EXHIBIT 1-C

MANY CRITERIA MAY BE RELEVANT TO PROGRAM PERFORMANCE

The standards by which program performance may be judged in an evaluation include the following:

The needs or wants of the target population

Stated program goals and objectives

Professional standards

Customary practice; norms for other programs

Legal requirements

Ethical or moral values; social justice, equity

Past performance; historical data

Targets set by program managers

Expert opinion

Preintervention baseline levels for the target population

Conditions expected in the absence of the program (counterfactual)

Cost or relative cost

EXHIBIT 1-E Theory for WEW65+ intervention

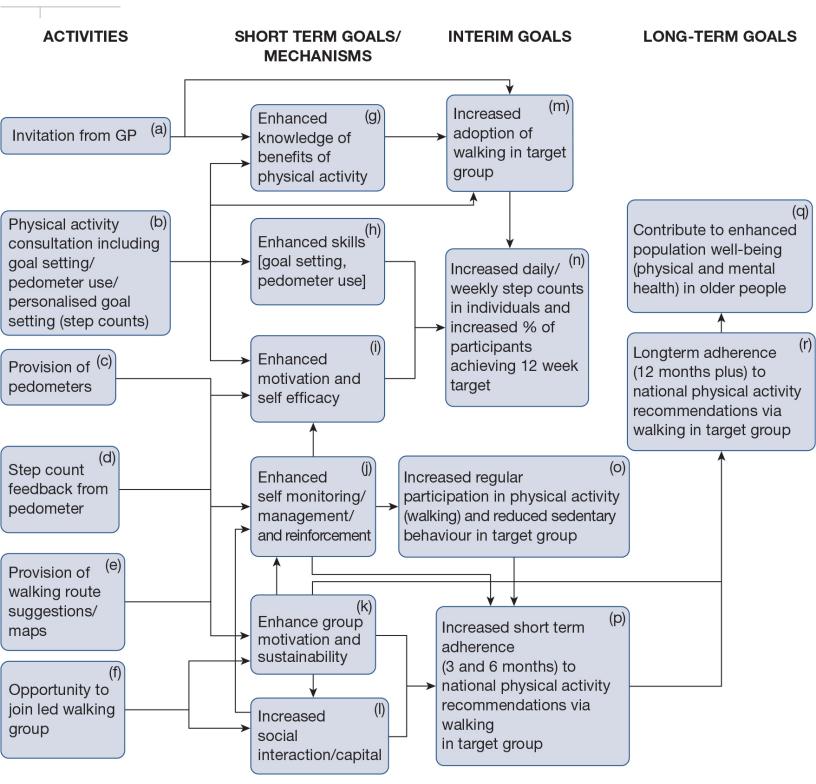


EXHIBIT 1-FA

Source	Participant- Teacher Interaction: Observation	Core Content Components: Teacher Self-Report	Sessions Offered: School Records and Teacher Self-Report	Attendance: School Records and Teacher Self-Report	Participant Engagement: Participant Self-Report	Participant Satisfaction: Participant Self-Report	Teacher Training: Study Records	Quality Summary: Score Calculated
Fidelity	Χ	Χ						
Dose delivered			X	X				
Dose received					X	X		
Program quality							X	X

Examples of poverty thresholds in 2013

One adult, one child \$16,057



One adult, two children \$18,769



Two adults, one child \$18,751



Two adults, two children \$23,624



Source: Mack (2015).

EXHIBIT 2-C

PROBABILITY SAMPLING DESIGNS

Probability Sampling Design	Definition	Salient Characteristics
Simple random sample	 All members of the study population have as equal chance of selection in the sample. 	Simple to conduct.Requires a complete list of the study population.
Systematic sample	All members of the target population have a known, nonzero chance of selection in the sample.	 Requires an interval (i) at which sample units are selected (i = N/n) and random start between 1 and i. Can be used in situations in which a complete list of the target population is not available but partial lists (or actual members of the target population) can be accessed at different sites.
Cluster sample	 All units of the target population are members of one and only one cluster. All clusters have an equal chance of selection into the sample Data are collected on all units in the randomly selected clusters. 	 Often used when members of the target population are in naturally occurring groups, such as teachers in schools or case workers in county social service offices. Reduces precision compared with a simple random sample of the same size (amount of reduction depends on how much of the variation of the variable of interest is between clusters; more within-cluster variation improves precision).
Stratified random sample	 All units of the target population are placed into one and only one stratum. A known, nonzero sample of units is selected from each stratum. The probability of selection within strata can be equal or unequal depending on study goals. 	 Often useful when smaller subpopulations that are proportionately larger in some strata are of particular interest for the evaluation (e.g., underrepresented groups). Improves precision compared with a simple random sample of the same size (amount of improvement depends on the correlation between strata assignment variable and variable of interest).
Multistage sample	 Similar to cluster samples in that all members of the target population are members of a cluster. Clusters are sampled at the first stage, and then units are selected in the second stage for two-stage samples. Multiple clustering such as individuals within census tracts within counties can be combined. Clusters can be stratified before sampling. 	 Often useful in large, multipurpose probability samples drawn at the international, national, or state or provincial level. Requires sampling expertise to compute sampling weights if the probability of selection for final units is unequal and to calculate standard errors for hypothesis testing.
Ī		

Source: Adapted from Henry (1990).

EXHIBIT 2-H

PREVALENCE OF VIOLENT CRIME BY DEMOGRAPHIC CHARACTERISTICS OF VICTIMS

	Number of Persons	Prevalence
Victim Characteristics	Victimized	Rate (%)
Total victimization in 2016	3,629,180	1.33
Gender		
Male	1,872,700	1.41
Female	1,756,490	1.26
Race/ethnicity		
White	2,318,090	1.34
Black	485,670	1.44
Hispanic	540,690	1.21
Other	284,730	1.34
Age (years)		
12–17	469,490	1.88
18–24	565,950	1.86
25–34	861,490	1.95
35–49	901,440	1.47
50–64	646,900	1.02
65 and older	183,910	0.38
Marital status		
Never married	1,822,230	1.90
Married	1,027,340	0.80
Widowed	96,920	0.64
Divorced	533,160	1.98
Separated	140,290	2.79

Source: Morgan and Kena (2016).

