

## Using Data to Improve Money Follows the Person Program Performance

The Money Follows the Person (MFP) demonstration has helped states support community living opportunities for people with disabilities who are eligible for Medicaid since 2007. The Consolidated Appropriations Act, 2021 and a Notice of Funding Opportunity (NOFO) released by the Centers for Medicare & Medicaid Services (CMS) in 2022 extended federal support for MFP demonstration grants to additional states and territories. MFP grantees can use federal funds received through the demonstration to:

- **Improve quality**, by ensuring that program participants receive person-centered care and service delivery that meets their goals and preferences
- **Build and sustain transition programs**, by demonstrating positive outcomes for beneficiaries
- **Support the rebalancing of the long-term services and supports (LTSS) system**, by increasing the availability of home and community-based services (HCBS) for all Medicaid beneficiaries

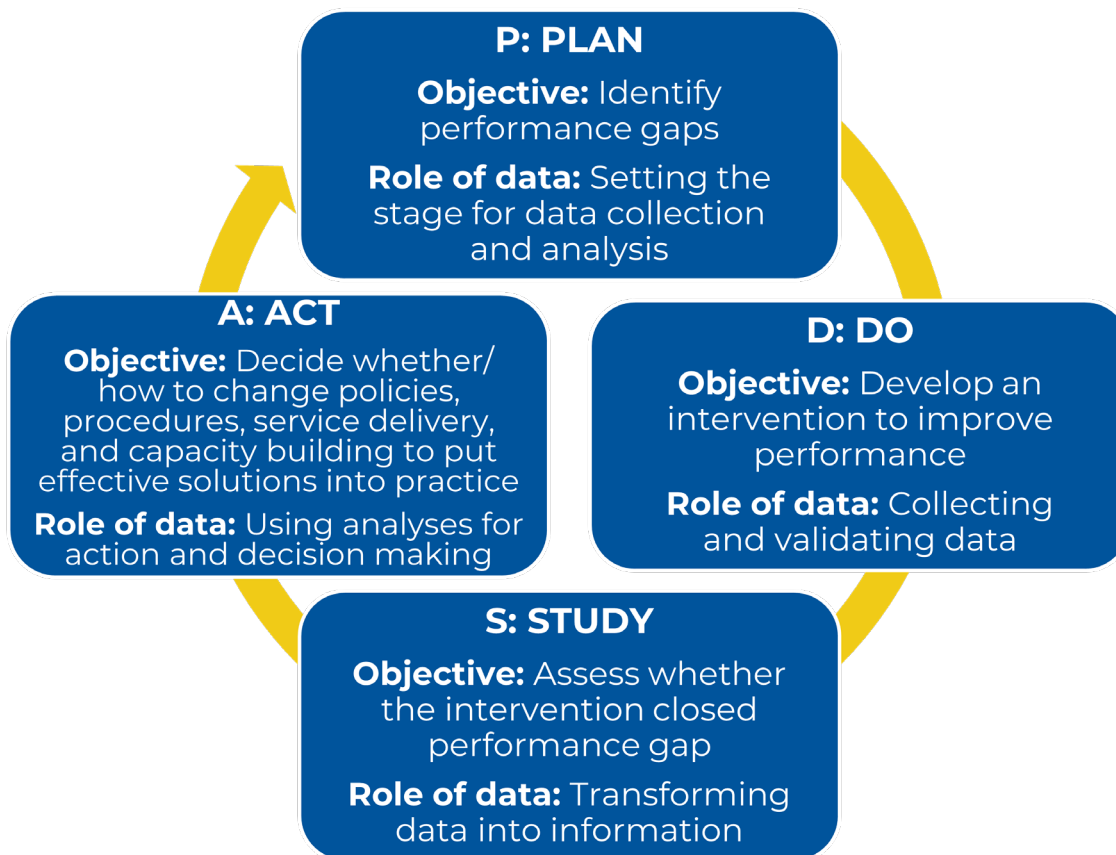
To achieve these goals, MFP grantees can consider how to use existing data to support activities that improve program performance.

