



Office of Adolescent Health Evaluation TA Deliverables & Toolkit

Russell Cole
Senior Researcher
Mathematica Policy Research

Presentation at the TPP Tier 2 Orientation
November 10, 2015



- Purpose of deliverables
- Phases of evaluation
 - Deliverables for each phase
 - Supporting resources
- Deliverable timeline

- Support rigor of your local impact evaluations
 - Meeting HHS evidence standards
 - Showing positive and statistically significant program impacts
- Facilitate preparation of credible and interpretable final report
 - Deliverables are “stepping stones” to final report
 - Interim products as useful marketing tools

Phase	Timeline
Evaluation Planning	Year 1
Data Collection	Years 2-5
Analysis	Year 4-5
Reporting	Year 5

- Compendium of templates for deliverables and resources
- Structured by phase of evaluation
 - Folder for deliverables
 - Folder for resources
- Hardcopy and electronic versions available (on Max.gov)

Planning Phase

- Identify key features of design/implementation to change/enhance before start of evaluation
- Prepare for implementation
- Document plan as an abstract for dissemination
- Key Deliverables:
 - Approved Evaluation Design*
 - Evaluation abstract

- TPP Eval TA team conducts formal design review based on application
- Draft evaluation design checklist completed
- Checklist discussed during initial monthly calls with grantees, and updated with up-to-date information
 - During calls, Eval TA team may suggest changes to improve design
- Once all key parties (grantee, evaluator, PO, Eval TA team) agree on key features of design, approval memo drafted
- Approval memo will summarize key points of discussion and include checklist as appendix as our mutual understanding of the proposed design

- Will all of the units be assigned at the start of the implementation, or will units be added over the period of the evaluation (e.g. are there multiple cohorts or is assignment ongoing?)
- What is the unit of treatment delivery (teacher, school)?
- If random assignment, describe the process for random assignment at each level (for example, site and individual levels). Who conducts RA?

- Given approval of final report, shift to documentation for dissemination
- TPP Eval TA team provides template for abstracts and conducts training
- Grantees draft abstract using information from approved design review
- TPP Eval TA team conducts review
- OAH approves abstract and posts online

Abstract Template (example sections)

Primary Research Question(s)	Describe the primary research question(s) that address program effectiveness on behavioral outcomes.
Sample	Describe the study sample in 1-2 paragraphs. This should include information on sample formation, eligibility criteria for the target population and any purposeful sampling criteria that was used to select the sample. Please include the projected sample size.
Setting	Describe the geographic setting where the study is taking place in 3-4 sentences. This should include information on where program delivery is occurring for the intervention and control/comparison groups.

- Overview of Eval TA (p.7)
- HHS Evidence Standards (p.17)
- Statistical Power (p.47)

EVALUATION TECHNICAL ASSISTANCE BRIEF

for **OAH & ACYF** Teenage Pregnancy Prevention Grantees

June 2015 • Brief 8

Understanding the HHS Teen Pregnancy Prevention Evidence Review

In this brief, we provide an overview of the U.S. Department of Health and Human Services (HHS) Teen Pregnancy Prevention Evidence Review, an ongoing systematic review of the teen pregnancy prevention literature designed to identify programs with evidence of effectiveness in reducing teen pregnancy, sexually transmitted infections (STIs), and associated sexual risk behaviors. This brief is targeted at researchers planning or implementing an evaluation of a teen pregnancy prevention program, to provide information about the review process and requirements.

Minimum Detectable Impacts Calculator

MDI and MDES Calculations for Random Assignment of Individuals.

a. Parameters Fixed by the Commissioner

Level of Significance: **0.05** # Sides of Test **Two** Power: **0.80**

b. Parameters Fixed by the Study Design

- 1. Enter the total number of individuals in the sample (n) contributing to the impact analysis (note: this is the sample size after non-response) 300
- 2. Is randomization at the individual or the group level? Individual
- 4. Enter p, the probability of assignment to the treatment group ($0 < p < 1$) 0.50
- 5. Is the outcome variable (y) binary or continuous? Binary
- 6. If a binary outcome, enter the mean of the outcome variable (y) ($0 < p(y) < 1$) 0.50
- 7. If a continuous outcome, enter the SD (> 0) of the outcome
- 8. If randomization is at the group level, enter the intraclass correlation coefficient ($0 \leq ICC \leq 1$)
- 9. For both levels of randomization, enter $R_{(WG)}^2$, the proportion of the individual-level (or the within-group) variance of outcome y explained by covariates x: ($0 \leq R_{(WG)}^2 \leq 1$) 0.15

Analytic Sample Size			MDI	MDES
Treatment	Control	Total	Units of y	% SD of y
150	150	300	0.15	0.30

MDES = minimum detectable effect size; MDI = minimum detectable impact.

