

Pragmatic Trials across the Cancer Control Continuum

PAR Request

Wynne E. Norton, PhD on behalf of DCCPS Pragmatic Trials Team



Board of Scientific Advisors
National Cancer Institute
March 28, 2022

Purpose

- **Expand portfolio** of evidence-based interventions in cancer control and population health.
- Support the design and conduct of trials that are **more pragmatic** than explanatory in overall purpose and intent.
- Generate information that reflects real-world settings and **directly informs practice.**

Evidence-based Cancer Control Interventions

www.thecommunityguide.org



WHAT WORKS

Cancer Prevention and Control:
Cancer Screening


Evidence-Based Interventions for Your Community

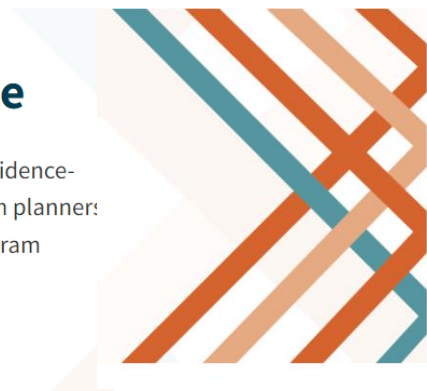


National Comprehensive
Cancer Network®

Transforming Research into Community and Clinical Practice

The EBCCP (formerly RTIPs) website is a searchable database of evidence-based cancer control programs and is designed to provide program planners and public health practitioners easy and immediate access to program materials.

 Search Now



Gaps in Intervention Portfolio

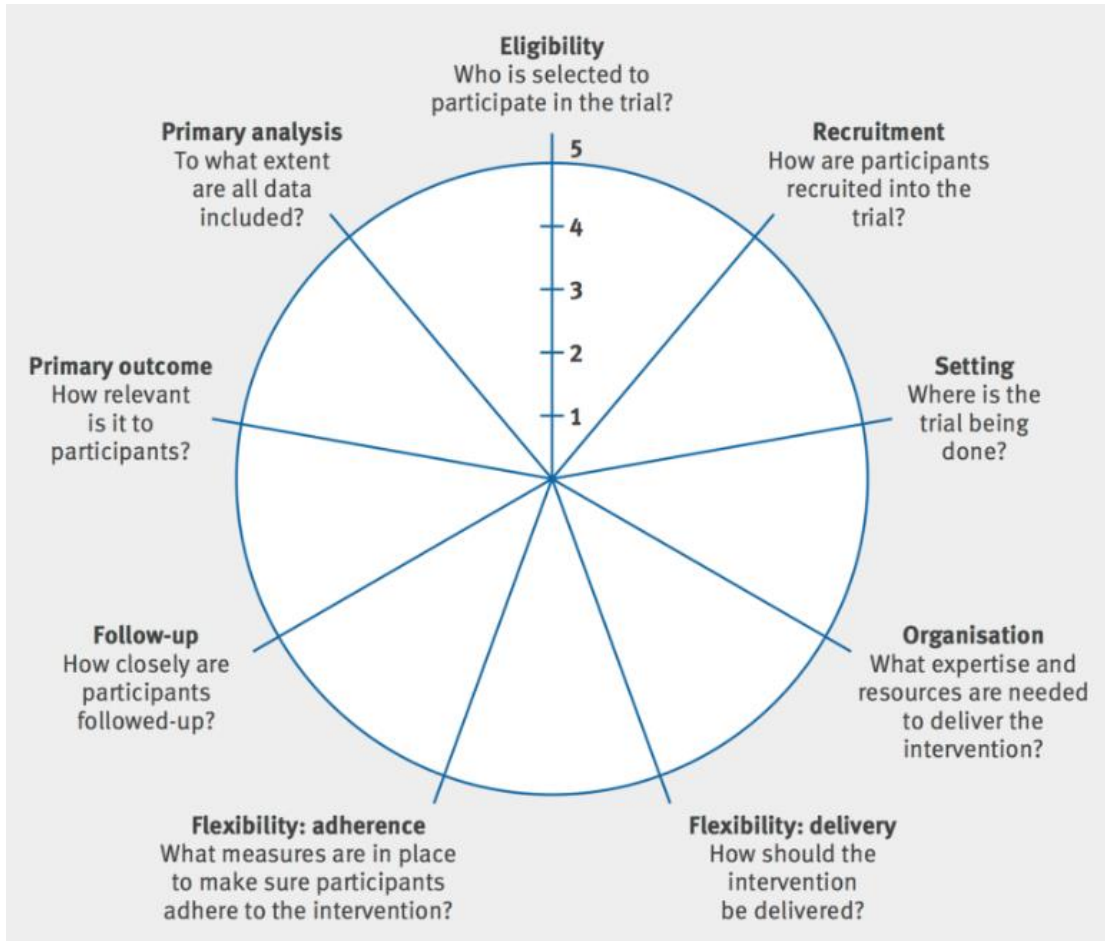
- Populations that are underserved
- Under-resourced communities
- People from racial and ethnic minority groups
- Survivorship care models for people living in rural or remote communities
- Economic hardship, especially among groups that are economically marginalized
- Cancer-related health misinformation
- Alcohol misuse among cancer survivors
- Shared decision-making for cancer-related screening and treatment



