

Targeting rural health disparities in lung cancer screening by co-creating a decision aid

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Conflicts of interest

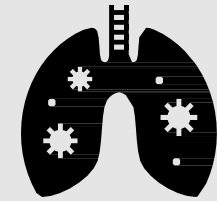
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Objectives

- Understand how our Colorado ISC³ uses D&I science methods to overcome rural inequities in cancer outcomes
- Recognize our approach to equity: representation and representativeness
 - Deliverable from this process: Decision aid for lung cancer screening
- Consider how this approach informs our future directions and advances the field

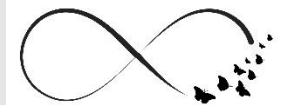
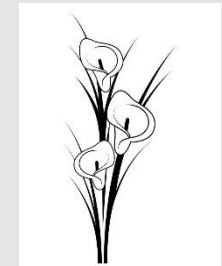
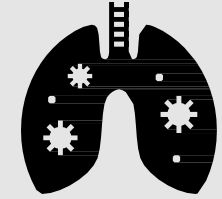
The Problem: Persistent health disparities plague rural populations

- Rural vs. Urban inequities
 - ↑ Cancer mortality
 - ↓ Lung cancer screening (LCS) rates
- Contextual contributors:
 - LCS-specific: requires a documented shared decision-making process
 - Other factors:
 - ↓ income
 - ↓ college education
 - ↑ unemployed/uninsured



Colorado ISC3 themes: Factors that influence shared decision making

- Multi-level stakeholder perspectives on values and cost that drive their decisions
 - Rural clinic clinicians/staff
 - Rural patients
- Adapt to multi-level context
- Rural primary care issues:
 - Reach
 - Implementation
 - Sustainability



Colorado ISC3: Our approach to equity

- Populations
- Theories/Models/Frameworks
- Intervention/Implementation Strategies
- Evaluation/Equity outcomes

