Identifying & Adapting Evidence

Worksheet for City Government

Overview

What do we mean by identifying and adapting evidence?

Have you ever come across a program or policy and wondered if it could work in your city? Or perhaps your city is trying to find a solution to a particular problem, and you want to know what has worked elsewhere. In these instances, you may want to identify evidence-based programs (EBPs) that could be adapted and implemented in your city.

This guide is for city staff who:

1 Want to implement a solution to a defined problem in their city;

2 Have a basic understanding of their city's institutional and political context;

3 Have a basic understanding of evaluation rigor; and

4 Are interested in identifying – and potentially adapting – an EBP for their local context.

What is an Evidence Based Program (EBP)?

An **Evidence Based Program (EBP)** is a program or practice that has demonstrated positive results through rigorous evaluations. For example:

- In Georgia, Michigan, and New Jersey,   found that accelerated middle school programs had statistically significant and substantively important effects on progressing in school.

-                              demonstrate the positive impacts of expanding broadband access ont a range of economic mobility outcomes. However, further research is needed on digital skills and access programs.

Why do it?

There are myriad opportunities to improve the lives of our residents, but there are also constraints on resources and time. If a program has demonstrated positive results elsewhere, why reinvent the wheel?

Adapting existing programs with a robust evidence base can be more efficient than developing an entirely new program in your city. However, it's rare that an EBP can be copied into a new context and produce the same outcomes– some forms of adaptation will need to occur. Examples of adaptations to EBPs include:

- Materials are translated to the local language and illustrations are redesigned to reflect the demographics of the target population in the new context.

- Materials that were delivered electronically in the original context are printed and delivered when adapted to rural contexts.

- A   delivered by specialists in higher income contexts is adapted so trained community workers deliver the intervention in lower income contexts.

Adapting EBPs also helps your city meet the EVAL4 Criterion for What Works Cities Certification. Learn more   !

What's the process?

This guide will walk you through four elements of identifying and adapting an EBP in your city, outlined in Figure 1 below.

Expect to spend anywhere between 4-6 hours on this worksheet, and feel free to work on it over a few days.

IDENTIFYING AND ADAPTING EVIDENCE BASED PROGRAMS IN YOUR CITY

Define	Identify	Adapt	Implement & Evaluate
Define the problem in your city	Identify EBPs to address the problem	Adapt the EBP to your city context	Implement & evaluate the intervention in your city

Define

15 min.

Before you start looking for EBPs, take a second to define your problem. This will help you to direct your search and assess how well an EBP fits your problem and context.

Define a problem statement

What is the problem you want to address?

YOUR ANSWER

Define the causes of the problem

Think about the factors driving the problem you are observing.

YOUR ANSWER

Identify the population of interest

Are you interested in a specific age or demographic group? Are you interested in a specific geography within your city?

YOUR ANSWER

Identify

2-4 hrs.

Try to spend no more than 2 hours total identifying EBPs. Then aim to spend 15-30 minutes per EBP working through the tables in the rest of this section.

Use your problem definition to identify EBPs

When identifying potential EBPs you will want to assess if it's a good fit, if it's feasible, and if the evidence is rigorous.

Here are some tips to find EBPs:

Brainstorm some keywords related to your problem.

- For example, if you would like to reduce the rate of skin cancer among teens and young adults, you might select: Skin cancer prevention, sun protection behaviors, youth.

Combine problem-related keywords with keywords related to EBPs.

- If you want to know about any solution that addresses your problem, try adding the words *intervention* and *evaluation*.

- If you're interested in more specific interventions like community-based interventions or SMS interventions, add in those keywords.

Search reputable databases.

- Clearinghouses such as Results First What Works Clearinghouse and RFA Economic Mobility Catalog compile social policies and programs and include assessments on the rigor of their evidence.

- Search engines such as Elicit or Google Scholar compile academic research and papers.

Modify your search as needed.

- If the results are not what you're looking for, adjust your search terms. For example, instead of *youth*, try *teens*; add *rural*; filter by publication year.

