Seminar 1.2:
Assessing and Applying the Evidence-Based Program Literature
HOUSEKEEPING/ZOOM
What is a strategic framework?

- A vision for where you would like to go and a map for how you plan to get there.
- Helps conceptualize the key components we may need to develop and how these components will build on each other over time to achieve that shared goal.
STRATEGIC FRAMEWORK FOR DATA-DRIVEN AND EVIDENCE BASED PRACTICE

- Program Inventory & Literature Review
- Logic Models & Process Maps
- Contracting Practices
- Data Strategy & Dashboards
- Program Evaluation & Cost Benefit Analysis

Seminar Series 1: Programming
Seminar Series 2: Data Strategy and Evaluation
Give counties approaches to look at their justice involved populations through a lens of evidence, shared interventions, and a system-wide view.

Offer tools that help to operationalize and embed evidence in program design and funding.

Apply concepts of cost efficacy to program design and assessment.
## Programming Series Core Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Question</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program Inventory</td>
<td>How do we build a program inventory and make it useful?</td>
<td>Oct 2020</td>
</tr>
<tr>
<td>Assessing and Applying Evidence</td>
<td>How do we look at evidence and ask critical questions?</td>
<td>Dec 2020</td>
</tr>
<tr>
<td>Program Design and Contracting</td>
<td>How do we connect evidence to contracting and program design?</td>
<td>Feb 2021</td>
</tr>
<tr>
<td>Cost Benefit, Part 1</td>
<td>What are the key concepts in developing a cost-benefit model?</td>
<td>Apr 2021</td>
</tr>
<tr>
<td>Cost Benefit, Part 2</td>
<td>How do we use cost-benefit analysis to inform policy and practice?</td>
<td>June 2021</td>
</tr>
</tbody>
</table>
SEMINAR 1.2: ASSESSING AND APPLYING THE EVIDENCE-BASED PROGRAM LITERATURE
EVIDENCE AND PROGRAM DESIGN SEMINAR
OVERVIEW

What is evidence?

Where do you find evidence?

How do you put it to use?
WHAT IS EVIDENCE?
What is Evidence?

Programs or practices whose level of effectiveness has been determined by rigorous evaluations.

Evidence can be found in the following places:

• Specific evaluations
• Meta-analyses
• Clearinghouses
RIGOROUS EVALUATION

• Randomized control trials
  • Rarely used in criminal justice because of ethical and research design challenges
• Quasi-experimental design – attempts to establish a cause-and-effect relationship without random assignment
  • Control group
    • Regression discontinuity
    • Propensity score matching
    • Standard regression analysis
  • Accounting for differences between groups
How comfortable are you reading rigorous evaluation studies?
MARYLAND SCIENTIFIC METHODS SCALE

- Five-point scale, with five being the most rigorous
  - **Level 5**: Randomized control trial
  - **Level 4**: Regression discontinuity or similar design
  - **Level 3**: Use of a treatment group with statistical controls (e.g. propensity score matching)
  - **Level 2**: Before and after comparison without a control group
  - **Level 1**: Correlation, no use of control variables to adjust for group differences

- The Washington State Institute for Public Policy uses a similar scale for their meta-analytical work
RESEARCH CAUTIONS

- Correlation vs Causation
- Selection bias
- Who produced the research
- Applicability to your jurisdiction
SELECTION BIAS

• Successful participants compared to dropouts
  • Underlying motivational differences could explain better outcomes for program graduates
• Variation in risk levels
  • Programs that take lower risk individuals will have better outcomes even if the program is ineffective
  • Programs that take higher risk individuals could have worse outcomes but still be effective
• Pre-and-post design
  • Regression to the mean
  • May be some level of improvement even without the program
WHO PRODUCED OR FUNDED THE RESEARCH?