Colorado ISC3: Our approach to equity

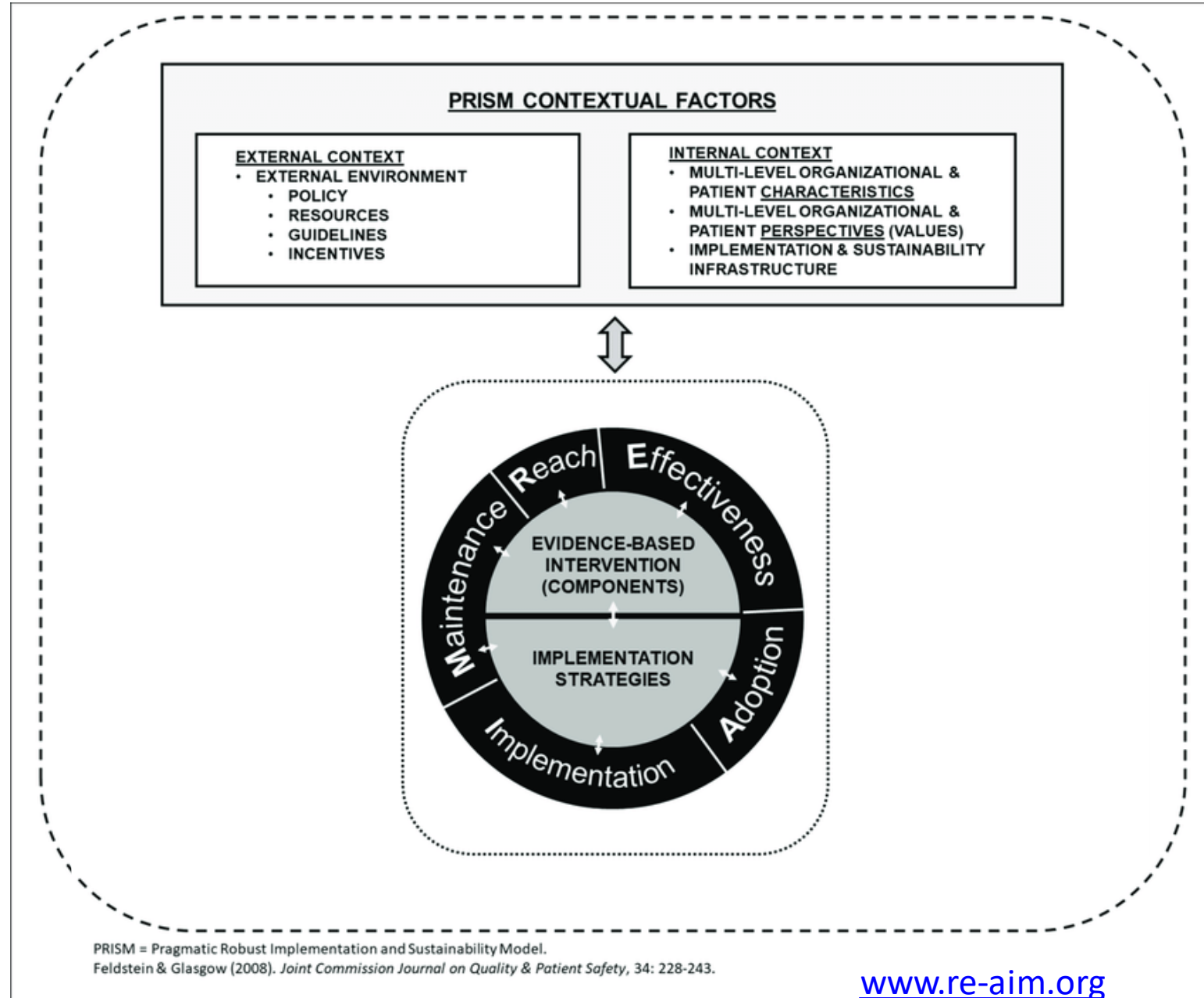
- Populations: **representation** of rural voices