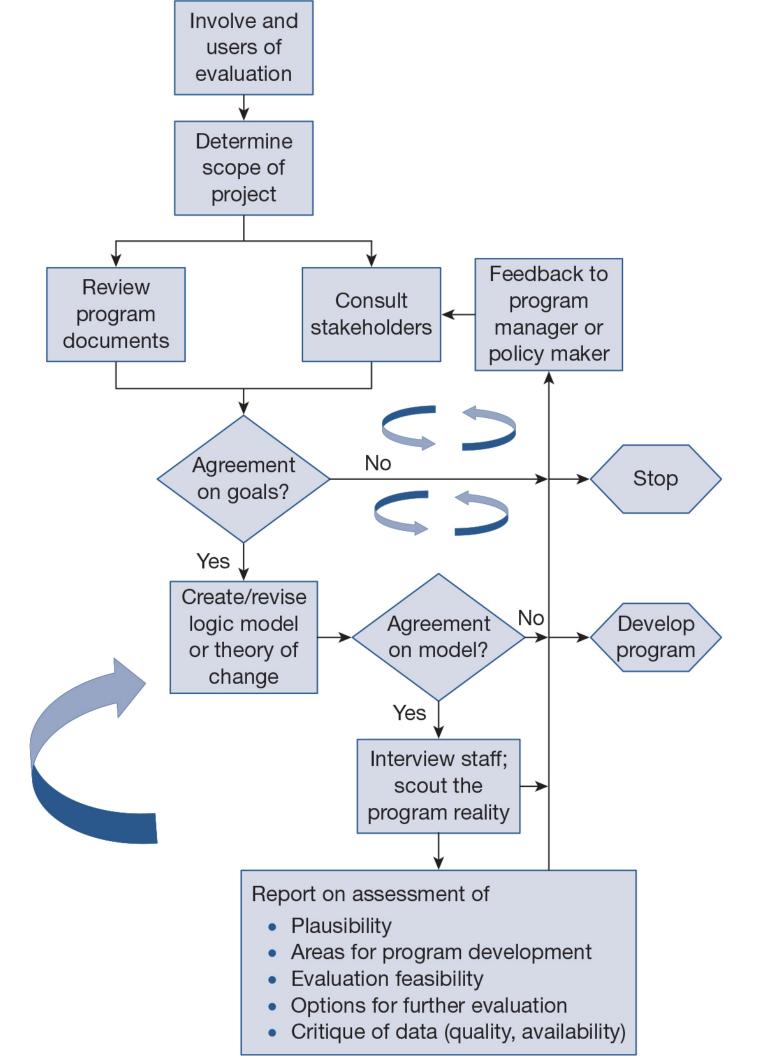


EXHIBIT 3-C

OVERVIEW OF PROGRAM THEORY

Service Utilization Plan

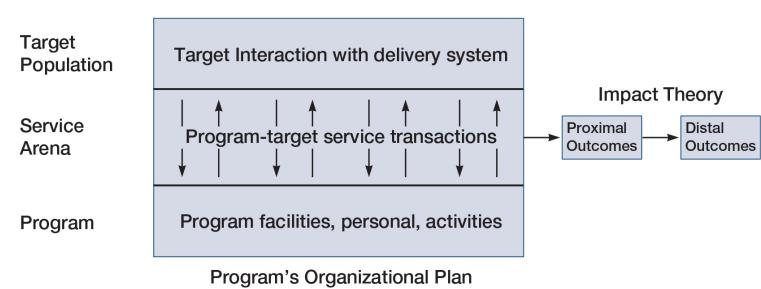
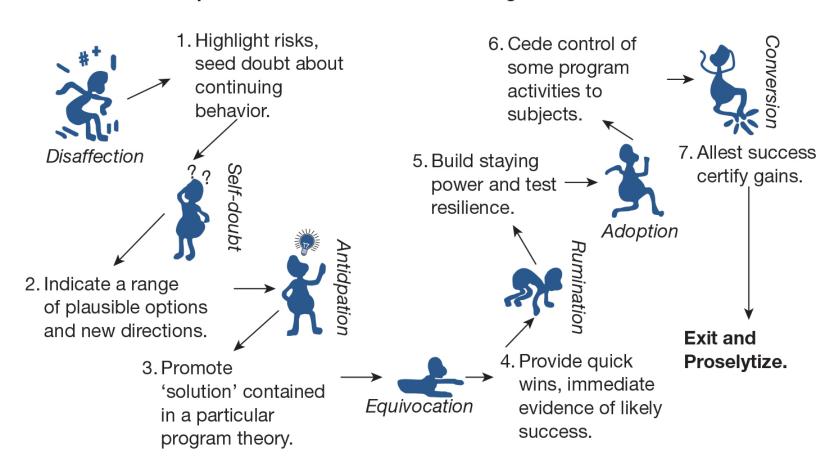


EXHIBIT 3-D

PROGRAM IMPACT THEORY: REALIZING POSITIVE BEHAVIORAL CHANGE

A Conceptual Platform for Behavioral Change Interventions



Source: Pawson (2013).