• In the 80’s tobacco companies funded research showing there were no harmful impacts from secondhand smoke

• The sugar industry funded academic research in the 1960’s questioning any link between sugar and heart disease

• The Washington State Institute for Public Policy found that when program developers are closely involved in the research the findings are often better than those that operate in real world settings
  • Developers pay closer attention to research design
  • Developers have greater incentive to find positive results
LOCAL APPLICATION

- Where were the studies conducted?
- Demographics of participants
- Setting of the program
- Risk levels of individuals served
- Rural or urban
POLL QUESTION

Where do you get your information on the effectiveness of programs? (anecdote, local evaluations, rigorous research studies, meta-analyses and clearinghouses)
WHERE CAN YOU GET EVIDENCE ABOUT WHAT WORKS?
THE SOURCE OF THE EVIDENCE MATTERS... BUT ALSO HOW YOU PERCEIVE IT

Barriers to Thinking About New Information

• Confirmation bias
• Loss aversion
• Past is prologue
• Legends and stories
• Apples to oranges comparisons

Ways to Start Sourcing Evidence

• Trusted source with clear, documented standards and funding
• Expertise in the subject along with external expert panel
• Clear affiliations, and ideally, non-membership or fee-based assessment
Cursory Internet Search
Self-Designed Literature Review
Vendor Advertisements/Publications
What's currently available in your county
Ask someone "who knows"

Clearinghouses
Systematic Review/Meta-Analysis
Rigorous Local Evaluation

Chance you will get a good idea of "What Works" to impact an outcome

Seminar 1.2
Seminar 2.5
EXAMPLE: TOP EYE SURGEONS!

1. Who produces this information?
2. What are they attempting to accomplish?
3. On what basis do they include some practitioners while omitting others?
4. Is there a peer review process?
WHAT ARE INDIVIDUAL PROGRAM CLEARINGHOUSES?

• Review and summarize rigorous evaluations of different programs and practices to create a “registry” of sorts.

• Help to identify the consensus on “what works”

• Assign ratings to programs and practices based on the evidence (e.g., promising, mixed effects).
STEPS IN PROGRAM ASSESSMENT FOR CLEARINGHOUSES

Targeted collections of programs and practices, rated on clearly defined scale, and follow a routinized review process.

1. Identify programs of interest to practitioners and policy;
2. Screen programs for relevancy to the outcomes and target populations of interest;
3. Large scope search for relevant research/evaluation materials;
4. Screen for evidence levels and impacts on outcomes of interest, and retain relevant and high-quality programs;
5. External Review by panel of experts; and
6. Aggregate and apply study ratings
RESULTS FIRST CLEARINGHOUSE DATABASE

- Contains information from 9 reputable clearinghouses – no need to search around individual clearinghouses
- Features over 2500 programs and practices across multiple areas of social policy
- Allows users to search and filter by categories and settings
- Applies standardized rating across clearinghouses

The Pew-MacArthur Results First initiative created the Results First Clearinghouse Database to provide users with an easy way to access and understand the evidence base for programs in social policy areas such as behavioral health, criminal justice, education, and public health. More specifically, it allows users to see if there have been rigorous evaluations of a program and, if so, to review information on the program's effectiveness.

The database compiles and displays key information from nine national clearinghouses, including the rating they assign to each program and the program's description, outcomes, setting, and target population (where available). It also contains a link back to the program's original source page on the clearinghouse website so that users can obtain additional details.

Clearinghouses develop this information by reviewing and summarizing rigorous evaluations of programs within their focus area. Then, they assign a rating to each program using their own methodology and terminology (such as top tier, effective, positive, and model).

The database applies color-coding to the clearinghouses' distinct rating systems, creating a common language that allows users to quickly see where each program falls on a spectrum from negative impact to positive impact. This coding consists of five rating colors that correspond to different levels of impact as shown below.
RESULTS FIRST CLEARINGHOUSE DATABASE (2)

Adult Treatment Drug Courts (Multi-site)
Clearinghouse: 

The Multi-site Adult Drug Court Evaluation (MADCE) was a 6-year national evaluation funded by the National Institute of Justice that looked at the impact of adult drug courts. Adult treatment drug courts are specialized and problem-solving... Read more >

Multnomah County (Ore.) Sanction Treatment Opportunity Progress (STOP) Drug Diversion Program
Clearinghouse: 