- Theories/Models/Frameworks
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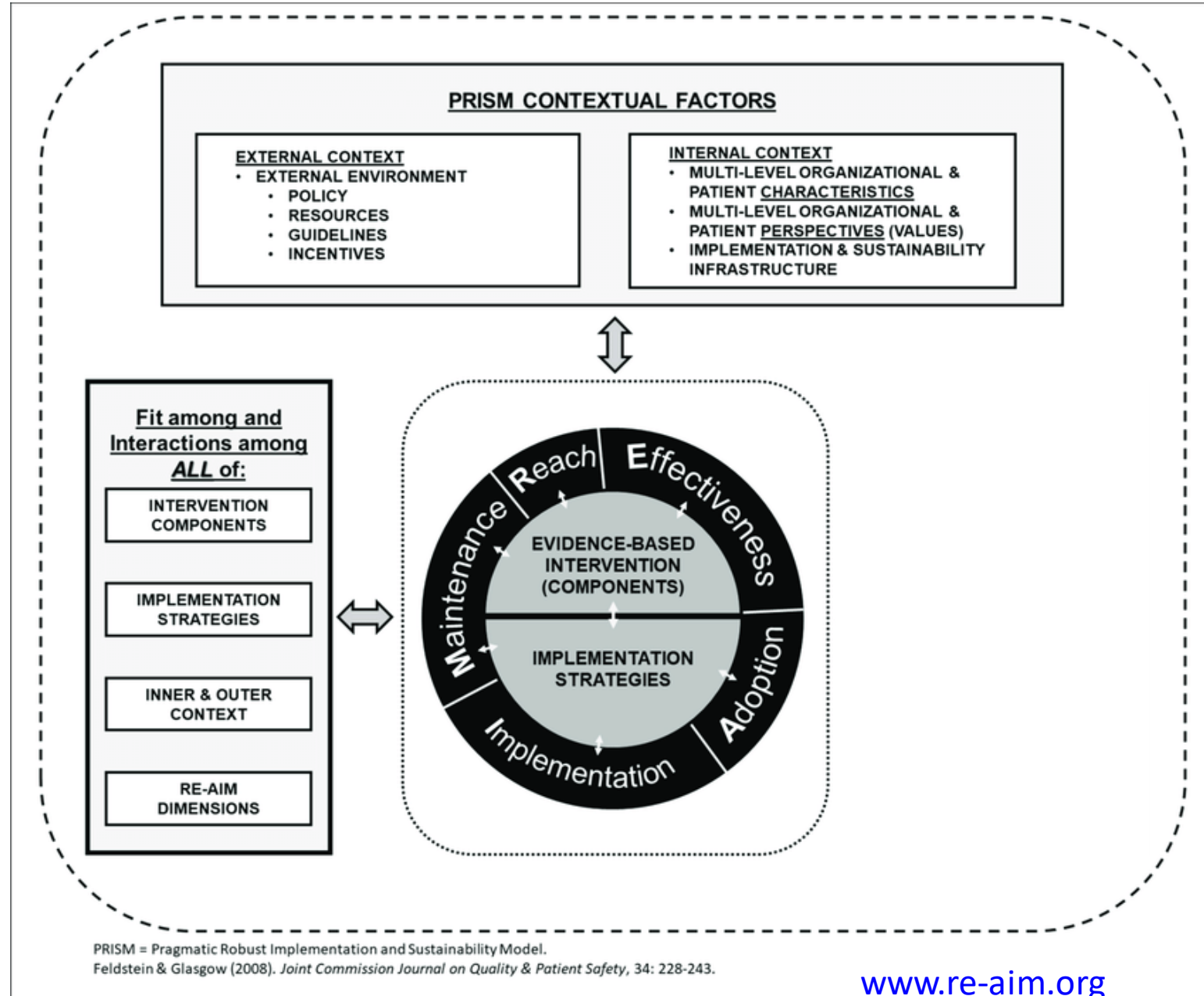
PRISM: Expanded RE-AIM framework

