Global Implementation Science for Equitable Cancer Control (GlobalISE Cancer Control)

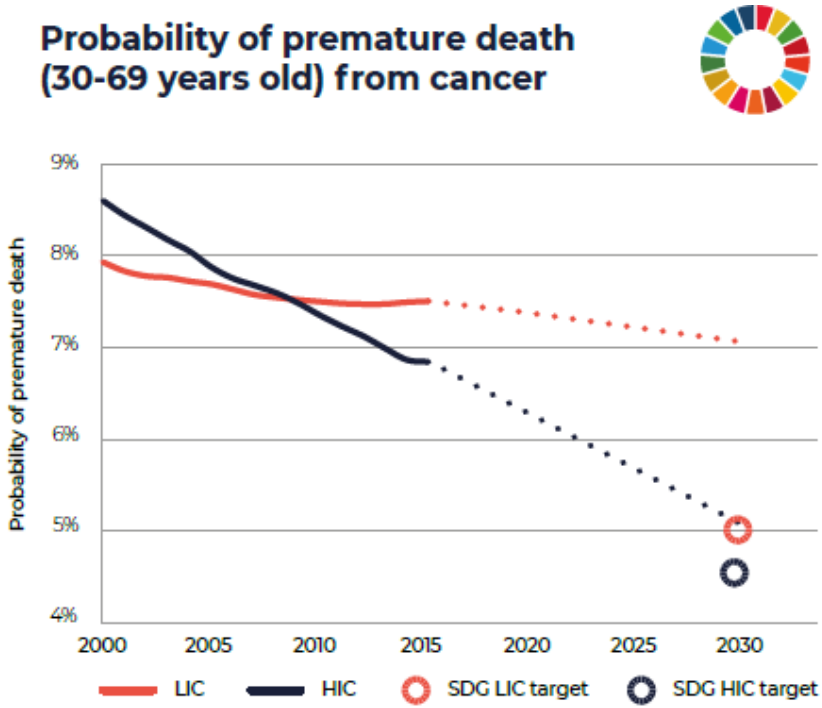
RFA Concept Proposal

Gila Neta, PhD
Program Director
Implementation Science

NIH NATIONAL CANCER INSTITUTE

Global Inequities in Cancer Control

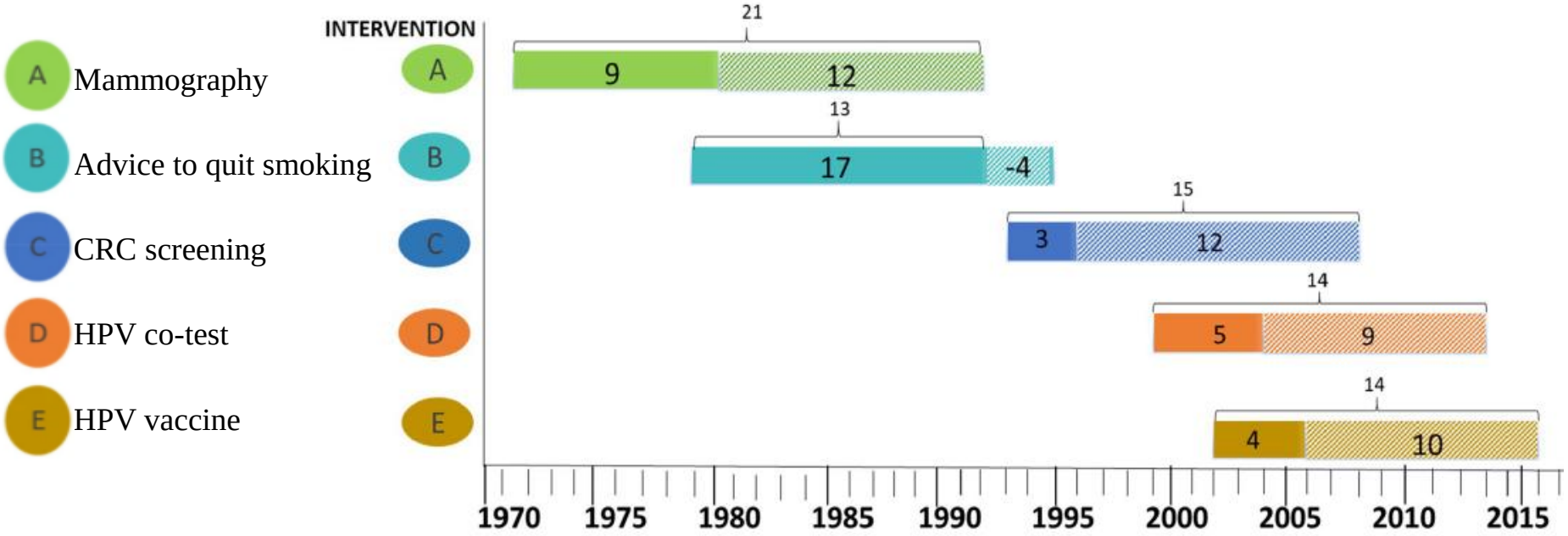
- Progress in reducing premature deaths from cancer (2000 to 2015):
  - 20% reduction in high-income countries
  - 5% reduction in low-income countries



