Change Systems, Change Lives: Assessing Systems Change in Reentry Program Evaluations

Introduction

Many challenges that reentry program participants confront are rooted in broader problems. Still, when many of us hear the phrase "reentry program," we think of services for individuals returning from prison or jail, such as case management and counseling. Such reentry programs often focus on making—and measuring—a positive impact among the individual participants they serve. Their evaluations ask questions like, *"Were program participants less likely to return to prison or more likely to be employed as compared to similar returning community members who did not receive the program?"*

Targeting the systems that serve people returning from incarceration can promote positive outcomes on a larger scale. System-level reentry initiatives focus on making changes to organizational or institutional practices throughout an entire correctional system. Such initiatives can be focused at the organization level, like implementing a new assessment tool or case management system. They can also be broader in scale, such as by implementing municipal, county, or state policy changes to achieve population-level outcomes, like adopting a criminal record-sealing policy to improve reentry outcomes statewide.

System-level improvements can also be made beyond an agency or organization by enhancing capacity across organizational or agency partners. Developing such collaborations or networks can help pool resources, share information, and streamline and enhance services. A newly developed partnership or information-sharing agreement among service providers and criminal legal system stakeholders, for example, may improve service coordination, quality, or efficiency.

Program logic models or theories of change often focus on individual changes in program participants' experiences, but system-level reentry initiative facilitators must become adept at documenting and measuring system-level changes to gain a full picture of a program's accomplishments. This resource brief outlines how evaluators can assess system-level changes when evaluating reentry interventions and details recommended strategies for (1) documenting system-level activities and (2) assessing system-level outcomes.
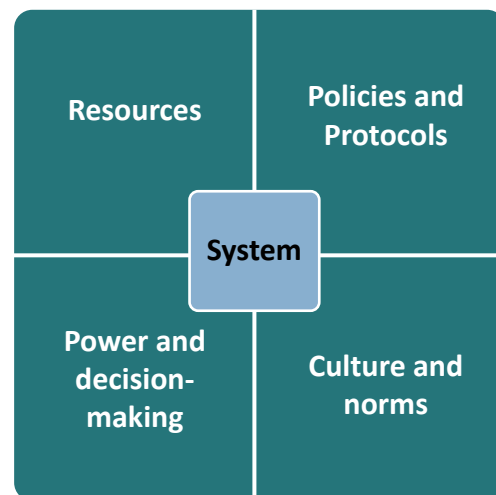
Conceptualizing Systems Change

Measuring systems change requires a system-focused—rather than person-focused—analysis. Evaluators are often more accustomed to assessing programs that offer direct individual services to achieve person-centered goals; for example, substance use treatment groups or job training to effect changes in knowledge, attitudes, or behaviors. Conceptual clarity is critical when including system-level measures in process and outcome evaluations.

What is a system? A "system" is a collection of parts that interact and function as a collective whole (Foster-Fishman et al., 2007). What constitutes a system can vary depending on who defines it. Program participants may have different perceptions of the systems affecting them than program staff do. Without input from a broad cross-section of stakeholders, a newly developed inter-agency partnership or "system" may fail to include partners that some participants view as essential. For example, reentry program participants often discuss challenges related to a lack of public transportation, which inhibits their ability to access employment and services. If the inter-agency partnership or system has not solicited the feedback of program participants, they may fail to include public transportation agencies as partners.

What is systems change? Systems *change* occurs when there is a fundamental shift in a system's form and function (Foster-Fishman et al., 2007). Systems are said to consist of four major features: resources, policies and protocols, power and decision-making, and culture and norms (see Figure 1). Conceptually, evaluators should consider documenting changes to these core dimensions in their evaluations.

Figure 1: System Dimensions

Shifting the form and function of a system typically involves changing more than one core dimension. For example, the agency-wide implementation of a new assessment tool (and related desired outcomes) may be unlikely if the implementation is only required by agency policy. Changing policy alone (just one core dimension of the system) is likely insufficient for systems change. Ideally, a system-level initiative would also include resources such as training and funding (a change in resources), leadership support (a change in power and decision-making), and efforts to secure staff buy-in (a change in culture and norms).

Table 1 provides definitions and examples for each of the four system dimensions.