- **Framework/Model:** PRISM
 - Representation
 - Organizational levels
 - Patients/End-users
- **Implementation strategies**
 - Tailor to fit context
- **Intervention:**
 - Tailor form of the intervention function to fit context
- **Outcomes:** assess equity (representativeness) for each RE-AIM outcome



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Colorado ISC³: Case example pilot study

- Problem: Low rural Lung Cancer Screening (LCS) rates
- Goals of pilot study:
 - Understand PRISM contextual factors related to low rates of shared decision making for lung cancer screening in rural clinics
 - Using an iterative human-centered design process, tailor the form of the LCS decision aid to context

Setting

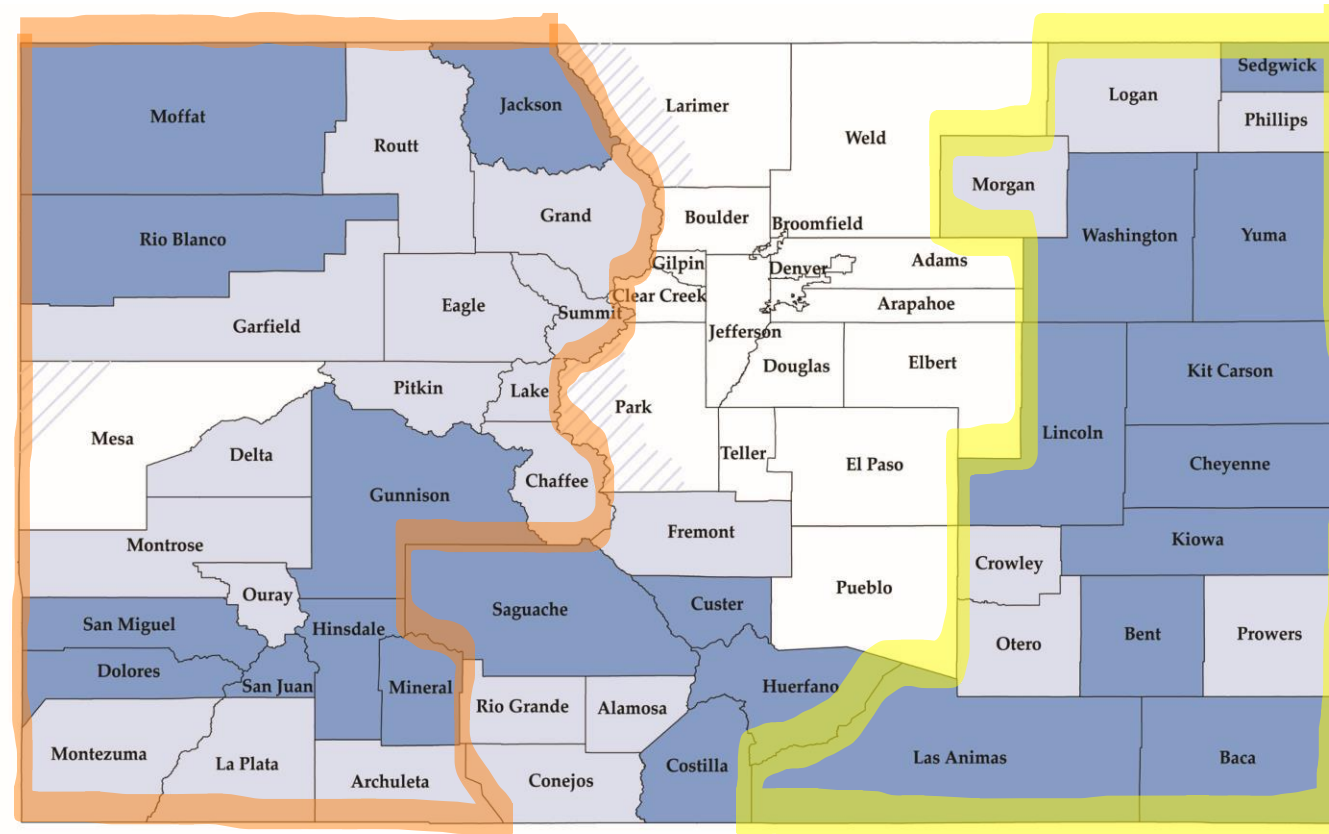


County Classifications

- Urban (17)
- Rural (24)
- Frontier (23)
- Rural areas of Urban Counties (approximate)

0 25 50 miles

Data Source Information:
Site addresses were collected and geocoded by the State Office of Rural Health, current as of January 2016.



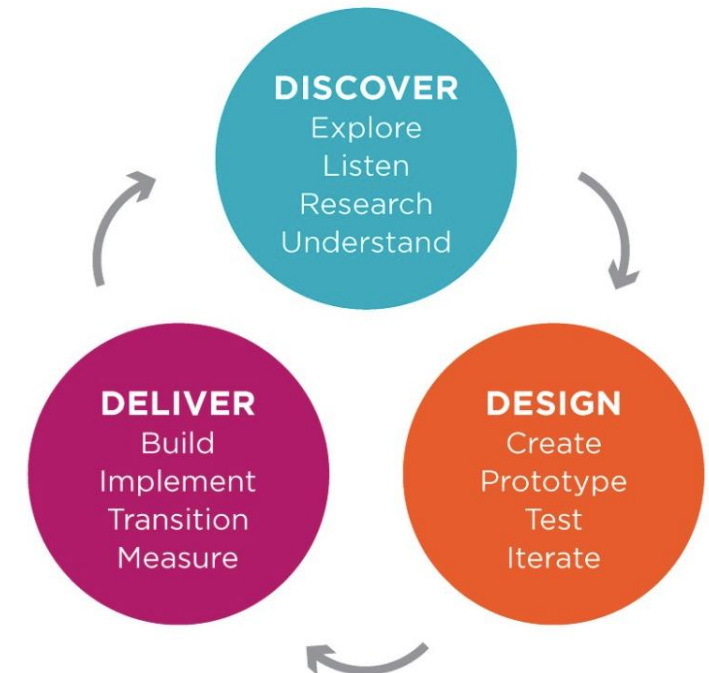
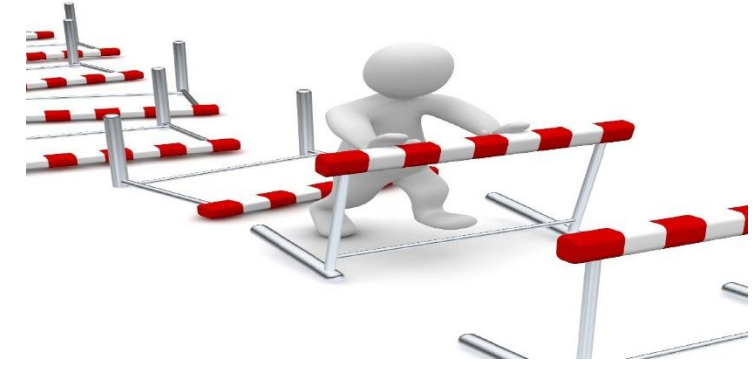
Methods: interviews with stakeholders



