Title Slide: An Analysis of D&I Applications
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Slide 1: Two Analyses*
• Examined summary statements of applications to the Trans-NIH D&I PARs
• Extracted both strengths and weaknesses noted in the summary statements

Included:
- Funded R01s, R03s, and R21s
- Triaged NCI R01s

*with M. Khair ElZarrad, Cancer Prevention Fellow, NCI

Slide 2: Funded R01s, R03s and R21s* 2008-2011 (Rated exceptional, outstanding and very good)
[Bar Graph] R21s = 9; R03s = 3; and R01s = 18 [End Bar Graph]

Slide 3: Strengths of Funded R01s, R21s, and R03s
Significance: The proposal meets the goal of D&I PAR to improve practice through research.
- The proposal tackles a significant health issue.
- The proposal addresses a recognized practice problem or need, and presents the opportunity to fill a knowledge gap.

Slide 4: Sampling strategy and selection criteria
Regardless of the method, sampling strategies and selection criteria are well-articulated and justified.
- Criteria are appropriate to and follow the study aims.
- They are presented with clear explanation and rationale.
- When appropriate to the study aims and methodology, the sample size provides adequate statistical power.
- Detailed statistical considerations and power analysis are offered when appropriate.

Slide 5: Strong Study Teams
Proposals feature strong, experienced, inter-disciplinary study teams.
Strong study teams often:
- Reflect multidisciplinary expertise in terms of skills and disciplines
- Fill any gaps in knowledge or expertise by hiring or collaborating with relevant consultants or outside researchers
- Assure that teams members are sufficiently involved to adequately perform study tasks

Slide 6: Conceptual frameworks
Proposals present relevant and specific frameworks, theories or models to guide their work
Conceptual frameworks can be:
- Clear, appropriate and proven
- Integrated or multidisciplinary
- Multilevel, reflecting ecological or system approaches

**Slide 7: Sustainability**
The proposal might address the sustainability of the project or innovation by:
- Examining the factors leading to sustainability of an intervention
- Incorporating the existing resources (human, infrastructure, information technology systems, etc.) of the implementing site into the design of the study
- Conducting a cost analysis of the innovation, or comparing it to alternatives
- Explicitly evaluating the sustainability of the disseminated/implemented intervention over time

**Slide 8: Use of mixed methods**
The proposal utilizes mixed methods, as encouraged by the PAR. Plans for qualitative analysis are sufficiently detailed and conceptualized. For example, the proposals might:
- present sufficient justification for qualitative analysis
- discuss plans for coding and analyzing collected data
- present a potential interview guide
- indicate a method for triangulating interpretation
- consider inter-rater reliability and the role of the interviewer/interpreter
- plan for pre-testing and revision of interview questions

In addition, qualitative and quantitative analyses are often integrated, informing each other to present a comprehensive picture.

**Slide 9: Feasibility and Generalizability**
D&I is concerned with real-world applicability of interventions and innovations. Proposals might demonstrate feasibility and generalizability by:
- Adequately considering or directly investigating barriers and facilitators to implementation
- Explicitly assessing the feasibility/acceptability of an intervention in a given setting
- Presenting evidence (e.g. preliminary data, results from pilot work) that the project is feasible, particularly for R01s
- Presenting appropriate project planning to demonstrate the research is itself feasible in terms of budget, human resources, and timeline
- Showing potential relevance to other systems, settings or populations
- Demonstrating that findings will not be limited to one field but are broadly applicable and relevant to D&I, helping to advance the field as a whole.

**Slide 10: Targeting diverse, underserved and understudied populations and settings**
D&I research is innovative because it reaches populations that may be ignored or underrepresented in traditional research. The proposal might:
- Address health disparities
Target underserved populations
Consider the social and cultural characteristics of the community in the design and conduct of the study

**Slide 11: Community Collaboration**

*Studies commended for strong community collaboration:*

- Included participatory methods, perhaps forming a community advisory board to guide decision making
- Included well-delineated plans for stakeholder involvement
- Demonstrated that the needs and characteristics of the community informed the proposal
- Sought to experimentally test the effects of bottom-up, participatory approaches
- Demonstrated strong partnerships with communities and community-based organizations (often through letters of support, completion of prior projects together, community members or organizations taking responsibility for parts of the implementation).

**Slide 12: Potential for advancing the methods of dissemination and implementation**

To advance the field, a proposal might:

- Investigate the process of adaptation
- Compare adaptation vs. fidelity approaches
- Experimentally compare different methods of dissemination
- Introduce novel / innovative methods that reach underserved populations with new tools

**Slide 13: Noted Weaknesses of Triaged NCI R01s**

(2010-2012)
10 applications

1. The proposal fails to clearly articulate its overall **significance, aims, relevance to the field of D&I, or generalizability and feasibility for broader settings and populations.**

2. The proposal fails to adequately articulate its **framework, theoretical background and conceptual models.** As a result, there may be design, methodological or conceptualization problems that could inhibit the ability of the proposals to answer the stated research questions.

**Slide 14: 1. The proposal fails to clearly articulate its overall significance, aims, relevance to the field of D&I, or generalizability and feasibility for broader settings and populations.**

- **Poor generalizability** of the intervention to other real-world settings (due to costs, recruitment procedures, specific tools)
- Little **preliminary evidence** justifying implementation or dissemination of the intervention
- Inconsistent aims, **undear** hypothesis, or poorly articulated central question.
- The intervention or innovation to be disseminated/implemented is **not sufficiently described.**
- Focus on scale-up or replication without indicating how it can **advance D&I more broadly**
Slide 15: 2. The proposal fails to adequately articulate its framework, theoretical background and conceptual models. As a result, there may be design, methodological or conceptualization problems that could inhibit the ability of the proposals to answer the stated research questions.
- Absent, unclear or inappropriately applied conceptual / theoretical framework resulting in limited contribution to the D&I field.
- Study is not founded on a solid conceptual or theoretical framework. The conceptual framework may be unclear, unproven and lacking an evidence base, or unsophisticated and lacking a comprehensive ecological/multi-level perspective.

Slide 16: Continued...
- Variables and their associated measures are insufficiently described, insufficiently specified, unvalidated, inappropriate to the overall aims, or collected at time points that make them less useful or difficult to compare to the relevant literature; measures of fidelity are not comprehensive.
- Unexplained inclusion and exclusion criteria for the selection of organizations, clinics, or respondents
- Plans for Community Based Participatory Research are vague.
- Insufficient description of study design including approach and methods. In particular, the approach, plan and resources for qualitative analysis may be insufficient or vague.

Slide 17: Thank you!
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http://cancercontrol.cancer.gov/IS/

Slide 18: HHS, NIH, and NCI logos.