### Purpose of this brief

This brief is designed to guide MFP grantees in developing a plan for using data to improve MFP program performance. Although the brief is primarily intended for MFP project directors, this resource also presents useful information for data analysts, program planners, and those conducting MFP program evaluations.

This brief follows the Plan-Do-Study-Act (PDSA) quality improvement cycle as it guides readers through a process to close gaps between MFP program performance and program goals.<sup>1</sup> PDSA is a time-tested framework that has been used across a variety of healthcare settings to support *continuous* program improvement. The PDSA steps are outlined in **Figure 1** with an emphasis on the role data play in each step.

**Figure 1. Steps of the PDSA cycle**



## PLAN: Setting the stage for the MFP performance improvement project

The first step in the PDSA cycle is to develop a performance improvement plan. The planning process quantifies the gap between expected and actual performance, identifies ways to improve performance and who to involve in implementing the intervention, and determines what data are needed to assess progress. A well-developed plan clarifies the objectives and the roles various people will play in collecting and using data. This section describes the process for building the performance improvement team, defining performance gaps, drafting good analysis questions, and identifying data sources. These steps will form the foundation of the MFP performance improvement project.

### Build the team

The first step in the planning process is to assemble the team that will design and implement the intervention, collect the data, conduct the analysis, and decide whether and how to use the results. Depending on the roles played by various entities in each grantee’s MFP program and needs identified by MFP project directors, team members may include: MFP program managers, MFP transition coordinators, Medicaid and other state or territory agency analysts, managed care plans (MCPs) if they are responsible for MFP

transitions and serving MFP participants, and External Quality Review Organization vendors responsible for reviewing quality measures and improving performance of MCPs. MFP participants and beneficiary advocates can also play an important role in identifying areas of improvement based on their experiences, suggesting interventions for improvement, and providing feedback on whether improvement was achieved.

**Identify gaps between MFP program goals and actual performance**

To identify opportunities for improvement, the starting point is an assessment of gaps between MFP program goals and actual performance. If MFP program goals are not expressed numerically, it is important to convert them into measurable objectives. As the adage goes, if you can't measure it, you can't improve it.

**Table 1** contains examples of common MFP goals, objectives, and the numerical measures that can be used to identify gaps in program performance. For example, if the grantee's annual MFP goal is to transition 200 individuals into the community, but only 100 were transitioned in the previous year, it is important to close that gap. In addition, if the grantee targets a 10 percent reduction in their re-institutionalization rate (the number of participants that return to institutions after moving to the community), but the re-institutionalization rate has risen the past three years, an intervention is warranted.