EXHIBIT 3-E

DIAGRAMS ILLUSTRATING PROGRAM IMPACT THEORIES

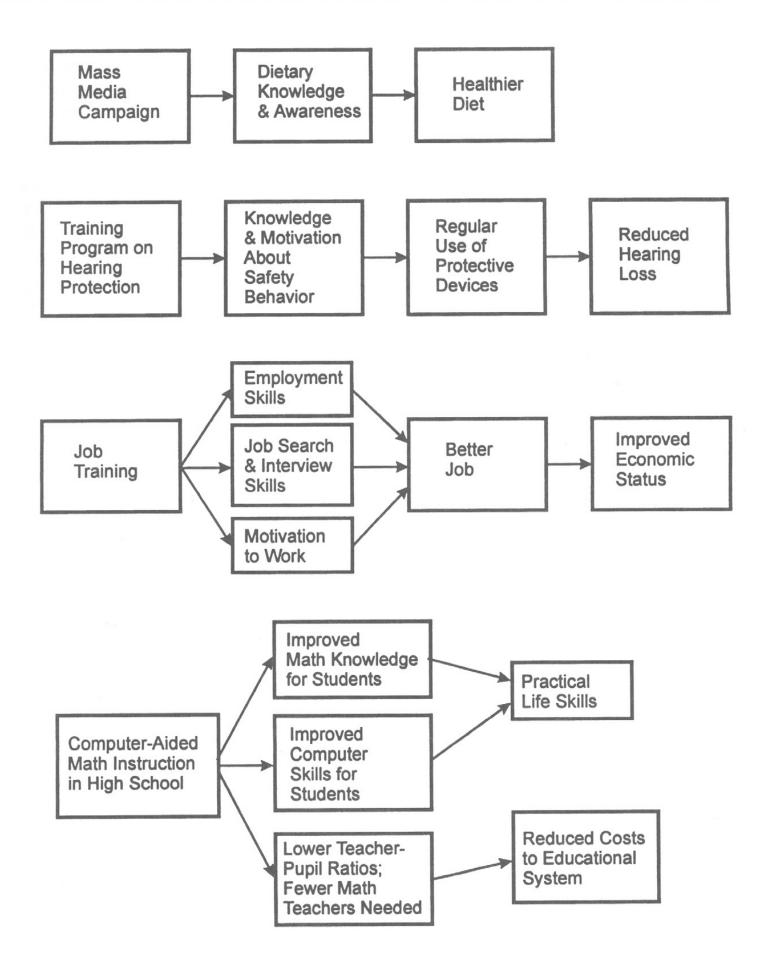


EXHIBIT 3-F

SERVICE UTILIZATION FLOWCHART FOR AN AFTERCARE PROGRAM FOR PSYCHIATRIC PATIENTS

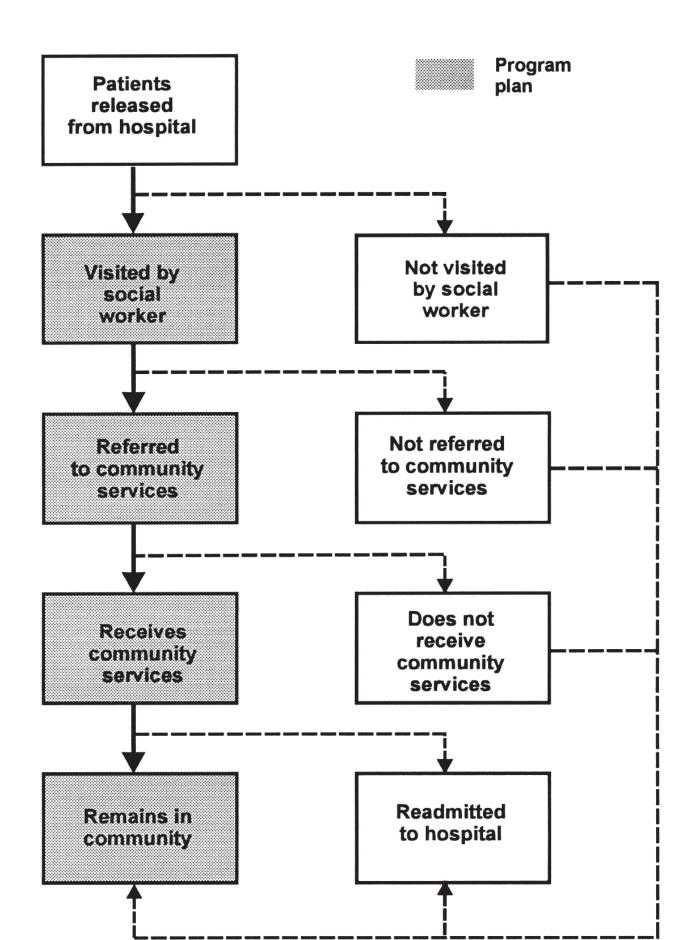


EXHIBIT 3-G

ORGANIZATIONAL SCHEMATIC FOR AN AFTERCARE PROGRAM FOR PSYCHIATRIC PATIENTS

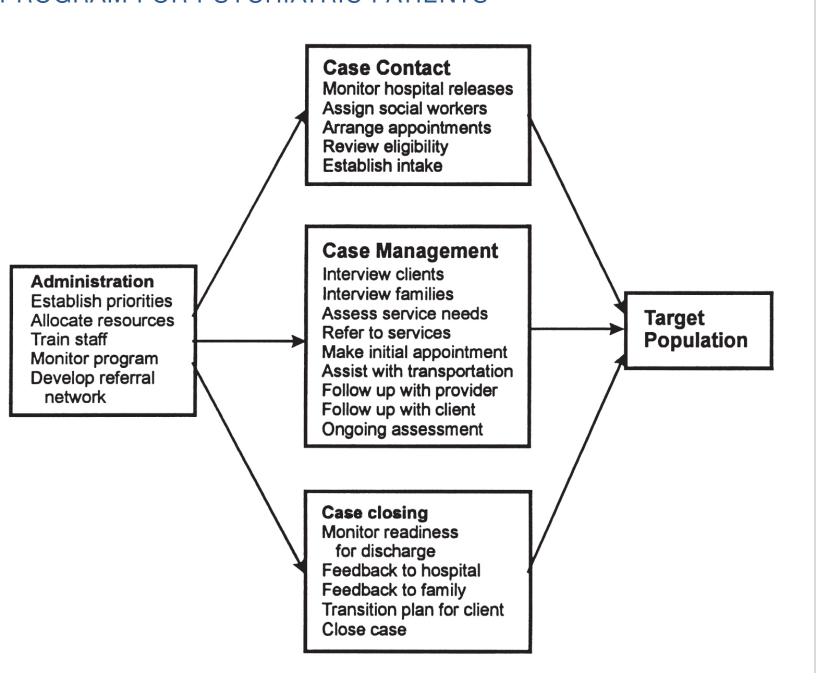


EXHIBIT 3-H

A LOGIC MODEL FOR A PROGRAM THAT PROMOTES HEALTHY EATING AND PHYSICAL ACTIVITY IN DAYCARE CENTERS

Problem statement:

After-school and day care programs are vehicles to teach and engage children in the benefits of healthier eating and increased physical activity. A healthy diet and adequate physical activity contribute to obesity prevention and ensure adoption of healthy habits for a lifetime.

INPUTS

 Program/policy developers

Program/policy team

- Managers
- Program/policy staff
- Stakeholders
- Evaluators/ sanitarians

Other stakeholders

- Educate and train implementation to sanitarians about policy and its
- assistance and support Ongoing teaching

physical activity,

nutrition Resources

Staff trained in Public support

ensure implementation

Milk served to children

- Maximum of 6 oz of

100% juice/day

operators and staff

follow regulations

Child care setting

older than 2 years must contain <1% milk fat

> Inspection of child care settings for compliance

Nutrition

Nutrition guidelines

Physical activity

guidelines

Funding

curricula and training Provide nutrition

Physical activity

Partnerships

 Provide physical activity curricula and training

SHORT-TERM OUTCOMES

General program/policy

ACTIVITIES

OUTPUTS

Revised NYC Health

Code Regulations

(~1-3 years)

General program/policy

and understanding of Increase awareness policy and its requirements

inspected to ensure

compliance Nutrition

about policy and its day care directors

implementation

Educate and train

Child care settings

Day care directors

Revise NYC Health Code

Regulations

General program/policy

and staff trained

- Trainings for new locations to implement program
- adhere to policy without Sites have capacity to financial duress

Nutrition

Reduced intake of energy-dense low-nutrient, beverages, fruit juices

Prohibit sugar-sweetened

Water must be available

throughout the day

Parents do not provide

beverages

junk food to their children

healthy beverages in Increased intake of age-appropriate, portions

to take to day care centers

Physical activity

- activity
- structured)

LONG-TERM

OUTCOMES (~3-6 years)

General program/policy trained and provided All day care centers

resources to comply

Program growth Maintenance or improvement in Nutrition

Physical activity

eating habits

physical activity in improvement in Continued children

GOAL

Contribute to improving physical activity levels the eating habits and day care programs of youth in group

children 12 months and

Increased physical

At least 60 min/day of

Child care operators

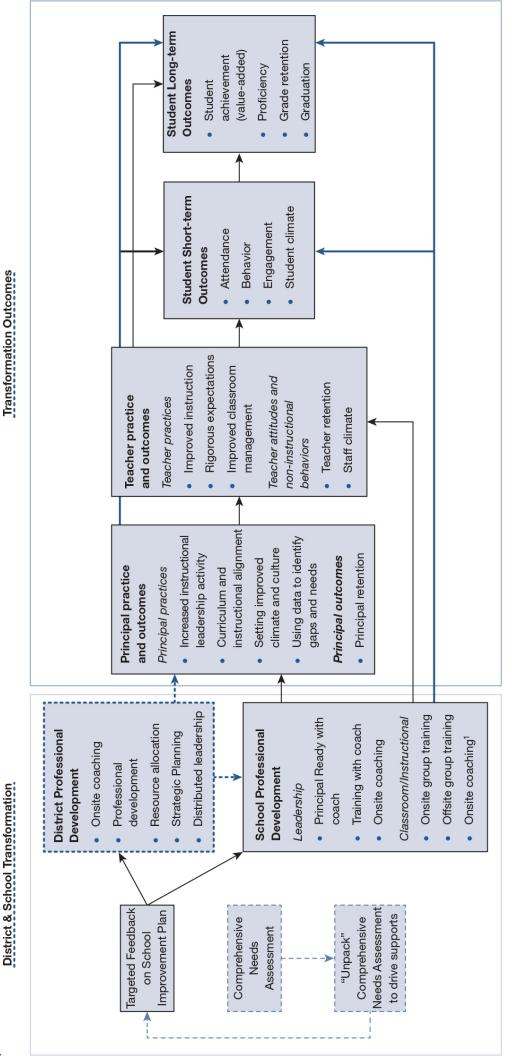
Physical activity

follow regulations

physical activity for

- Decreased TV/video viewing above (30 min must be

60 min/day of educational and/or physical activity Limit TV/video viewing to a maximum of programming



Blue dashed components denote variable timeline across treatment schools. Yellow dotted components denotes activity that is not available to all districts. Gray text denotes data not currently available.

