



18 May 2021

Boulder, Colorado / Zoom

Prevention Science Methodology Group

Webinar

Addressing Health Equity and Social Justice within Prevention Registries: *Blueprints for Healthy Youth Development*

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Co-PI, *Blueprints for Healthy Youth Development*
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Institute of Behavioral Science
University of Colorado Boulder



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Thank you (!!!) Hendricks Brown, Velma McBride Murray, George Howe and Gracelyn Cruden & Nanette D. Hannah!

PSMG: Prevention scientists conducting cutting edge randomized trials and expert methodologists who are committed to addressing the key design and analysis problems of prevention research.





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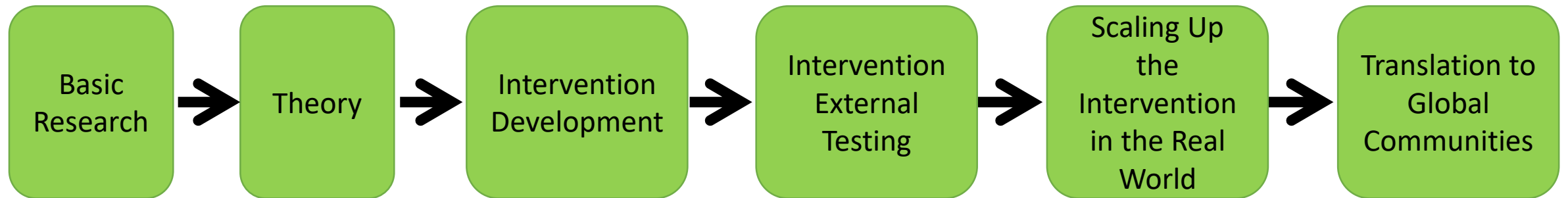
This series is designed to prompt thoughtful, critical, action-oriented conversations about ways to re-tool, re-build, and re-envision the role of prevention science to address racism and discrimination, using social justice and health equity lenses.

We hope that this series will not only question the status quo, but offer new insights on scientific questions, conceptual and theoretical frameworks, methodological approaches, measurement strategies, interventions, and conclusions about how to promote social justice and health equity.

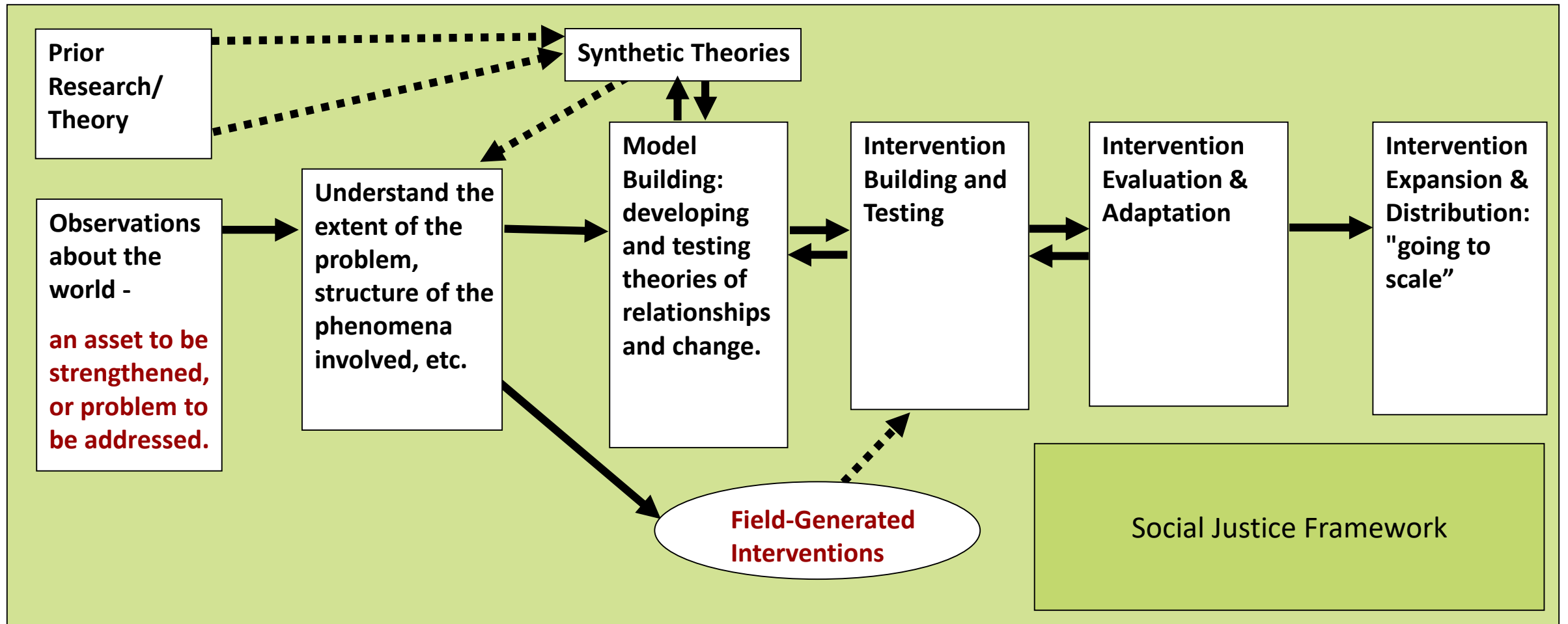
For whom do the interventions
developed in our field work or not work?