Table 1: System-Level Dimensions*

Dimension	Description	Examples
Resources	A system's capacity	Material resources, competencies, and social networks (examples below)
Material resources	The configuration and distribution of material or financial resources	Funding, staff, facilities, newly developed assessment tool
Competencies	Human capital, knowledge, skills, and abilities that enable the implementation of activities or system change efforts	Training and coaching on trauma-informed practices, knowledge of how to administer a newly developed risk assessment tool
Social networks	The nature of social relationships or connectivity among system members, actors, or entities; these connections can enable the diffusion of resources and information	Increased organization-wide connections, data sharing across agencies, referral network of community-based providers
Policies and protocols	Written guidelines regarding what is expected, sanctioned, and rewarded, which enables coordinated operation and supports alignment with system goals	State policies/laws, organization protocols and procedures, rules, regulations, standards
Power and decision-making	Who or what influences activities, processes, and how resources are distributed in a system	Leadership or administrative support; shared decision-making; hierarchical or lateral organizational structures
Culture and norms	The normative or prevailing beliefs within a system	Attitudes, tacit assumptions, staff buy-in, staff resistance, values, beliefs, ideologies, staff morale, organizational culture

*Dimensions and descriptions are drawn and adapted from Foster-Fishman et al., 2007.

Understanding the System-Level Model

Review the logic model or strategic plan. Evaluators must clearly understand a project's scope, goals, and where it intends to implement system-level changes. Evaluators seeking to assess system-level interventions should review the program's logic model to identify the system-level activities and outcomes (see our Improving Evaluation Readiness Planning Guide). Broader systems change projects, such as county or statewide initiatives, may have strategic plans or action plans in addition to logic models.

Understanding the project model may also require input from system stakeholders who have an internal understanding of their agencies. For example, Minnesota's Statewide Initiative to Reduce Recidivism (Guckenburg et al., 2019) included training for correctional staff on evidence-based practices, such as effective use of authority and

cognitive restructuring. In this case, evaluators may need to collaborate with agency directors to better understand how the training is being coordinated or planned. Evaluators may also offer input on the logic model or strategic plans to make sure the theory of change is clear and the intended outcomes are measurable.

Determine the unit of analysis. Evaluators should also clearly understand the unit of analysis that will serve as the focus for the evaluation. Units of analysis beyond the person level can include organizational departments, whole organizations and agencies, and inter-agency or cross-organization partnerships. When the unit of analysis is unclear in the program's logic model or plan, the evaluator may need to work with relevant stakeholders to better articulate the scope of changes the intervention seeks to create. This understanding will inform the unit of analysis for the process and outcome evaluation.

To decrease recidivism rates statewide, a statewide initiative may seek to implement best practices in corrections and probation agencies across multiple counties. Understanding that the intervention targets changes in regional agencies to achieve state-level outcomes will later help evaluators design the process and outcome evaluation. It may also help to inform the resources needed for the evaluation. For example, a reentry intervention that trains all staff at one site on an assessment tool may require fewer evaluation resources than a cross-agency initiative. Table 2 lists possible units of analysis that evaluators might encounter.

Table 2: Units of Analysis

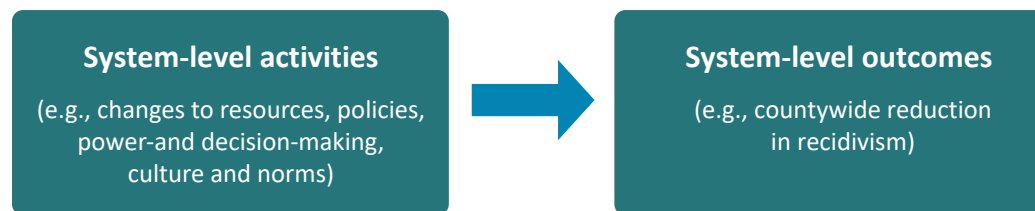| Unit of analysis	Example
Persons/individuals	Program participants, clients, staff
Departments	Clinical services department, training department, housing department
Agencies or organizations	Nonprofit organizations, social service agencies, adult probation, correctional agencies
Cross-site partnerships	Coalitions, cross-agency partnerships, service delivery system
Geographic or catchment area	Municipalities, counties, state

Identify the targeted system-level dimensions. Finally, evaluators should identify the system-level dimensions—that is, the resources, policies and protocols, power and decision-making, or culture and norms—that are targeted in the logic model or strategic plan.

Evaluations of individual-level reentry programs often focus on changing attitudes and knowledge as interim steps toward changes in behavior (e.g., recovery, decreased recidivism). In contrast, system-level evaluations often focus on changing the four

system dimensions as interim steps to changes in system-level outcomes (see Figure 2). Understanding how the proposed program activities fit into the four core system dimensions and which system-level outcomes they are intended to impact will inform the choice of data collection methods and sources for the evaluation.