Source: WHO Report on Cancer, 2020

Time to Translation in Cancer Control

Average time from landmark publication to implementation (**50%** uptake): 15 years



Khan, Chambers, & Neta, 2021

Bridging the Implementation Gap

CANCER CONTROL INTERVENTIONS

- INTERVENTION under and overused
- Insufficient training, infrastructure, governance to deliver INTERVENTION

Bridging the Implementation Gap

CANCER CONTROL INTERVENTIONS

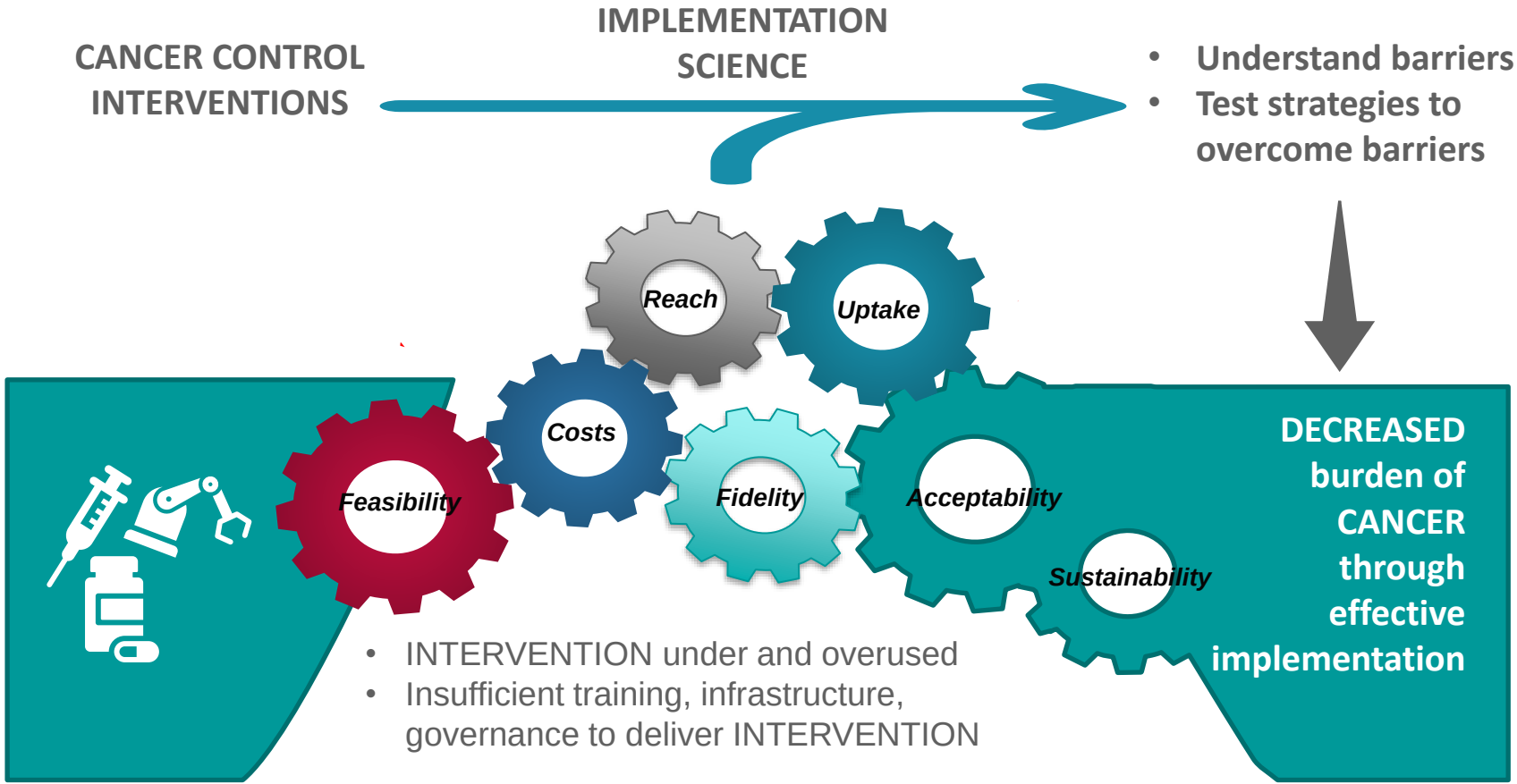
IMPLEMENTATION SCIENCE

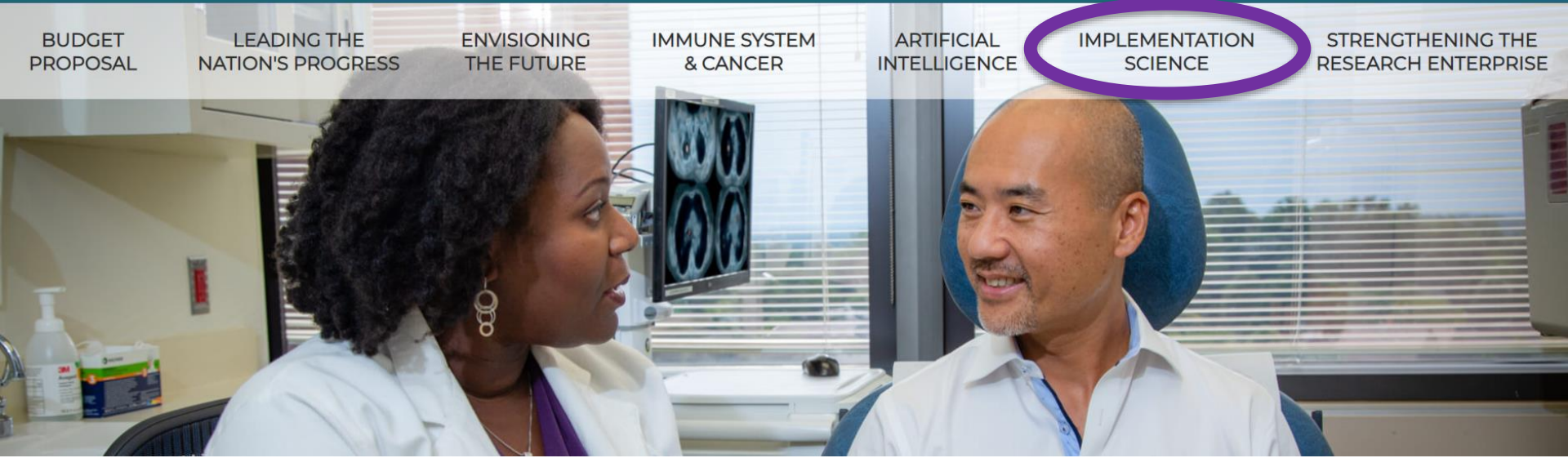
- **Understand barriers**
- **Test strategies to overcome barriers**

- INTERVENTION under and overused
- Insufficient training, infrastructure, governance to deliver INTERVENTION