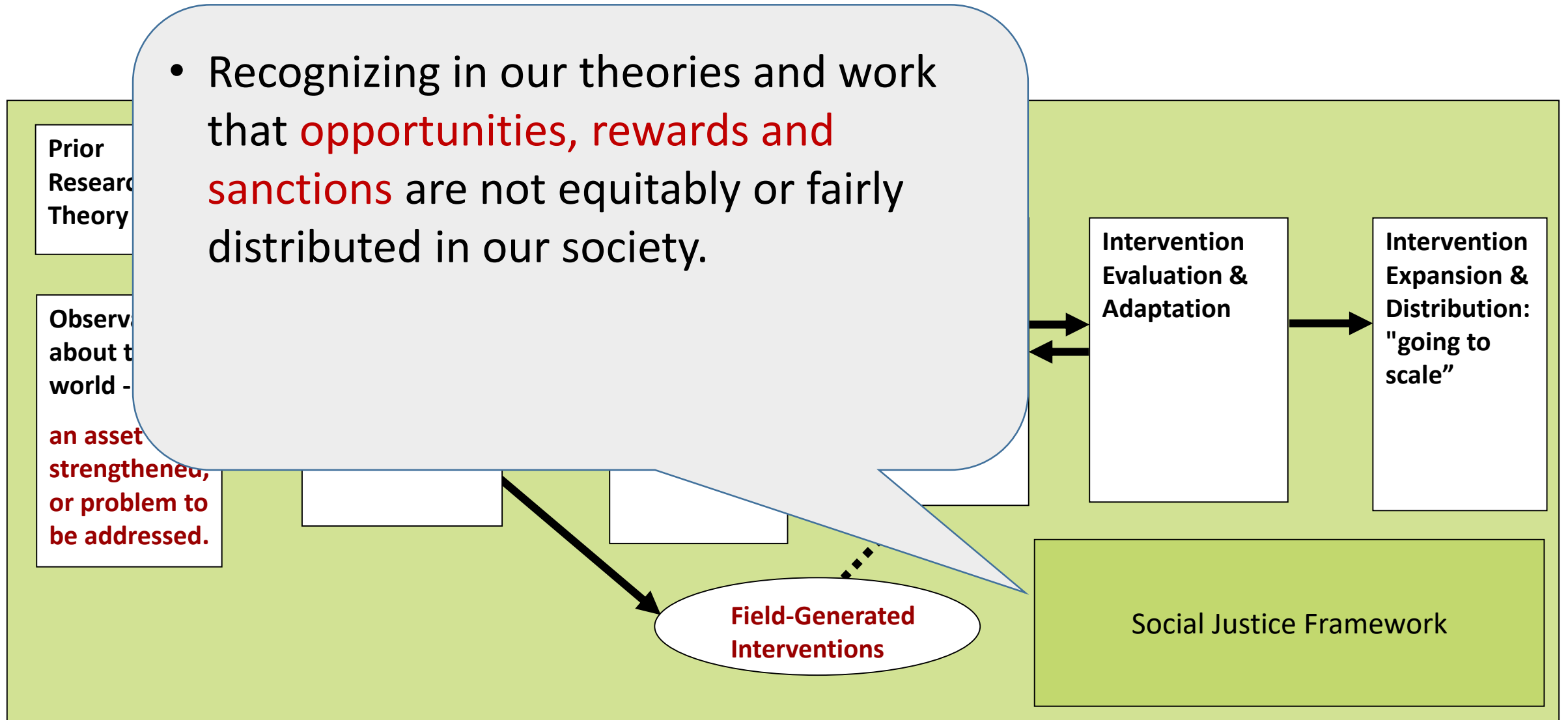
The Prevention Research Cycle



Prevention/Health Promotion: A Researchers' Perspective



Prevention/Health Promotion: A Researchers' Perspective





African-American youth are

9 TIMES



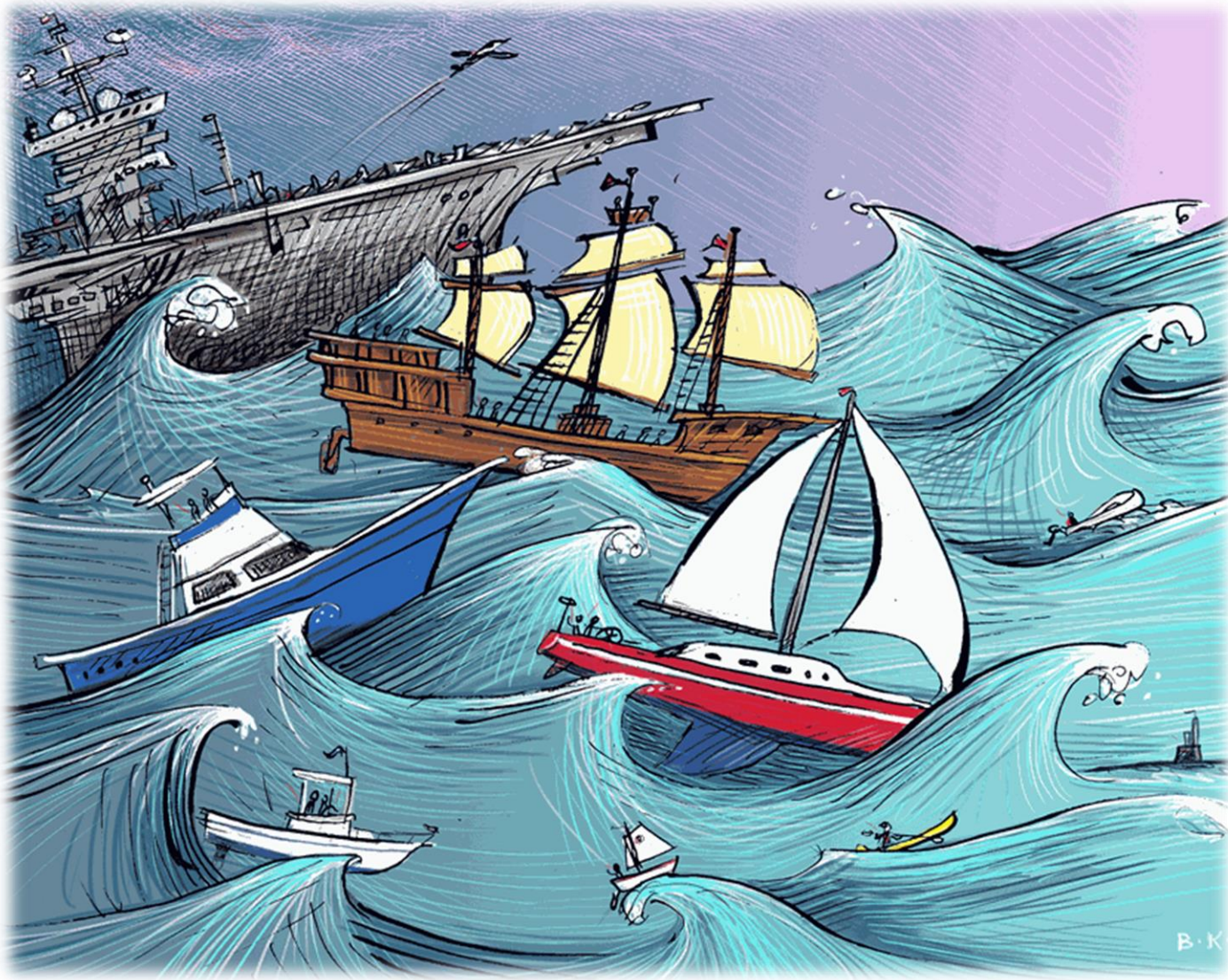
and Latino youth are

4 TIMES



more likely than white youth to receive an adult prison sentence for the **SAME CRIME.**





We are in the same storm, but not in the same boat.

Different populations experience different challenges in prevention.

Prevention/Health Promotion: A Researchers' Perspective

- Recognizing in our theories and work that **opportunities, rewards and sanctions** are not equitably or fairly distributed in our society.
- Engaging in **equal partnerships** with participants and community members in our research.

Prior Research Theory

Observations about the world -

an asset to be strengthened, or problem to be addressed.

...involved, etc.

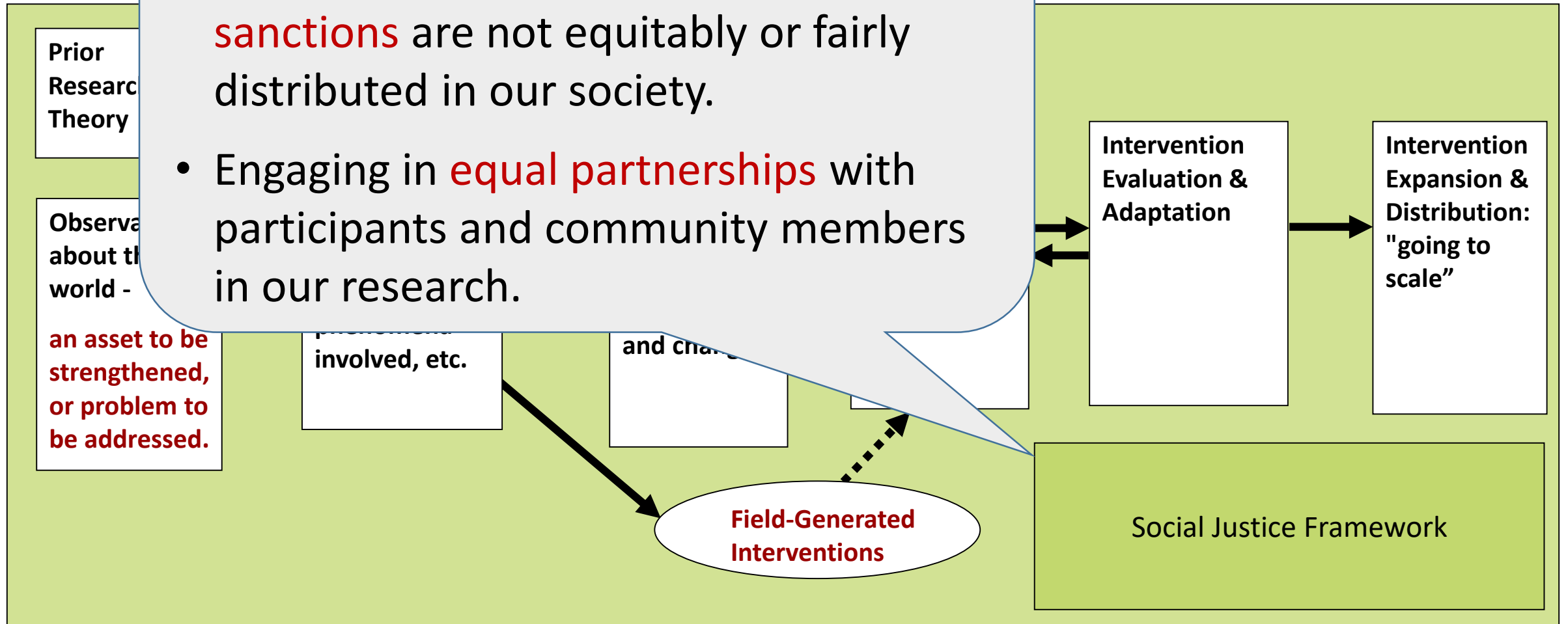
...and change

Field-Generated Interventions

Intervention Evaluation & Adaptation

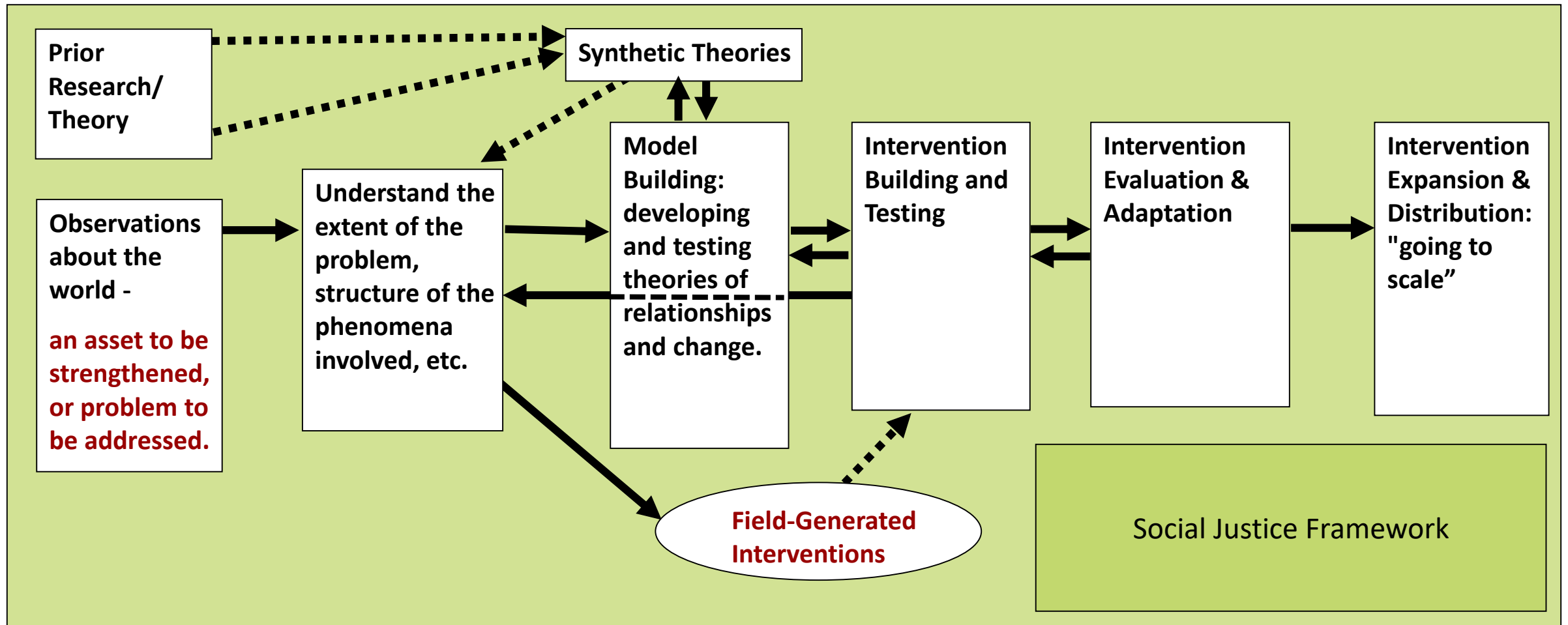
Intervention Expansion & Distribution: "going to scale"

Social Justice Framework



Prevention/Health Promotion: A Researchers' Perspective

How can we ensure that our intervention is producing the most positive impact for each community who elects to adopt it?




Community Members' Perspective



How can we effectively address youth drug use, violence and related outcomes?