**Table 1. Example MFP program goals, objectives, and measures to identify program performance gaps**

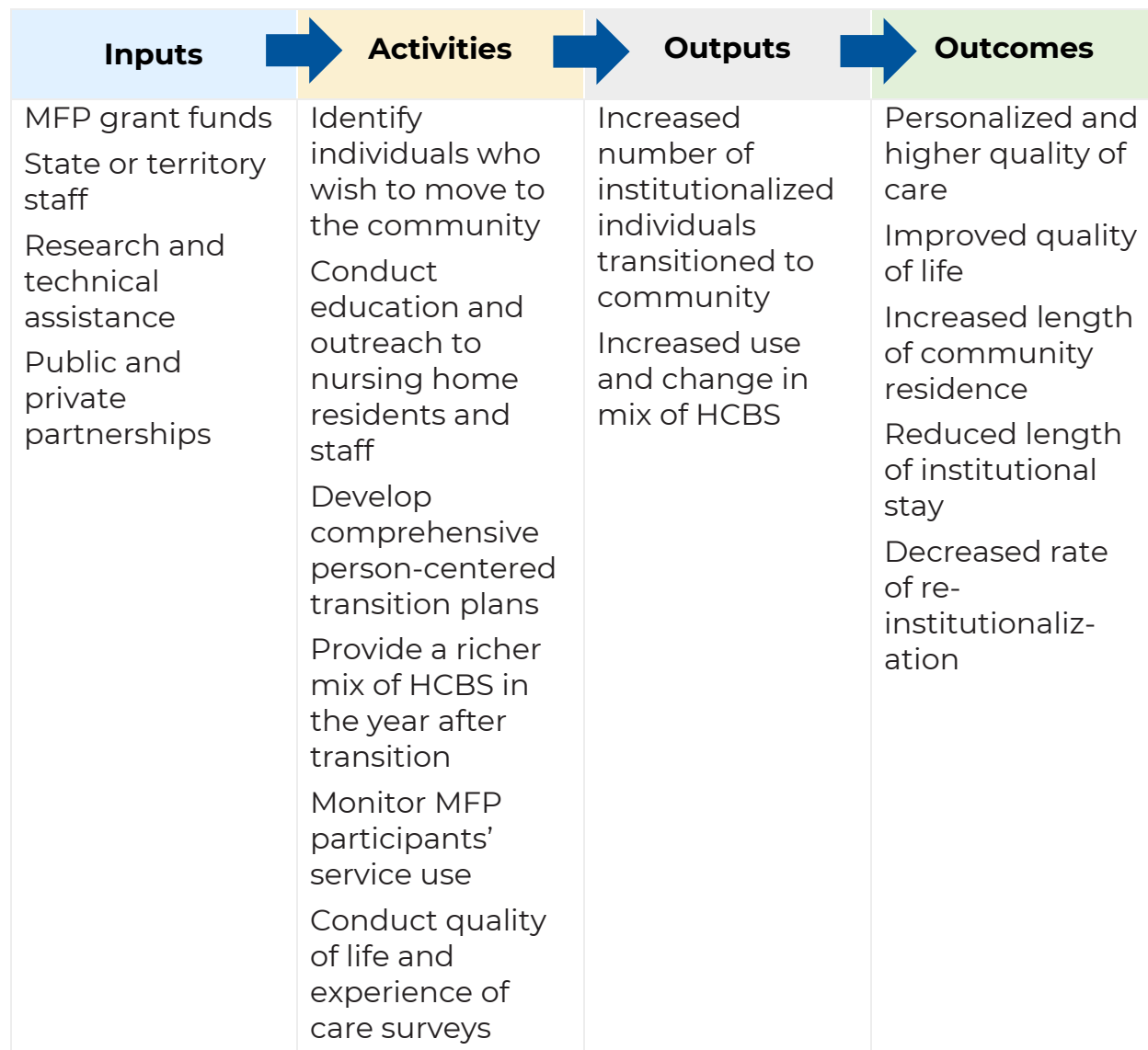
MFP program goals	Measurable objectives	Measures
Provide assistance to people who choose to transition out of institutions to the community	Transition 200 MFP-eligible institutional residents to the community next calendar year/fiscal year	Total number of MFP transitions
Deliver high quality, person-centered HCBS to MFP participants	Reduce MFP participant readmissions to institutions	Number of MFP participants re-institutionalized during the 12 months following their move into the community

**Select interventions to improve performance based on gaps**

After identifying gaps between MFP program goals and actual performance, the next step is to identify interventions to improve performance. To do so, the MFP performance improvement project team can use a logic model to create a diagram of how the MFP program works. This is an important step for identifying which aspects of the program need improvement and where to focus data collection and analysis. Logic models describe the resources, activities, and outputs that produce the desired results (outcomes). The resources and activities that drive the outcomes become the focus for improvement.

**Figure 2** below provides a sample logic model for the MFP demonstration and may be helpful as grantees develop a state or territory-specific logic model that captures the unique resources and activities in that state or territory. Another useful tool, a driver diagram, is detailed in Appendix A.<sup>2</sup>

**Figure 2. Sample MFP-related logic model**



The first column, *inputs*, describes the financial, human, and community resources necessary to support the program’s goals. The second column, *activities*, describes the program actions that the resources enable. The third column, *outputs*, describes the concrete, countable results of those actions. The fourth column, *outcomes*, describes the end goals of the program overall. It is often difficult to distinguish outputs from outcomes. Outputs are usually simpler to count, convey program productivity, and occur in the near-term as the direct result of activities. Outcomes convey program purpose and are often

measured over a longer period of time. For example, the output of increased number of institutionalized individuals transitioned to the community can be readily monitored, but on its own does not reflect improved quality of life. Conversely, although the outcome of improved quality of life conveys purpose and meaning, it fails to demonstrate the mechanism by which the result is achieved. Taken together, outputs and outcomes describe the mechanisms working within a program to achieve change.

