Starter Kit
5a: Building Logic Models

Navigating the Roadmap

Activity 5: Develop logic models.

Introduction

The development and use of a logic model is a critical step in understanding how evidence-based decision making (EBDM) will operate in a specific jurisdiction. A logic model helps lay out the shared understandings of what resources are available, what activities and changes will occur, what these activities and changes will produce, and what the intended long-term impacts of the initiative will be. The result of building a logic model is a picture that outlines the initiative's theory of change, with a road map of what steps need to be taken in order to produce the desired impacts.

Logic models have six main components:

- *inputs*, or resources, which represent the existing resources (both financial and human), policies, practices, facilities, and capabilities that a jurisdiction has in place to support the implementation of EBDM;
- *activities*, which represent the specific strategies to be undertaken and implemented;
- *outputs*, which specify the immediate results that occur as activities and strategies are implemented (e.g., changed policies and practices, adoption of new tools/protocols, number of people trained, number of cases in which risk assessments are administered);
- *outcomes*, which serve as indicators that change is occurring at key decision points in the justice system as a result of the activities and which demonstrate that EBDM has been implemented at the system, agency, and case levels; and
- *impacts*, which define the types of long-term results that are anticipated and that can be measured as a result of implementing EBDM.

In addition, because the logic model is intended to be a roadmap, the contextual conditions need to be considered. Contextual conditions represent the environment in which the local justice system operates and can include political, economic, social, cultural, or other factors.

For the EBDM initiative, the logic model should reflect implementation and desired change at the system level (i.e., a system logic model). The model that each jurisdiction develops will incorporate the resources, activities, etc. that are currently

The Logic Model as a Motivator

"The logic model, approached with integrity, encourages its developers to stretch their imagination and be accountable to their vision. For us, the logic model forced us to think harder and to be more specific about the results and how to measure them. It denied us the option of settling for platitudes or unquantified commitments."

–Policy Team Member, Milwaukee County, Wisconsin

being used to reach the identified harm reduction goals *as well as* the new activities that are being planned.

Purpose

Building a logic model has two purposes:

1. It helps facilitate the planning process by providing a mechanism for linking assumptions about how EBDM will work and the intended causal relationships between activities and impacts.
2. It provides a tool for managing the implementation and evaluation of EBDM activities. Because EBDM can, and should, be implemented at multiple levels, separate logic models should be developed to represent EBDM at the system and agency levels.

The system-level logic model will provide an overall picture of the types of systemic activities and policy changes that will need to occur in order to achieve the jurisdiction-wide impacts that are expected with regard to harm reduction. The purpose of the agency-level logic model is to provide each entity and agency in the justice system with a plan for what activities the agency will need to undertake to move toward EBDM, what the outputs of these activities are, and how these will impact the stakeholders' overall goal of harm reduction.

In addition to providing a graphic illustration of the causal relationship between activities and impacts, the component parts of the model also provide a sense of temporal order. In other words, the logic model can be used to show what activities or outputs need to occur before others can begin.

Participants

Initial work on the logic model—deciding what the jurisdiction hopes to accomplish—is a group discussion, ideally among the policy team. After these decisions have been reached, staff internal to the agency(ies), usually with some background in conceptualizing, planning, and implementing policy or program initiatives; staff with similar backgrounds from colleague agencies or county administration; or outside experts can develop the logic models, with input from the policy team. The instructions below assume that staff within agencies in the jurisdiction will develop the logic models.

Instructions

In general, the approach to developing a logic model—whether for the overall system or for an individual agency—is to work as a group to answer several critical questions related to what is hoped will be accomplished. The team discussion should result in answers to the following questions:

For the system model:

- Why do you want to move toward an EBDM-based system? How will the jurisdiction benefit from an EBDM-based system (i.e., how will harm to jurisdictions be reduced)?
- What significant changes do you expect from the implementation of EBDM in terms of system operation?
- What types of information will convince you (and others, including the public) that positive change has occurred?

- What are the possible unintended consequences, both positive and negative, of implementing EBDM?
- What contextual (e.g., social, political, economic) conditions might facilitate or hinder your ability to achieve the types of impacts you've identified for both the system and the jurisdiction overall?