Figure 2: Generalized Logic Model for System-Level Reentry Initiatives

System-level activities	System-level outcomes
(e.g., changes to resources, policies, power-and decision-making, culture and norms)	(e.g., countywide reduction in recidivism)

Designing a Process Evaluation That Documents Systems Change

Evaluators should design the process evaluation to document system-level changes. Typically, this involves documenting whether the proposed system-level activities in the logic model or strategic plan were implemented. It also involves documenting any barriers or facilitators to implementing these system-level changes. When applicable, evaluators can also assess the *extent* to which certain system activities, such as training, were implemented. (For foundational guidance on process evaluation, please see the Considerations for Reentry Program Process Evaluations resource brief, available from the National Reentry Resource Center). Evaluators can use qualitative and quantitative data sources to document the implementation of system-level activities.

> For this Evaluation and Sustainability Training and Technical Assistance (ES TTA) guide, we regard system-level activities or outputs (e.g., changes in policy or resources) as aspects of implementation to be documented in a process evaluation and recidivism as an outcome to be documented in an impact study. In other words, system-level activities are hypothesized to result in system-wide changes in recidivism.

Quantitatively document system-level activities. Evaluators can also use quantitative methods to document the implementation of system-level activities. For example, evaluators can document a countywide initiative that trains staff on an assessment tool by collecting measures of the amount of training delivered, examining attendance records, and surveying staff about their satisfaction with the training. These quantitative approaches can draw on administrative records (e.g., staff training records) or quantitative surveys of staff, program participants, or other stakeholders.

Table 3 uses a hypothetical example of a statewide initiative to train staff within a cross-agency partnership on trauma-informed best practices to suggest possible ways to quantitatively document system-level activities.

Table 3: Quantitatively Documenting System-Level Activities in Process Evaluation

System-level domain	Quantitative documentation strategies
Resources	
Material resources (Example: Funding to support staff training)	• Staff survey (*sample item*): "This organization allocates funding toward supporting trauma-informed practices."

Competencies (Example: Staff training)	• Administrative records: Number of staff trainings delivered; number of staff trained within the inter-agency partnership; number of organizations that participated in the inter-agency partnership
	• Staff survey (*sample items*):
	  – "I clearly understand how trauma can impact clients within my professional role."
	  – "I understand how trauma can affect service delivery."

Social networks (Example: Inter-agency partnership)	• Administrative records: Number of agencies in the partnership (pre and post); social network-based documentation of agency partnership changes • Staff survey (*sample item*): "This organization has established community partnerships to improve services for clients."

Policies and protocols (Example: Agency-wide policies requiring use of a risk assessment tool)	• Staff survey (*sample items*):
	  – "Written policies that commit my agency to the use of trauma-informed approaches have been developed."
	  – "I am provided with supervision on how to use trauma-informed strategies with clients."

Power and decision-making	• Staff survey (*sample items*):
	  – "Leadership at my agency supports the use of trauma-informed approaches."
	  – "Opportunities are provided to program participants to voice their needs and goals."

Culture and norms	• Staff survey (*sample item*): "The use of trauma-informed approaches has gained staff buy-in."

Qualitatively documenting system-level activities. Process evaluations documenting the implementation of system-level activities can draw from various data sources: most commonly, staff and participant interviews, focus groups, and agency documents. Process evaluations that document system-level activities often differ from traditional process evaluations focusing on program activities delivered to participants. Concepts such as program "dosage," for example, may not be applicable in system-level interventions that target agency policies.

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Evaluators can focus instead on qualitative documentation, systematically reviewing relevant documents—including staff memos, employee manuals, job descriptions, and transcribed interviews—to learn whether and how policies and protocols were implemented. Evaluators can also document whether these policies were integrated into staff supervision and onboarding processes.

Evaluators can also document how implementation of a given policy or practice (for example, trauma-informed service delivery) was facilitated or inhibited by other system-level dimensions, such as material resources, policies, and culture and norms (see Figure 3).