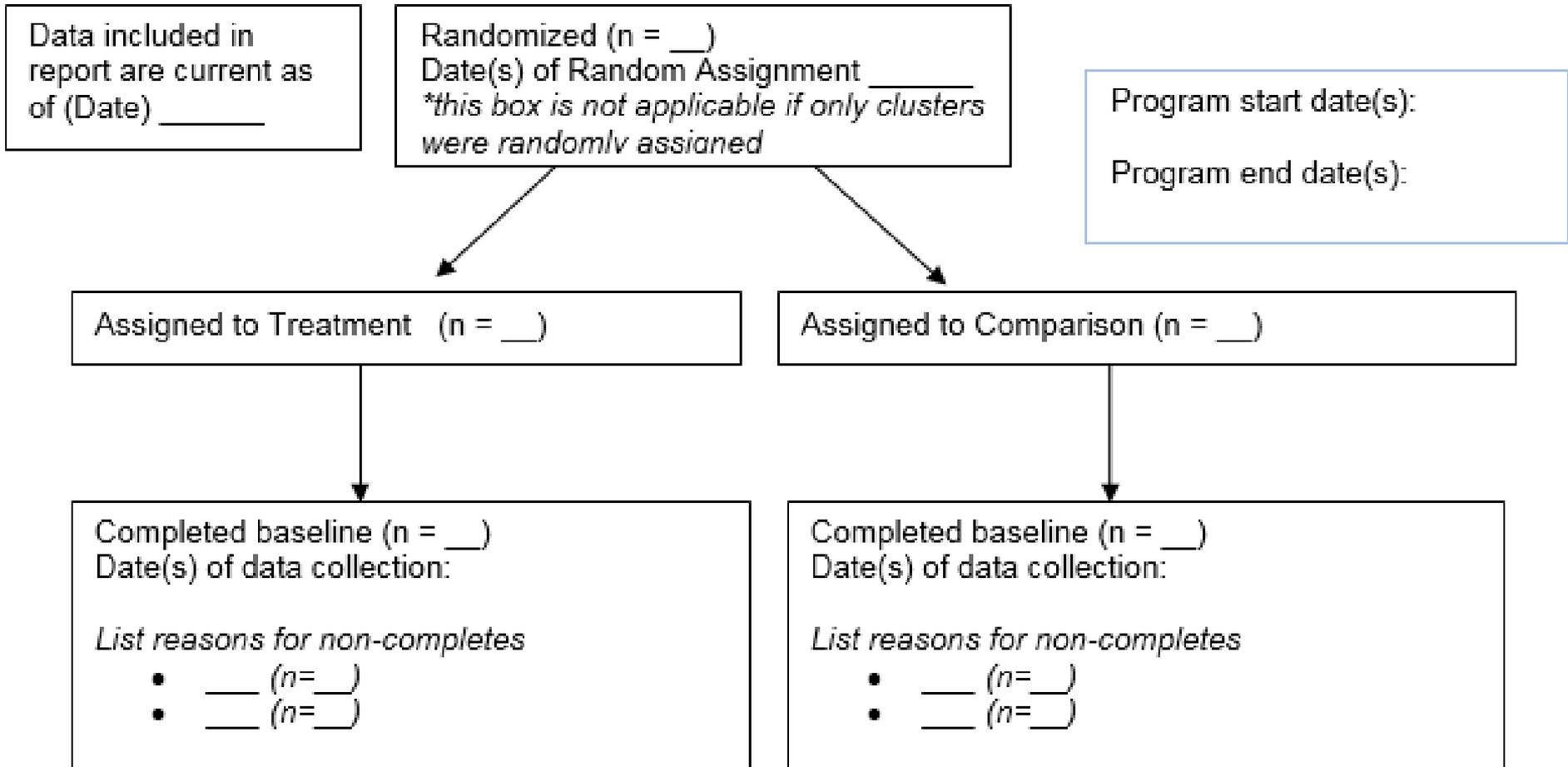


Data Collection/Monitoring Phase

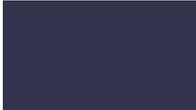
- Track evaluation implementation features associated with internal validity
 - Sample attrition
 - Baseline equivalence of analytic sample
- In addition, track progress on general evaluation milestones and features of implementation
 - Call monitoring
- Key Deliverables
 - CONSORT Diagrams
 - Baseline Equivalence Tables