Onsite coaching could include modeling, instructional planning, observation with feedback, and other interactions

EXHIBIT 4-B

SIX COMPONENTS OF COMPREHENSIVE PROCESS EVALUATION

Saunders (2016) lists six components that should be considered when planning a process evaluation including implementation fidelity and the purpose each serves:

Plan Component	Purpose
Fidelity	Extent to which the program was implemented consistently with underlying theory, design, and philosophy
Dose delivered	Amount or number of intended units of each component delivered by the program staff
Dose received	Extent to which participants actively engage with, interact with, are receptive to, and/or use materials or resources; can include initial use and continued use
Satisfaction	Participant (can be direct and indirect participants) satisfaction with program and interactions with staff
Reach	Proportion of the priority intended beneficiaries who participate in the program; include documentation of barriers to participation
Recruitment	Procedures used to approach and attract participants at individual or organizational level; includes maintenance of participant involvement in program activities and measurement components of the evaluation

Source: Adapted from Saunders (2016).

EXHIBIT 5-A OUTCOME LEVEL, OUTCOME CHANGE, AND PROGRAM EFFECT

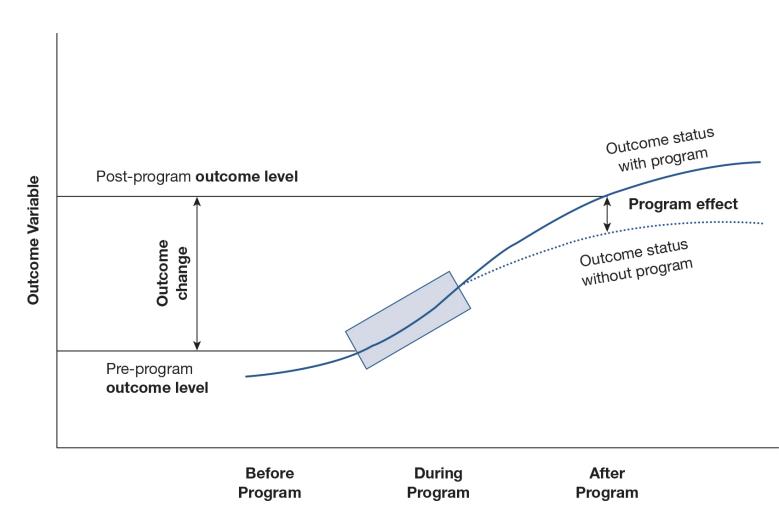
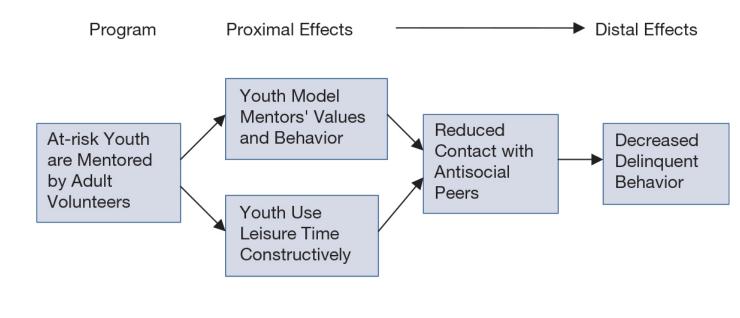
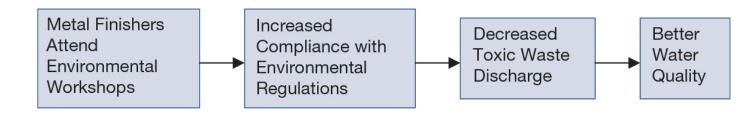
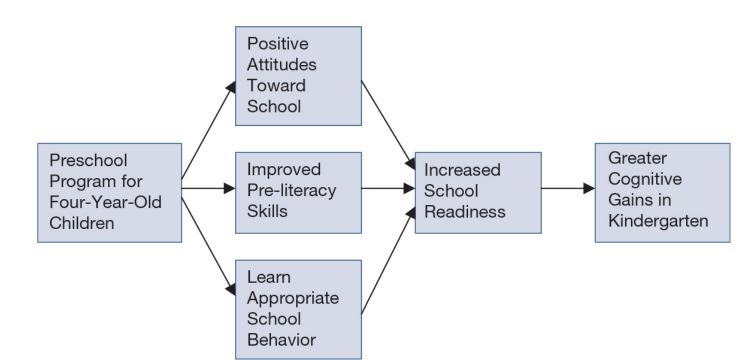


EXHIBIT 5-C

EXAMPLES OF PROGRAM IMPACT THEORIES SHOWING EXPECTED PROGRAM EFFECTS ON PROXIMAL AND DISTAL OUTCOMES







Satisfaction Ranking of 16 Aspects of Service

Ranking	Aspect	Percentage of Satisfied Respondents	Mean Satisfaction Score (Range = 1–5)
1	Maintenance of confidentiality	97	4.45
2	Knowledge of HCP	96	4.74
3	Overall satisfaction	95	4.46
4	Attitude of HCP	94	4.73
5	HCP understood clients' needs	94	4.68
6	Physical environment (waiting areas)	93	4.22
7	Suitable appointment time	91	4.29
8	Management of staff (waiting areas)	91	4.21
9	Location	91	4.27
10	Advice given during consultation	90	4.53
11	Included clients' decisions in treatment	89	4.56
12	Length of consultation time	84	4.45
13	Uninterrupted consultation	83	4.31
14	Availability of HCP	83	4.28
15	Benefited more than expected	79	4.15
16	Waiting time on arrival	34	2.74
Overall mean	(excluding "Waiting time on arrival")	90	4.42
Overall mean	(including "Waiting time on arrival")	86	4.32

Source: Adapted from Chow, Li, and Quine (2012).

Note: HCP = health care provider.

EXHIBIT 6-A

Impact Evaluation Objectives	Questions to Be Answered
Average impact	What is the average difference in the desired outcomes that is attributable to the influence of the program?
	Are there unintended beneficial or adverse effects of the program?
Subpopulation average impacts	What is the average program impact on relevant outcomes for different important subpopulations?
Dosage effects	Are more program services and/or higher quality services associated with better outcomes?
Fidelity of implementation	How closely does program implementation match the program plan for the intended implementation?
	How much does the fidelity of program implementation vary across time, sites, or individuals?
	Is greater fidelity of implementation associated with larger program effects?

EXHIBIT 7-A

ILLUSTRATION OF BIAS IN THE ESTIMATE OF A PROGRAM EFFECT

Outcome Measured after Treatment

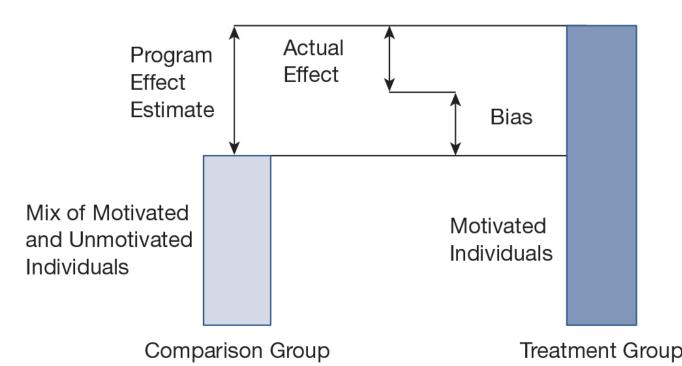


EXHIBIT 7-C

SIMPLE STATISTICAL ADJUSTMENTS IN AN EVALUATION OF THE IMPACT OF A HYPOTHETICAL EMPLOYMENT TRAINING PROGRAM

I. Outcome comparison between men ages 35 to 40 who completed the training program and a sample of men ages 35 to 40 who did not attend the program