DECREASED burden of CANCER

Bridging the Implementation Gap



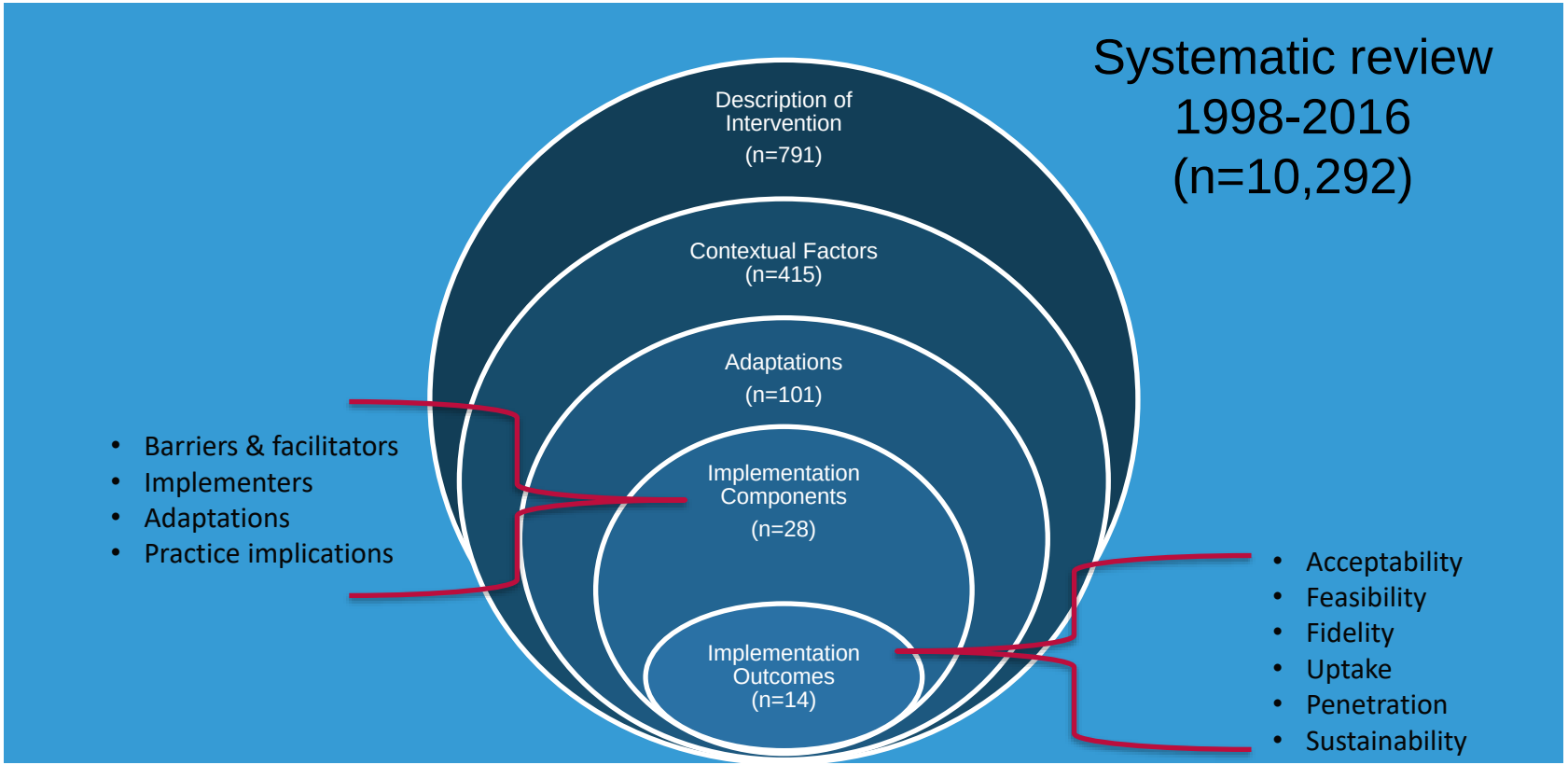


The field of implementation science bridges the divide between research and practice to improve patient and population health outcomes.

