

LOST & FOUND: Evaluating the Implementation and Effectiveness of an Intervention to Re-engage Patients into HIV Care: an Implementation Research Protocol

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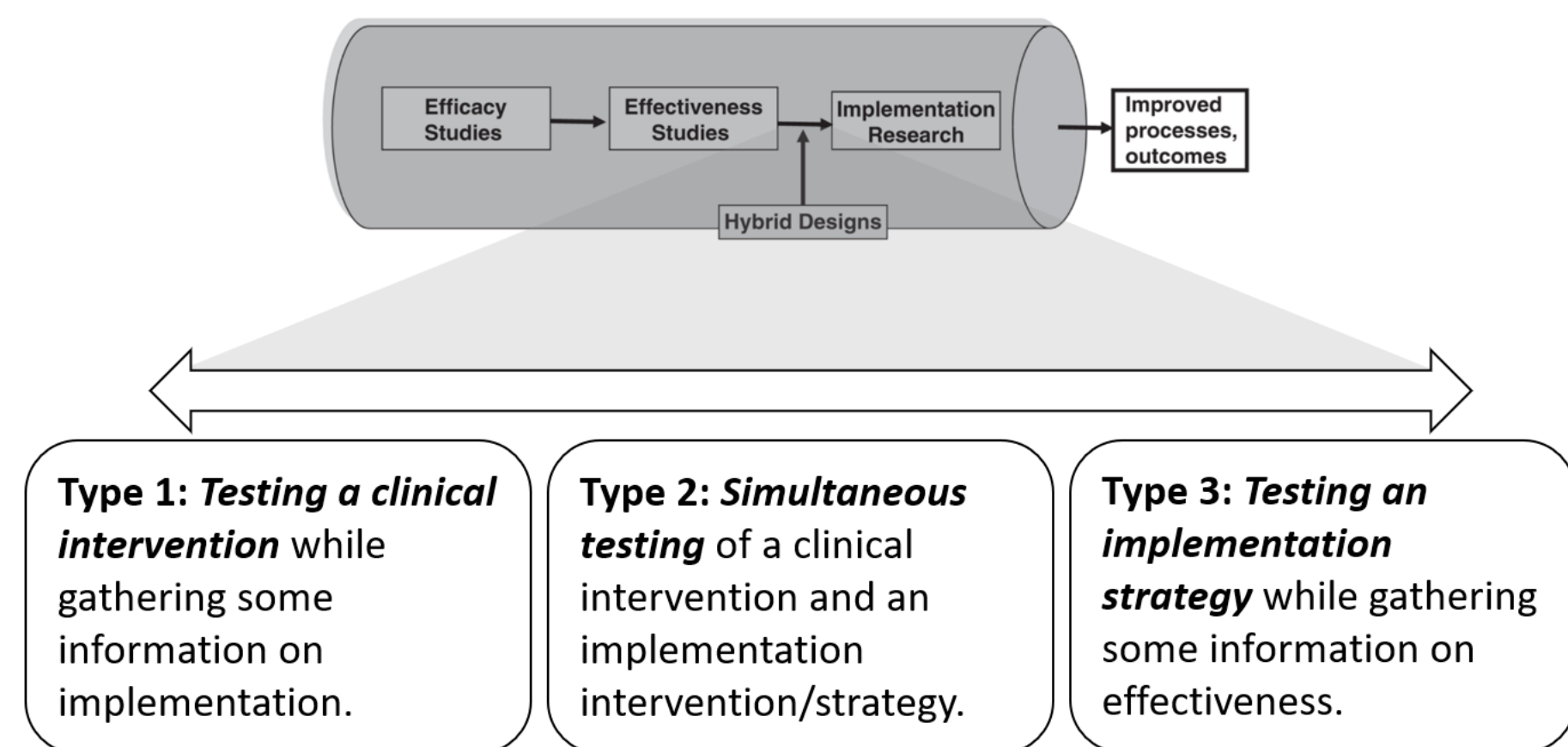
BACKGROUND

Setting

- UNAIDS' 90-90-90 targets have prompted formal documentation of HIV care cascades.
- ~ 10% of patients at the Chronic Viral Illness Service (CVIS) McGill University Health Centre, who received care in 2015 did not return for care in 2016. This proportion of lost-to-follow-up (LTFU) remains consistent from year to year.
- No formal system exists to re-engage and retain LTFU patients in care at the CVIS clinic.

