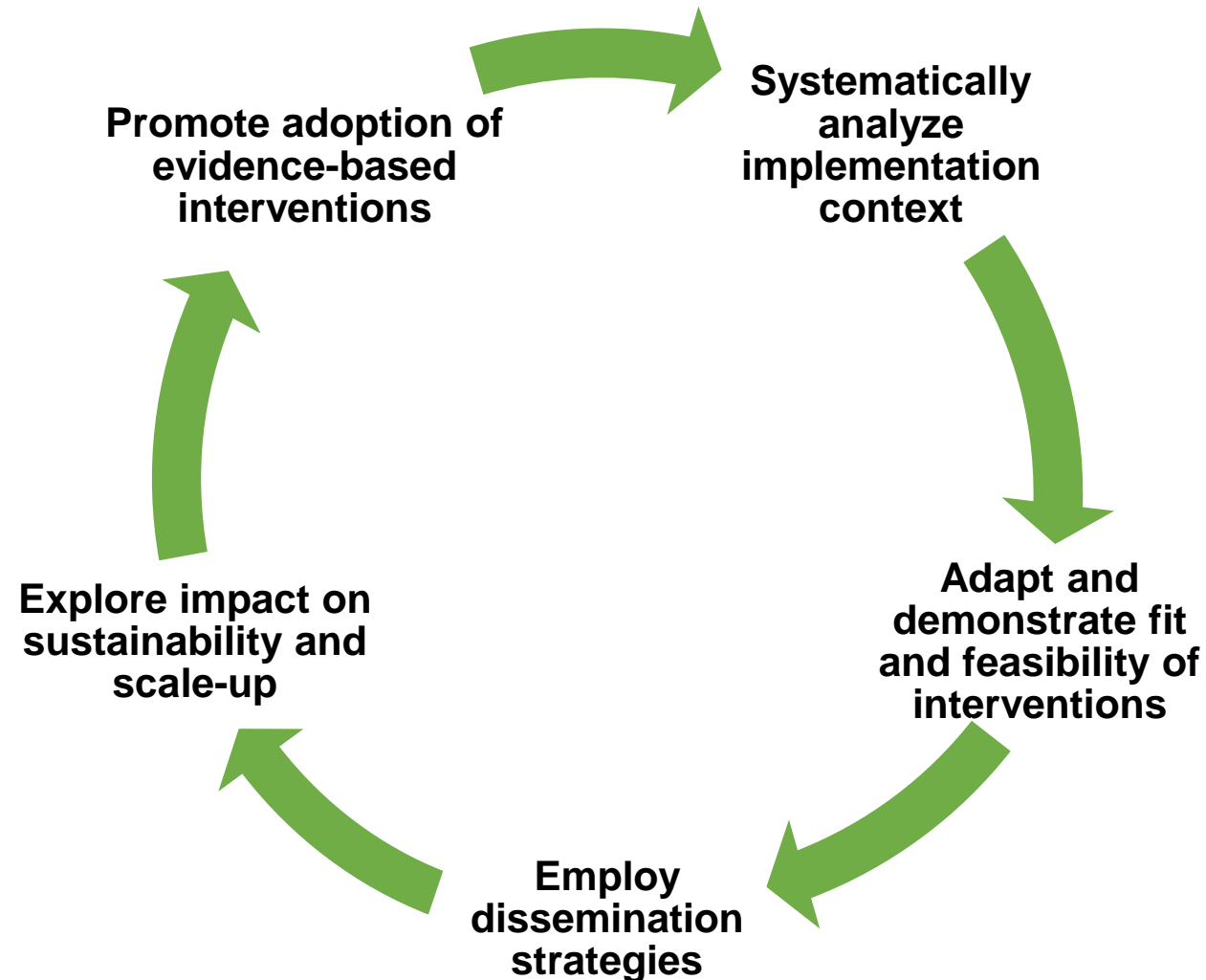
5. Explore the impact on sustainability and scale-up while thinking through implementation

- Ensuring equity and cost can contribute to sustainability of outcomes ([Shelton, R.C., 2020](#))
 - Frameworks can help evaluate sustainability ([Shelton, R.C., 2018](#)) and tools that can help are the Program Sustainability Assessment Tool (<https://www.sustaintool.org/psat/>)
 - **Example:** Study of factors influencing sustainability of global oncology interventions ([Kassick, M., et al., 2020](#))
- Initial understanding around implementation and sustainability can contribute towards scale-up strategies ([Soerjomataram & Bray, 2021](#))
 - *Scale-up: Deliberate efforts to increase the impact of innovations successfully tested so as to benefit more people and to foster policy and program development on a lasting basis* (<https://expandnet.net/>)
 - Scaling Up Global Health Interventions Framework ([Yamey, 2011](#))



Key takeaway

Implementation science can be cyclically infused into ongoing practice and research to help iteratively build the knowledge base for addressing gaps in global cancer prevention and control



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