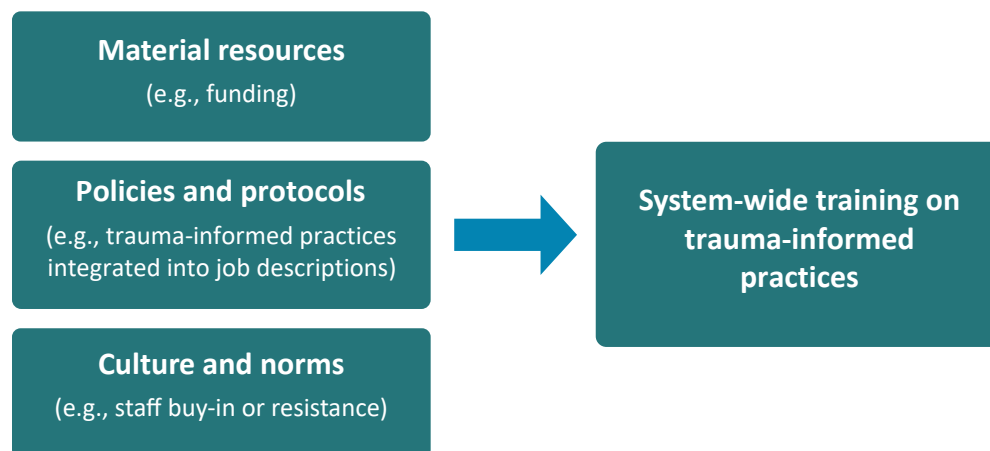**Figure 3: Documenting How Other System Dimensions Support System-Level Activities**

Table 4 suggests possible ways to document system-level activities within process evaluations.

Table 4: Qualitative Documentation of System-Level Activities in Process Evaluation

System-level domain	Quantitative documentation strategies
Resources	
Material resources (Example: Funding to support staff training)	• Review budgets that support the activity (e.g., training); document the types of funding streams. • Interview stakeholders to determine whether funding levels are appropriate.
Competencies (Example: Staff training)	• Interview staff and key stakeholders to determine whether they have received appropriate training and if more training is needed. • Review staff training curricula or other training documentation.
Social networks (Example: Inter-agency partnerships)	• Interview stakeholders to determine if collaboration is taking place (e.g., data sharing, referrals) and assess the quality of the intervention partnerships.

System-level domain	Quantitative documentation strategies
Policies and protocols (Example: Agency-wide policies requiring the use of risk assessment tool)	• Review policy and protocol documents, manuals, policy memos, job descriptions to determine whether and how policies and protocols were implemented or communicated. • Interview staff and stakeholders to determine how the implementation of an agency-wide risk assessment tool is supported (or inhibited) by agency policies.
Power and decision-making	• Conduct interviews to assess whether agency administrators or leaders support the intervention or initiative, whether decisions are generated in a top-down fashion, and whether there is shared decision-making.
Culture and norms	• Conduct interviews or focus groups to assess staff buy-in and any reasons for resistance concerning new initiatives.

Measuring System-Level Outcomes

Reentry program outcome evaluations commonly focus on changes in recidivism (see this ES TTA infographic for more on measuring recidivism), collecting recidivism data for program participants and comparing these rates to a comparison or control group. System-level reentry initiatives often seek to influence recidivism at an aggregated or population level, such as across specific counties or statewide. To do so, evaluators must ensure that aggregated data are available for communities that were targeted by the initiative and comparison communities that were not. This typically requires access to agency administrative data. For example, a reentry intervention that enhances best practices across agencies in specific counties may compare county-level recidivism rates to other similar counties that did not implement the intervention.

A sound study design, including an appropriate counterfactual strategy and plans for mitigating internal validity threats, is essential for any credible evaluation. Evaluators should bear several methodological challenges in mind as they design evaluations of system-level outcomes.

Addressing internal validity threats. Evaluators must be mindful of internal validity threats, such as *contamination and history.* Contamination threats can occur when the control group, such as agencies that are not receiving the intervention, are exposed to the system-level intervention intended for the treatment group. For example, other agency directors may learn about system changes implemented in treatment group counties (such as the use of a new assessment tool) and implement them in control group counties. This can diminish the likelihood of detecting differences between the treatment and control communities. In

this case, evaluators should incorporate both treatment and control sites into the process evaluation to document practices across study conditions. This might include conducting key informant interviews with agency directors to document how client intake and assessment practices were conducted and how they differed across conditions. When contamination occurs, this documentation can provide information about the extent to which the control sites were exposed to the intervention.

History threats can also be problematic for evaluating system-level interventions. A history threat is present when a large-scale event occurs during the study period that could represent an alternative explanation for changes in system-level outcomes. For example, an observed statewide reduction in recidivism during an evaluation of a state-level recidivism reduction intervention implemented from 2020 to 2022 could be due either to the intervention or to statewide changes resulting from the COVID-19 pandemic. Although history threats are unpredictable, evaluators should aim to document the nature and timing of any potential history threat to the extent possible. Policy changes are a common history threat in system-level reentry program evaluations. Evaluators should document the timing of such policy changes relative to program implementation and the extent to which these changes were implemented across treatment and control conditions.

