Teen Pregnancy Prevention Evaluation Technical Assistance: Core Components Analysis

Presentation for Innovation and Impact Network (IIN) Grantees Emily LoBraico and Russell Cole
June 8, 2022



Agenda

- Introduction
- Component definition
- Components of teen pregnancy prevention (TPP) programs
- Checklist tool
- Preparing for a component analysis
- Research questions and corresponding analysis methods
- Q&A

Today's speakers



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Researcher



Russell Cole
Principal
Researcher

Motivation

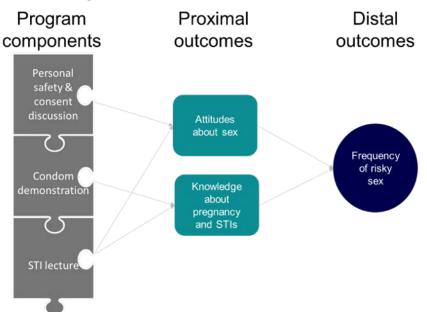
- There is an extensive body of evidence about effective TPP programs
- Much less is known about the what aspects/ingredients of the program drives improvement in outcomes
- National Academy of Sciences Promoting Positive Adolescent Health Behaviors and Outcomes report recommended investigation into components of TPP programs
- The Office of Population Affairs (OPA) is encouraging the field to systematically document components of TPP programs, and has developed a checklist to standardize the process

Note: Formally documenting components of innovations using checklist is <u>optional</u>

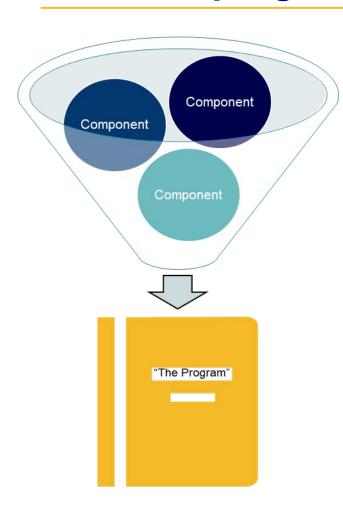
- Purpose of IIN grants is to establish, coordinate, and support a network of partners to develop, test, and refine innovative interventions
- Formally reporting components of interventions is <u>not</u> a requirement/expectation of the IIN grant program
- This webinar showcases an opportunity to improve your communication about your interventions and their promise, and may build on work you are already planning around innovation testing/refinement

What is a component analysis?

- Traditional impact evaluations assess the effects of the whole program
- Component analysis is a way to learn about the smaller pieces of the program—or components.



What are program components?

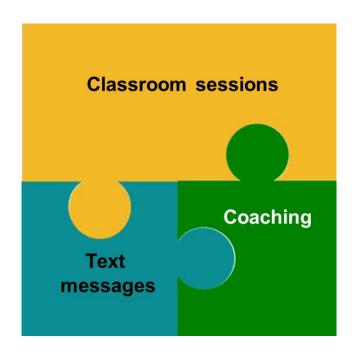


- The "ingredients" of a program
- Often defined in a manual or other program documentation

Program components defined by structure

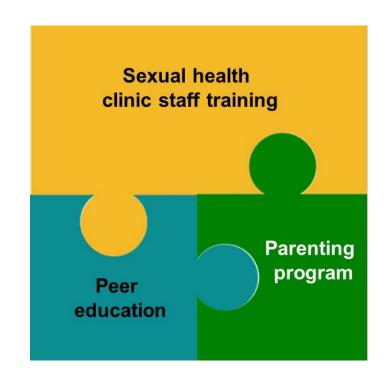
Program models vary in the type and number of elements/activities – for example:

- Classroom sessions
- Coaching
- Text messages



Program components defined by different populations from a key priority area served

- Key priority area: Expanding access to SRH for teens
- Program has a component each for clinic staff, youth, and parents



Program components defined by content

- Sexual risk avoidance
- Comprehensive sex education
- Positive youth development



What is an example of a component from your program or innovation?