- **Representation** in interviews of stakeholders:
 - Future decision aid end-users
 - Rural primary care staff/clinicians/leaders
 - Patients in these rural practices
- Context assessed according to PRISM:
 - Cultural and contextual factors related to LCS
 - Rural clinic characteristics related to LCS

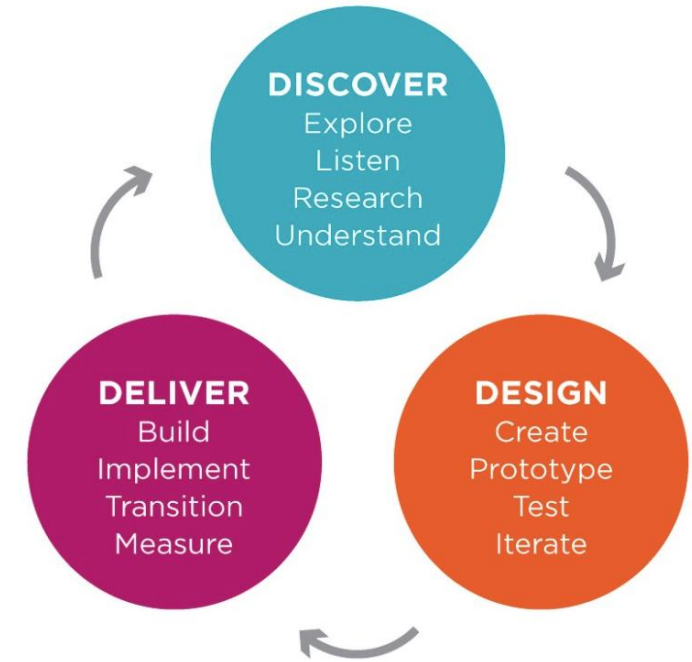
Results: key barriers to SDM

- Clinicians need support to deliver SDM for LCS
 - Not systematically offering LCS to patients
 - Not using decision aids -- too long/complex
- Patients with current/past tobacco use:
 - Mixed opinions about LCS
- Opportunity to introduce LCS systematically
 - Co-create a decision aid



Co-creation of decision aid

- Human-centered design process
 - Support clinician/staff: Pros and Cons of LCS
 - Keep it simple for patients: visuals + text
 - Based on International Decision Aids standards*
- **Representation:** iterated with LCS researchers, rural clinicians and leaders, rural patients and community advisory members
 - 17 cycles of iteration over 12 months
 - Iterations sought to balance simplicity, usability, and required elements



*Volk RJ, et al., Ten Years of the International Decision Aids Standards Association, BMC Med Informatics Assoc, 2013.



The Decision: Should I Screen for Lung Cancer?



This decision aid is to help you think about the pros and cons of lung cancer screening, so you can make the right choice for you.

- Lung cancer can occur without symptoms in the early stages and it can grow quickly.
- The goal of lung cancer screening is to find lung cancer early, so that it can be treated and cured.
- Screening for lung cancer uses a low-dose CT or CAT scan to take pictures of your lungs. It takes about 10 minutes, it is painless, and you keep your clothes on during the process

