Research and Evaluation Designs to Help Communities Improve their Children's Health

C Hendricks Brown
Feinberg School of Medicine, Northwestern University

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Key Points

1. Where researchers need to start: Learn from community
2. Designs for single communities
3. Designs involving a small number of communities
4. Scientific Equity

Northwestern Medicine

Bronzeville DREAM CENTER Intervention Prevention Workforce Development Parenting

BRIGHT STAR community outreach

"Promoting Unity In Our Community"

THE UNIVERSITY OF CHICAGO MEDICINE

LIVE UNITED United Way United Way of Metropolitan Chicago

Quad Communities Development Corporation

Community Economic development & Workforce

Bronzeville Dream Center Initiative

CHICAGO PUBLIC SCHOOLS CPS

Educational and Behavioral Services

CDC funded National Academic Center of Excellence in Youth Violence Prevention (Gorman Smith, Brown, Harris)

Communities that Care (CTC) implementation and evaluation of Youth Prevention Programs to Prevent Violence in a single urban community with many other components going on.

communities that care

Prevention System

NATAL Israel Trauma Center For Victims of Terror and War

Faith-led Trauma Focused Postvention System

1. Where researchers need to start: Learn From and be Guided by the Community

First rule of public health is

“Don’t get kicked out of the community”

– Sheppard Kellam, Admin Policy Mental Health, 2012

Research agenda is one portion of the community agenda.

Second rule of public health is

“Knowledge and Guidance by the community can <u>extend</u> and <u>improve</u> research, not limit it.”

Examples of What Bronzeville Community is Contributing

- Community and Political Organization
- Entr*e* into schools and completion of the youth survey
- Additional adult survey
- **Feedback of survey information to shape community norms**
- “Treatment as Prevention” reduce retaliation
- Opportunity to Fill in Scientific Holes

2. Filling Scientific Holes: Design approaches for single community

- Embed CTC within a Tapestry of existing programs and services and socio-political contexts

A. Design: Compare w/ Current Data

Violent Crime Outcome: Regress Point Displacement Design
Wyman et al., 2016

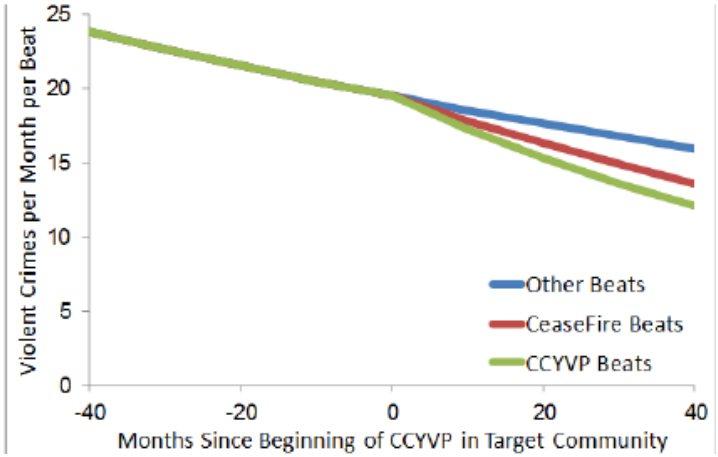
B. Design: Compare w/ Historical Data

Implementation milestones & benchmarks E. Brown 2011
Protocol Deviations from CTC
Control Charts to Monitor and Provide Feedback

C. Test "one-off" interventions in different context

Design: Randomized Effectiveness Trial

Figure 4: Reductions in Violent Crime by Beat Type



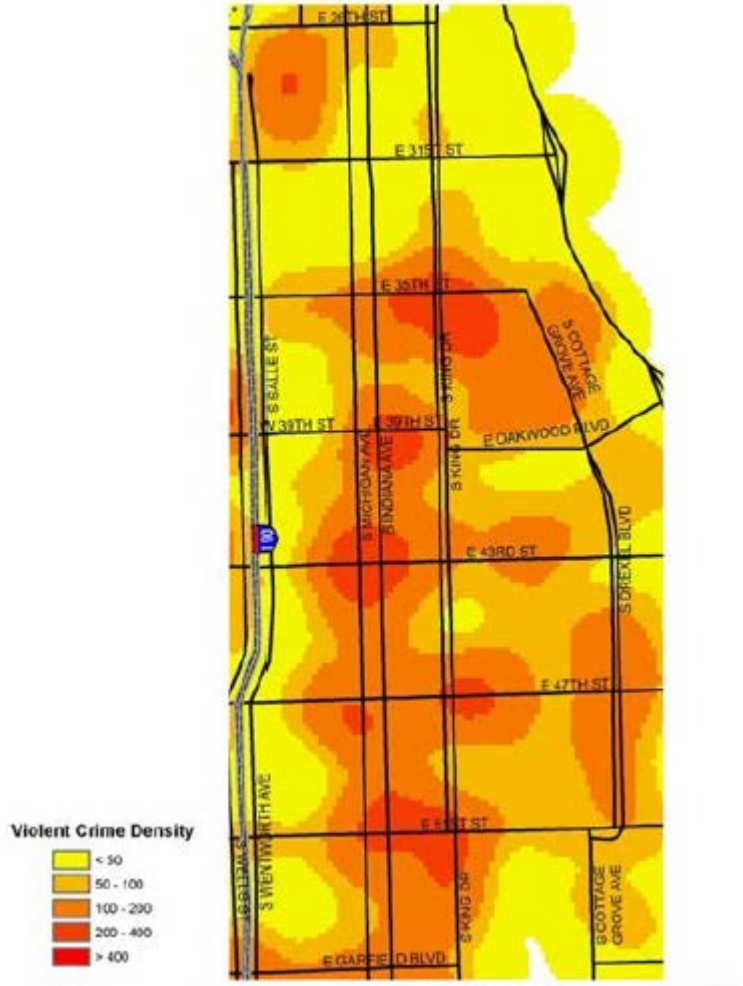
D. Examine Mediation Mechanism through 28 Neighborhoods – Census Tracts – in Bronzeville