- TPP Eval TA team provides template for CONSORT and Baseline Equivalence tables and conducts training
- Grantees submit docs for review 2x/year
- TPP Eval TA team conducts review of sample attrition (CONSORT review) and baseline equivalence (equivalence tables) against evidence review standards
- TPP Eval TA Team describes assessment of current status of evaluation against standards during monitoring calls

CONSORT Diagram (p.57)



Baseline Equivalence Spreadsheet (p.59)



	Treatment Group		Control Group		P-Value
	Prevalence Rate	Sample Size	Prevalence Rate	Sample Size	
Demographics					
...					
Gender					
...					
Sexual Behavior					
...					
Ever had sex?					
Ever pregnant?					
...					

Analysis Planning Stage

- Plan to conduct analyses that will
 - Provide a credible test of program impact according to HHS evidence standards
 - Allow for a clear and understandable presentation of findings

- Key Deliverables:
 - Impact analysis plan
 - Implementation analysis plan

- TPP Eval TA team provides template for plans (with resources) and conducts training
- Grantees submit analysis plans for review
- TPP Eval TA team conducts formal analysis plan review
- After rounds of review and revision, analysis plans are approved by OAH

Analytic approach for primary research questions: Describe how the benchmark analysis will be conducted to answer the primary research questions, under an intent-to-treat (ITT) framework.

- **Model specification:** Provide the model that will be used to estimate program impacts for each primary and secondary research question (logistic regression, etc.).
- **Missing data approach:** How will the analysis handle missing outcome data? How will the analysis handle data missing on any of the covariates?



Quality Indicators

Implementation Element	Types of data used to assess whether the element of the intervention was implemented as intended	Sampling of data collection ^b	Party responsible for data collection ^c
Quality of staff-participant interactions	e.g., Observations of interaction quality using protocol developed by evaluators	e.g., Convenience sample of 10% of classroom sessions were selected for observation	e.g., Evaluation staff
Quality of youth engagement with program	e.g., Observations of engagement using the YPQA	e.g., Random sample of 5% of all sessions were selected for observation	e.g., Evaluation staff

- Impact analysis plan:
 - Impact analysis plan FAQ (p.123)
 - Linear probability model brief (p.137)
 - Baseline inequivalence brief (p.149)
 - Endogenous subgroups brief (p.159)
 - Clustering adjustment brief (p.165)
 - Missing data brief (p.173)
- Implementation analysis plan:
 - Implementation analysis plan reporting FAQ (p.217)

Reporting Stage

- Report findings that:
 - Provide a credible test of program impact according to HHS evidence standards
 - Are clear and understandable to broad audiences
- Key Deliverables:
 - Evaluation abstract (updated with results)
 - Final report

- TPP Eval TA team provides template for reports/abstracts and conducts training
- Grantees submit products for review – all previously approved plans will be building blocks for final product
- TPP Eval TA team conducts formal review
- After rounds of review and revision, products are approved by OAH

Table IV.1. Post-intervention estimated effects using data from [Survey Name] to address the primary research questions

	Intervention	Comparison	Intervention compared to comparison
			Mean difference (p-value of difference)
Outcome measure	Mean or % (standard deviation)	Mean or % (standard deviation)	
Behavioral Outcome 1			
Behavioral Outcome 2			
Behavioral Outcome 3			
Sample Size			

- Foundational elements of final report
 - Proposal
 - Design review appendix
 - Abstract
 - Impact analysis plan
 - Implementation analysis plan
- Dissemination Guide
- Dissemination Webinar

Schedule of Deliverables

Program Year	Due Date	Deliverable
Year 1	2015	<ul style="list-style-type: none">• Revised evaluation design
Year 2	2016	<ul style="list-style-type: none">• Evaluation abstract• Implementation analysis plan
Twice yearly for duration of data collection		<ul style="list-style-type: none">• CONSORT diagram• Baseline equivalence tables
Year 3	2017	<ul style="list-style-type: none">• Impact analysis plan
Year 5	2019-2020	<ul style="list-style-type: none">• Final impact evaluation report• Final evaluation abstract

- Russell Cole
 - RCole@mathematica-mpr.com