How do we help our children thrive?

A Policymaker/Agency Perspective



First Regular Session | 73rd General Assembly
Colorado General Assembly

Visit & Learn | Find My Legislator | Watch & Listen

Apply

SESSION SCHEDULE | BILLS | LAWS | LEGISLATORS | COMMITTEES | INITIATIVES | BUDGET | AUDITS | PUBLICATIONS | AGENCIES

HB21-1276
Prevention Of Substance Use Disorders
Concerning the prevention of substance use disorders.

SESSION: 2021 Regular Session

SUBJECT: Health Care & Health Insurance

BILL SUMMARY

Section 2 of the bill requires a health benefit plan issued or renewed on or after January 1, 2023, to provide coverage for nonpharmacological treatment as an alternative to opioids. The required coverage must include, at a cost-sharing amount not to exceed the cost-sharing amount for a primary care visit for nonpreventive services and without a prior authorization requirement, at least 6 physical therapy visits, 6 occupational therapy visits, 6 chiropractic visits, and 6 acupuncture visits per year. **Section 3** requires an insurance carrier (carrier) that provides

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Chris Kennedy



Representative
Leslie Herod



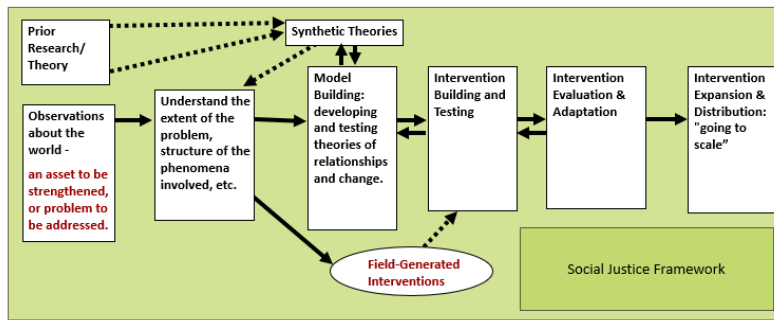
Senator
Brittany Pettersen



Senator

How can we know that we are funding and implementing the most effective programs for our communities?

How do we not waste taxpayer dollars?



First Regular Session | 73rd General Assembly
Colorado General Assembly

SESSION SCHEDULE | BILLS | LAWS | LEGISLATORS | COMMITTEES | INITIATIVES | BUDGET | AUDITS | PUBLICATIONS | AGENCIES

HB21-1276
Prevention Of Substance Use Disorders
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PRIME SPONSORS

Representative
 Chris Kennedy

Representative
 Leslie Herod

Senator
 Brittany Pettersen

Senator

- Researchers: *How can we ensure that our intervention is producing the most positive impact for each community who elects to adopt it?*
- Community Members: *How can we effectively address youth drug use and violence?*
- Policymakers/Agency Staff: *How can we know that we are funding and implementing the most effective programs for our communities?*



Blueprints!



[FIND PROGRAMS](#) [BLUEPRINTS CERTIFICATION](#) [NEWS & EVENTS](#) [FAQS](#) [ABOUT BLUEPRINTS](#)

PROVIDING A REGISTRY OF

Experimentally Proven Programs



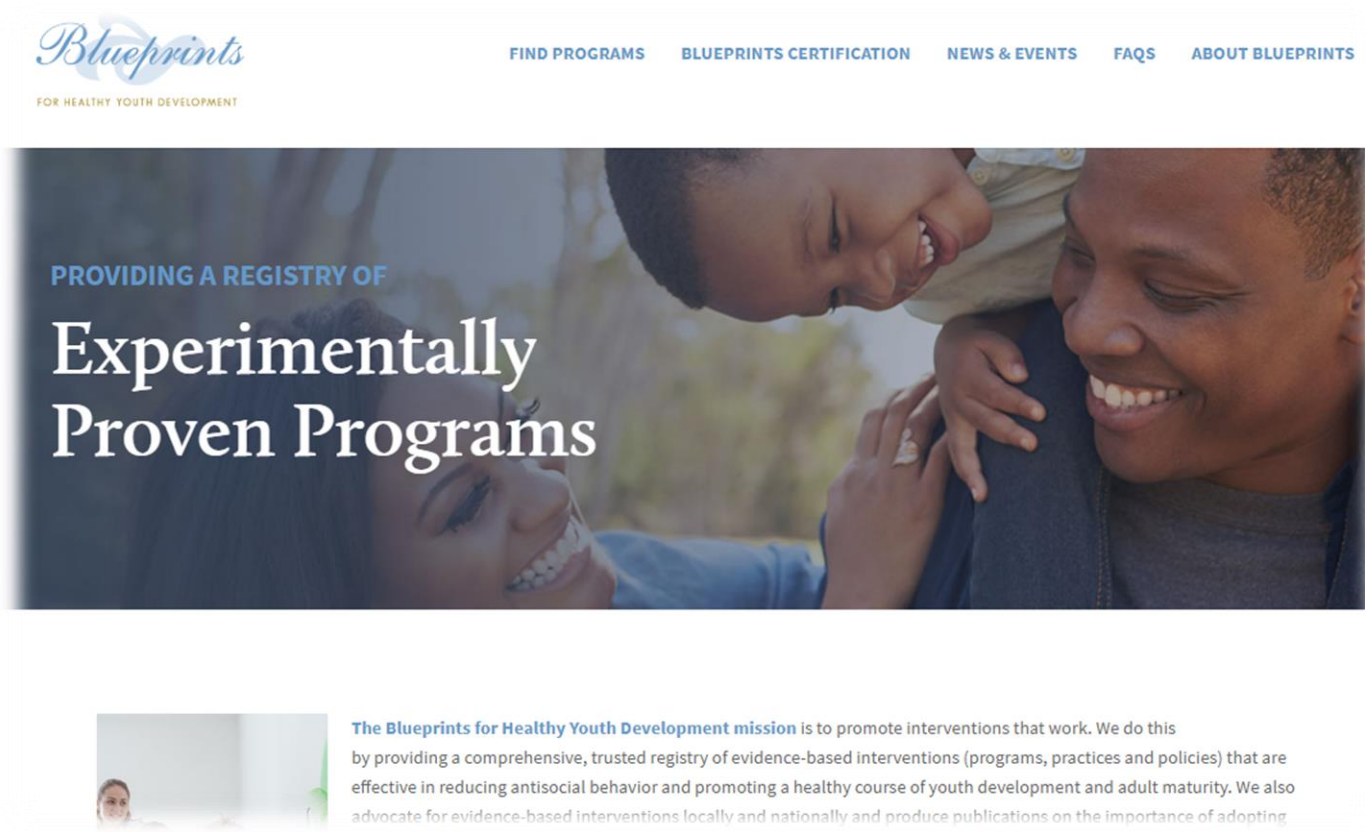
The Blueprints for Healthy Youth Development mission is to promote interventions that work. We do this by providing a comprehensive, trusted registry of evidence-based interventions (programs, practices and policies) that are effective in reducing antisocial behavior and promoting a healthy course of youth development and adult maturity. We also advocate for evidence-based interventions locally and nationally and produce publications on the importance of adopting

A web-based registry of *experimentally proven programs* (EPPs) promoting the most rigorous scientific standard and review process for certification.

www.blueprintsprograms.org



What is Blueprints for Healthy Youth Development?



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What is Blueprints for Healthy Youth Development?



[FIND PROGRAMS](#) [BLUEPRINTS CERTIFICATION](#) [NEWS & EVENTS](#) [FAQS](#) [ABOUT BLUEPRINTS](#)

PROVIDING A REGISTRY OF

Experimentally Proven Programs



The Blueprints for Healthy Youth Development mission is to promote interventions that work. We do this by providing a comprehensive, trusted registry of evidence-based interventions (programs, practices and policies) that are effective in reducing antisocial behavior and promoting a healthy course of youth development and adult maturity. We also advocate for evidence-based interventions locally and nationally and produce publications on the importance of adopting

Goal:

To provide researchers, communities and policymakers/agencies with a trusted guide to interventions that work.

www.BlueprintsPrograms.org





www.blueprintsprograms.org



Each Certified Intervention has a Fact Sheet including

- Program Name and Description
- Developmental/Behavioral Outcomes
- Risk/Protective Factors Targeted
- Risk/Protective Factors Impacted
- Contact Information/Program Support
- Target Population
- Program Rating and Effect Size
- Operating Domain: Individual, Family, School, Community
- Logic/Theory Model
- Program Costs: Unit Costs, Start-Up, Implementation, Fidelity Monitoring, Budget Tool
- Cost Benefit/Return On Investment (When Available): Net Unit Cost-Benefit, Benefits
- Funding Overview, Financing Strategies
- Program Materials
- References