For the agency model:

- What do you hope to accomplish as a result of implementing EBDM?
- What outcomes does your agency need to achieve in order to contribute to the systemic impacts identified above?
- What significant changes will occur within your agency as a result of the implementation of EBDM?
- What types of information will convince you (and others) that you are achieving the outcomes that you've defined?
- What are the possible unintended consequences, both positive and negative, of implementing EBDM?
- What contextual (e.g., social, political, economic) conditions might facilitate or hinder your ability to achieve the types of impacts you've identified?

The answers to these questions form the basis for two of the logic model's component parts: impact(s) and contextual conditions.

Logic models are built from right to left—first you define the impacts, then the outcomes and outputs, followed by activities, and then the inputs. Contextual conditions are defined last or in tandem with the other components because they help you identify other factors that might need to be considered in order to achieve the intended results.

An easy way to think about the development of a logic model is to think in terms of "if…then…" statements. For example, if we want to achieve these harm reduction impacts (e.g., reduced costs), then we will need to accomplish these outcomes (e.g., cost-saving measures). If we want to achieve these outcomes, then we will need to accomplish these outputs (e.g., number of low risk offenders diverted from the system). If we want to produce these outputs, then we will need to implement a specific activity or set of activities (e.g., pretrial risk assessment tool). And finally, if we want to implement this activity, then we will need to draw on these types of inputs/resources (e.g., funding to purchase a risk assessment instrument).

Good Impact and Outcome Statements

An example of a well-defined SMART impact is the following:

"75% of jail beds will be occupied by high risk offenders by 2013."

A well-articulated outcome has the same characteristics as an impact. An example of a good outcome statement is the following:

"The number of offenders who successfully complete their sentence or treatment will increase by 75% within one year."

The following instructions offer step-by-step guidance on the development of logic models.

Step-by-Step Instructions:

1. Using the logic model table in Appendix 1, list the intended impacts and outcomes and define them according to the SMART principle:
    a. Be **S**pecific.
    b. Make them **M**easurable (i.e., quantifiable).
    c. Be **A**ction-oriented.
    d. Be **R**ealistic.
    e. Articulate a **T**ime in which the change will occur.[1]
2. Define what short-term accomplishments (outputs) will be needed in order to produce the intended outcomes and impacts. For example, if your jurisdiction expects that a certain number of joint policy decisions will be adopted, then two outputs might be the number/percentage of meetings attended by each policymaker and the number of policy decisions discussed.
3. For each output identified, define the activity that will produce it. For example, if the output is to have 100% of probation officers trained in the use of motivational interviewing techniques, then the activity might be to implement a motivational interviewing training program.
4. As you define which activities will be implemented, make a list of available resources, including financial, human, and existing materials and policies, that will be used to facilitate implementation of the activities. Make note of resources that might be lacking, and consider adding activities to the model that would either produce the resources or develop the capacity needed.
5. Once you complete the logic model table, make a list of the contextual conditions that are external to the justice system but that have an impact on its operation and ability to implement the planned activities or to achieve the desired outcomes and impacts.
6. The next step is to transfer the contents of the logic model table to a logic model diagram. Laying out the diagram of the logic model will require additional consideration of how all the defined elements are logically related to each other; it may identify areas where the logic is flawed and additional work is required. The logic model diagram will also help identify any gaps that need to be filled.
    a. Appendices 2 and 3 illustrate a basic logic model structure, representing the inputs, activities, outputs, outcomes, and impacts of two specific strategies that might be part of a site's implementation plan.

Defining Your Activities: The Logic Challenge

Often there are preconceived ideas (because of funding opportunities, political will, or other reasons) about the specific activities that should be implemented. Be careful and realistic about the extent to which these activities will actually produce the intended outputs, outcomes, and impacts. As an example, consider the jurisdiction that wanted to decrease the amount of drug crime across the city. To do this, they decided to implement a truancy prevention program in one elementary school. By going through the process of linking activities, outputs, outcomes, and impacts, they would have readily highlighted the disconnect in the causal logic (i.e., what is the likelihood that a program at one elementary school will impact drug crime across the entire city?).