When creating a logic model, MFP staff should consider how external factors may either contribute to or hinder progress towards a goal. For instance, a participant’s likelihood of being re-institutionalized can be affected by their health status, level of need for assistance with daily living activities, and the availability of informal support systems. The team should list the outside factors that may influence an intended outcome and plan to collect data on these factors in addition to outputs and outcomes.

Next, the MFP team can use the logic model to develop an improvement project specifically designed to address the problems that hinder better performance. A good intervention is one that is specific, measurable, achievable, realistic/relevant, and time-bound (SMART) (see **Table 2** below). For example, simply saying “Increase access to medical services” does not specify access to which types of services, how the project will improve access, and by when this will occur.

**Table 2. Components of a SMART intervention**

SMART Component	Objective
<b>Specific</b>	Defines the activities, actors, and beneficiaries
<b>Measurable</b>	Defines how a change will be measured
<b>Achievable</b>	Defines the feasibility of implementing the intervention as planned
<b>Realistic/relevant</b>	Defines how the intervention relates to the goal
<b>Time-bound</b>	Defines when the results will be measured

A SMART intervention addresses these dimensions. For example, it could specify that: “MFP case managers will help participants gain access to assistive technology and devices, measured by an increase in use of these devices per participant, which will reduce the rate of re-institutionalization within the first 12 months of transitioning to the community among MFP participants.” The intervention examines assistive technology use among MFP participants (specific), uses a rate to make a comparison to previous use (measurable), is feasible to implement (achievable), is linked to re-institutionalization (relevant), and considers outcomes during the first 12 months after transitioning to the community (time-bound).

## Identify data to measure improvement

The last step before starting a program improvement project is to identify data that will be used to measure change. MFP staff can begin to assess, if feasible, the quality and use of existing data sources and data collection processes. As MFP staff survey potential data sources, consider the useability and completeness of the data source and whether this data could lead to a valid and reliable measure of change. **Table 3** includes some criteria for measuring data quality. Appendix B explores a wide range of data available to MFP grantees.

## DO: Testing an MFP performance improvement plan

The next step of the PDSA cycle is to put the MFP performance improvement plan into action by designing and implementing an intervention. This section describes how grantees can implement an intervention on a small scale to begin, define parameters for the intervention, and collect the data needed to measure program improvement.

### Start on a small scale

It is often useful to test the intervention and measurement strategy on a small scale before expanding. These small tests of change<sup>3</sup> allow the team to practice and refine the intervention and data collection together to develop a performance improvement plan that is well tested and well documented. For example, consider an intervention that is designed to reduce the rate of re-institutionalizations by training transition coordinators to identify early signs of an unstable community transition, such as participants experiencing more frequent missed or late personal care visits, experiencing avoidable emergency department (ED) visits, or expressing dissatisfaction with help received with daily activities. This intervention can first be tested on a small scale with a few transition coordinators who provide services for MFP participants transitioning from a subset of institutions. The coordinators and MFP support staff can also test the process for collecting data with a small set of participants.

### Define intervention parameters

MFP staff who are implementing the performance improvement intervention should specify the time frame, necessary resources, number and characteristics of MFP participants and staff involved, starting level of performance, and desired level of performance after the change. A flow chart can be helpful in visualizing the sequence of events leading to a change.<sup>4</sup> Using our previous example, the effect of training transition coordinators to identify early signs of unstable community transitions to prevent re-institutionalizations could be analyzed six months after the coordinators receive training. Resources may include MFP grant funds, training materials, and technical assistance from the Centers for Medicare & Medicaid Services (CMS) and external organizations. The rate of re-institutionalization would be measured before the training program, then MFP staff would set a specific numeric goal for the reduction of re-institutionalizations (e.g., 10 percent) based on SMART guidelines.