Implementation Science

- Many evidence-based interventions (EBIs) do not get used in practice or take many years to be deployed. Also, EBIs occasionally prove to be ineffective with little understanding of why.
- Implementation science (IS)** is the scientific study of methods to **promote the systematic uptake of research findings and other EBIs into routine practice**, and, hence, to improve the quality and effectiveness of health services¹.
- IS highlights the importance of implementation strategies and related outcomes in deploying EBIs.
- IS does not preclude the evaluation of intervention effectiveness: Hybrid implementation-effectiveness study designs allow for evaluations of implementation and effectiveness in parallel². Mixed methods are inherent to IS initiatives.



Aim: To develop an IS research study protocol evaluating both implementation and effectiveness of an EBI to improve care engagement.

METHODS

Scoping literature review to identify EBIs.

- Three types of IS frameworks were considered to guide and understand: 1) Process; 2) Determinants (barriers and facilitators; B&F); and 3) Evaluation (outcome measures for implementation and effectiveness of the EBI).
- The Standards for Reporting Implementation Science Studies (StaRI) Statement was used to guide protocol development and reporting³.

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 9. Keller J et al. HIV patient retention: the implementation of a North Carolina clinic-based protocol. *AIDS Care* 2017; 29(5): 627-631.
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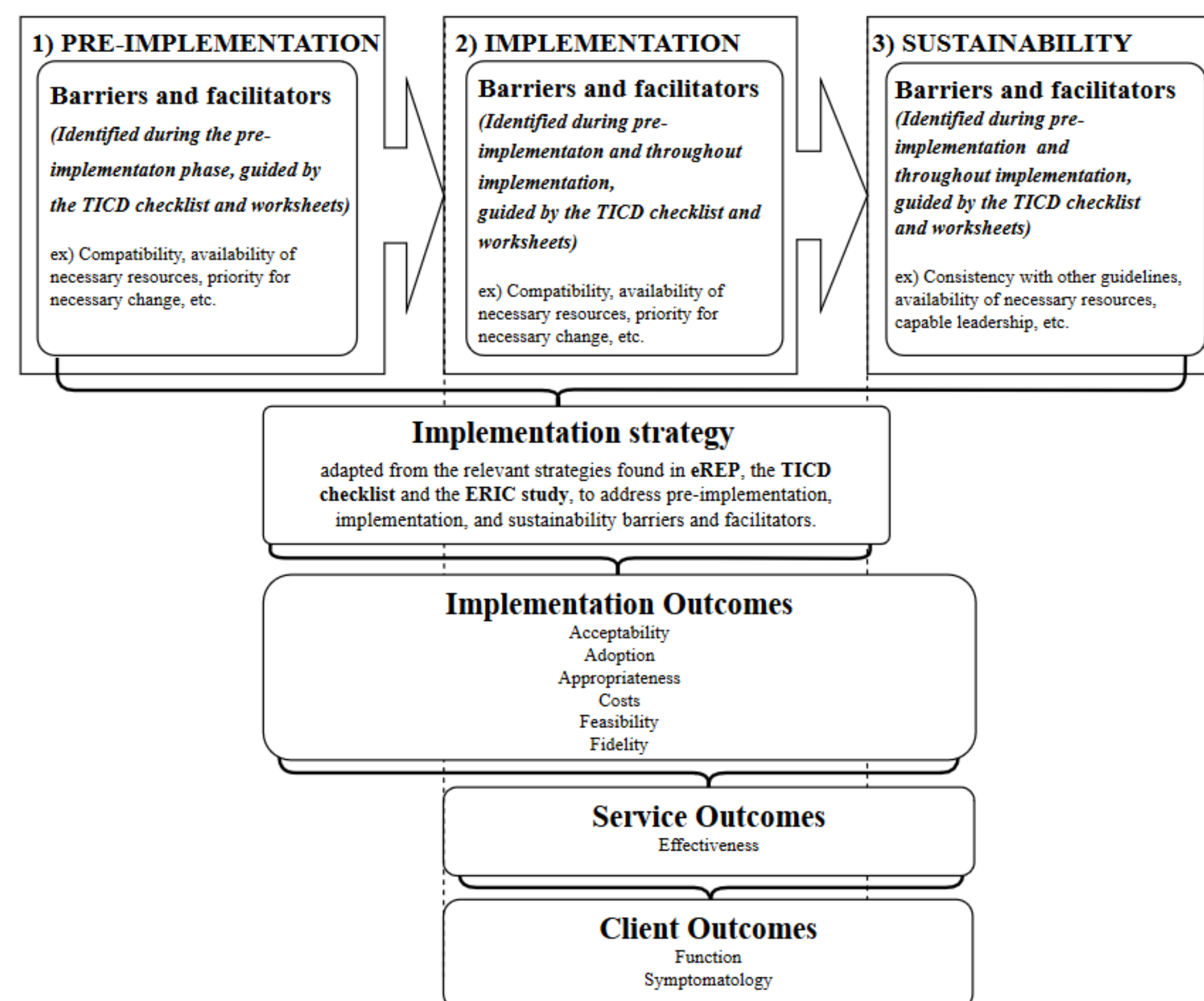
RESULTS