Neighborhood Youth Exposure to CTC & Other Programs

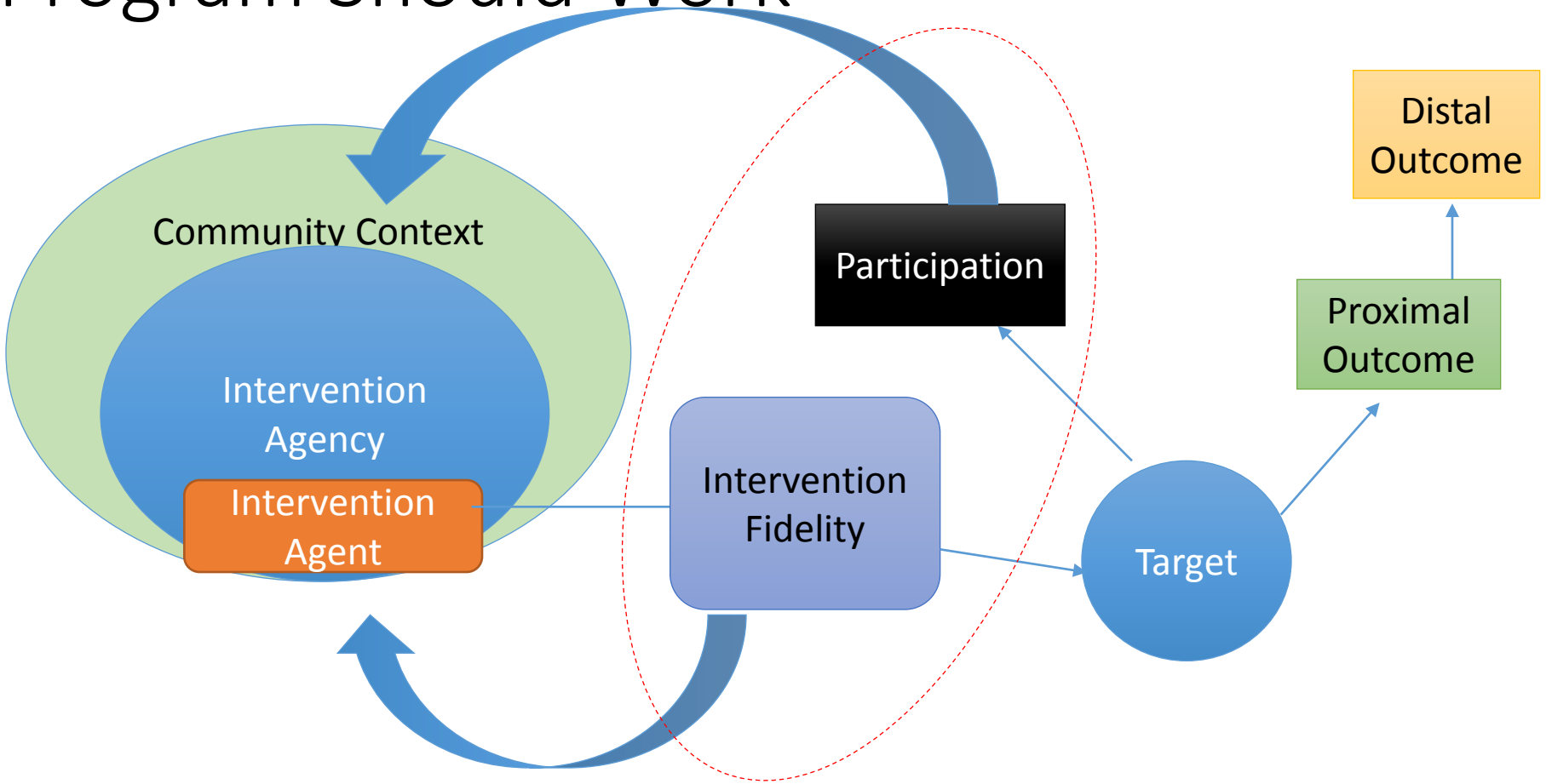
Neighborhood Adult Networking and Social Processes