- Did you find a good source / EBP? Within the source, look for other relevant search terms, related EBPs that are mentioned, relevant citations, or papers that have cited the paper you're reading. You might find that the problem you are trying to solve is sometimes referred to by another term, or you might find other potential EBPs to consider.

Is this EBP worth considering for adaptation?

You'll probably find a lot of EBPs as you conduct your research, but which ones are worth working through the following analyses?

Does your EBP meet the two requirements below?

1 The EBP addresses one of the causes of your city's problem

- **Identify the problem and the cause(s) of the problem the EBP addresses.** These can quickly be found in an academic paper's abstract.

- **Compare these to your city's problem and its cause(s).** If these match up, this EBP can still be in the running.

Doesn't address a cause of your city's problem? Continue searching for more relevant EBPs.

2 There is at least one rigorous evaluation of the EBP

- **Find an academic paper.** Reading a non-academic source (e.g., a blog or news article)? Search the EBP name in Google + "RCT" or "evaluation".

- **Assess the rigor of the evaluation.** See Appendix I for guidance.

No rigorous evaluation? Continue searching for EBPs with more rigor.

What is the Evidence Based Program (EBP)?

For each EBP that meets the criteria in the section above, fill in the table below:

EBP Name	💬	💬	💬	💬
Briefly describe the EBP.				
Does this EBP address the same problem you identified above?				
Which cause(s) of the problem does this EBP address?				
What is the target population of this EBP?				
Where was it implemented?				
When was it implemented?				
Other Notes				

Assessing feasibility, fit and evaluation rigor

Next, consider how **feasible** it would be to implement this EBP in your city, the **fit** for your context and the **rigor** of the existing evidence. There's no need to do much extra research. Answer the following questions based on your understanding of your city's context and the information you filled out above.

Is it feasible to implement in your city?

EBP Name				
Do you have the available budget, time, and resources?	Yes Maybe No	Yes Maybe No 💬	Yes Maybe No 💬	Yes Maybe No
Do you have someone to own / lead implementation, internally or externally?	Yes Maybe No	Yes Maybe No	Yes Maybe No	Yes Maybe No
Can it be implemented in the short term?	Yes Maybe No	Yes Maybe No 💬	Yes Maybe No	Yes Maybe No
Can it be sustained in the long term?	Yes Maybe No	Yes Maybe No	Yes Maybe No	Yes Maybe No
Do you have buy-in from stakeholders?	Yes Maybe No 💬	Yes Maybe No 💬	Yes Maybe No	Yes Maybe No
Could this be implemented without, or despite, major interference due to politics?	Yes Maybe No	Yes Maybe No	Yes Maybe No	Yes Maybe No
Notes:				

Is it a good fit for your city?

EBP Name				
How similar is the context of the EBP to your project context?	Not at all similar Has similarities Near perfect match	Not at all similar Has similarities Near perfect match	Not at all similar Has similarities Near perfect match	Not at all similar Has similarities Near perfect match
Does the EBP resolve the cause of your issue and therefore resolve your problem (select one answer for each EBP)	Does not resolve the same cause(s) Addresses part or some of the cause(s) Addresses the same cause(s)	Does not resolve the same cause(s) Addresses part or some of the cause(s) Addresses the same cause(s)	Does not resolve the same cause(s) Addresses part or some of the cause(s) Addresses the same cause(s)	Does not resolve the same cause(s) Addresses part or some of the cause(s) Addresses the same cause(s)
How similar is the target population of the EBP to your target population?	Significantly different Some similarities Very similar	Significantly different Some similarities Very similar	Significantly different Some similarities Very similar	Significantly different Some similarities Very similar
Why did the intervention work?				

Has it been rigorously evaluated?

What was the evaluation method and sample size? See Appendix II for more information.				
What were the outcomes?				

Which EBP should your city adapt?

After assessing the completing the tables above, use the information below to select 1-2 Evidence Based Practices to adapt and implement. For each EBP that seems like a promising solution in your city, complete the Adapt worksheet on the following page.