Role of Blueprints in this process

Recommended
to communities
to go to scale

Very Strong Research Evidence
Sustained effect
Ready to go to scale

Strong Research Evidence
Sustained effect
Ready to go to scale

Moderate Research Evidence
Suggested for further testing

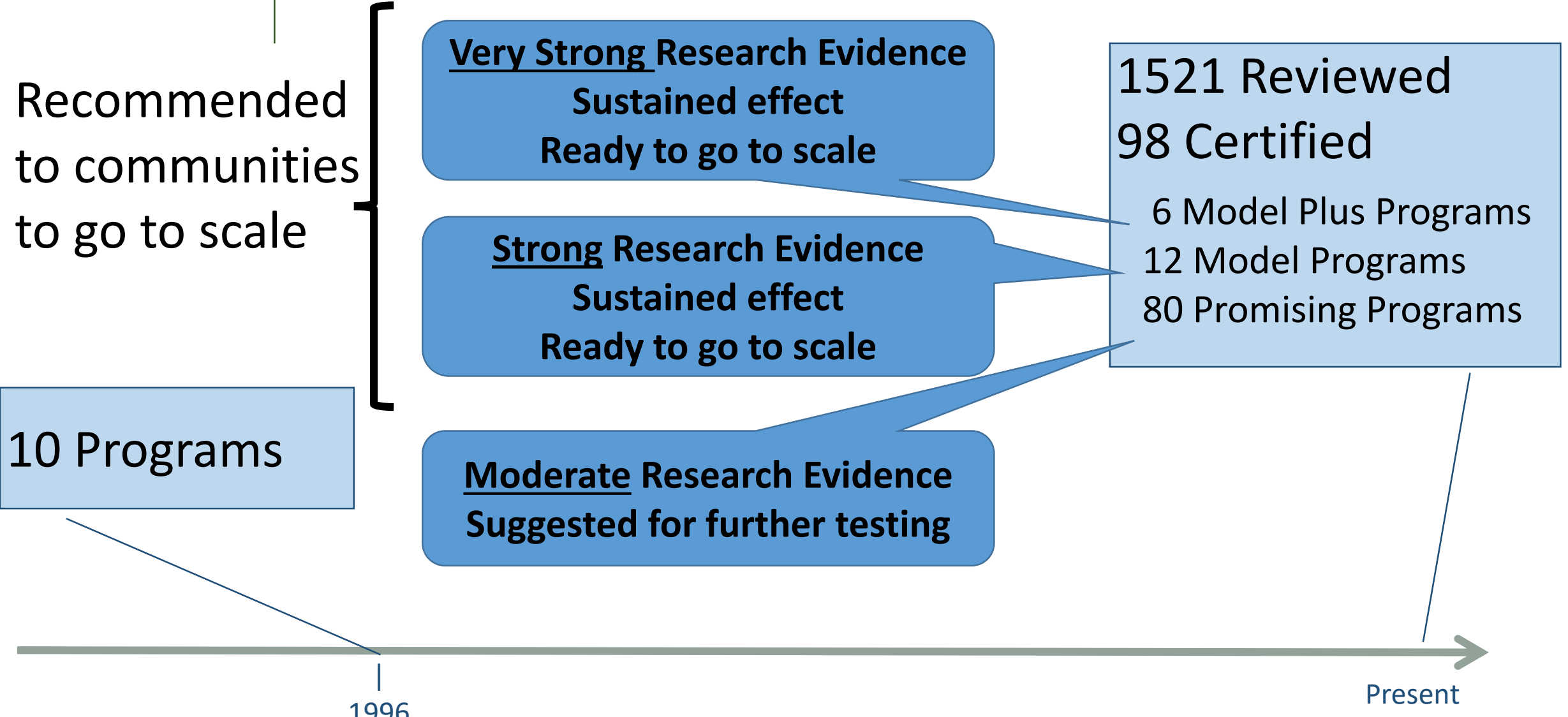
1521 Reviewed
98 Certified

6 Model Plus Programs
12 Model Programs
80 Promising Programs

10 Programs

1996

Present



Role of Blueprints in this process

- **Intervention Specificity:**
participants/outcomes/logic model/
intervention implementation
- **Evaluation Quality:** Is the evidence strong?
- Did the intervention have a meaningful **impact?**
- **Dissemination Readiness:** Is the intervention ready for distribution?

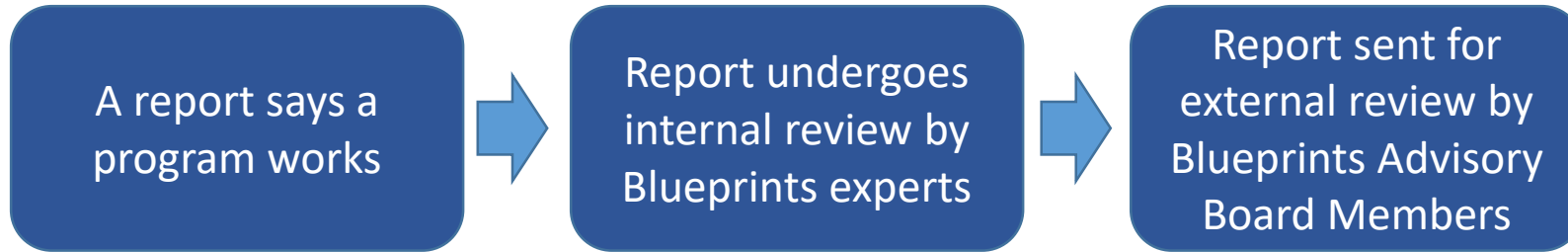
1521 Reviewed
98 Certified
6 Model Plus Programs
12 Model Programs
80 Promising Programs

1996

Present



Blueprints Certification Process



Program Name:

Author(s):

Primary Criteria

Yes ? No

1. High-Quality Design:

2. Sample Ns Tracked:

3. Measures Independent:

4. Measures Valid/Reliable:

5. Behavioral Outcome Measure:

6. Intent-to-Treat:

7. Proper Level:

8. Baseline Outcome Controls:

9. Baseline Equivalence:

10. Differential Attrition Minimal:

11. Tested Baseline-by-Condition Attrition:

12. Posttest Effect on Behavioral Outcome:

13. Iatrogenic Free:

Model Criteria

14. Long-Term Effect on Behavioral Outcome:

Secondary Criteria

15. Effects on R&P Factors:

16. Sample General:

17. Fidelity of Implementation:

18. Effect Sizes:

19. Mediation Analysis:

Summary

20. Recommended for BP Board:

21. For Board Review Only, Is There a Trial Registration:



Blueprints Advisory Board

Distinguished board with expertise in research design and methodology from a variety of disciplines