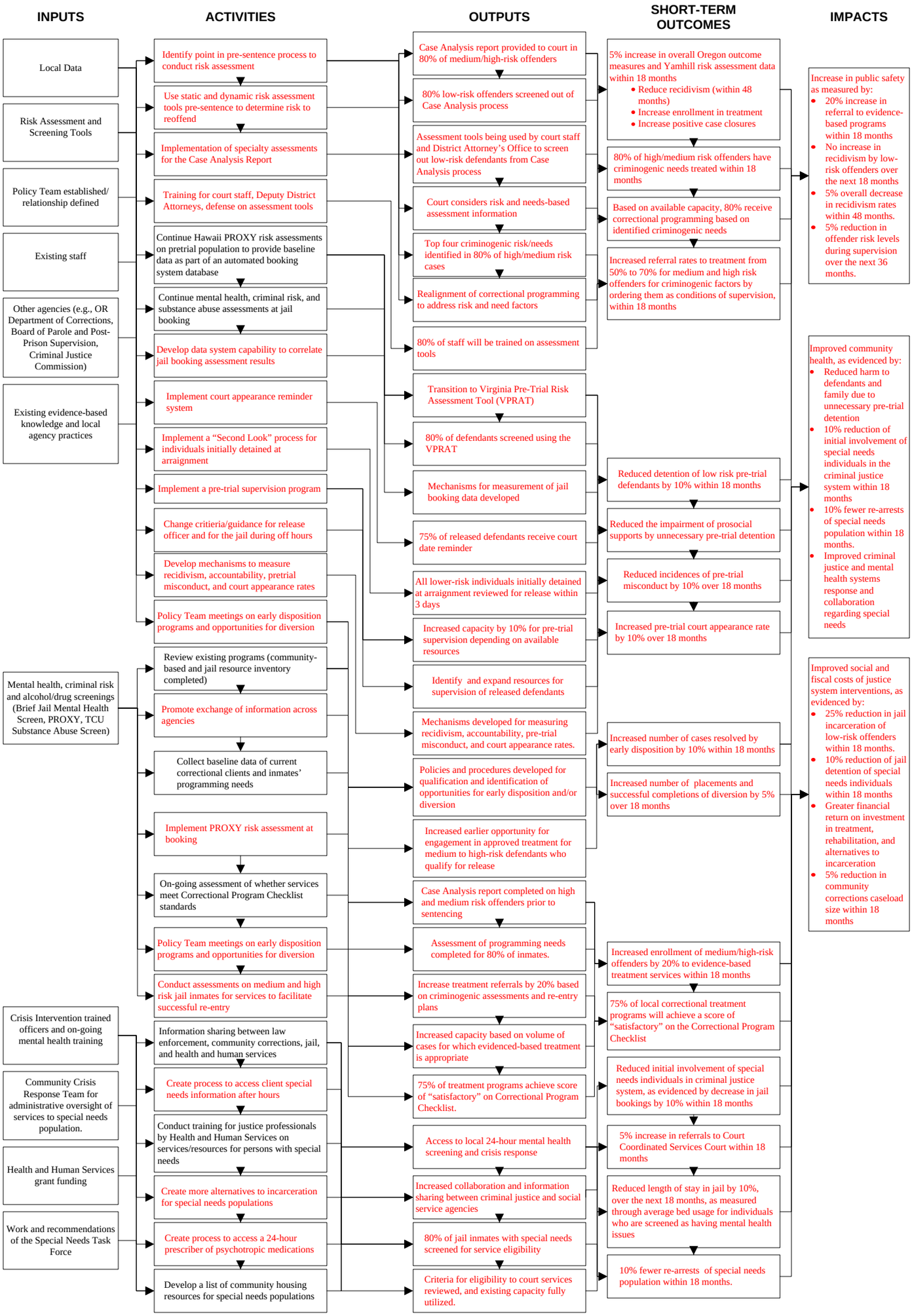
[1] See also 6a: Measuring Your Performance and 6b: Developing a Systemwide Scorecard for more information on developing SMART goals and objectives.