Types of Trials for Testing Interventions

- Explanatory Trials:
 - Understanding, “efficacy” trials, laboratory conditions, maximize internal validity, less concerned with external validity. Intended to give intervention best chance to demonstrate effect on target outcomes.
 - *Can this intervention work under ideal conditions?*
- Pragmatic Trials:
 - Decision-making, “effectiveness” trials, normal or everyday conditions, balance external and internal validity. Intended to support decision on whether (or how) to deliver an intervention.
 - *Does this intervention work under usual conditions?*

PRagmatic Explanatory Continuum Indicator Summary (PRECIS-2) Tool



- Match trial design to intent and purpose
- Validated tool, 700+ registered trials
- Adapted to practitioner and delivery setting trials (PRECIS-2-Provider Strategies*)

Thorpe et al., 2009; Loudon et al., 2015;
*Norton et al., 2021; www.precis-2.org

Example PRECIS-2/PRECIS-2-PS Domains

| Domain | Explanatory Trial | Pragmatic Trial |
|------------------------------------|--|--|
| Eligibility | Strict inclusion criteria, many exclusion criteria | Broad inclusion criteria, few exclusion criteria |
| Setting | Small number of homogeneous clinics | Many diverse clinics |
| Organization/ Resources | Additional resources provided by trial | Use of available resources |
| Primary Analysis | Analysis of completers | Intent-to-treat analysis |

Portfolio Analysis of Pragmatic Trials

- N = 29 grants, n = 22 DCCPS
- Full review of research plan
- Most used the term 'pragmatic trial' without any additional context
- Only 7 included any citation to established tools or leading papers
- None included comprehensive description of pragmatic trial elements

Supporting the Use of Pragmatic Trials for Testing Cancer Control Interventions

- Fill gaps in portfolio of evidence-based interventions in cancer control, especially for populations that are underserved and in communities that are under-resourced.
- Leverage full conceptualization and operationalization of trial design elements to be more pragmatic than explanatory.
- Need appropriate funding mechanism to address complexities:
 - Recruitment of patients, providers, organizations, systems of care
 - Collaborator engagement
 - Pilot data collection methods, measures
 - Intervention refinement

Proposed Mechanism

1



UG3: Planning- Exploratory Phase

- 2 YRs
- Pilot test intervention, recruitment and data collection procedures



2



Administrative Review

- Review and evaluate UG3 milestones
- Assess probability of completion of UH3
- Approve/reject transition request



3

UH3: Implementation Phase

- 4 YRs
- Conduct pragmatic trial



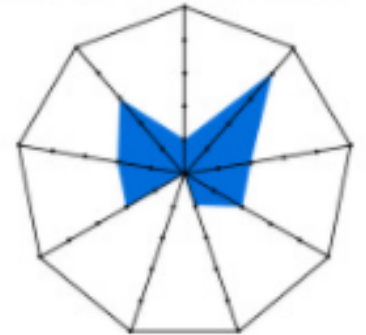
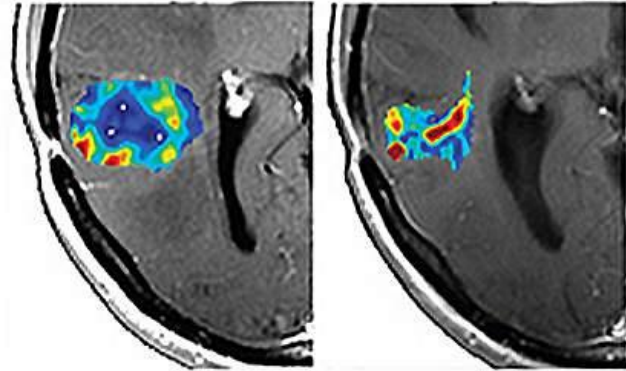
← UG3/UH3 Exploratory/Developmental Phased Award →

Example Evaluation Criteria

- Does the study propose to test an intervention that addresses an emerging and/or understudied topic in cancer control and population health?
- Is the study designed to maximize equitable reach and impact of cancer-focused interventions for diverse populations and settings?
- Are pragmatic elements of the trial well-described and justified?
- How appropriate are the milestones for the transition from the UG3 planning activities to the UH3 pragmatic trial?

Non-Responsive Applications

- Applications that propose development or testing of cancer-directed therapies, imaging, diagnostics, or devices.
- Limited integration of pragmatic trial elements.
- Trial design elements that are overwhelmingly more explanatory than pragmatic.



BSA Reviewers and Comments

- Karen Basen-Engquist, Ph.D., M.P.H.
- Chyke Doubeni, M.B.B.S., M.P.H.
- Melissa Bondy, Ph.D., M.S.

- Specific points to highlight in FOA:
 - Emphasize need for interventions to address health inequities and health disparities
 - Emphasize essential involvement of collaborators (e.g., community members, public health partners, healthcare systems and organizations)

Summary

- Need to fill gaps and expand portfolio of evidence-based interventions in cancer control and population health
- Opportunity to leverage pragmatic trial design elements to test interventions that reflect real-world populations and settings
- Develop evidence that is applicable and directly informs and improves practice

DCCPS Pragmatic Trials Team

- **Susan Czajkowski**, PhD, Behavioral Research Program
- **Amy Kennedy**, PhD, MPH, Health Disparities & Health Equity
- **Sarah Kobrin**, PhD, MPH, Healthcare Delivery Research Program
- **Nonniekaye Shelburne**, CRNP, MS, AOCN, Epidemiology and Genomics Research Program
- **Shobha Srinivasan**, PhD, Health Disparities & Health Equity
- **Emily Tonorezos**, MD, MPH, Office of Cancer Survivorship

Thank You



**NATIONAL
CANCER
INSTITUTE**

www.cancer.gov

www.cancer.gov/espanol