The Sanction Treatment Opportunity Progress (STOP) Drug Diversion Program is a drug court program that was designed to reduce the increasing backlog of... Read more >
The Drug Offender Sentencing Alternative (DOSA) is a law that was passed in Washington State in 1995, which allows incarcerated offenders with substance abuse problems to receive a reduced prison sentence in exchange for completing a chemical-dependency treatment program. In 2005, a modification to the law created a "residential" DOSA, which allows offenders to receive chemical-dependency treatment in the community in lieu of confinement. The primary goal of residential DOSA is to reduce rates of recidivism by increasing community-based treatment alternatives for substance-abusing offenders.

Clearinghouse: CrimeSolutions.gov

Settings: Residential (group home, shelter care, nonsecure)
Correctional

Clearinghouse rating: Promising

Outcomes: Total Recidivism

Ages: Not specified

Target populations: Alcohol and Other Drug (AOD) Offenders

Learn more
What is a Meta-Analysis?

Meta-analysis is a statistical technique for synthesizing the results of a set of independent, quantitative, empirical studies on a topic, in order to determine an overall estimate of a treatment effect... now widely accepted as a method of summarizing the results of empirical studies within the behavioral, social and health sciences.” Lipsey and Wilson (2001)

What are some example meta-analysis sources for numerous programs, policies, and concepts:

• Washington State Institute for Public Policy (WSIPP)
• Cochrane Collaboration
• High Quality Individual Meta-Analysis Example:

# STEPS IN A META-ANALYSIS

Targeted collection of programs and practices, rated on clearly defined scale, and follow routinized review process:

1. Identify programs of interest to practitioners and policy
2. Screen programs for relevancy to the outcomes and target populations of interest
3. Large scope search for relevant research/evaluation materials
4. Screen for evidence levels and impacts on outcomes of interest, and retain relevant and high-quality programs
5. Create an effect size (estimate of change on an outcome from treatment) and standard error
6. External Review by panel of experts or peer review process

Same 4 steps from Clearinghouse Assessment = Consistent Rigor
META-ANALYSIS HELPS MOVE FROM NARRATIVE REVIEW TO SOMETHING QUANTITATIVE

The “effect size” is a statistical method to compare the relative magnitude of effects on a baseline, and along with a standard error, the level of certainty across studies.

Example: Studies of different Domestic Violence models vary depending on how they are combined.

Benefit is the average effect size gives a general idea of program groups impact to the baseline expectations about level of impact locally.

Source: WSIPP, WHAT WORKS TO REDUCE RECIDIVISM BY DOMESTIC VIOLENCE OFFENDERS?
Employment counseling programs with job training teach skills necessary for seeking employment. These include both hard skills (e.g., job preparedness and skills training) and soft skills, (e.g., effective job searches, applications, and resumes). Each program in this category also includes subsidized or transitional jobs to help participants transition to regular employment.

**EXAMPLE META-ANALYSIS: SUBSIDIZED EMPLOYMENT TRAINING**

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Effect Size (1)</th>
<th>Total Treatment Group</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crime/Recidivism</td>
<td>-.076</td>
<td>5,777</td>
</tr>
</tbody>
</table>

Going the right direction with an acceptable magnitude

6 studies with almost 6000 people trained
RANGE OF WSIPP META-ANALYSIS FOR EMPLOYMENT SHOWS RANGE OF RECIDIVISM REDUCTION

Our program has acceptable amount of recidivism reduction and relatively low amounts of risk.
Q AND A
HOW DO YOU PUT IT TO USE?
MATCH PROGRAMS TO THE EVIDENCE

• Seminar 1.1 discussed collecting specific program information (e.g. duration, intensity, target population, budget, etc.)