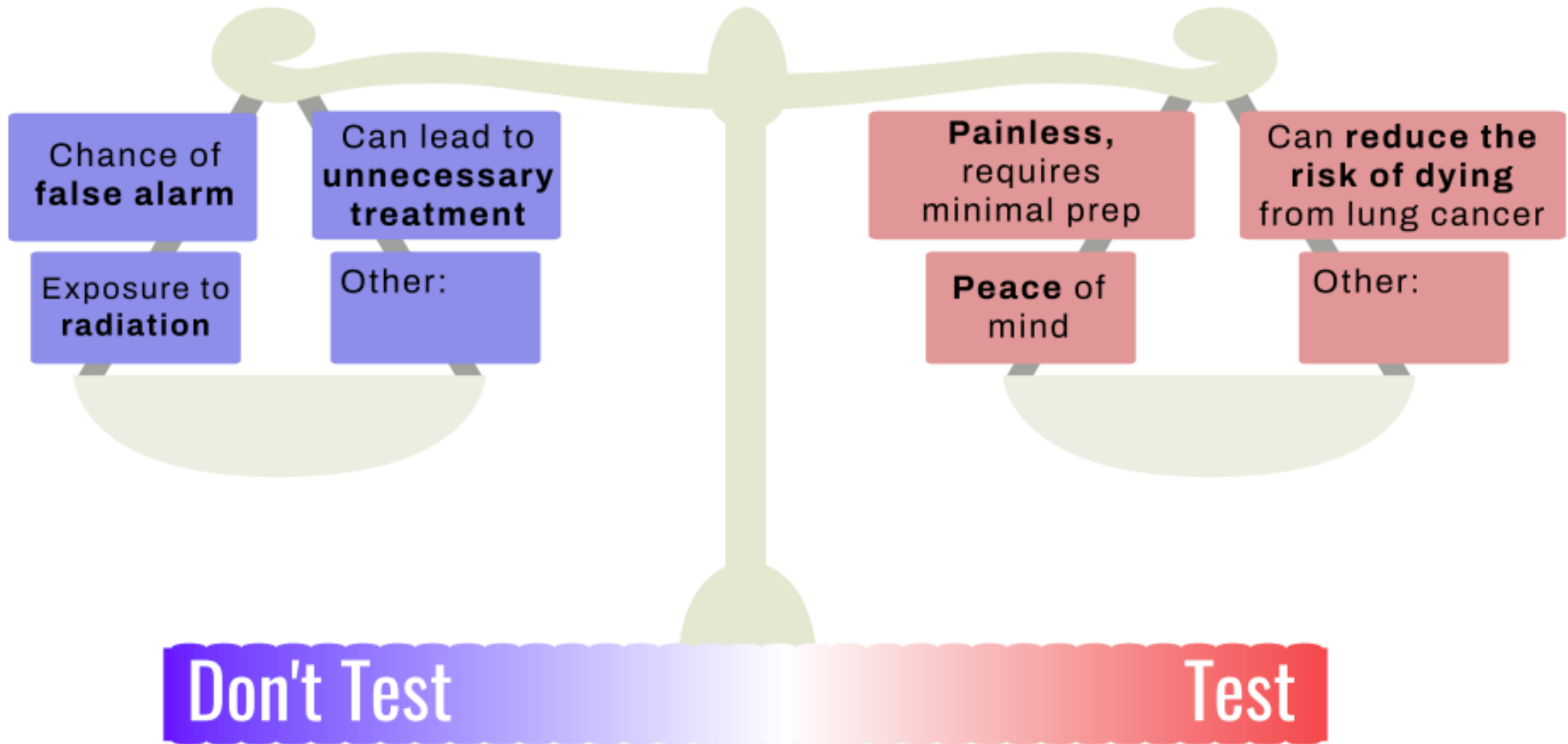
Am I Eligible for Lung Cancer Screening?

To be eligible you must meet all of the following:

- 1 You are 55 – 77 years old
- 2 You smoked at least a pack per day for a total of 30 or more years, or 2 packs per day for a total of 15 years (1 pack = 20 cigarettes)
- 3 You currently smoke or quit less than 15 years ago
- 4 You do not have symptoms of lung cancer (coughing up blood, unexplained weight loss - people with these symptoms need different testing)



What Is the Right Choice For YOU?



Implications for the field

- By co-creating a decision aid to guide SDM for LCS counseling with **representation** from rural stakeholders, there is great potential to **↑equity**:
 - **Representative** adoption of LCS by rural clinics
 - **Representative** reach to rural populations
- Key elements of this co-creation process to **↑equity** and sustainability
 - Use of our PRISM framework that attends to **representation** of stakeholders and **representativeness** of outcomes
 - Tailoring implementation strategies to the multi-level context
 - Tailoring the form of intervention functions to the multi-level context



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