	Participants	Nonparticipants
Average wage rate	\$7.75	\$8.20
n	1,000	1,000

II. Comparison after adjusting for educational attainment

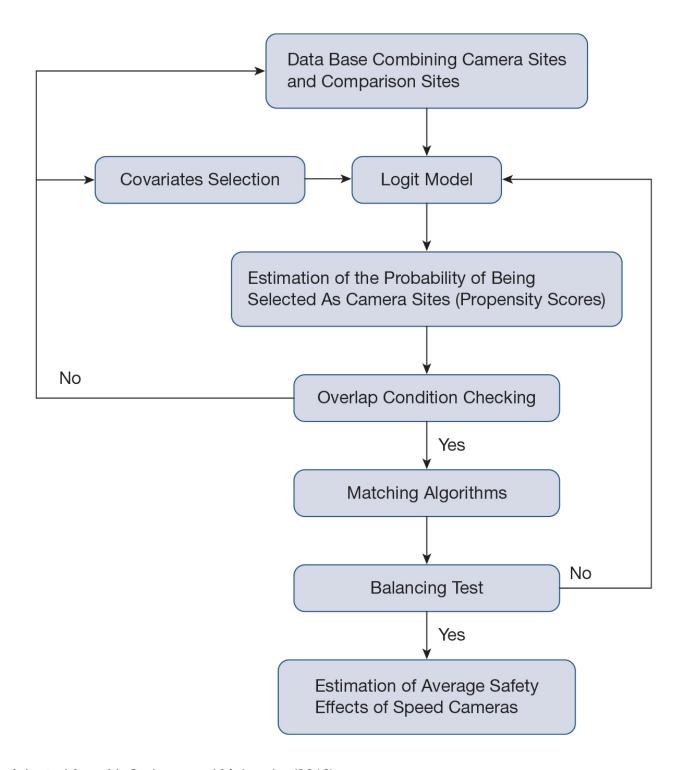
	Participants		Nonparticipants			
	Less Than High School High School		Less Than High School	High School		
Average wage rate	\$7.60	\$8.10	\$7.75	\$8.50		
n	700	300	400	600		

III. Comparison after adjusting for educational attainment and unemployment at the time the program began

	Participants		Nonparticipants						
	Less Than		Less Than						
	High School	High School	High School	High School		High School			
Unemployed Unemployed		Unemployed	Unemployed	Employed	Unemployed	Employed			
Average wage rate	\$7.60	\$8.10	\$7.50	\$7.83	\$8.00	\$8.60			
n	700	300	100	300	100	500			

EXHIBIT 7-EB

DIAGRAM OF THE APPLICATION OF PROPENSITY SCORE MATCHING TO THE EVALUATION OF THE SAFETY EFFECTS OF SPEED CAMERAS



Source: Adapted from Li, Graham, and Majumdar (2013).

Cost Ingredients	Total Cost	Cost to School District	Cost to State Government	Cost to University	Cost to Students and Parents
Personnel					
2 high school teachers	9,000	9,000			1
2 university professors	14,400			14,400	
2 parent aides (volunteers)	3,600				3,600
Facilities					
High school science lab and classroom	2,000	2,000			
Materials and equipment					
Photocopies	400	400			
Materials for science experiments	500	250		250	
Laboratory equipment	500			500	1
Other					
Maintenance and janitorial services	1,500	1,500			
Insurance	1,800	1,800			
Utilities	900	900			
Required participant inputs					
Transportation (time, vehicle costs)	625				625
Total ingredients cost	35,255	15,850	0	15,150	4,225
User fees		-1,000			1,000
Other cash subsidies		-7,500	7,500		
Net costs	35,225	7,350	7,500	15,150	5,225

Source: Adapted from Levin and McEwan (2001).

EXHIBIT 10-G

EXAMPLE OF COST-BENEFIT CALCULATIONS FROM DIFFERENT ACCOUNTING PERSPECTIVES FOR A HYPOTHETICAL EMPLOYMENT TRAINING PROGRAM

Benefits/Costs			Amount
(1) Earnings improvement of trainee	s (before taxes)		\$100,000
(2) Earnings improvement of trainee	s (after taxes)		80,000
(3) Value of work done in training pe	eriod		10,000
(4) Project costs for facility and pers	50,000		
(5) Project costs for equipment and	5,000		
(6) Trainee stipends (direct transfer	12,000		
(7) Earnings forgone by trainees (be	11,000		
(8) Earnings forgone by trainees (aft	9,000		
(9) Taxes lost: (7) - (8)	2,000		
	Individual	Program Sponsor	Communal
Benefits	(2) 80,000 (6) 12,000 92,000	(1) – (2) 20,000 (3) 10,000 30,000	(1) 100,000 (3) 10,000
	32,000		110,000
Costs	(8) 9,000	(4) 50,000 (5) 5,000 (6) 12,000 (7) – (8) 2,000 69,000	110,000 (4) 50,000 (5) 5,000 (7) 11,000 66,000

a. Note that net social (communal) benefit can be split into net benefit for trainees plus net benefit for the government; in this case, the latter is negative: 83,000 + (-39,000) = 44,000.

EXHIBIT 11-B

Research Questions for the Evaluation of the Transformation of North Carolina's Lowest Performing Schools

 Assessing overall impacts What are the effects of North Carolina School
Transformation on intermediate outcomes such as teacher
mobility and instructional practices and student outcomes,
such as achievement and disciplinary incidents?

2. Assessing subgroup impacts

What are the effects of North Carolina School Transformation on the outcomes of the lowest achieving students, defined as those not achieving proficiency on either mathematics or reading tests in the prior year?

3. Probing for underlying mechanisms or "active ingredients"

What underlying processes, such as student engagement or academic press, appear to mediate or suppress overall effects and effects on the lowest achieving students?

4. Assessing processes and implementation fidelity

What is the quality of the implementation of transformation services, including the comprehensive needs assessment, leadership coaching, instructional coaching, and professional development activities in turnaround schools? Are the transformation services implemented with fidelity? What is the amount and quality of comparable services delivered to control group schools during the study period?

EXHIBIT 11-C

EXAMPLE TIMELINE FOR AN EVALUATION
USING MIXED METHODS FOR DATA COLLECTION
(ADMINISTRATIVE, SURVEY, SITE VISITS, AND DOCUMENTS)

Implementation and Evaluation			Year 1									
Tasks	Lead	8	9	10	11	12	1	2	3	4	5	6
Program participants identified	Agency		X									
Plan for services finalized	Agency	Χ										
Meetings with agency and evaluation team	Evaluator											
Evaluation procedures finalized	Evaluator	X										
Develop survey	Evaluator				X							
Develop implementation fidelity items	Evaluator				X							