Thomas Cook



Delbert Elliott



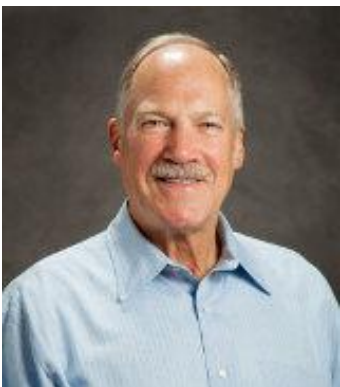
Abby Fagan



Frances Gardner



Denise Gottfredson



J. David Hawkins



Larry V. Hedges



Karl G. Hill

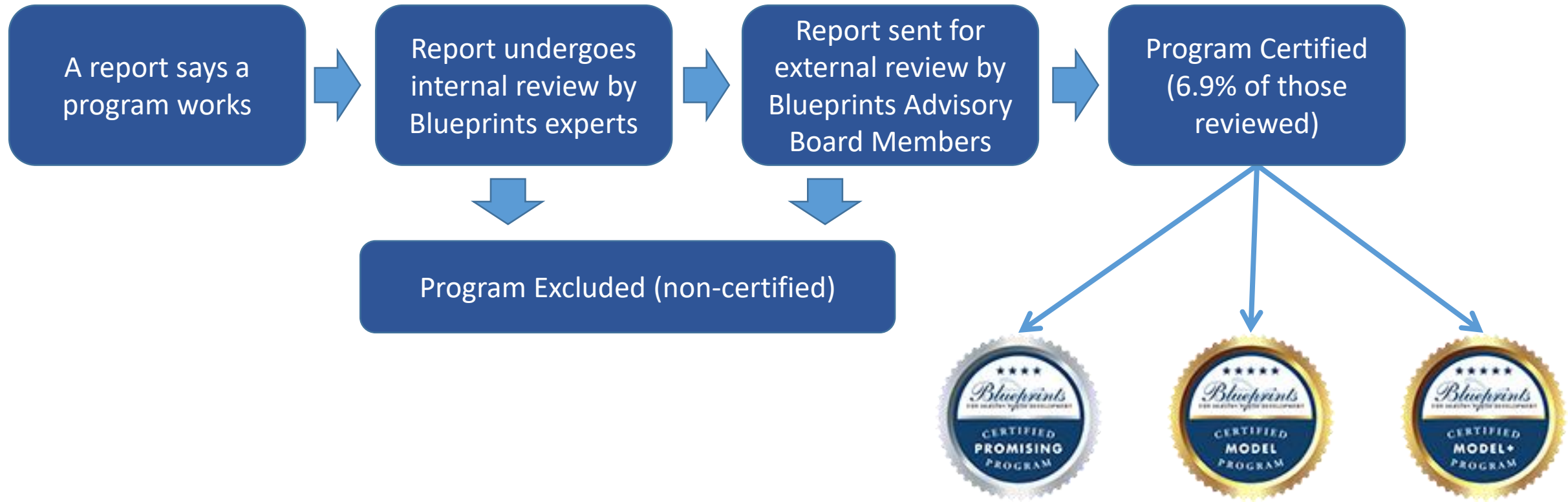


Velma Murray



Patrick Tolan

Blueprints Certification Process

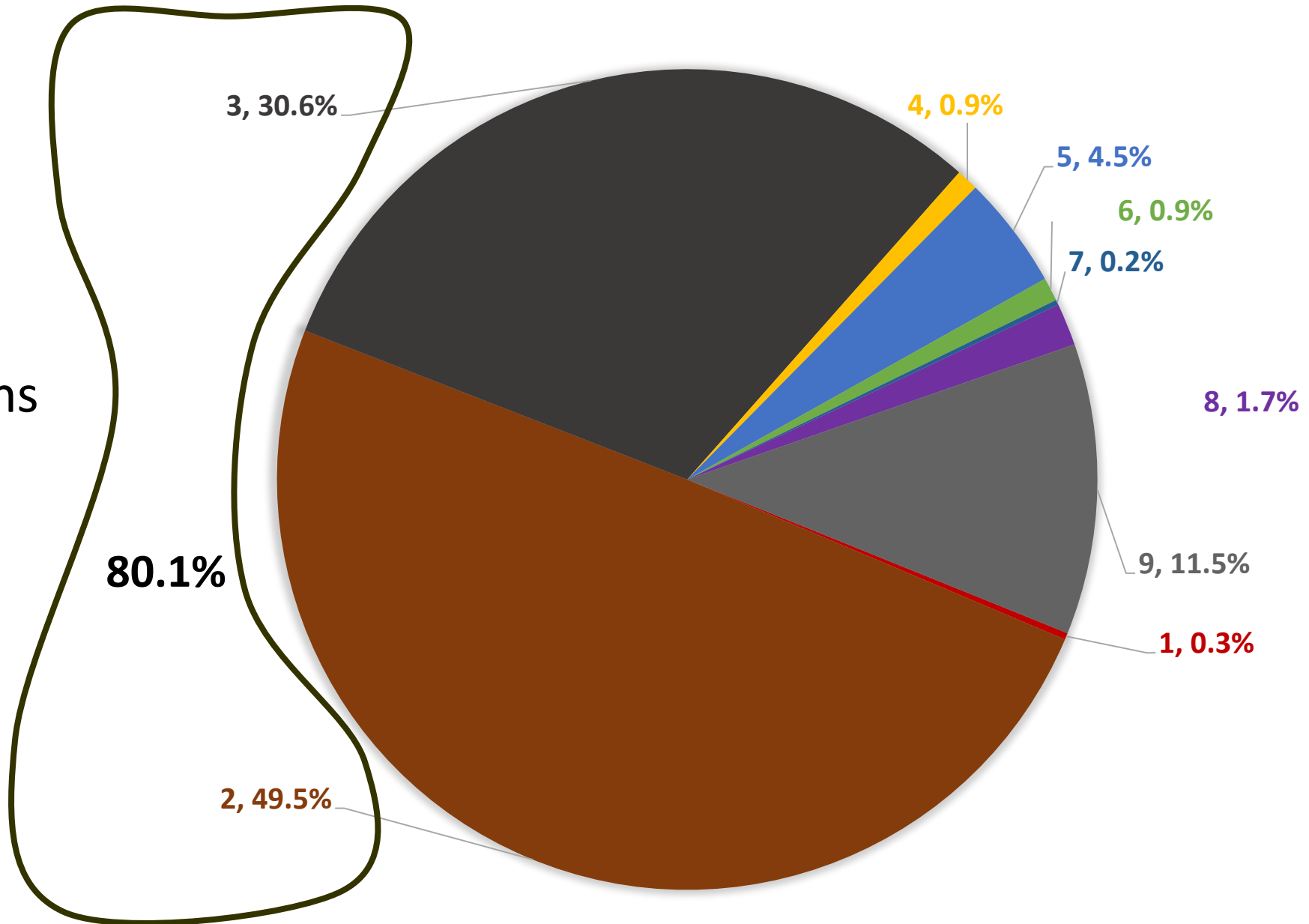


Blueprints Classification Framework Criteria

The chart below shows the minimum criteria for each effectiveness category in the Blueprints classification framework. It reflects the predominant effect of quality evaluations when multiple trials are available. A more detailed explanation of the criteria for the categories follows the chart.

	Evaluation Design	Significant Effect	Sustained Effect	Successful Replication	Research Design Issues
Model Plus	2 Randomized Controlled Trials (RCT), or 1 RCT and 1 Quasi-Experimental Design (QED)	Blueprint behavioral outcome $p < .05$	Yes	Independent replication in 1 study	Satisfies all
Model	1 RCT and 1 Replication (RCT or QED)	Blueprint behavioral outcome $p < .05$	Yes	1 RCT or 1 QED	Satisfies all
Promising	1 RCT, or 2 QEDs	Blueprint behavioral outcome $p < .05$	No	No	Satisfies all
Ineffective	1 RCT or 2 QEDs	Blueprint behavioral outcome with Null effects	No	No	Satisfies most
Harmful	1 RCT or 2 QEDs	Blueprint behavioral outcome with significant harmful effects	No	No	Satisfies most
Inconclusive Evidence	RCTs or QEDs	contradictory or weak findings; evidence can't be fully supported by design; only 1 quality QED	No	No	Some methodological problems
Insufficient Evidence	Major design flaw No control group No Evaluation	Design too weak to support findings; or no evaluation or control group	No	No	Flawed experimental design or non-experimental design

N=1521
Interventions
Reviewed
to date



The two most common problems

- Failure to establish **baseline equivalence** or deal with baseline non-equivalence
- Failure to test for or deal with **differential attrition by intervention condition**



Common Methodological Problems in Randomized Controlled Trials of Preventive Interventions

Christine M. Steeger, Pamela R. Buckley, Fred C. Pampel, Charleen J. Gust, Karl G. Hill

(under review)



And now, for an even BIGGER problem
Blueprints is struggling with...

For whom do the interventions developed in our field work or not work?





Many interventions on these registries were developed and tested in one population...

...but now we would like to implement them in other populations.



- Should we assume that the intervention will not work without adaptation?
- Or should it be implemented exactly as designed in the new community with high fidelity?



Many interventions on these registries were developed and tested in one population...

...but now we would like to implement them in other populations.



Can interventions be transported cross-culturally?

Transportability of interventions across cultures

- One view is that preventive interventions are effective in new cultural contexts
 - only if there is an extensive multi-stage adaptation process (Castro, et al.)
 - if there is limited “cultural distance” between the populations (Sussman, et al.)
- However, meta-analyses of cross-country transportability do not necessarily support this.

Transportability of interventions across cultures

Journal of Clinical Child & Adolescent Psychology, 45(6), 749–762, 2016
Published with License by Taylor & Francis Group, LLC
ISSN: 1537-4416 print/1537-4424 online
DOI: 10.1080/15374416.2015.1015134



Transporting Evidence-Based Parenting Programs for Child Problem Behavior (Age 3–10) Between Countries: Systematic Review and Meta-Analysis

Frances Gardner, Paul Montgomery, and Wendy Knerr
Centre for Evidence-Based Intervention, Department of Social Policy and Intervention, University of Oxford

Gardner, et al. (2016)



Frances Gardner

Examined 17 studies that transported four parenting interventions.

Three were originally designed and tested in the United States

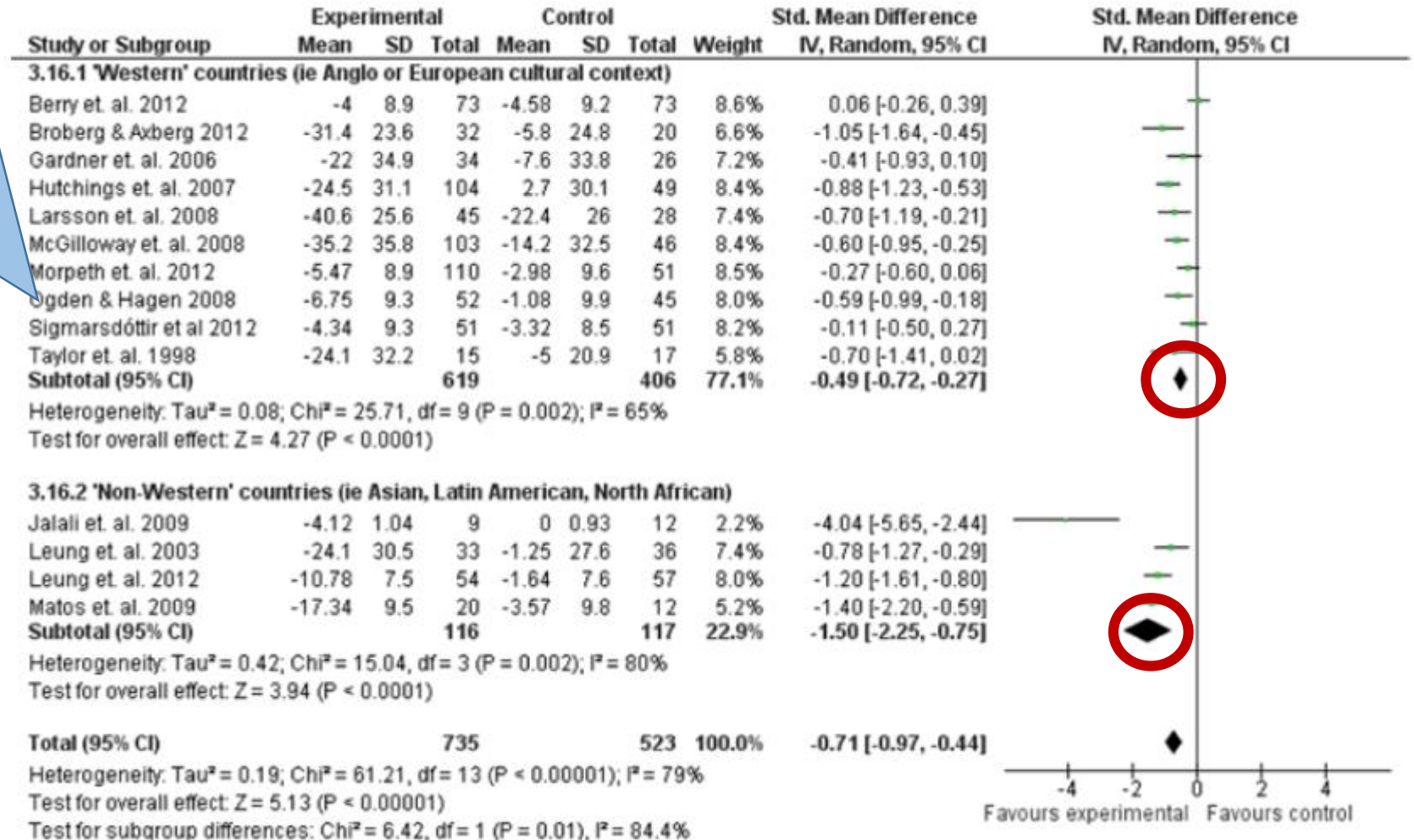
- Incredible Years
- Parent–Child Interaction Therapy [PCIT]
- Parent Management Training Oregon [PMTO]

and one in Australia

- Triple P

Transportability of interventions across cultures

Canada, Iceland,
Iran, Ireland,
Sweden, Holland,
Puerto Rico, Norway,
Hong Kong,
the United Kingdom



Transportability of interventions across cultures

values than those ranked more individualistic. There were no differences in effects by country-level policy or resource factors. Contrary to common belief, parenting interventions appear to be at least as effective when transported to countries that are more different culturally, and in service provision, than those in which they were developed. Extensive adaptation did not appear necessary for successful transportation.

intervention, University of Oxford

Gardner, et al. (2016)

Transportability of interventions across cultures

ASSESSMENT OF RISK AND PROTECTION IN NATIVE AMERICAN YOUTH: STEPS TOWARD CONDUCTING CULTURALLY RELEVANT, SUSTAINABLE PREVENTION IN INDIAN COUNTRY

Katarina Guttmanova
School of Social Work, University of Washington

Melissa J. Wheeler
University of North Dakota

Karl G. Hill, Teresa A. Evans-Campbell,
Lacey A. Hartigan, Tiffany M. Jones,
J. David Hawkins, and Richard F. Catalano
School of Social Work, University of Washington

JOURNAL OF COMMUNITY PSYCHOLOGY, Vol. 45, No. 3, 346–362 (2017)

Published online in Wiley Online Library (wileyonlinelibrary.com/journal/jcop).