- The Enhanced Replicating Effective Programs (eREP) was used as the process framework (intervention and implementation planning)⁴
- Using the Tailored Implementation for Chronic Disease (TICD) framework, we identified important B&F to delivery of the EBI and prioritized implementation strategies to enhance adoption⁵.
- Outcomes (e.g., implementation, system, and client), as per Proctor et al., will inform the evaluation of the intervention and selected implementation strategies⁶.
- A combination EBI, inspired by previous literature^{7,8,9} will be adapted to the CVIS clinic. It consists of two core elements: 1) Identifying and documenting LTFU patients; and 2) Contacting LTFU patients.

To guide the project, development of the implementation strategy, and the analysis,

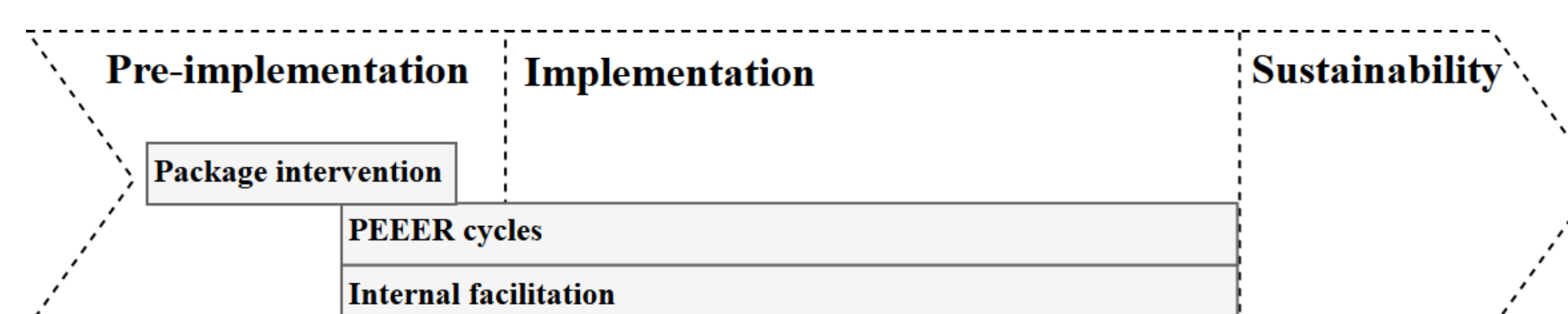
eREP, TICD, and Proctor et al.'s 'implementation outcomes' were combined into one framework^{4,5,6}.

Barriers and facilitators will be identified qualitatively through focus groups. Outcomes will be assessed quantitatively through questionnaires and project monitoring.