7. Use the checklist in Appendix 4 to assess the quality of the draft logic model. Members of the policy team (or managers/line personnel in an agency) and others not involved in the development of the logic model should complete the checklist.
8. Revise and finalize the logic model as required.

Tips

- Logic models should be built during the planning process of the initiative to maximize their utility as a planning, management, and evaluation tool.
- Horizontal arrows between components represent causal links; vertical arrows within components generally represent temporal order.
- It may be useful to label each piece of information (i.e., each input, each activity, etc.) in the logic model table to make the transfer to the logic model diagram easier. One suggestion is to assign the first input the number "1." Assign the number "1a" to the activity that is related to that input, "1b" to the output associated with the activity, and so forth. In the event that two or more elements flow from the previous one, then number these elements in a way that depicts their temporal order.
- Logic models are not static. The logic model that you are preparing represents what you think and want to happen, not what *will* happen. The logic model should be thought of as a working model that you will periodically revisit and update as you move toward implementation.
- To the extent the logic model consists of both activities that are already in place in support of the identified impacts and those that are being planned as part of the initiative, it may be useful to color code the planned activities to make clear the action items for moving forward (e.g., use black for components in place and red for proposed or new components).

Yamhill County Evidence-Based Decision Making Initiative
Phase III Logic Model



Assumptions:

- The professional judgment of criminal justice system decision makers is enhanced when informed by evidence-based knowledge.
- Every interaction within the criminal justice system offers an opportunity to contribute to harm reduction.
- Systems achieve better outcomes when they operate collaboratively.
- The criminal justice system will continually learn and improve when professionals make decisions based on the collection, analysis and use of data and information.

Contextual Conditions:

- Core values of the justice system.
- Local and state politics.
- Resources for services and treatment programs.
- Local economics.
- High level of community receptivity to new information.
- Poor state economic forecast.
- Local history of collaboration between agencies.
- State budget still pending.
- Average length of stay at local jail is limited.
- Pending legislation and grant opportunities for funding.

Red text indicates proposed activities
Black text indicates activities already underway

Additional Resources/Readings

W. K. Kellogg Foundation. (2004). *Logic model development guide*. Retrieved from http://ww2.wkkf.org/DesktopModules/WKF.00_DmaSupport/ViewDoc.aspx?fld=PDFFile&CID=281&ListID=28&ItemID=2813669&LanguageID=0

OJJDP. (n. d.). *Performance measures: Logic model*. Retrieved from http://www.ojjdp.gov/grantees/pm/logic_models.html