© 2017 Wiley Periodicals, Inc. DOI: 10.1002/jcop.21852

What about indigenous communities in the US & Canada?

Compared CTC risk and protective factors for 5,095 self-identified Native American youth to those of 284,000 youths in a nationally representative CTC database.



Transportability of interventions across cultures

Scale reliabilities were similar across the two groups

	Reliability Coefficients	
	Full Sample	Native American Sample
Community Domain		
C1: Positive Community Opportunities	0.77	0.76
C2: Positive Comm. Rewards	0.82	0.80
C3: Low Neighborhood Attachment	0.80	0.78
C4: Comm. Disorganization	0.82	0.82
C5: Personal Transitions and Mobility	0.71	0.73
C6: Laws and Norms Favorable to Drug Use and Firearms	0.81	0.80
C7: Perceived Availability of Drugs and Firearms	0.88	0.88
Family Domain		
F1: Family Attachment	0.81	0.77
F2: Family Opportunities for Positive Involvement	0.82	0.80
F3: Family Rewards for Positive Involvement	0.80	0.78
F4: Poor Family Supervision	0.80	0.80
F5: Poor Family Discipline	0.83	0.80
F6: Family Conflict	0.73	0.72
F7: Family History of Antisocial Behavior	0.85	0.86
F8: Parental Attitudes favorable to ATOD Use	0.86	0.88
F9: Parental Attitudes favorable toward Antisocial Behavior	0.83	0.84
(table continued in next column)		

	Reliability Coefficients	
	Full Sample	Native American Sample
School Domain		
S1: School Opportunities for Prosocial Involvement	0.65	0.70
S2: School Rewards for Prosocial Involvement	0.72	0.73
S3: Poor Academic Performance	0.63	0.60
S4: Low School Commitment	0.69	0.69
Peer/Individual Domain		
I1: Low Perceived Risks for Drug Use	0.87	0.86
I2: Early Initiation of Drug Use and Antisocial Behavior	0.80	0.78
I3: Sensation Seeking	0.79	0.81
I4: Gang Involvement	0.90	0.90
P1: Social Skills	0.65	0.69
I5: Belief in the Moral Order	0.70	0.71
I6: Rebelliousness	0.74	0.76
P2: Friends' Delinquent Behavior	0.89	0.89
P3: Friends' Use of Drugs	0.87	0.86
P4: Peer Rewards for Antisocial Behavior	0.88	0.88
I7: Favorable Attitudes Toward Antisocial Behavior	0.84	0.87
I8: Favorable Attitudes Toward ATOD Use	0.88	0.89
I9: Religiosity	N/A (only one item)	N/A (only one item)

Transportability of inter-cultural scales

Scale reliabilities were similar across the two groups

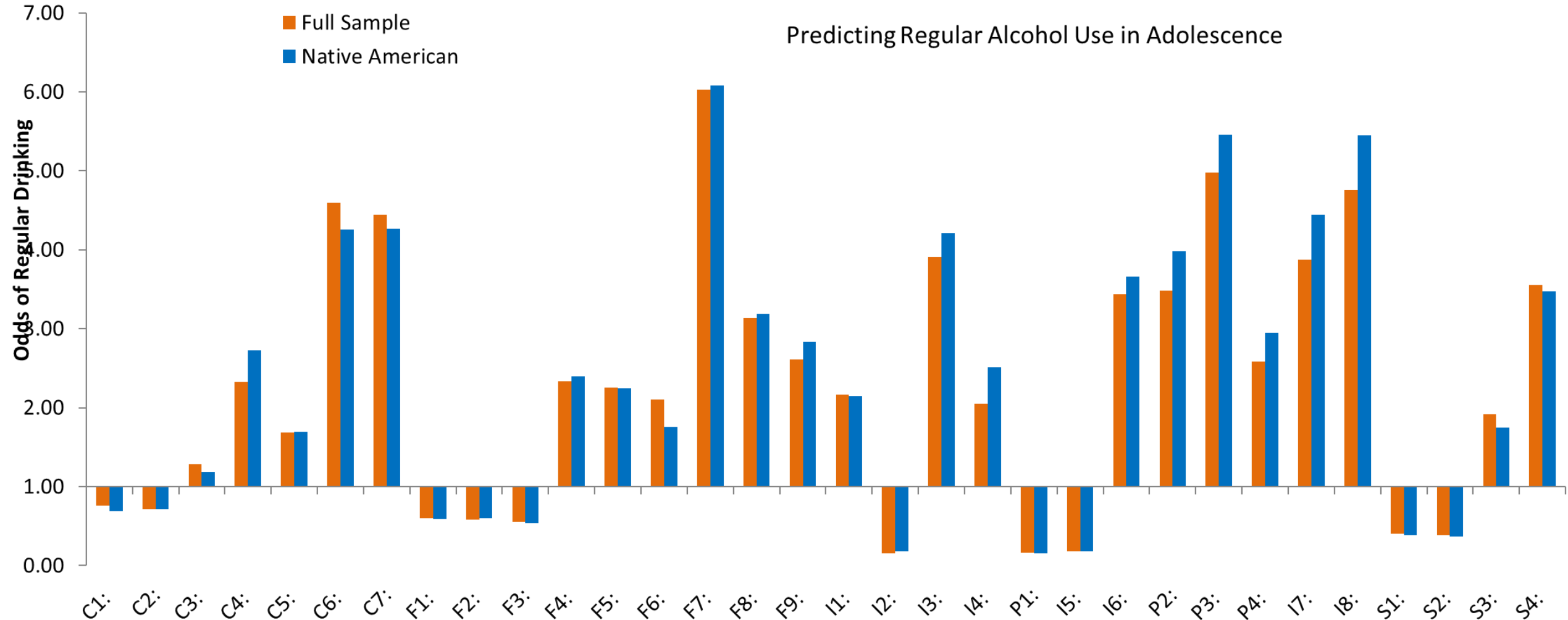
Risk and Protective Factor scales were similarly reliable across groups.

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Transportability of interventions across cultures

Prediction of outcomes was similar across the two groups



Transportability of interventions across cultures

ASSESSMENT OF RISK AND PROTECTION IN NATIVE AMERICAN YOUTH: STEPS TOWARD CONDUCTING CULTURALLY RELEVANT, SUSTAINABLE PREVENTION IN INDIAN COUNTRY

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School of Social Work, University of Washington

CTC survey measures of risks, protection and outcomes are reliable and valid within this Native American youth sample.

Transportability of interventions across cultures

Potential other factors influencing health and health-related behaviors beyond the RPFs measured here that are specific to the circumstances in which Native American youth grow up.

- institutional racism
- disparities in access to and delivery of health services
- exposure to trauma
- stressors related to discrimination
- historical trauma
- colonization
- loss of culture specific to their sociohistorical context
- dissonance between cultural ideals and behavioral realities
- involvement in traditional and spiritual practices
- cultural identity
- presence of strong extended families and social networks that can provide culturally competent care

Transportability of interventions across cultures

Why do flagship evidence-based programmes from the US run aground in Europe, and how should online repositories of programmes deal with this? [campfire]

» Mr. Gregor Burkhardt¹, Dr. Nick Axford², Ms. Shreya Sonthalia³, Prof. David Foxcroft⁴, Prof. Fabrizio Faggiano⁵, Ms. Charlotte De Kock⁶ (1. European Monitoring Centre for Drugs and Drug Addiction, 2. University of Plymouth, 3. Dartington Service Design Lab, 4. Oxford Brookes University, 5. Department of Clinical and Biological Sciences, University of Torino, Italy and Piedmont Centre for Drug Addiction Epidemiology, ASL TO3, Grugliasco (Torino), Italy, 6. University College Ghent)

Standards of evidence and 'what works' repositories in children's services: a critical appraisal [campfire]

» Dr. Nick Axford¹, Dr. Vashti Berry², Dr. Tim Hobbs³, Dr. Louise Morpeth³ (1. University of Plymouth, 2. University of Exeter, 3. Dartington Service Design Lab)



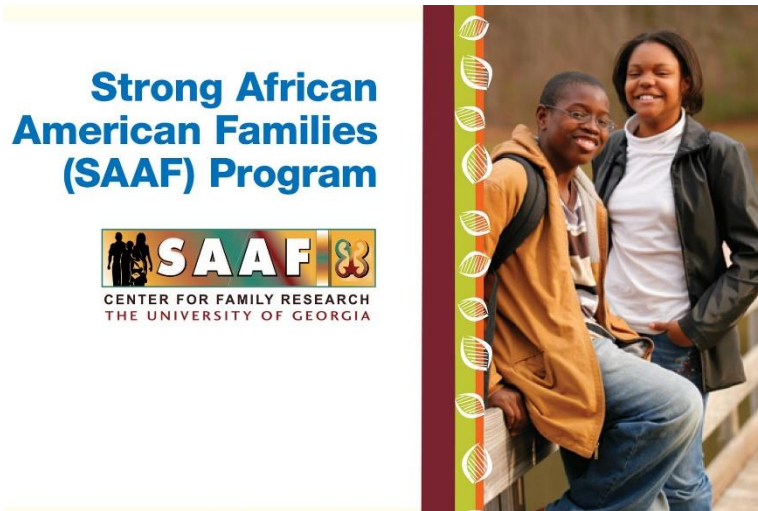
“Your interventions from America aren’t replicating here in Europe.”

emic & etic approaches in research

Kenneth Pike (1967) – Linguistics → cultural anthropology
x-cultural social sciences