Is it feasible to implement in your city?	**Is it a good fit for your city?**	**Has it been rigorously evaluated?**
If it does not seem feasible to implement: • Identify what might be short term vs. long term solutions. • Advocate for more funding and resources to implement long term solutions in the future	**If it is not a good fit for your context:** • Consider if you could adapt the EBP to improve the fit • Search for other EBPs • Consider developing a new solution and evaluating it	**If it has not been rigorously evaluated:** • Consider conducting a pilot with rigorous evaluation before fully implementing.

Equity check:

Take a moment to think about equity considerations. Did the EBP have equitable outcomes for different groups? Did the program have differential impacts on any particular groups?

Fill in the rest of the workbook for each EBP that seems like a promising solution for your city.

Adapt

30 min.

EBP Name	

In your own words, write down why you think the evidence based practice will work to address the problem in your city.

YOUR ANSWER

What concerns do you have about adapting and implementing the EBP in your city?

YOUR ANSWER

When adapting an EBP, it's important to document what you will change and why. This information will be crucial to setting up any monitoring and evaluation and helping you explain why things did or did not work when adapted to your city. Be sure to think about the key components of the original EBP and why that EBP worked. If you are adapting the key components or operating in a different context, consider the extent to which you would expect similar results.

Target Population	What modifications will you need to make this EBP suitable for your target population? Consider differences such as age, race, gender, income, etc. *If modifying the target population, consider conducting qualitative research, consulting experts, or conducting desk research related to your target population.*	
Theory of Change	Describe how the EBP is supposed to work and why. Outline any key assumptions about why it works.	
	Does this rationale make sense for your city? Why or why not?	

		Original EBP	Adaptations for your city
Delivery Method	Who are the key partners or providers for implementation? *For your city, think about actors that are necessary to involve. Highlight any gaps in expertise.*		
	What are the modes of delivery of the EBP (e.g., face-to-face, online, phone, etc.)? *Would these same modes be effective in your city and for your target population?*		
	How many times was the EBP delivered? Over what period of time? (e.g., # of sessions, schedule, duration, intensity, etc.)		
Activities, Processes, Procedures	What are the core activities, processes and procedures associated with the EBP?		
Materials	What materials are used in the EBP and how would they need to be adapted for your city.		

Reflect on your adaptation plan.

How feasible are these adaptations? How far are you deviating from the original EBP's theory of change? If it's starting to feel like an entirely new intervention, you should evaluate the impact of this program and take some extra time for development and pre-testing of new or heavily adapted components before piloting.

Equity check:

Could any of the changes you are proposing have a different impact for different groups? For example, if you are making a lighter touch version of the program, could that mean it becomes less effective for those who need more resources and support?

YOUR ANSWER

Implement & Evaluate

30 min.

Why evaluate?

When implementing an Evidence Based Program in your city, you should always have some plan for monitoring or evaluation. The level of rigor needed for your evaluation will depend on:

- How much evidence already exists for the EBP
- How similar your context is to the existing EBPs
- The extent to which you have modified the EBP

Example research questions

- Does the EBP work with a different population?
- Does a cheaper or leaner version of the EBP give the same effect, assuming the population is the same?
- Does switching out the delivery mechanism change the outcomes?

Evaluation is an important tool to help you understand:

- Whether or not the program or policy works
- To what extent it works
- How it works
- For whom it works

Step	Your answer
What is the program, policy, or initiative you will evaluate?	
Do you plan to run an impact evaluation, process evaluation or both? See Appendix II for more information	
In plain language, what do you want to learn from this evaluation?	

Determining an evaluation method

- If the EBP has been evaluated many times before and adaptations are minimal, consider implementing and monitoring.

- If possible, conduct an impact evaluation to understand if the EBP is working compared to business as usual. Adding process evaluation measures specific to adaptations can help you understand why you do or don't see certain results.

- If you cannot run an impact evaluation, run a process evaluation with a focus on the things that changed to determine if there is suggestive evidence of impact (e.g., that the program is still working through the same mechanisms that worked originally).