Neighborhood Violence

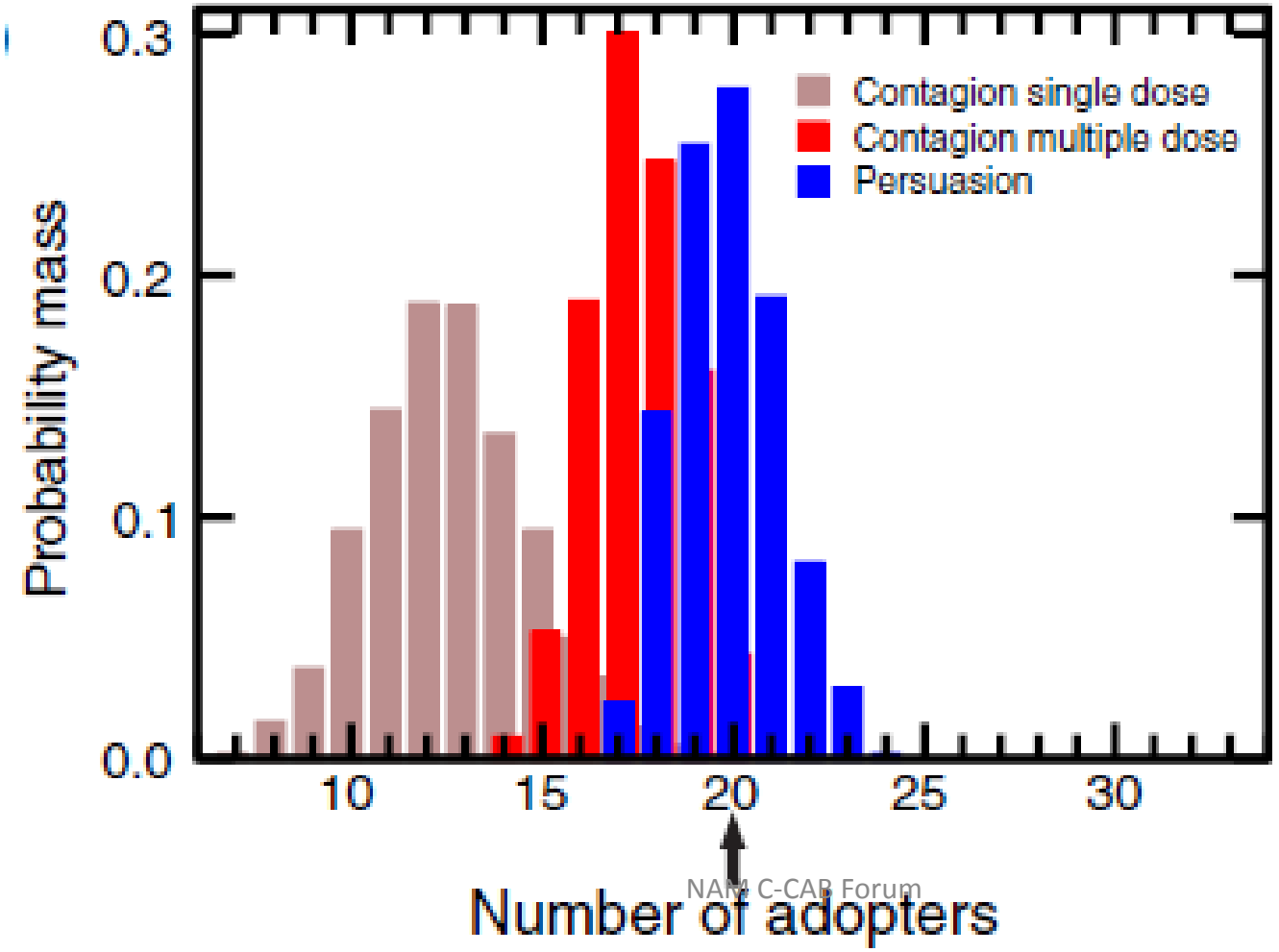
Figure 7: Bronzeville Violent Crime Density



Neighborhood Youth Exposure: How a Program Should Work



Adult Networking & Social Processes Agent-Based (simulation) Modeling to Test Alternative Diffusion Mechanisms Weiss et al., 2014



3. Roll-Out Randomized Designs involving a small to moderate number of communities

When communities don't want to be left out of a potentially beneficial intervention, i.e., don't want traditional controls

All communities must receive an active intervention

Randomize When a Community Receives Intervention

Fair

True Tradeoff for going early or later

True randomized experiment

Dynamic Wait-Listed Designs – Brown et al., 2006

Stepped Wedge – Brown & Lilford 2006

Roll-Out Designs – Wyman et al., 2016

4. Scientific Disparity → Scientific Equity

- Health Equity: "....everyone should have a fair opportunity to attain their full health potential"
- Scientific Equity: "equality and fairness in the amount of scientific knowledge that is produced to understand the potential causes and solutions to existing health disparities" Brown et al., 2013, Perrino et al., 2015.

  Preventive Trials – disparity-specific trials IOM 2009

  Hispanics 4% (8/183) African American 9% (11/183)

There is not enough Research Findings to Guide Communities in all they want to do.

Community Research Has the Opportunity to Enhance Scientific Equity

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