- **emic** - behavior has to be understood in the context of the culture in which it occurs
- **etic** - cultural differences in a behavior can be considered as variations on a common theme

emic examples

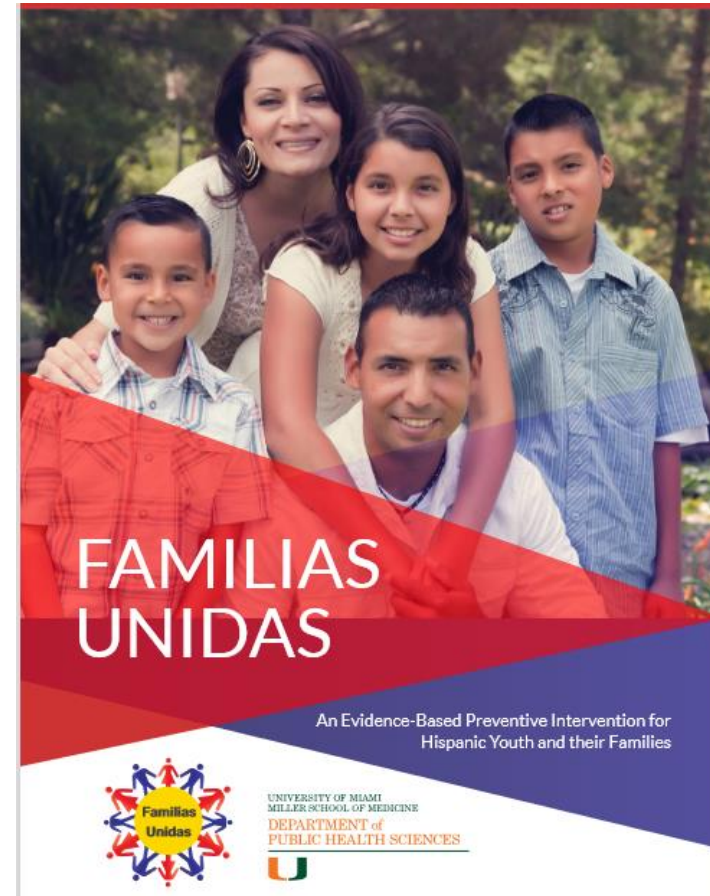


Gene Brody



Velma
McBride
Murry

A Blueprints certified promising program for African American parents and their early adolescent children, designed to reduce adolescent substance use, conduct problems, and sexual involvement.



Willy Prado

A Blueprints certified promising multilevel family-based intervention designed to prevent substance use and sexual risk behavior in Hispanic adolescents.

etic example



Monica Oxford

Promoting First Relationships was validated on a sample of families with an open child welfare case (Oxford et al., 2016); 77% of parents were white.



A Blueprints certified promising for workers in home-visiting and early care and education settings designed to promote healthy relationships between caregivers and young children from birth to age three.

etic example

This intervention was THEN tested with American Indian families living on a rural reservation.

Authors adapted the program to increase cultural relevance based on focus groups with tribal community members and hired members of the tribal community to assist with implementation.

Adaptations included:

1. a unique name for the program
2. a study logo by a Native artist
3. longer home visits to include more time for conversation
4. a small gift for the child at research visits
5. a handout about caregiver-child transitions and separations

An experimental pilot study found improved child-caregiver outcomes for families in the treatment group compared to control families.



A Blueprints certified promising for workers in home-visiting and early care and education settings designed to promote healthy relationships between caregivers and young children from birth to age three.

For whom do the interventions developed in our field work or not work?

At this point, both emic and etic strategies are needed.





Thoughtful and deliberate alteration to the delivery of an intervention to improve its fit in a given context (i.e., adaptation) can lead to improved engagement, acceptability, and outcomes.

Implementation Science at a Glance



A Guide for Cancer Control Practitioners



What You Can Do: **Balance Fidelity and Adaptations**

Making too many changes to an intervention can reduce its original effectiveness, or worse, introduce unintended and harmful outcomes.

Before making adaptations to the intervention, you should think about how the change to the original intervention can improve the fit to your community, setting, or target population, and at the same time, maintain fidelity to the core components of the original intervention. Think of possible adaptations as you would a green, yellow, or red traffic light: green light changes are usually OK to make; yellow light changes should be approached with caution; and red light changes should be avoided when possible.¹²

GREEN LIGHT CHANGES

- » Usually minor
- » Made to increase the reach, receptivity, and participation of the community
- » May include:
 - Program names
 - Updated and relevant statistics or health information
 - Tailored language, pictures, cultural indicators, scenarios, and other content

YELLOW LIGHT CHANGES

- » Typically add or modify intervention components and contents, rather than deleting them
- » May include:
 - Substituting activities
 - Adding activities
 - Changing session sequence
 - Shifting or expanding the primary audience
 - Changing the delivery format
 - Changing who delivers the program

RED LIGHT CHANGES

- » Changes to core components of the intervention
- » May include:
 - Changing a health behavior model or theory
 - Changing a health topic or behavior
 - Deleting core components
 - Cutting the program timeline
 - Cutting the program dosage



Addressing Health Equity and Social Justice within Prevention Registries

- The question is not only how do you implement interventions with fidelity, but with whom have these interventions been tested?
- If there is a need for adaptation, can we (Blueprints) provide some guidance from the developers?
- In order to inform the debate, we need to know for which populations have these interventions already been tested.
- We need basic baseline data.



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Also lots here:

<https://www.blueprintsprograms.org/publications/>

Addressing Health Equity and Social Justice within Prevention Registries



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Examining the Representation of Ethnic Minority Groups in Preventive Intervention Research

Prevention Science and Methodology Group
Systemic Racism and Prevention Science:
Enhancing Social Justice to Achieve Health Equity
May 18, 2021

Background

Lack of representation of youth of color in health-related research studies is well-documented (Fisher & Kalbaugh, 2011).

A critical evaluation of this omission has not been undertaken to substantiate this claim.

Necessary for prevention or intervention efforts focused on social, behavioral, and educational outcomes to ID for whom do interventions work, under what conditions, and serving which outcomes?

Why?

- If researchers do not specify target populations, practitioners are vulnerable to misinterpreting relative strength of evidence even if it is well-defined.
- Misinterpretation risks over- or under-ascribing an intervention's utility to be scaled up or implemented across settings.

Literature Review

Gaps in research on racial/ethnic minoritized groups that impede effectiveness of preventive interventions, including:

- Insufficient attention to protective processes that prevent and avert risk (Murry et al., 2018).
- Discounting input and guidance from community stakeholders of diverse communities (Supplee & Meyer 2015)
- Overlooking crucial information about how to effectively transition interventions from white to racial/ethnic minority populations (Rousseau & Gunia 2015).

Interventions validated with largely white samples are often recommended for all populations.

Heightens external validity concerns about widely disseminated interventions that are tested for one group but exported, perhaps uncritically, to others.

Purpose

- Using data collected by Blueprints, we are launching a systematic review of the representation of ethnic minority groups in preventive intervention research.
- Blueprints is the longest standing clearinghouse, among up to 20 within the United States alone (Burkhardt et al., 2015).



- **Objective:** To examine the prevalence of transparent research practices for studies reviewed by Blueprints between 2018-2019.
- **Examine the rate of:**
 - Public availability of data, code and research materials used to conduct confirmatory research.
 - Prospective registration or registration before data analysis.
 - Discrepancies between confirmatory research reported in the trial registration (i.e., registered primary outcomes) and those included in articles (i.e., published primary outcomes).
- **Conclusion:**
 - Preventive intervention research needs to be more transparent.
 - Clearinghouses rely on robust findings to make well-informed decisions and researchers are incentivized to meet clearinghouse standards.
 - Clearinghouses should consider policies that encourage transparency to improve the credibility of evidence-based interventions.

The Role of Clearinghouses in Promoting Transparent Research: A Methodological Study of Transparency Practices for Preventive Interventions

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Abstract

Transparency of research methods is vital to science, though incentives are variable, with only some journals and funders adopting transparency policies. Clearinghouses are also important stakeholders; however, to date none have implemented formal procedures that facilitate transparent research. Using data from the longest standing clearinghouse, we examine transparency practices for preventive interventions to explore the role of online clearinghouses in incentivizing researchers to make their research more transparent. We conducted a descriptive analysis of 88 evaluation reports reviewed in 2018–2019 by *Blueprints for Healthy Youth Development*, when the clearinghouse began checking for trial registrations, and expanded on these efforts by applying broader transparency standards to interventions eligible for an endorsement on the Blueprints website during the study period. Reports were recent, with 84% published between 2010 and 2019. We found that few reports had data, code, or research materials that were publicly available. Meanwhile, 40% had protocols that were registered, but only 8% were registered prospectively, while one-quarter were registered before conducting analyses. About one-third included details in a registered protocol describing the treatment contrast and planned inclusions, and less than 5% had a registered statistical analysis plan (e.g., planned analytical methods, pre-specified covariates). Confirmatory research was distinguished from exploratory work in roughly 40% of reports. Reports published more recently (after 2015) had higher rates of transparency. Preventive intervention research needs to be more transparent. Since clearinghouses rely on robust findings to make well-informed decisions and researchers are incentivized to meet clearinghouse standards, clearinghouses should consider policies that encourage transparency to improve the credibility of evidence-based interventions.

Keywords Trial registration · Scoping review · Preregistration · Clearinghouses · Registries · Transparency · TOP guidelines · Open badges system

Transparency and reproducibility have long been recognized as vital features of science (Nosek et al., 2012). Though most researchers value good science and strive to follow rigorous procedures (Anderson et al., 2007),

many lack experience with transparency given the current systems predominantly in place. For example, frequent publishing in prestigious outlets is the gateway to research jobs, promotion, tenure, grants, and awards.

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Aims

To develop codes that identify groups by race, ethnicity, gender, and economic status.

To apply these codes to samples recorded in the Blueprints database and conduct a descriptive analysis of these codes.

To identify additional considerations of importance to inform and guide preventive intervention research, such as cultural adaptation, competence, modification, and responsiveness.

To submit a manuscript (*Prevention Science*) that examines the representation of ethnic minority groups in preventive intervention research overall, and by subgroup (e.g., geographic location of the study, outcomes reported, target age, etc.).