- If your context is quite different from the EBP, you might want to run a pilot process evaluation first to understand if there anything else you need to adapt for your context (e.g., is there anything that's not working when we implement it?) before full implementation.

Next steps

- Take the necessary steps to implement the EBP in your city.

- Plan how you will evaluate the EBP before implementation. Visit   for more resources on running evaluations.

Assessing Evaluation Rigor

When you are searching literature for potential Evidence Based Programs (EBPs), there may be confusing or contradictory evidence. Here is a list of questions to consider to help you sort through the rigor of the evaluation and strength of the evidence.

How long has this EBP been running?	The age of an EBP does not necessarily indicate how effective it is, but a more mature program is more likely to be planned and resourced, and the more likely it is to be measured.
Was a systematic review conducted?	A systematic review summarizes research evidence on a given topic and may include literature reviews or meta-analyses. A systematic review of an EBP would take multiple studies from when it was implemented and evaluated in different contexts, summarize findings, and give readers a sense of the contexts where the EBP may or may not work.
Was this a lab or field experiment?	**Lab experiments** occur in researcher-controlled settings. Example: College students who watch an educational video then take a quiz. **Field experiments** occur in real-world conditions. Example: College students are assigned to watch an educational video in their dorm room then take a quiz. Students in the field experiment may be more likely to multitask or not watch the video in their dorm room than they would be under lab supervision. Therefore, we would expect quiz scores to be higher in the lab experiment than in the field experiment. A school considering investing in purchasing videos like these would likely prefer to know the outcomes of the field experiment.
Has there been an impact evaluation of this EBP?	An impact evaluation (sometimes called an effectiveness study) assesses how an EBP affects outcomes. It uses counterfactual – what outcomes would have been if the EBP had not been implemented. See Appendix II for more information.
Did the evaluation randomize participants into groups?	Randomization into a treatment group that receives the EBP and a control group that does not receive the EBP or receive another version of it can provide stronger evidence. With a large enough sample, randomization helps ensure that the groups are statistically identical on characteristics like age and ethnicity as well as things like motivation or political beliefs. The difference in outcomes between the two groups gives you a causal estimate, meaning you can confidently say that the EBP caused the observed outcome. See Appendix II for more information.

Were the outcomes observed (i.e., not self-reported)?	**Objective (observed) measures** are better than **subjective (self-reported) measures**. For example, information from government tax records is better than asking someone how much they earned last year. Self-reported outcomes are generally less accurate because people may estimate, be dishonest, feel pressured to report the socially acceptable answer, be inconsistent in their responses, among other reasons. For example, if a university surveyed their students about how many hours they study each week, we'd probably expect that answer to be higher than the amount of hours they actually study.
Were the outcomes real (i.e., not hypothetical)?	Real outcomes are better than hypotheticals, e.g. "how many jobs you applied for last month" is better than "how many jobs do you think you will apply for next month". Often, people say they'll do one thing then do something else.
When was the study published?	The year of publication is typically on the first page of a paper. Typically, you will want to look for publications within the last 10 years.
What was the sample size?	A larger sample size is better. The sample size indicates if the study was well powered– that the positive results we see aren't a fluke or due to chance. A larger sample size may also indicate that results can apply to a broader population.
What is the effect size mentioned in the abstract?	Effect size is the difference in outcomes between comparison groups in an experiment. For example, if students in the control group answered 5 questions out of 20 correctly and students in the treatment group answered 10 questions out of 20 correctly, the effect size is 5 questions. It is sometimes communicated in terms of percentage point changes, or standard deviations.
Is the effect size in the desired direction?	Sometimes the direction of effect sizes can be confusing. Did the outcome increase or decrease?. • **Positive impact:** The EBP leads to the desired effect on the outcome. For example, an increase in test scores (+5%) or a decrease in car accidents (-7%). • **Null impact:** The EBP has no impact on the outcome of interest. For example, no change in test scores (0%) or car accidents (0%). • **Negative impact:** The EBP leads to the opposite of the desired effect on the outcome. For example, a decrease in test scores (-6%) or an increase in car accidents (+4%).