Section of an online app

Online instruction audiences Partners

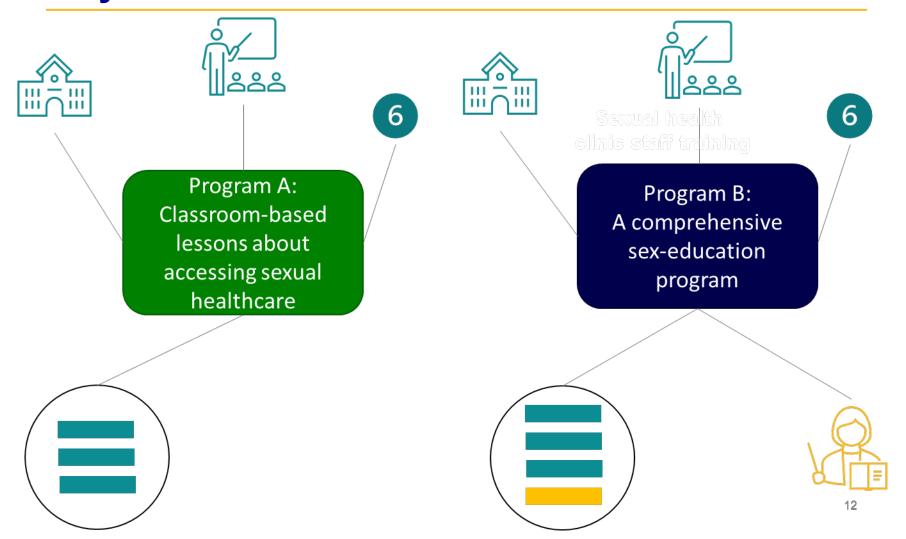
slides

discussion videos Workshops

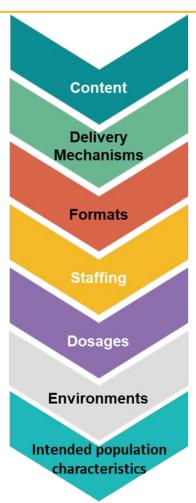
mentoring, education sessions, provider training

Virtual sessions Family engagement

Comparing programs defined in different ways



Types of program components (1)



Youth experience

The intended subject matter of a program

The intended principles and practices by which the content is provided

The intended structure and organization by which the content is delivered

The intended training and characteristics of the individuals delivering content

The intended duration, frequency, and intensity of the program

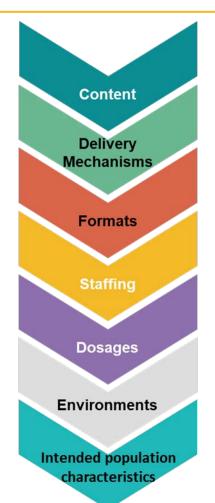
The intended settings or locations where the program occurs

The characteristics of the intended population receiving programming

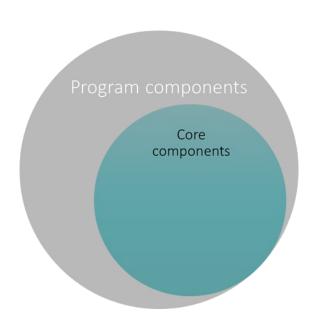
Types of program components (2)

 Combinations of program components describe how a program is meant to be implemented

A 20-minute, small group activity with high school students during health class featuring a discussion about communication in healthy relationships



What are core components?



- These core components are hypothesized to be drivers of program effects, but we don't have the evidence to prove this yet
- Rigorous effectiveness evaluation one way to produce evidence about which core components affect outcomes
 - For studies in process, we can disaggregate programs into their components and produce preliminary evidence

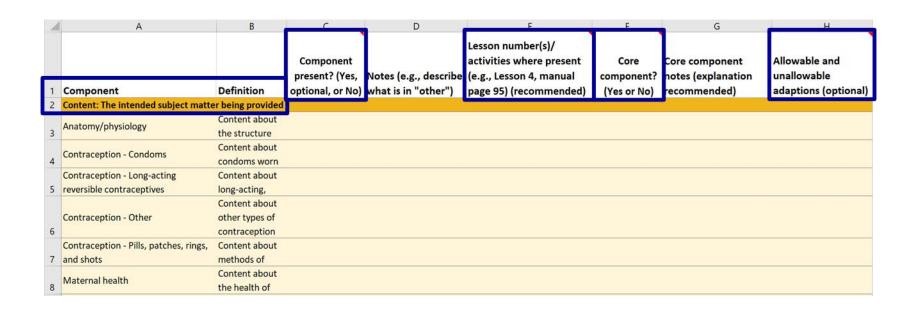
Benefits of describing program components (1)

- For all
 - Consistent and efficient program descriptions
- For developers
 - Mechanism for communicating which components are core, and providing adaptation guidance
- For program providers and implementers
 - Document program implementation, OPA-approved adaptations

Benefits of describing program components (2)

- For researchers
 - Answer additional research questions, beyond effectiveness of program as a whole
- For consumers
 - Easier to digest program contents and make program selection decisions
- For OPA and the TPP field
 - Ability to compare TPP programs and their components to each other will lead to stronger evidence and informed program improvement

Tool for defining components: Components checklist



Illustrative program description after checklist completion

Content

- Goal setting
- Consent
- Healthy relationships
- Contraception—condoms
- STI prevention
- ...

Delivery mechanism

- Lecture
- Demonstration
- Role play/practice
- ..

Dosage

- 8 1-hr classroom sessions
- ...