Steps for Synthesizing Research

Cooper's (1998) classic text

1. Formulating the problem (background/literature review)
2. Searching the literature
3. Gathering information from studies (coding)
4. Analyzing outcomes of the studies (descriptive analysis)
5. Interpreting the findings
6. Presenting the results

Inclusion Criteria

Impact studies (research conducted to determine the efficacy or effectiveness of a preventive intervention or strategy).

Interventions for youth designed to:

- Prevent or reduce negative behavioral health outcomes (e.g., mental health problems, substance use, delinquency/crime, and other health-related behaviors)
- Promote positive development (e.g., academic achievement or prosocial behavioral outcomes).

Target ages under 25 years (includes post-secondary education and early employment experiences).

Published between 2010 and 2020 (to examine trends).

Evaluation Design Studies

Randomized Control Trials (RCTs)

- Group assignment to treatment (T) vs. control (C) is random
- Units are individuals (e.g., students)

Cluster Randomized Control Trials (c-RCTs)

- Group assignment is random
- Units are clusters of individuals (e.g., classrooms; schools, etc.)

Quasi-Experimental Design studies (QEDs)

- Group assignment to T vs. C is not random

Exclusion Criteria

Interventions with a sole focus on evaluating treatment programs for diagnosed or clinical-level mental health problems (e.g., medical or pharmacological interventions).

Pre/post design studies (without a control group).

Process evaluation studies (with no impact analysis).

Systematic Search Strategy

Target studies in the grey literature and journal articles.

Use Boolean operators to create multiple search terms:

- Several clauses are used to select academic journals.
- Search terms are applied to locate outcomes for youth relating to physical and mental health, delinquency, education, prosocial behavior, and problem behavior.
- Boolean operators are entered into the Web of

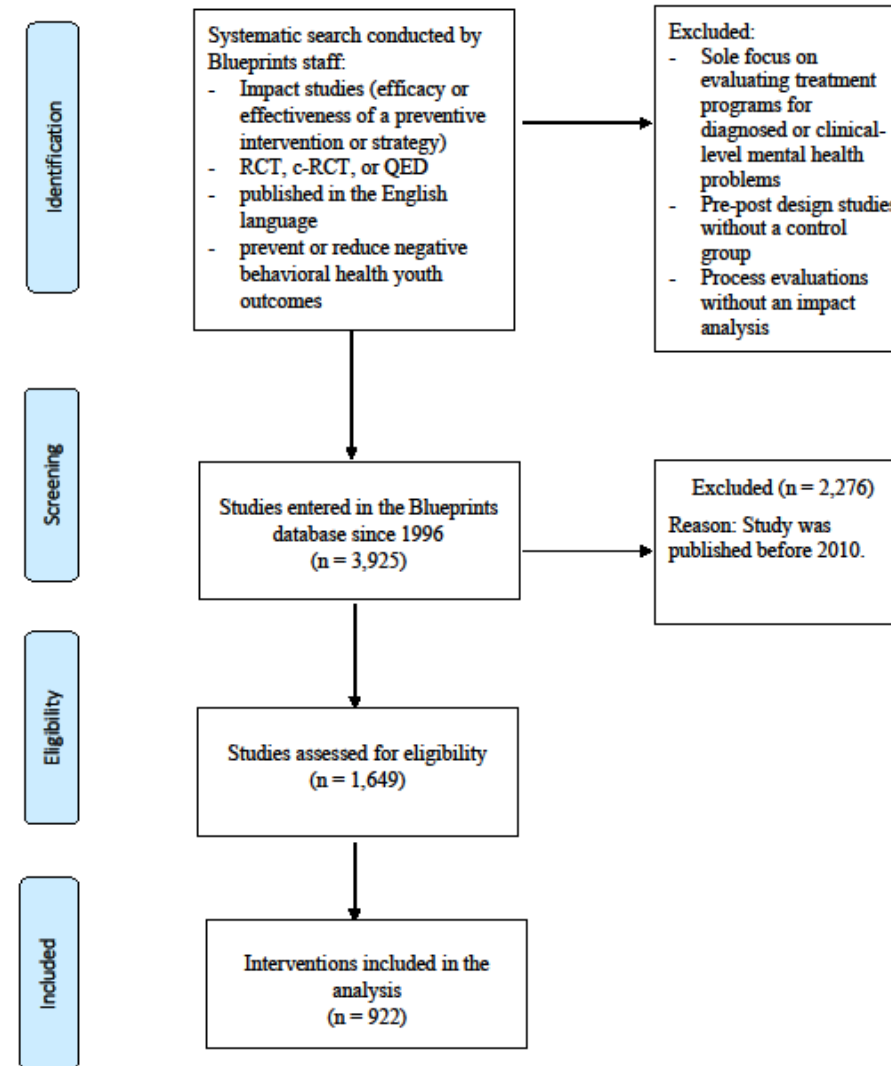
Search blogs, other registries, and research sites.

Accept self-nominations from developers and researchers.

Sample

- Each program can have 1+ evaluation studies.
- Blueprints database:
 - ✓ 3,925 studies (1,569 interventions) entered since 1996 when Blueprints started.
 - ✓ **1,649 studies** (922 interventions) published from 2010 on.

Figure 1. Flow diagram of systematic review adapted from PRISMA 2009



Coding Instrument

Program-level codes (name, BPs rating, target age, primary outcomes)

Specific group(s) explicitly targeted by the intervention:

- Asian or Asian American
- Black or African American
- Native American or American Indian or Alaska Native
- Native Hawaiian or Pacific Islander
- White
- Hispanic or Latino
- Gender
- Youth in rural communities
- Youth in urban communities
- Low-income youth and families
- No group explicitly targeted

Study-Level Codes (Setting)

Research design (RCT, c-RCT, QED)

Country (USA or outside the USA)

Locale (rural, suburban, urban)

Region (Northeast, Midwest, South, West, U.S. Territories)

Sample size (individual, cluster)

Certified by Blueprints?

- Indicating well-designed and well-implemented (i.e., high internal validity – see Steeger, Buckley et al., 2021).

Study-Level Codes: Racial Composition

- Census Bureau collects racial data in accordance with guidelines provided by the U.S. Office of Management and Budget (OMB).
- Racial categories reflect a social definition of race recognized in the US and not an attempt to define race biologically, anthropologically, or genetically.
- OMB requires five minimum categories:
 - % Asian or Asian American
 - % Black or African American
 - % Native American or American Indian or Alaska Native
 - % Native Hawaiian or Pacific Islander
 - % White

Definitions of Race (OMB)

- White – origins in any of the original peoples of Europe, the Middle East, or North Africa.
- Black or African American – Origins in any of the Black racial groups of Africa.
- American Indian or Alaska Native – Origins in any of the original peoples of North and South America (including Central America) and who maintains tribal affiliation or community attachment.
- Asian – Origins in any of the original peoples of the Far East, Southeast Asia, or the Indian subcontinent including, for example, Cambodia, China, India, Japan, Korea, Malaysia, Pakistan, the Philippine Islands, Thailand, and Vietnam.
- Native Hawaiian or Other Pacific Islander – Origins in any of the original peoples of Hawaii, Guam, Samoa, or other Pacific Islands.

Additional Race Composition Codes

% Multi-Racial (must clearly
be specified this way)

% Not Specified

- Percentages for only some racial groups
- Latino/Hispanic

Ethnicity

- Race and Ethnicity are distinct identities according to the US Census.
 - Ethnicity is a grouping of people who identify with each other based on shared attributes that distinguish them from other groups.
 - E.g., common set of traditions, ancestry, language, history, society, culture, nation, religion or social treatment within their residing area.
- Hispanic or Latino origin asked as a separate question on the US Census.

Study-Level
Codes:
Ethnic
Composition

- Codes:
 - % Hispanic or Latino
 - % Not Hispanic or Latino
(remainder of sample)
- Definition: The US OMB defines "Hispanic or Latino" as a person of Cuban, Mexican, Puerto Rican, South or Central American, or other Spanish culture or origin regardless of race

Study-Level (Additional) Codes

Gender

- % Male
- % Female
- % Other

Economic Disadvantage (e.g.):

- % Qualifies for the free/reduced lunch (FRL) program
- % Receives Medicaid
- % Pell-Eligible
- % Qualify for the Children's Health Insurance Program (CHIP)

Status of Study

Pilot test

- Round 1: Met with Dr. Murry, Buckley and team (2 additional coders) to code studies not in our sample to develop then pilot the codebook
- Round 2:
 - Dr. Buckley and team (2 additional coders) double-coded 24 studies
 - Rotation so all 3 team members code studies with one another
 - Revised code book instructions

Inter-Rater Reliability (IRR)

- Cohen's kappa (categorical outcomes) and the ICC (continuous outcomes)
- Standards: < .5 Poor, .5-.75 Moderate, .75-.9 Good, >.9 Excellent
- Pilot data (n = 24) IRR = .82

Training

Significance (Diversity, Equity, Inclusion)

Establishing the internal validity of interventions is the dominant focus across most clearinghouses.

However, issues of external validity are salient as EBI developers wrestle with barriers to implementation.

Clearinghouses are positioned to play a useful role in identifying gaps in implementation to address external validity concerns.

This study is part of a larger effort to address the issue of cultural representation in preventative intervention research.

Blueprints 4 Standards

- **Intervention Specificity:** Intervention description clearly identifies
 - The intended outcome(s)
 - Whether specific risk &/or protective factors are targeted to produce this change
 - The population for which the intervention is intended
 - How the components of the intervention work to produce this change
- **Evaluation Quality:** The evaluation trials produce valid and reliable findings.
 - See Steeger, Buckley et al. (2021)
- **Intervention Impact:** Preponderance of evidence from high-quality evaluations show significant positive change and no evidence of harmful effects.
- **Dissemination Readiness:** The intervention is currently available for dissemination and has the necessary support required for implementation with fidelity.
 - Description of the sample(s) in which the intervention was validated.
 - Critical examination of transporting the intervention to other samples (one tool – meta-analysis).

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Thank you!