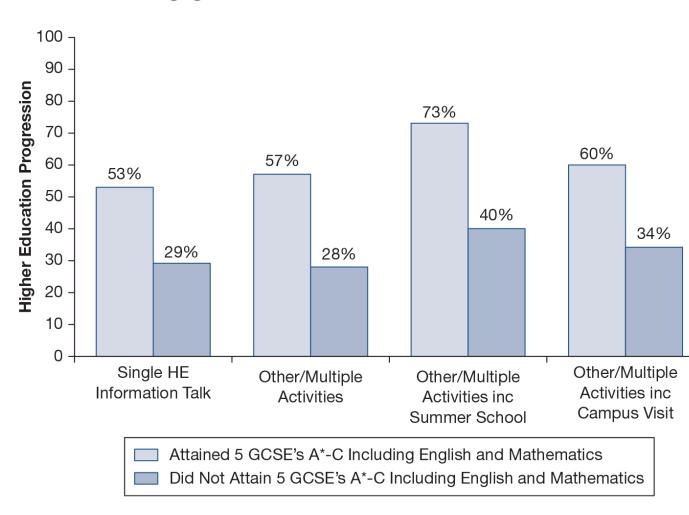
Implementation		Year 1										
and Evaluation Tasks	Lead	8	9	10	11	12	1	2	3	4	5	6
Develop service report coding rubric	Evaluator					X						
Phase 1 services delivered	Agency											
Site research access agreements	Agency			X								
Phase 2 services delivered	Agency								Χ			
Phase 3 services delivered	Agency											
Administrative data transferred (baseline from prior year)	Agency											
Administrative data preparation	Evaluator						X					
Update baseline data treatment and control	Evaluator							X				
Check balance and conduct validity checks	Evaluator											
Report data transferred	Agency											
Pilot and finalize survey	Evaluator							X				
Test and finalize service report coding	Evaluator											
Semiannual Briefing 1	Evaluator							X				
Evaluation advisory committee meeting	Evaluator											
Code and analyze service report data	Evaluator									X		
Site visits	Evaluator										Χ	

Implementation and Evaluation		Year 1										
Tasks	Lead	8	9	10	11	12	1	2	3	4	5	6
Administer survey	Evaluator									X		
Preliminary implementation briefing	Evaluator								X			
Clean and analyze survey data	Evaluator											X
Annual report preparation and finalize	Evaluator											
Update preliminary briefing	Evaluator											X
Semiannual Briefing 2	Evaluator											X

Note: Gray shading represents the period in which activities are conducted. X marks the completion month for the task.

IGURE 1

Higher Education Progression Rate by GCSE Attainment and Outreach Engagement

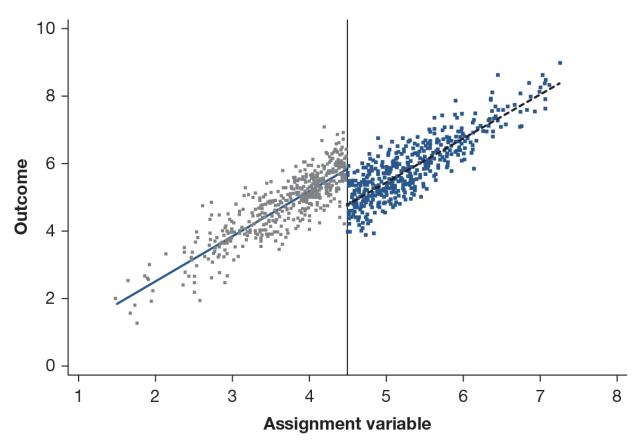


Source: Higher Education Access Tracker (2017).

Note: GCSE = General Certificate of Secondary Education.

FIGURE 8-1

A Cut Point (4.5) on the Variable That Assigns Units to the Treatment or Control Group, With Those Below the Cut Point Receiving an Intervention That Boosted Their Scores on the Outcome Measure



Gray denotes the treatment group, and blue denotes the control group.

FIGURE 8-C1 Assessment for Eligibility, Randomization, and Follow-Up

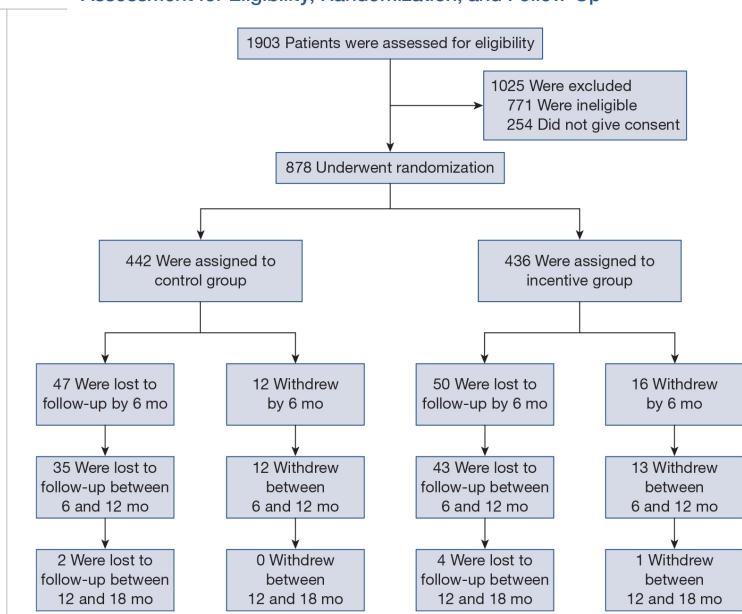


FIGURE 8-D1

The Assignment of Schools to the Danish Randomized Field Evaluation of Increased Instructional Time

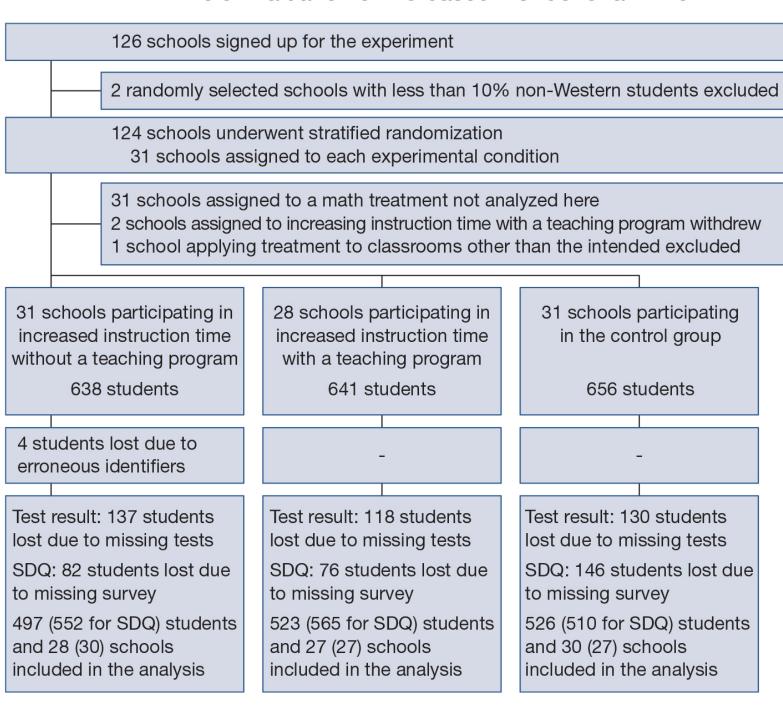


FIGURE 8-E1 Receipt of Curative Care From a Doctor or Health Center

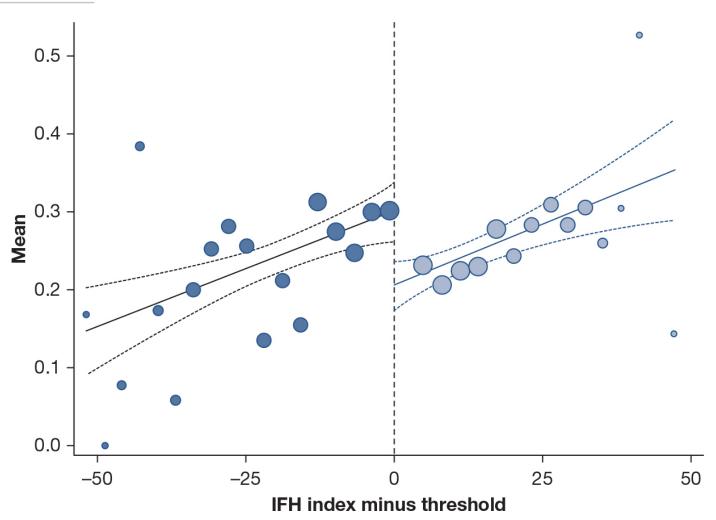


FIGURE 9-E1

A Logic Model for a Training Program in an Industrial Setting That Promotes the Use of Equipment That Protects Against the Adverse Effects of the High Levels of Noise in That Environment