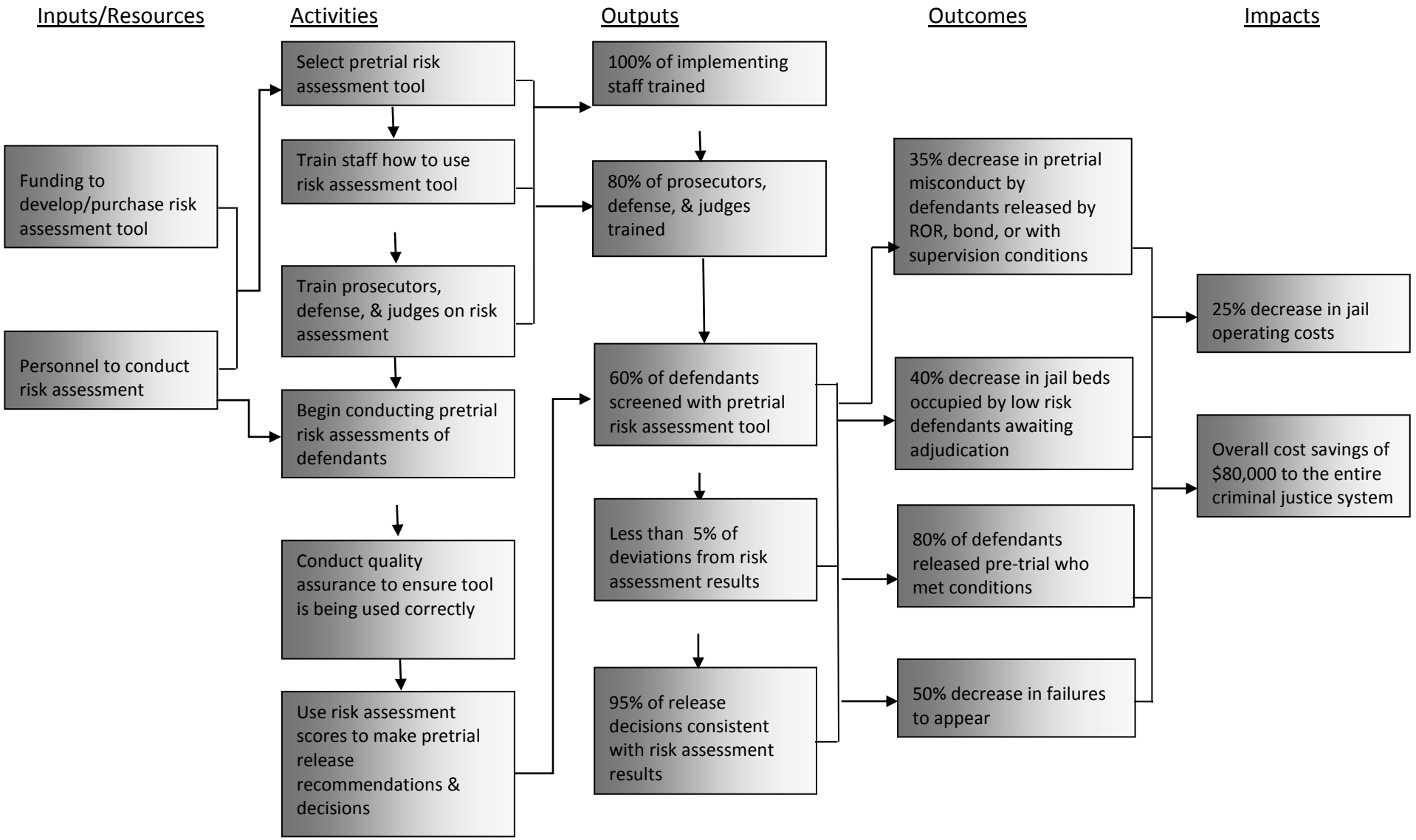
The Pell Institute. (2011). *Using a logic model*. Retrieved from http://toolkit.pellinstitute.org/evaluation-guide/plan-budget/using-a-logic-model/

CEPP. (2009). *Measuring the impact of reentry efforts*. Retrieved from http://cepp.com/documents/Measuring%20the%20Impact.pdf