Alternatives to randomization. An experimental study design is often impossible for evaluations of system-level initiatives. For example, it may not be possible to randomize agencies or broad catchment areas (such as counties) to implement the system-level intervention. Instead, evaluators may rely on rigorous quasi-experimental methods. These can include regression discontinuity design, difference in differences analysis, or propensity score matching. When none of these quasi-experimental methods is feasible, other less rigorous alternatives include comparing to individuals in facilities or jurisdictions that have not implemented the initiative or to historical data. However, these alternative strategies are less desirable because they do not allow evaluators to rule out the possibility that observed differences in outcomes between the treatment and comparison groups are due to some other factor. For example, differences could be due to underlying disparities that made certain facilities or jurisdictions less likely to implement the intervention or to a historical event that altered rates of arrest and imprisonment during the study period, such as the COVID-19 pandemic.

Allowing adequate time to capture treatment effects. System-level interventions or initiatives can require a considerable amount of time. For example, agency-wide adoption of a new assessment tool may require significant planning and coordination. Implementing an agency-wide strategy often requires multiple agency administrator approvals, policy changes, and staff training. By the time these changes are implemented, it is possible that there may not be enough time for the evaluation to capture the impact of the treatment—especially if the grant period is relatively short (e.g., 3 years). Program staff and evaluators must work together to ensure that the evaluation plans allow adequate time for treatment effects to occur and be measured.

Conclusion

Evaluating the implementation and outcomes of system-level reentry interventions can help us learn more about broad-scale approaches to improving reentry outcomes. Evaluators can take the following steps when conducting evaluations of system-level reentry interventions or initiatives:

1. Ensure that there is a logic model or strategic plan that clearly describes the targeted system-level activities and system dimensions.

2. Determine the unit of analysis for the evaluation; system-level evaluations often focus on larger units of analysis (e.g., organization-level, county-level).

3. Determine the system dimensions (resources, policies and protocols, power and decision-making, culture and norms) targeted by the intervention.

4. Incorporate a process evaluation to document the implementation of system-level activities.

5. Examine system-level outcomes. Include strategies that address threats to internal validity, use rigorous alternatives to randomization when necessary, and ensure that the evaluation has sufficient time for treatment effects to occur and be documented.

A robust evaluation of a system-level reentry intervention can offer valuable information to program staff, leaders, and policymakers in building systems that remove systemic barriers and meet reentrants' needs. Ultimately, findings from such evaluations can furnish a blueprint for other jurisdictions hoping to replicate system-level approaches, decrease recidivism, and improve quality of life for everyone in their communities.

Additional Reading and Resources

From ES TTA:

- Why conduct a rigorous evaluation: infographic and animated graphic video
- Improving evaluation readiness in reentry programs: resource brief, planning guide, and animated graphic video
- National Reentry Resource Center Considerations for Reentry Program Process Evaluations: resource brief
- Measuring and assessing recidivism: infographic

References

Foster-Fishman, P. G., Nowell, B., & Yang, H. (2007). Putting the system back into systems change: A framework for understanding and changing organizational and community systems. *American Journal of Community Psychology, 39*(3), 197-215.

Guckenburg, S., Persson, H., Dodge, C., & Petrosino, A. (2019). *Evaluation of the Minnesota Statewide Initiative to Reduce Recidivism (MNSIRR): A summary*. WestEd.

The Evaluation and Sustainability Training and Technical Assistance Project

The Evaluation and Sustainability Training and Technical Assistance (ES TTA) Project supports Second Chance Act (SCA) grantees in conducting more rigorous evaluations that lead to data-driven program improvement and demonstrated impact and that support programs' long-term sustainability. For more information about the project, contact ESTTA@rti.org.
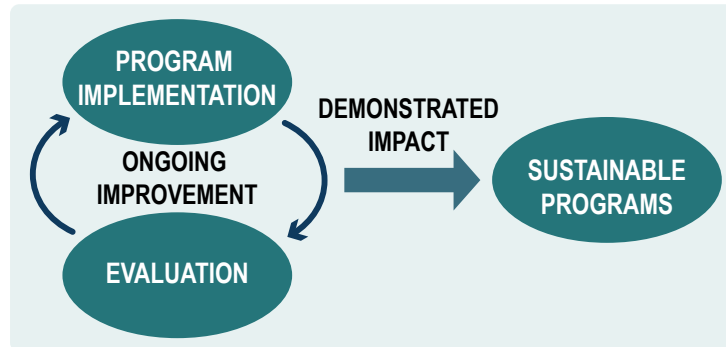
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