Example: Task Shifting

	Vietnam	Peru
Intervention	Tobacco cessation	HPV testing & follow up
Implementation Barrier	Access	Access
Implementation Strategy	Supplement provider's advice with community health worker counselling	Self collection *vs* pap smear; Tx in primary care clinics *vs* hospital-based Tx
Implementation Outcomes	Uptake (assessed by abstinence)	Uptake (assessed by rate of screening and follow-up)

Problem: Implementation of Health Interventions in LMICs



Alonge et al 2019 *BMJ Global Health*

Current NCI Funding Landscape

- **DIRH** PAR: Dissemination and Implementation Research in Health (2005-2022) (*13 in LMICs in Africa, Latin America, & Asia*)
  - NOSI: Dissemination and Implementation Science for Cancer Prevention and Control in Low Resource Environments (2020-2022)
- **U01**: Implementation Science for Cancer Control in People Living with HIV in LMICs (2021)
- "**Last Mile** Initiative"
  - HPV testing self-sampling effectiveness trial, not implementation
- Moonshot **ISC3**: Implementation Science Centers for Cancer Control
  - Domestic only

GlobalISE Cancer Control Consortium Goals

To build LMIC-based implementation science hubs that can:

- Address high-priority implementation gaps in cancer control in LMICs
- Build research capacity for cancer control implementation science in LMICs
- Foster stakeholder engagement between LMIC researchers and practitioners
- Enhance the ability of LMIC institutions to serve as regional experts in implementation science (i.e., train the trainer)

Global Implementation Science for Equitable Cancer Control (GlobalISE Cancer Control)

- Mechanism: U54
- Award Length: 5 years
- Publication Date: Spring/Summer 2022
- Award Date: Summer 2023
- Anticipated # of Awards: 4
- Year One Set-Aside: $4M
- Cost for Project Period: $20M

GlobalISE Cancer Control U54 Structure

- 4 awards across diverse contexts
- Each award will include
  - 2 investigator-initiated research projects
  - 2 cores
    - Administrative (e.g., coordination, fostering stakeholder engagement)
    - Research Capacity-Building (e.g., didactic training, mentoring, methods development)

- U54 mechanism enables NCI to coordinate activities across the centers, to facilitate harmonized measures, shared resources, and collaboration across funded teams

Priority Research Areas for LMICs

- How do we **adapt** cancer control interventions to LMIC settings?
- How do we efficiently **bundle** cancer control services?
- How do we effectively **integrate** cancer control into **primary care and other care settings**?
- What are the best ways to **de-centralize** cancer control services to community settings?
- How do we **enhance retention** across the continuum of cancer care in typically fragmented systems?

Types of Research Projects

- Studies to understand modifiable **multilevel** (e.g., provider, clinic, organization) **barriers and facilitators** to implementation
- Studies to evaluate **implementation processes** and co-design multilevel **strategies** to enhance integration of cancer control services
- Studies to test **cost-effectiveness of strategies** to deliver cancer control interventions
- Studies to test strategies for **sustainability and scale up** of cancer control interventions

BSA Reviewers' Comments

1. Clarify the role of NCI program staff in the conduct of the research
   - Grantees have primary responsibility for assembling their teams, developing their cores, and developing and conducting their research projects. NCI role is to foster collaboration across funded teams, support shared resources and measures across funded teams, and facilitate interaction as appropriate with domestic implementation science efforts.
2. Is the priority to build depth in implementation science or breadth in cancer control?
   - The priority of this U54 is to build deep implementation science capacity in a limited number of LMIC hubs. If successful, we believe these hubs may ultimately be well suited to apply implementation science methods to broadly address cancer control needs in LMICs.
3. Clarify eligibility and review criteria
4. Clarify success metrics of the initiative
   - Items 3 and 4 are covered in the following slides

Eligibility Criteria

- PI or MPI must be from an LMIC-based institution
- Applicants from US-based institutions must have LMIC-based MPI
- Applicants must propose two implementation research projects and two cores (i.e., administrative and research capacity-building)

Additional Review Criteria

- Demonstrate strong partnerships and history of collaboration
- Demonstrate implementation science expertise
- Address high priority cancer control implementation gaps in LMIC
- Use appropriate implementation science approaches
- Demonstrate LMIC institutional support for implementation science

Metrics of Success

- Number of new LMIC-based investigators trained in implementation science
- Number of LMIC-based investigators applying for implementation science grants
- Number of new collaborations across LMIC-based institutions
- Peer-reviewed publications demonstrating the use of implementation science approaches in LMIC-based studies
- Evidence generation that informs national and international policies and practice in LMICs

NATIONAL CANCER INSTITUTE

www.cancer.gov

www.cancer.gov/espanol