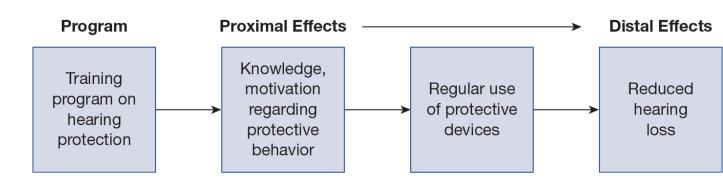
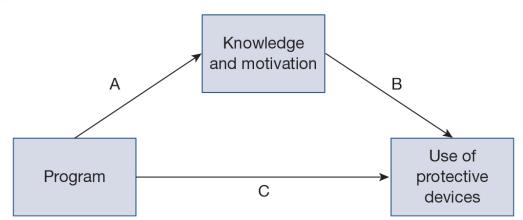


FIGURE 9-E2

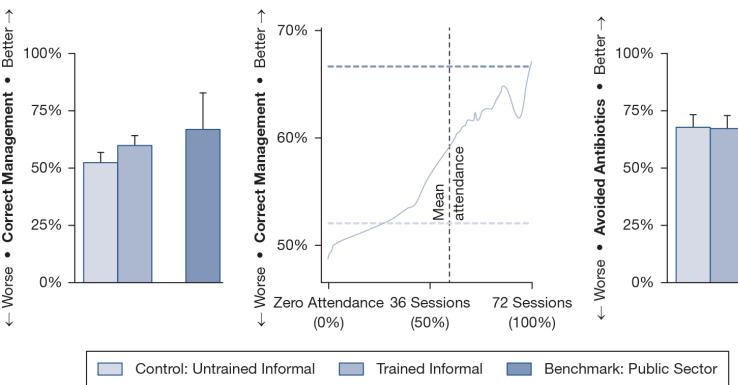
Diagram of the Hypothesized Mediational Relationship Between the Program and Use of Protective Devices



Despite 56% mean attendance, trained informal providers correctly managed more cases, closing half the gap with the public sector.

Providers who completed the full training course correctly managed cases as often as public-sector doctors.

However, training had no impact on the avoidance of unnecessary antibiotics.



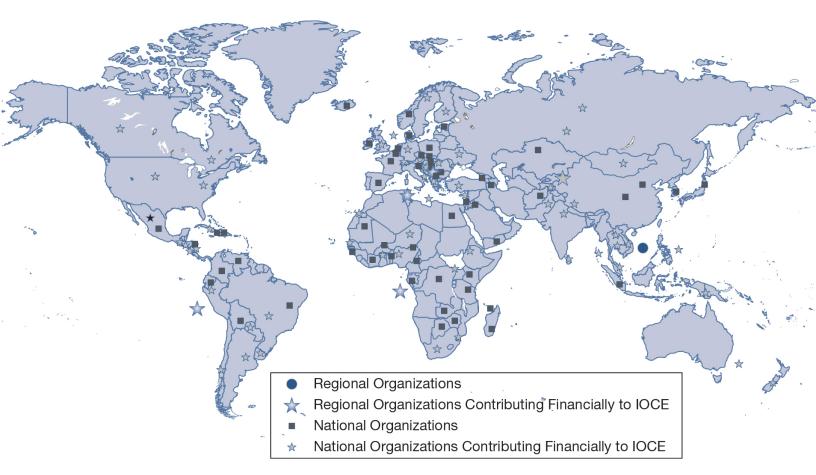
	Success	Failure
Intervention group	p	1 <i>- p</i>
Control group	q	1 – q

	No Relapse	Relapse
Treatment	.55	.45
Control	.40	.60

		Year		
1	2	3	4	5
\$1,000	\$1,000	\$1,000	\$1,000	\$1,000
$(1 + .10)^1$	$(1 + .10)^2$	$(1 + .10)^3$	(1 + .10)4	(1 + .10)5
= \$909.09	= \$826.45	= \$751.32	= \$683.01	= \$620.92

Required Component	Content to Be Included
Abstract (maximum length: one single-spaced page)	Title, topic and goal (from the lists provided in request for application), purpose, setting, population/sample, intervention, control condition, research design and methods, key measures, and data analytic strategy
Project narrative (maximum length: 25 pages)	Significance: description of the program/intervention to be evaluated, including problem it is intended to address, documentation that it is fully developed, and theory of change for the intervention
	Research plan: sample, setting, measures (outcomes, mediators and moderators, and fidelity of implementation and comparison group practices), research design, power analysis, data analysis procedures, cost analysis, and timeline
	Personnel: key personnel on the project team (4-page biographical sketches in appendix), management structure, plan to ensure objectivity, and contributions to prior evaluations
	Resources: capacity to manage the grant, access to resources relevant to conducting the evaluation, resources to be acquired to conduct evaluation, access to project sites (agreements with stakeholders in appendix), and access to secondary data (agreements with data sources in appendix)
Additional miscellaneous	Data management plan
requirements	Human subjects narrative
	Bibliography and references cited

Source: Institute of Education Sciences (2015).



Source: Downloaded from the International Organization for Cooperation in Evaluation (https://www.ioce.net/members) on July 27, 2018.



Results of main analysis: mean costs, number of weeks in employment and QALYs of supported employment and standard care per adult with autism seeking employment, over the time horizon of the analysis (17 months of intervention + 8 years follow-up)

	Mean total	Mean total day service				
	intervention	cost over 8-year		Mean number		
	cost over	follow-up (incurred by	Mean total	of weeks in	Mean number	
	17 months	unemployed only)	cost	employment	of QALYs	
Supported employment	£5044	£4193	£9237	136	5.42	
Standard care (day services)	£2742	£5893	£8635	102	5.3 l	
Difference	£2302	− £1700	£602	34	0.11	
Cost- effectiveness	ICER of supported employment versus standard care: £18/extra week in employment; ness £5600/QALY					

QALY: quality-adjusted life year; ICER: incremental cost-effectiveness ratio.

Note that numbers have been rounded to the nearest \mathfrak{L} (costs), to the nearest integer (weeks in employment) and to the nearest second decimal digit (QALYs).