Staffing

- Health educator
- Developer training
- ...

Format

- Full-group activity
- Small-group activity
- In person
- ...

Environment

- High school health class
- ..

Please share up to 3 core components from one of your innovations:

Healing-centered approach

Lecture and role plays

Service learning activity

Local resources

Curriculum

Location

relationship "wheel" Mobile app Facilitators

Inclusive language

Strategy healthy relationshipsvideo vingnettes

Youth in foster care EBPs Curricula App Parent Toolkit

High school youth Live, online instruction Discussionbased

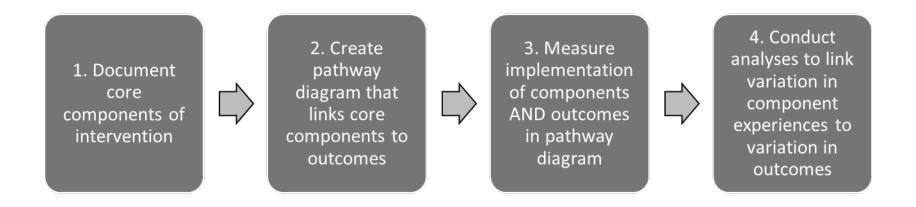
Led by youth experience Contraception info

Black Males

Conducting analyses to understand how components influence outcomes



Steps to link components to outcomes



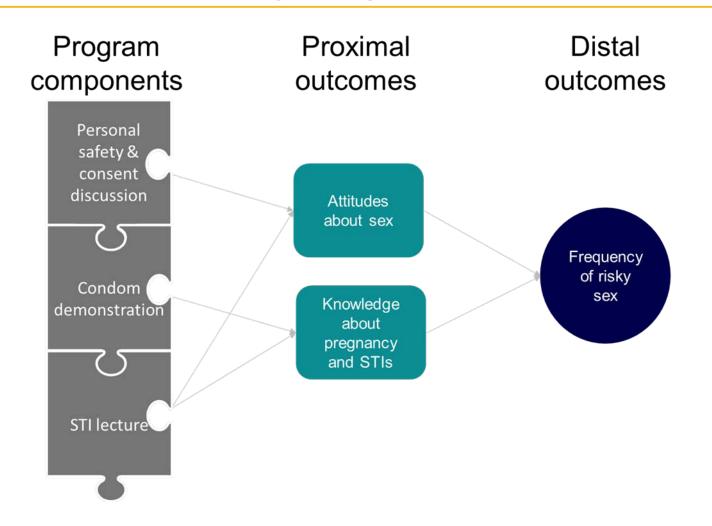
Step 1: List core components of intervention

- Using checklist
- Using pre-defined components hypothesized to be important a-priori (e.g., three structural elements)
 - Personal safety and consent discussion
 - Condom demonstration
 - STI lecture

Step 2: Create pathway diagram

- A pathway diagram is a visual representation of the link between core components and outcomes of interest
 - A more fine-grained version of your program's logic model
- Proximal outcomes influence distal (behavioral) outcomes
- Connect the core components to the proximal outcomes, which ultimately connect to the distal outcomes

Illustrative pathway diagram



Step 3a: Collect data on implementation on components

- Define the mechanisms by which program participants receive intended core components
 - Attendance/Dosage
 - Engagement
 - Quality of delivery
- Collect data on attendance/quality/etc., for each component of interest
- These data enable identification of youth who have different experiences of core components

Step 3b: Collect data on outcomes in pathway diagram

- Collect participant-level data for each <u>outcome</u> in the pathway diagram through follow-up surveys or other data sources
 - These data enable us to explore the extent to which variation in component experiences influence variation in youth outcomes
 - Collecting baseline measures of outcomes allows for additional analyses to improve credibility of findings
- Link the implementation data to the outcome data
 - Ideally, linkages should occur at the individual level (e.g. student X's attendance records should be linked to student X's survey data)

Step 4: Conduct analyses to link components to outcomes

Broad Research Question

Example Research Question

Suggested Analytic Approach

What is the impact of receiving a sufficient dose of a component?

What is the effect of receiving the intended dose of classroom lessons on participant knowledge?

Quasi-Experimental Approach

How do core components influence a single outcome?

Which core component plays the biggest role in influencing participant attitudes?