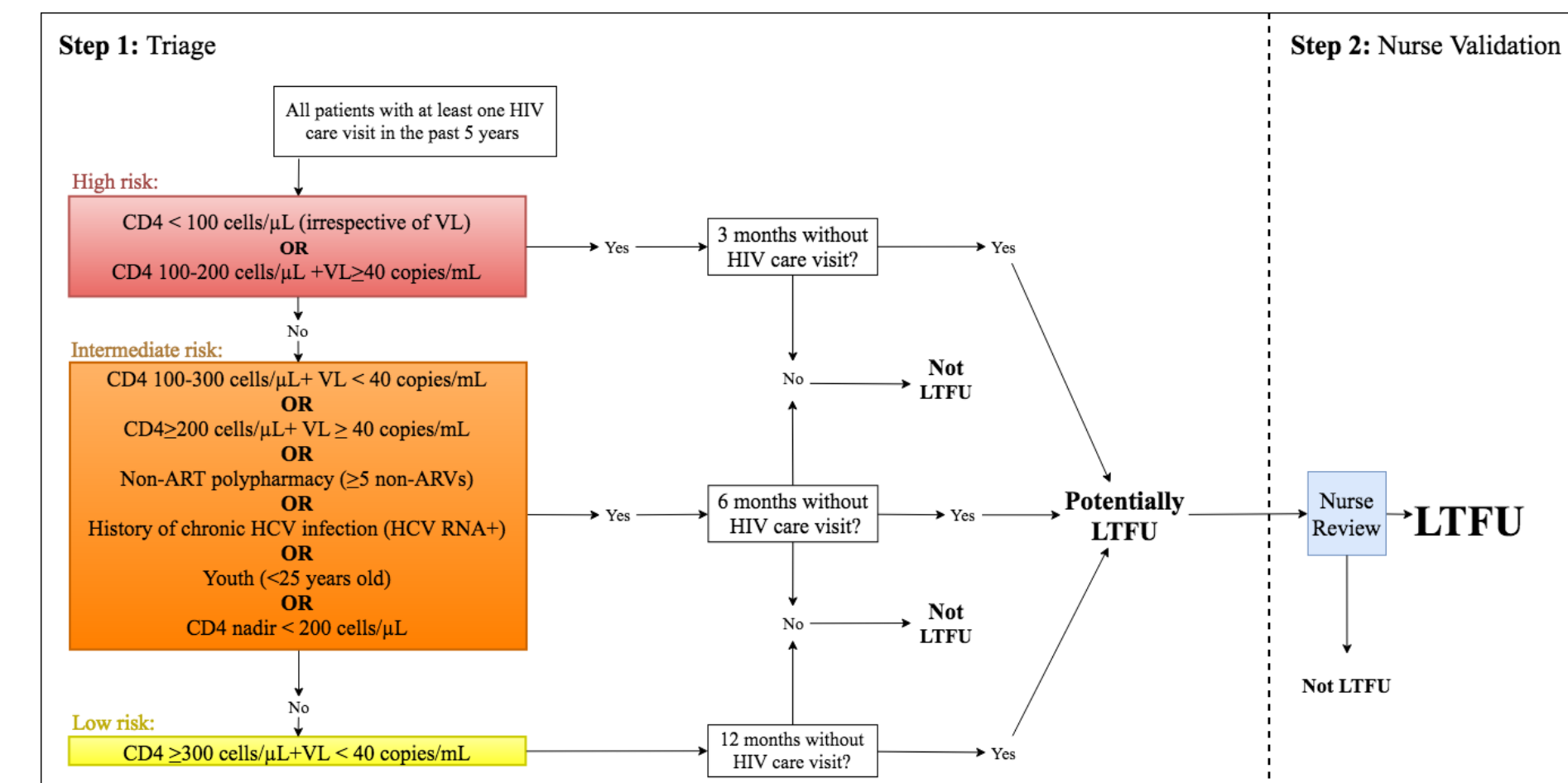
Selecting Implementation Strategies

- Potential B&F, as defined in the TICD, were identified using TICD worksheets informed by eREP phases^{4,5}. Some examples include:
 - Barriers:** feasibility, accessibility of the intervention, effort, availability of necessary resources, information systems, priority for necessary change
 - Facilitators:** compatibility, domain knowledge, awareness and familiarity with the recommendation, expected outcome, intention and motivation
- Three implementation strategies^{4,5,10} were selected to respond to B&F in each eREP phase:
 - Package the intervention into core and peripheral components;
 - Planning, Engaging, Executing, Evaluating, & Reflecting (PEEER) cycles; and
 - Internal facilitation.



Adapting & Operationalizing the EBI

- To adapt core elements of the intervention, we determined peripheral (adaptable) components for:
 - Identifying and documenting LTFU patients, specifically,
 - a LTFU risk prediction tool; and



- an automated, real-time list to identify and prioritize re-engagement of LTFU patients.

- Contacting LTFU patients - our team of nurses will manage contact activities; patients will be prioritized for contact and telephone calls using motivational communication will be used to encourage re-engagement into care.

Lost & Found: Study Objectives & Methods

- Objective 1:** To assess provider-related implementation outcomes (acceptability, feasibility, fidelity, and adoption) and implementation determinants to evaluate the implementation of the intervention.
- Objective 2:** To assess the effectiveness of the intervention, as implemented, by determining the proportion of LTFU patients who are re-engaged in care over a one-year period.
- Study design:** A single-arm, pre-post, mixed-methods prospective pilot study using a type 2 effectiveness-implementation hybrid design is proposed.

Data collection:

- Objective 1:**
 - Longitudinal collection of data on nursing implementation outcomes, barriers, and facilitators.
 - Questionnaires and focus groups
- Objective 2:**
 - Information on LTFU patients re-engaged determined via RISQ 'HIV follow-up' tab in the EMR.

Data analysis:

- Objective 1:** Mixed-methods assessment of barriers, facilitators, and implementation outcomes among nurses.
- Objective 2:** Pre-post evaluation of the proportion of LTFU patients that are re-engaged into care.

CONCLUSIONS

- Lost & Found, a clinic-based IS research protocol was successfully developed after integrating and using multiple IS frameworks.
- By using an IS lens, we will optimize the real-world adaptation of a care re-engagement EBI and report on both implementation and effectiveness outcomes.
- The pilot study began April 16, 2018.
- If successful, implementation and effectiveness of our EBI will be evaluated using a stepped-wedge cluster randomized trial.

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