## Collect the data

The analysis team should collect the data identified in the planning stage while the intervention is taking place. Even if there is no clear impact at first, it is still important to record observations. In our example, both the early signs of an unstable community transition and the rate of re-institutionalization can be measured. For instance, missed personal care visits can be tracked using electronic visit verification (EVV) data<sup>5</sup>, avoidable ED visits can be measured using hospital claims data, and data on satisfaction with daily living can be collected with participant surveys like the MFP Quality of Life (QoL) survey. When collecting data, MFP staff should keep in mind ways to collect data that will allow for later stratification by different MFP subgroups. Stratifying data by different subgroups will allow MFP program managers to better understand differences across MFP participants and analyze disparities in outcomes across different groups. See the box below for some participant characteristics to consider for stratification.

### Examples of MFP participant characteristics to consider when assessing disparities in outcomes

- Target population (type of disability)
- Number and type of chronic health conditions
- Age
- Gender
- Race and ethnicity
- Language preference
- Geographic region, including urban/rural distribution
- Type of setting transitioning to or from
- Dual-eligibility status

## STUDY: Transforming data into information

After testing an intervention on a small scale, the next step of the PDSA cycle is to study the results. This section describes how to analyze an intervention's impact on MFP program performance by ensuring data quality, selecting an analysis approach, and synthesizing results across analyses and for key subgroups.

### Ensure MFP data quality

Data must be useable, understandable, and complete to see whether a change leads to program improvement. High quality data allows for more confidence when interpreting the results. When data are poor quality, the results of the analysis may be misleading.

**Table 3** provides some factors to consider before analyzing data produced from an MFP program improvement effort.

**Table 3. Criteria to measure data quality<sup>6</sup>**

Criteria	Consideration	MFP application examples
Accurate	Do the data have few errors?	Do the data seem plausible in the real world or could a mistake have been made in data collection, reporting, or conversion?  For example, do the MFP data represent the expected profile of the population, such as distribution of age, gender, and types of services rendered?
Relevant	Can the data be used for intended purposes?	Do available MFP data meet the needs of the analysis?  For example, does the data file describe MFP participants specifically and exclusively? Or does the file contain information on all HCBS programs? Without a way to isolate the MFP program participants, these data may not be relevant to the MFP-focused analysis questions.
Complete	Are there missing data?	Do any data elements have high levels of missing data?  For example, if a high number of forms about participants' transitions from facilities to the community are missing dates of transition, the data will not accurately answer analysis questions on participant transitions.
Timely	Are the data available and up to date?	Is there access to recent MFP participant data?  For example, monthly data may be more appropriate for program improvement projects that need information for quick decisions.
Consistent	Do the data match across sources?	Do the transition data match across the MFP Semi-Annual Progress Report (SAR), the MFP Budget Workbook, and the Transformed Medicaid Statistical Information System (T-MSIS)? <sup>7</sup>  For example, does the sum of re-institutionalizations recorded in person-level data in the MFP program database and T-MSIS match the aggregate totals in the SAR and MFP Budget Workbook?

Common examples of challenges to MFP data quality include duplicate or missing claims, inaccurate or missing identifiers (such as birth date or address), and inconsistency across sources reporting the same data. It is paramount that issues with data quality be corrected by MFP staff before proceeding to the analysis phase. To help assess quality issues, MFP staff should understand the source and magnitude of the issue. Did the error



occur during data collection, data processing, or merging of data? Does the issue affect a subset of data, or suggest a larger issue?

Addressing quality issues can be time consuming, but has big advantages. For example, incomplete data for people with complex health conditions leaving MFP may lead to analytic results that would primarily represent those with fewer or less complicated health conditions. Relying on these skewed data may lead to incorrect conclusions about the success or scalability of an intervention. If the need for a revised approach is identified, MFP staff may find it useful to pilot the new or revised data collection and reporting process on a small scale before applying the change more broadly. This can ensure that the fix works as intended and does not create additional burden for transition coordinators and analysts.

For example:

- / **If data are incomplete:** Consider providing assistance to transition staff with identifying sources of additional information. For instance, staff can ask the MFP participant to confirm their birth date when completing facility discharge forms.
- / **If inaccuracies are found in data:** Consider offering options for standard responses instead of open-ended questions to help reduce data entry error. For instance, offer "select one" options on a discharge form to identify where the participant will reside following transition to the community.