Assessing Evaluation Methods for EBPs

There are many different evaluation methods and naming conventions for evaluation methods. This document will walk through two of the main types of evaluation - impact and process evaluations - and a basic overview of assessing evaluation rigor. See the overview in Figure 2 below.

FIGURE **2**

IMPACT VS. PROCESS EVALUATIONS

Impact Evaluation	Process Evaluation
Assesses program **effectiveness** in achieving its ultimate goals: • Answers questions like, "What did the intervention cause to happen?" or "Which option has the greater impact?" • Tells you the causal effect of something, • Inherently makes a comparison, and • Is focused on understanding a program's outcomes or impact.	Answers questions about the **implementation** of a program or part of a program: • Focused on questions like, "Was the program implemented as planned?" or "Does the program appear to be working as intended?" • Tells you what's happening and how it's happening, and • Is often focused on understanding a program's inputs, activities and outputs.

Robust evidence in impact evaluations

Robust evidence in impact evaluations relies primarily on your ability to determine the counterfactual. To isolate the impact you want to understand – to the best of your ability–what would have happened without your intervention. Randomization or quasi-randomization techniques allow you to create groups that are identical (or nearly identical), except for their exposure to the intervention

Randomized controlled trial (RCT)
An RCT randomizes two or more groups of people who are comparable except what treatment they receive. Randomization helps ensure groups are not skewed based on individual characteristics, such as income or preferred bedtime. An RCT answers, "Did X cause Y?"

Quasi-Experimental Design (QED)

QEDs are tools to achieve conditions that are "as good as random" when randomization is not possible. The chart below outlines three commonly used QED methods.

Method	Quasi-randomization	Comparison	Example
Difference-in-Differences	Identifying a 'similar' group to compare outcomes against	Two groups who were very similar before an intervention was introduced	Unemployment rates before and after a city minimum wage increase
Matching		Pair individuals based on similar observable characteristics	Food security for seniors who use Meals on Wheels and those that do not
Regression Discontinuity	Exploiting 'unrelated' variation between two groups	People on either side of an arbitrary cut off point	Health outcomes for residents around the cut-off for Medicaid eligibility

Beware of methods that do not use a counterfactual (pre/post, simple comparison)

Evaluation methods like a simple comparison or pre-post analysis do not use a counterfactual, meaning there is no way to know what would have happened without the intervention. If you come across evidence that compares groups over time (e.g., this year vs. last year) or before vs. after implementation, take a close look at the evaluation details.

The importance of a counterfactual

Cityville implements a financial counseling program. The city reports that the program was a glowing success because on average, participants in the program had 20% more money in their savings account after participating in the program. They did not randomize participants into groups and there was no control group to serve as a counterfactual.

In this case, there is no way to know if that same increase would have happened without the program. Perhaps many participants received a tax return or stimulus payments before the end of the program. Or maybe the first measure was taken right after rent payments are typically due and the second measure was taken right before.

Robust evidence in process evaluations

Robust evidence in process evaluations depends on 3 factors:

- Level of specificity in the evaluation plan
- Amount of data collected
- Reliability of data

Assessing Evidence in Process Evaluations

Less robust	More robust

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Light Touch Process Evaluation

- Focuses on a specific aspect of a single program

- Primarily uses administrative data

- Seeks to gather information that could be used to improve program implementation in the future, but does not take a systematic approach to developing research questions

Single Service Process Evaluation

- Focuses on a single part of the home visit program

- Uses several new simple data collection instruments (e.g., survey, focus groups)

- Systematically aims to assess a few dimensions of implementation

Comprehensive Process Evaluation

- Focuses on the full suite of services provided to seniors in the home visit program

- Captures nuance in how services are tailored to individuals since not everyone is meant to have the same experience

- Systematically aims to assess multiple dimensions of implementation