• Program information can be matched to the Results First Clearinghouse Database to assess evidence
  • Green or highest rated
  • Yellow or second highest rated
  • Gray or no effects

• Cross agency workgroup can be used to create consistent matching

• Need to match program types in more depth than just applying similar names
# FUNDING FOR EVIDENCE BASED PROGRAMS

<table>
<thead>
<tr>
<th>PROGRAM INFORMATION</th>
<th>BUDGET</th>
<th>% OF PROGRAM BUDGET</th>
<th>EVIDENCE-BASED</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROGRAM NAME</td>
<td>PROGRAM BUDGET</td>
<td></td>
<td>RATINGS</td>
</tr>
<tr>
<td>Reasoning and Rehabilitation</td>
<td>$125,000</td>
<td>8%</td>
<td>Highest rated</td>
</tr>
<tr>
<td>Living in Balance</td>
<td>$50,000</td>
<td>3%</td>
<td>Highest rated</td>
</tr>
<tr>
<td>Drug Court</td>
<td>$300,000</td>
<td>20%</td>
<td>Second-highest rated</td>
</tr>
<tr>
<td>Vocational Education</td>
<td>$250,000</td>
<td>17%</td>
<td>Second-highest rated</td>
</tr>
<tr>
<td>Intensive Supervision without Treatment</td>
<td>$180,000</td>
<td>12%</td>
<td>No effects</td>
</tr>
<tr>
<td>Veterans Courts</td>
<td>$100,000</td>
<td>7%</td>
<td>Not rated/Theory Based</td>
</tr>
<tr>
<td>All other programs</td>
<td>$500,000</td>
<td>33%</td>
<td>Not rated/Theory Based</td>
</tr>
</tbody>
</table>
# EXAMPLE FROM MINNESOTA

## How to use the Minnesota Inventory

1. Use the filters to explore different services. Click the Apply button after you’ve made your selections. Filter results will appear in the table below.
2. Hover your mouse over a service’s Rating to view the impact on outcomes.
3. Click on the Source of Evidence to open a hyperlink to the evidence in your Internet browser.

### Search service name by keyword

### Total number of services/programs in table below that match your search: 148

<table>
<thead>
<tr>
<th>Rating</th>
<th>Area of interest</th>
<th>Service population</th>
<th>Outcome</th>
<th>Service location</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Child stability</td>
<td>(All)</td>
<td></td>
<td>(All)</td>
</tr>
<tr>
<td>Mixed Effects</td>
<td>Criminal Justice</td>
<td>Adults</td>
<td>Additional outcomes</td>
<td>Correctional setting</td>
</tr>
<tr>
<td>No Effect</td>
<td>Early childhood</td>
<td>All children</td>
<td>Alcohol use</td>
<td>Court</td>
</tr>
<tr>
<td>Promising</td>
<td>Employment and economic stability</td>
<td>Culturally specific</td>
<td>Crime (including recidivism)</td>
<td>Educational setting</td>
</tr>
<tr>
<td>Proven Effective</td>
<td>Families</td>
<td>Families specific</td>
<td>Employment / earnings</td>
<td>In home or community</td>
</tr>
<tr>
<td>Theory Based</td>
<td>Gender-specific</td>
<td>Young children</td>
<td>Enhancement in child or youth</td>
<td>Outpatient</td>
</tr>
<tr>
<td></td>
<td>Young children</td>
<td></td>
<td>Hospitalization / health care</td>
<td>Practice model</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Service</th>
<th>Service description</th>
<th>Rating</th>
<th>Source of evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affordable Homes Program (CWC/AMH)</td>
<td>Inmates construct affordable housing under supervision of a qualified construction foreman and stay in county jails for the duration of the program.</td>
<td>No Effect</td>
<td>What Works with MN Prisoners</td>
</tr>
<tr>
<td>Aftercare</td>
<td>A range of programs designed to reintegrate juveniles after an out-of-home placement concludes. These programs focus on changing individual behavior so as to prevent further delinquency.</td>
<td>Promising</td>
<td>Crime Solutions</td>
</tr>
<tr>
<td>Aggression Replacement Training</td>
<td>A cognitive behavioral intervention. It targets chronically aggressive and violent youths. Treatment focuses on improving social skills, moral reasoning, as well as anger and emotional management. Provides youth with structure.</td>
<td>Proven Effective</td>
<td>Crime Solutions</td>
</tr>
<tr>
<td>Career and technical education</td>
<td>This includes post-secondary education and technical training in various vocations to develop skills offenders can use to find and retain post-release employment.</td>
<td>Proven Effective</td>
<td>What Works with MN Prisoners</td>
</tr>
<tr>
<td>CASA Start</td>
<td>Targets youth age 11 to 13 in high-risk neighborhoods. The program attempts to decrease youth exposure to crime and drug activity by providing intensive case management.</td>
<td>No Effect</td>
<td>Crime Solutions</td>
</tr>
</tbody>
</table>
**CALIFORNIA COUNTY EXAMPLES**