### Select an analytic approach

The analytic approach that best fits the program improvement project depends on the analysis question defined in the planning stage and the data collected during implementation of an intervention. A strong understanding of the analysis question and data helps to establish what type of analytic approach will be needed to address the question most effectively.

- / **Descriptive data statistics** expand the understanding of a topic by describing characteristics, relationships, and differences in data.
  - These basic but powerful statistics can help to capture important information about MFP performance improvement. A comprehensive descriptive analysis can be done using Excel and can include counts, measures of central tendency (mean, median, and mode), and measures of variability (range and standard deviation). For example, by how much did the average number of transitions per coordinator change over the time period; what is the average length of the period between requests to participate in MFP and the transition into the community; and what was the range across transition coordinators?
  - Comparing descriptive data to national benchmarks or those of similar grantees can also help MFP program administrators understand comparative performance and the opportunity for improvement. For example, how does the rate of re-institutionalization among MFP participants in a state or territory compare to the national average of 5.4 percent (with variation by target population)?<sup>8</sup> When the gap is large, there is likely more room for improvement.

- / **Inferential data analyses** explore relationships and outcomes in data to better understand how or why something happens.
- Run charts,<sup>9</sup> scatter diagrams,<sup>10</sup> and correlations are useful tools for inferential analyses, which can range widely in their complexity and the degree to which they attempt to control for factors outside the MFP program’s control. Examples include:
    - *Chi square tests* that test whether the actual frequencies of measures match expected frequencies. This approach can be used to assess whether the performance improvement activity may have yielded change, or whether observed results are most likely due to chance variation.
    - *Cross-sectional analyses* that compare outcomes across groups at a single point in time. These comparisons might allow MFP staff to understand whether outcomes at that point in time differ for MFP participants who experienced an intervention relative to those that did not.
    - *Pre-post analyses* that create comparisons for the same group before and after an intervention. For example, did MFP participants experience fewer hospitalizations or ED visits per person or in aggregate after the intervention?
    - *Longitudinal analyses* that assess change over time in MFP program outcomes, generally using more than one pre and post period. For example, how do the number of transitions compare across years? How does this variation align with changes in MFP program implementation?
    - *Cohort comparisons* that allow for analyzing changes over time between a group that received an intervention, and a similar group that did not. This might include comparing outcomes for MFP participants who participated in MFP-facilitated transitions to the community versus individuals who left facilities without MFP supports. The groups must be as similar as possible so that the primary difference between them is participation in the MFP intervention. That is, the two groups should be matched on characteristics like Medicaid-eligibility, age, gender, length of care needs, medical conditions, availability of family support, and housing type.

Analytic approaches can vary in level of detail, rigor, and complexity. Many analyses conducted using MFP data will use descriptive statistics. As MFP grantees continue to develop and improve their procedures for program assessment and strengthen data collection, they may find an increased ability to apply MFP data to more advanced inferential analyses, including those that use comparison groups and regression adjustment to estimate specific impacts of the MFP program.<sup>11</sup>

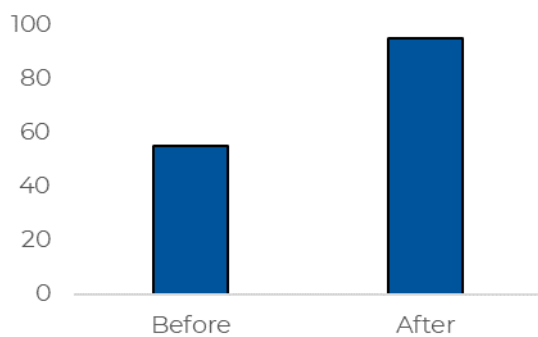
**Table 4** lists examples combining analysis questions, measures, data sources, and analytic approaches to measure program performance in reaching MFP goals.