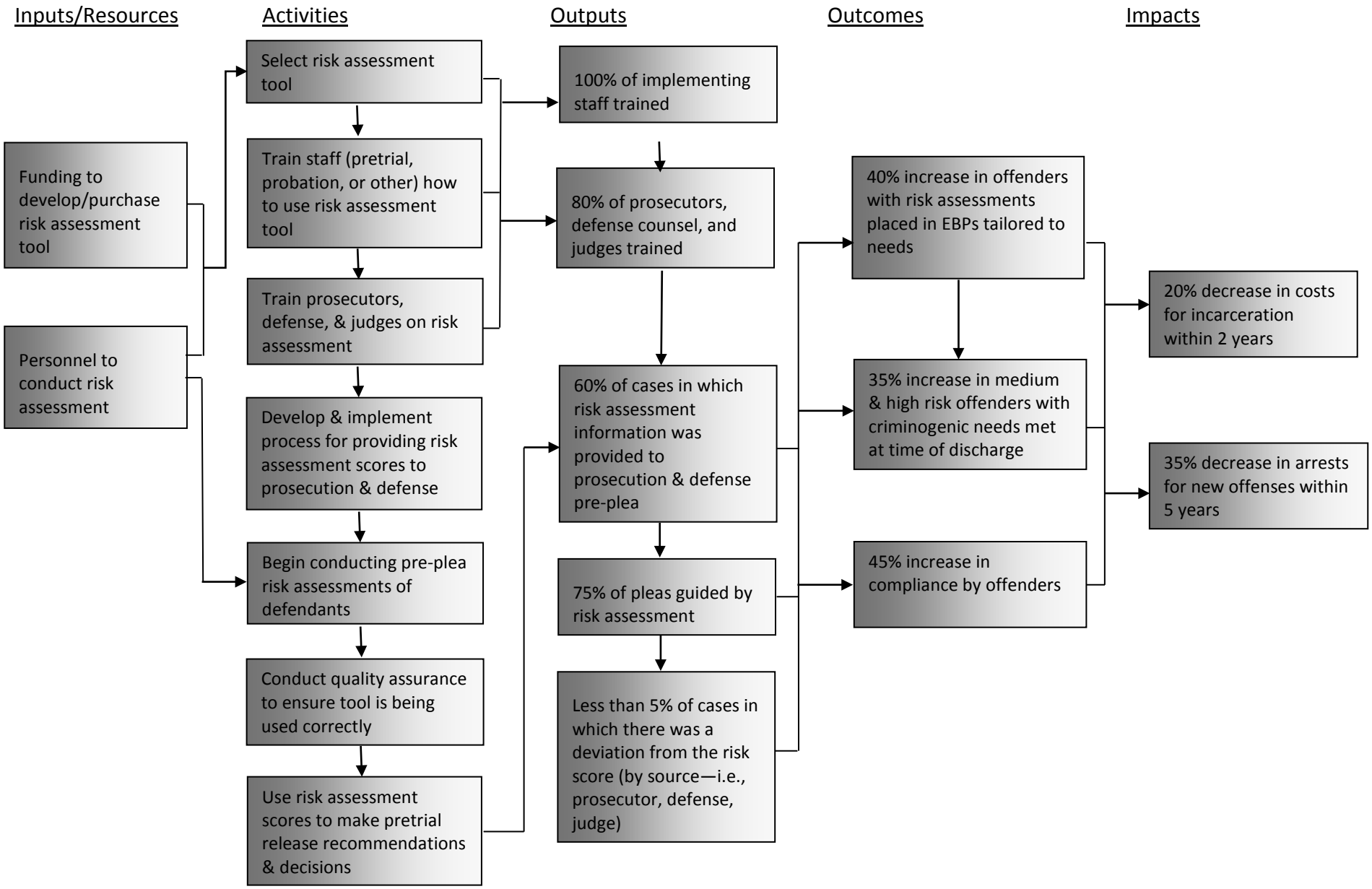
Appendix 1: Logic Model Development Template

Inputs/Resources	Activities	Outputs	Short-Term Outcomes	Impacts	Contextual Conditions
Existing resources (both financial and human), policies, practices, facilities, and capabilities	*Specific strategies to be implemented*	*Immediate results that occur as activities and strategies are implemented*	*Indicators, or benchmarks, that demonstrate changes are occurring as a result of the activities*	*Anticipated long-term harm reduction results*	*External factors that can facilitate or hinder the ability to implement the activity or achieve the intended outcomes and impacts*

Appendix 2: Sample of Partial System-Level Logic Model for Pretrial Risk Assessment



Appendix 3: Sample of Partial System-Level Logic Model for Using Risk Assessments to Inform Plea Negotiations



Appendix 4: Logic Model Review Checklist

Review Questions	Yes	No	Comments
The identified intended impacts are realistic and attainable.			
The impacts, outcomes, and outputs are quantifiable.			
There is a logical, clear connection between the outcomes and impacts.			
There is a logical, clear connection between the outputs and outcomes.			
There is a logical, clear connection between the activities and outputs.			
All available resources (inputs) needed for the activities have been accounted for in the model.			
Possible contextual conditions that may affect the EBDM initiative and their impact have been identified.			
The activities described in the model are realistically attainable.			
The underlying assumptions for how the initiative will work are clearly discernible from the model.			
There is consensus among the stakeholders that the model accurately describes how EBDM will achieve the desired results.			