Solano County Results First

<table>
<thead>
<tr>
<th>Program Inventory</th>
<th>Program Description</th>
<th>Outcomes/Needs Addressed</th>
<th>Evidence Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reasoning and Rehabilitation II (R&amp;R II)</td>
<td>Cognitive behavioral therapy intended to help participants develop social skills, moral reasoning, and problem-solving skills. The focus of R&amp;R II involves assisting clients develop problem solving skills through moral reasoning.</td>
<td>Criminal Thinking, Companions, Anti-Social Patterns, Pro-Criminal Attitude</td>
<td>Highest Rated</td>
</tr>
<tr>
<td>Employment Services</td>
<td>Employment services in the form of soft skills, resume preparation, job searches and job training, includes interactive journalized curriculum.</td>
<td>Employment</td>
<td>Highest Rated</td>
</tr>
<tr>
<td>The Nurturing Parenting Program (Men &amp; Women)</td>
<td>Program for the prevention and treatment of child abuse and neglect.</td>
<td>Family, Relationships/Parenting</td>
<td>Highest Rated</td>
</tr>
<tr>
<td>Motivational Interviewing</td>
<td>Theoretical approach to therapeutic interventions helping consumers identify areas in their life that cause problems, help motivate consumer to change behaviors and sustain positive changes</td>
<td>Antisocial patterns, Alcohol/Drug, Leisure/Recreation, Family/Marital</td>
<td>Highest Rated</td>
</tr>
<tr>
<td>Cognitive Behavioral Therapy for Depression</td>
<td>Group therapy utilizing cognitive behavioral therapy to build skills to develop a positive, more balanced and constructive ways to respond to stressors to reduce/manage symptoms of depression</td>
<td>Alcohol/Drug, Leisure/Recreation</td>
<td>Highest Rated</td>
</tr>
<tr>
<td>Dialectical Behavior Therapy - Emotional Regulation</td>
<td>Skill building therapy group utilizing Dialectical Behavior Therapy, integrating mindfulness, distress tolerance and effective communication</td>
<td>Alcohol/Drug, Leisure/Recreation, Family/Marital</td>
<td>Highest Rated</td>
</tr>
</tbody>
</table>
EVIDENCE AND THE PROGRAM INVENTORY

• Establish a baseline

• Evaluation decisions
  • Identify programs that need evaluation
  • Use data collection as a check on program fidelity

• Budget decisions
  • Target resources at effective programs
  • Use Clearinghouse Database as a menu of potential investments
RESOURCES
Materials available:

Program Inventory Overview

Results First Clearinghouse

Programming Series Info:
https://www.counties.org/framework-seminar-series

Support Hub Website:
https://www.counties.org/csac-support-hub
LOOKING AHEAD
This seminar will focus on strategies to access and integrate local data. The Support Hub team will provide a model template that identifies key data elements commonly held by local agencies and community-based organizations, as well as outline a plan for integrating data locally. We will also provide an overview of some of the key tools that would draw on these data to produce analyses that can be used to inform your practice.
This seminar will provide guidance on developing logic models for key programs in your inventory. Logic models to are important in ensuring the program design is clear, key outcomes agreed upon, and assess whether the design is informed by the literature. The seminar will also feature approaches for engaging providers and community organizations around how to structure contracts.
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(m) 916-628-1404