**Table 4. Sample analytic approaches to measure improvement in MFP performance**

Example analysis question	Measures	Data source(s)	Analytic approach
<b>MFP goal: Provide assistance to people who choose to transition out of institutions to the community</b>			
Did the total number of MFP transitions to the community increase within six months or a year after the intervention?	Total number of MFP transitions  Number of MFP transitions in each target group	MFP Semi-Annual Progress Report (SAR) section B.3-5  MFP Budget Workbook Populations Transitions Chart	Pre-post
<b>MFP goal: Deliver high quality, person-centered HCBS to MFP participants</b>			
Did the rate of re-institutionalization for MFP participants decrease in the past one or more years?	Number of readmissions to institutions among MFP participants	SAR section B.6	Longitudinal
Do MFP participants experience a lower rate of re-institutionalizations during the 12-month period after they move to the community, compared to those who transition to the community without MFP?	Number of readmissions to institutions among MFP participants and others who transition without MFP	SAR section B.6  Administrative data	Cohort comparison

On this page, we illustrate the results of an analysis for an intervention designed to increase the number of transitions. We might select a pre-post design to compare the number of transitions initiated before and after an intervention (**Figure 3**). We could also select a longitudinal approach, tracking the number of transitions over time (**Figure 4**). We might further strengthen the analysis by examining the results by participant characteristics, like region, age, gender, race/ethnicity, and type of disability to see which groups benefit more, or less, from the intervention.

**Figure 3. Number of transitions from institutions to the community initiated before and after an intervention**

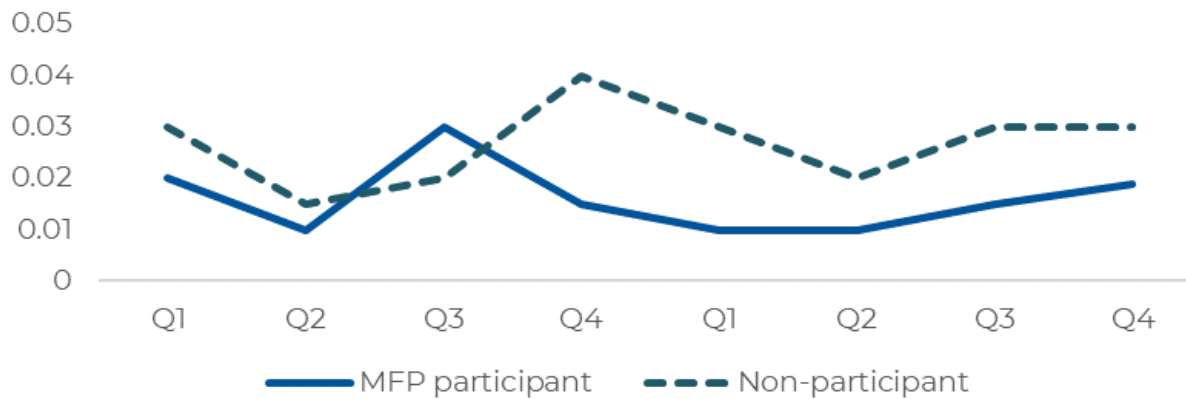


**Figure 4. Number of transitions from institutions to the community over time**



For an intervention designed to reduce the rate of re-institutionalization within 12 months of transition, the analysis could use a cohort comparison and longitudinal data to compare rates of re-institutionalization between MFP participants and a similar group of non-MFP participants who do not receive enriched MFP demonstration and supplemental HCBS benefits in the year after they move back to the community (**Figure 5**).<sup>12</sup> The groups must be as similar as possible so that the primary difference between them is MFP participation. Without further statistical adjustment, plotting the trends as shown in **Figure 5** does not establish causation, but it can still be powerful in demonstrating the advantage that MFP programs provide to those who transition with enriched MFP benefits. By incorporating more advanced statistical tools, like regression adjustment methods specific to longitudinal designs, MFP program analysts can draw stronger conclusions about the link between MFP interventions and outcomes.