TABLE 6-1 Possible Potential Outcomes

		If Exposed to Program		
		Success	Failure	
If Not Exposed to Program	Success	Α	С	
		Bulletproof	Backfire	
	Failure	В	D	
		Bull's-eye	Out of range	

TABLE 6-2

Hypothetical Average Program Effects for Three Scenarios Using the Potential Outcomes Framework With a Target Population of 250 Individuals

	Example 1: More Bull's-Eyes		Example Back	2: More fires	Example 3: More Bulletproofs	
	Successes With Program	Successes Without Program	Successes With Program	Successes Without Program	Successes With Program	Successes Without Program
Cell A: bulletproof	50	50	50	50	100	100
Cell B: bull's-eye	100	0	50	0	50	0
Cell C: backfire	0	50	0	100	0	50
Cell D: out of range	0	0	0	0	0	0
Total successes	150	100	100	150	150	150
Total failures	250 – 150 = 100	250 – 100 = 150	250 – 100 = 150	250 – 150 = 100	250 – 150 = 100	250 – 150 = 100
Odds of success	150/100 = 1.50	100/150 = .667	100/150 = .667	150/100 = 1.5	150/100 = 1.5	150/100 = 1.5
Ratio of odds of success with and without program		7 = 2.25 erage effect)	.667/1.5 (negative ave	0 = 0.45 erage effect)		0 = 1.00 age effect)

TABLE 7-F1

Adjusted Probabilities Before and After Massachusetts Health Reform

			Other Ne	w England			
	Massac	chusetts	Sta	ates			
	2001–2006	2007–2011	2001–2006	2007–2011	Difference-in-Differences		
Health status							
General health	66.2	65.5	66.6	64.2	1.7*		
Physical health	79.8	80.4	80.1	79.4	1.3*		
Mental health	75.1	75.2	75.6	74.2	1.5*		
Preventive health care access							
Mammogram	85.3	85.6	83.2	83.6	-0.1		
Pap test	93.8	93.3	93.5	90.7	2.3*		
Colonoscopy	59.7	71.2	61.8	67.8	5.5*		
Cholesterol check	90.7	92.6	90.2	90.7	1.4*		
Health care access							
Covered by insurance	94.4	96.8	92.9	91.7	3.6*		
Have personal physician	89.7	90.7	88.4	87.8	2.4*		
Have cost barriers	5.9	5.8	7.5	9.4	- 2.0*		

^{*}Statistically significant differences.

Source: Adanted from Van der Wees. Zaslavsky, and Avanian (2013)

TABLE 8-A1

		Study Year								
	19	97	19	98	19	99	20	04	20	005
Outcome Measure	Т	С	Т	С	Т	С	Т	С	Т	C
Rapid letter sounds	15.9	9.9	27.6	14.7	25.9	10.8	28.5	15.3	31.4	18.5
Segmenting	13.5	7.2	16.8	13.7	23.3	16.0	17.9	14.0	19.4	18.4
Word identification	6.1	3.7	7.9	5.7	8.8	5.0	12.7	10.3	14.2	17.4
Word attack	3.3	1.4	5.1	2.6	5.4	1.9	5.4	3.4	5.4	5.9



Conditions for Deciding to Conduct Randomized Field Trials in the Justice Area

Federal Judicial Center

- 1. Pre\sent practice needs improvement or is of doubtful effectiveness.
- 2. Significant uncertainty exists about the value of the proposed innovation.
- A randomized experiment is the only practical means of determining effectiveness of the innovation.
- Evidence to be used to inform future decisions about retaining status quo or implementing innovation.
- 5. Experimentation may require different considerations, especially to protect human subjects in some fields, such as justice, than in others, such as medicine, because informed consent may not be possible.

Source: Federal Judicial Center, Advisory Committee on Experimentation in the Law (1981).

TABLE 8-C1

Outcome Variable	Control Group (%) (n = 442)	Incentive Group (%) (n = 436)	Program Effect (Percentage Points)
Smoking cessation program			
Participation	5.4	15.4	10.0
Completion	2.5	10.8	8.3
Smoking cessation through 3 or 6 months			
Self-reported	14	23.4	9.4
Confirmed	11.8	20.9	9.1
Smoking cessation through 9 or 12 months			
Self-reported	6.1	15.1	9.0
Confirmed	5	14.7	9.7

Source: Volpp et al. (2009).

TABLE 9-C1

Total Sample Size Needed to Detect Different Minimum Detectible Effect Sizes With Different Levels of Statistical Power With and Without a Strong Covariate

		MDES				
Power (beta)	Covariate	.10	.20	.30	.40	.50
.70 (.30)	No	2,471	619	276	156	101
	Yes	1,237	311	139	79	52
.80 (.20)	No	3,142	787	351	198	128
	Yes	1,572	395	177	100	65
.90 (.10)	No	4,205	1,053	469	265	170
	Yes	2,104	527	236	133	86
.95 (.05)	No	5,200	1,302	580	327	210
	Yes	2,601	652	291	165	106
.99 (.01)	No	7,352	1,840	820	462	297
	Yes	3,677	922	411	233	150

Note: Alpha = .05. MDES represented as the standardized mean difference effect size. Total sample size divided evenly between intervention and control groups. Baseline covariate that correlates .71 with the outcome measure, accounting for 50% of the variance on that measure. Power calculations done with PowerUp! software (Dong & Maynard, 2013; Google "PowerUp! software" to locate current Source for free download).

TABLE 9-D1

Statistical Power for Cluster Assignment With Varying Intraclass Correlations and Number of Clusters With Total Sample Size and MDES Held Constant

Total sample = 1,000						
MDES = .25	ICC					
Number of Clusters	.00	.01	.05	.10	.20	.30
10 (100 per cluster)	.90	.68	.24	.14	.08	.07
20 (50 per cluster)	.96	.86	.51	.32	.19	.14
50 (20 per cluster)	.97	.94	.79	.62	.42	.31
1,000 (1 per cluster) [no clustering]	.98					

Note: Total sample size of 1,000 evenly divided between the intervention and control groups; MDES of .25. Outcomes are measured at the individual level. Statistical significance is tested at alpha = .05 (two-tailed). No baseline covariates are included in the analysis model. Power calculations were done with PowerUp! software (Dong & Maynard, 2013; Google "PowerUp! software" to locate current Source for free download).

TABLE 10-C1 Quality-Adjusted Life-Year Gains Per Person

Postintervention Period	2% Weight Loss	5% Weight Loss
5 years	.14	.30
10 years	.35	.81
20 years	.91	2.11

Source: Adapted from Wilson, Brown, and Bastida (2015).

TABLE 10-E1

Net Benefits per Student for Each State

State	Net Student Benefit	Net Social Benefit
Illinois	705	-7,214
Kansas	4,030	1,595
Kentucky	-305	-3,922
Louisiana	1,639	-1,025

Note: Net benefits in 2015 dollars.

TABLE 10-F1

Estimates of the Differences in Monthly Health Expenditures for Wrap Participants Relative to Control Youth During the Follow-Up Period

Expenditure Category	Monthly Average Cost		
Medical inpatient services	59		
Medical outpatient services	-117		
Mental health inpatient services	-2,137		
Mental health outpatient services	331		
Prescriptions	41		
Total	-1,823		

TABLE 10-K1

High School Completion Rates in the Five Talent Search Sites Included in the Cost-Effectiveness Study

Site	Talent Search Participants	Comparison Students	Percentage Point Difference
Α	90.4%	81.4%	9.1
В	88.3%	80.6%	7.7
С	63.4%	61.3%	2.1
D	96.7%	69.4%	27.3
E	85.0%	72.7%	12.4

TABLE 10-K2 Cost-Effectiveness of Talent Search on High School Completion at Five Sites

	Cost Per	Total Number of	Program Effect: Additional	Additional Completers as Proportion of Total Number	Cost Per Additional	Additional Completers Per
Site	Participant Participant	Participants	Completers	of Participants	Completer	\$100,000
А	\$4,900	615	56	.091	\$53,810	1.86
В	\$2,870	751	58	.077	\$37,250	2.68
С	\$2,770	1,100	23	.021	\$131,930	0.76
D	\$2,820	705	192	.272	\$10,330	9.68
E	\$3,650	759	94	.124	\$29,560	3.38
Overall	\$3,400	3,930	423	.108	\$30,660	3.26