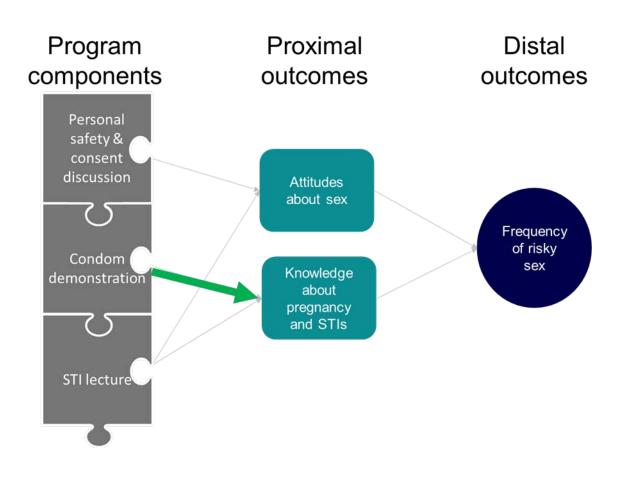
Correlational Approach

How do core components influence multiple, potentially sequenced outcomes?

Which core components play the biggest roles in influencing proximal and distal outcomes?

Structural Equation Model Approach

Illustrative component finding



"Individuals who attended the condom demonstration lesson had scores on the pregnancy and STI knowledge scale that were 11 percentage points higher than those who did not attend that lesson (p = .02)."

Is this feasible in year 3 of IIN grant?

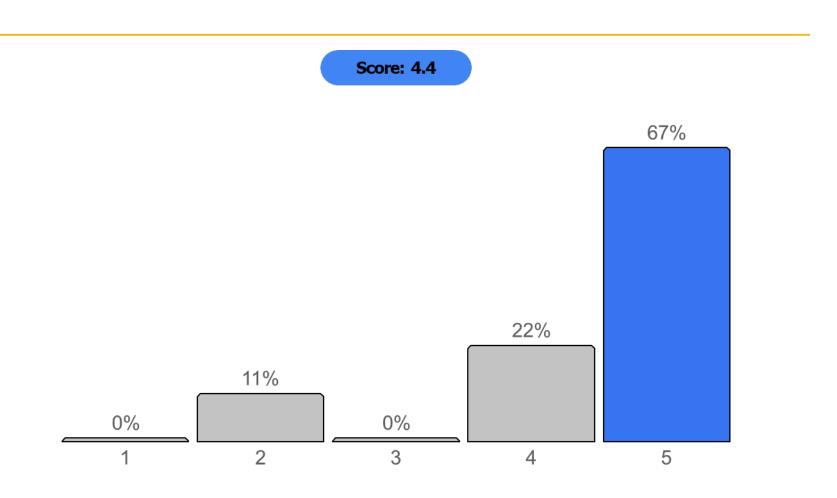
- Focus on 1 or 2 interventions at most
- Focus on small number of core components
- Think about readily available implementation data sources (attendance!)
- Focus on proximal outcomes in logic model
- Consult with your Eval TA Liaison!

Conclusions

- Documenting the components of your intervention has many benefits
- Even in year 3 of IIN grants, it is possible to
 - Document components of promising interventions
 - Collect data to showcase the promise of certain components
- But remember, this work should <u>complement</u> your primary evaluation activity

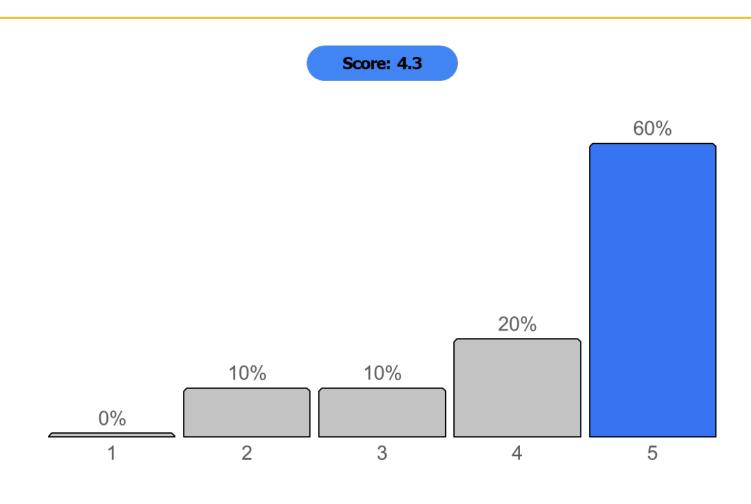


How interested are you (from 1-5) in completing a component analysis of your innovation(s)?





How interested are you (from 1-5) in documenting the components of your innovation(s)?



Reminder about Evaluation TA

- Your Evaluation TA Liaison is a resource!
- They can review and provide feedback on component documentation, data collection plans, and linking variation in component experiences to variation in outcomes

Component resources from OPA

- Structural Elements of an Intervention
- Understanding How Components of an Intervention Can Influence Outcomes
- Practical example: Examining Intervention Component
 <u>Dosage Effects on Substance Use Initiation in the</u>
 <u>Strengthening Families Program: for Parents and Youth</u>
 <u>Ages 10–14</u>
- Keep an eye out for
 - Checklist
 - Instructions
 - Brief

Contact information

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Q & A