

## **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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**Slide 18: HHS, NIH, and NCI logos.**