**Figure 5. Rates of re-institutionalization among MFP participants and nonparticipants**



### Triangulate results across analyses

The MFP program involves many people, organizations, resources, and activities, as demonstrated by the logic model in the planning section of this brief. It can be difficult to definitively prove that a single intervention produced a performance improvement. Data triangulation is a powerful tool for reducing doubt about the conclusions of an analysis. Triangulation involves using multiple measures, data sources, or comparisons to strengthen confidence in the results. If two sources contradict one another, the source of improvement may be debatable. However, if three different sources reach similar conclusions, the analysis team can be more confident that the intervention had its intended result. For example:

1. Is the rate of increase in the number of transitions to the community higher among the subset of institutions involved in the intervention than among those not involved?
2. Is the number of transitions to the community higher after the intervention began?
3. Is the number of transitions to the community higher for transition coordinators involved in the intervention than those who were not?

If the answer is “yes” to all three of these questions, it is more likely that the MFP program improvement intervention (the common element in each scenario) is a credible contributor to a positive outcome than if the answer is “yes” for only one question.

### Assess disparities in outcomes

To assess the effects of a program improvement intervention on disparities and equity, stratifying data by population characteristics can provide meaningful insight into differences in MFP program outcomes. This is particularly true for groups that have been historically underserved. Studying the impact of the intervention on different groups, and not just overall, allows program managers to better understand the disparities in outcomes, and consider additional strategies for program improvement to reduce such disparities. Some MFP participant characteristics to consider include type of disability,

number and type of chronic health conditions, age, gender, race and ethnicity, language preference, geographic region, type of setting transitioning to or from, and dual eligibility status.

## ACT: Use analysis for action and decision making

After analyzing the results of the program improvement intervention, the final step in the PDSA cycle is to decide what the results mean for action and decision making. In this step grantees decide whether and how to change MFP policies, procedures, service delivery, and capacity building activities to put effective program improvement interventions into practice. There are three approaches that MFP program managers and Medicaid agency officials can take after evaluating findings on performance improvement: adopting, adapting, or abandoning.

### Adopting

- / Adopting means implementing the program improvement interventions tested throughout the PDSA cycle and scaling them up if they were tested on a smaller scale. Adoption is suggested when the results of the analysis indicate that the intervention is successful in supporting MFP program goals.
- / After adopting and scaling up the intervention for program improvement, MFP staff should continue assessing their effectiveness to ensure the interventions are working as intended. Doing so builds the case for program sustainability. For example, program managers can combine information about the cost of implementing the program improvement with data about averted re-institutionalizations or increased transitions to estimate program savings. This helps to quantify the return on investment (ROI) of the MFP program.<sup>13</sup>
- / A key step in adoption is effectively sharing the successes of program improvement and capacity building with state or territory leadership, CMS MFP demonstration team, other MFP grantees, providers, and community organizations. Data-driven evidence can go a long way in garnering continued program support, especially if the findings are presented in a visually appealing way using charts and figures. By using data to help build and sustain partnerships with key parties, MFP grantees can increase access to resources and services for their participants.

### Adapting

- / Adapting means modifying the program improvement intervention tested throughout the PDSA cycle. Adapting is suggested when the analysis indicates that adjustments are needed before the intervention can successfully support MFP program goals.
- / An action plan for program improvement or capacity building<sup>14</sup> can help identify changes to the program improvement intervention to reach MFP program goals.
- / Action plans consider outcomes of the intervention based on analysis findings and help to understand why goals were not reached, possible changes to the intervention, and how to test the changes.

### Abandoning

Abandoning means ending the program improvement intervention tested throughout the PDSA cycle. Abandoning is suggested when the analysis indicates that the intervention did not achieve its intended results or does not support MFP program goals.

### Continual improvement

The program improvement process is a cyclical process. Continuous program improvement and long-term capacity building rely on continuing to test and improve adopted interventions, innovating and testing adapted interventions, and creating and testing new interventions to replace abandoned ones.

### Conclusion

Using the PDSA cycle as a guiding framework, this brief provides MFP program staff a step-by-step guide to improving MFP program performance. When program improvement efforts are driven by data, MFP participants will benefit from improved health outcomes, quality of care, and service delivery. The effective use of data to measure program performance and assess program improvement efforts is key to achieving the goals of the MFP program, and ensuring it contributes to the transformation of LTSS systems overall.

This brief was authored by Cassidy Kantoris, Mallory Johnson, and Debra Lipson from [Mathematica](#).

## Appendix A. Driver diagram

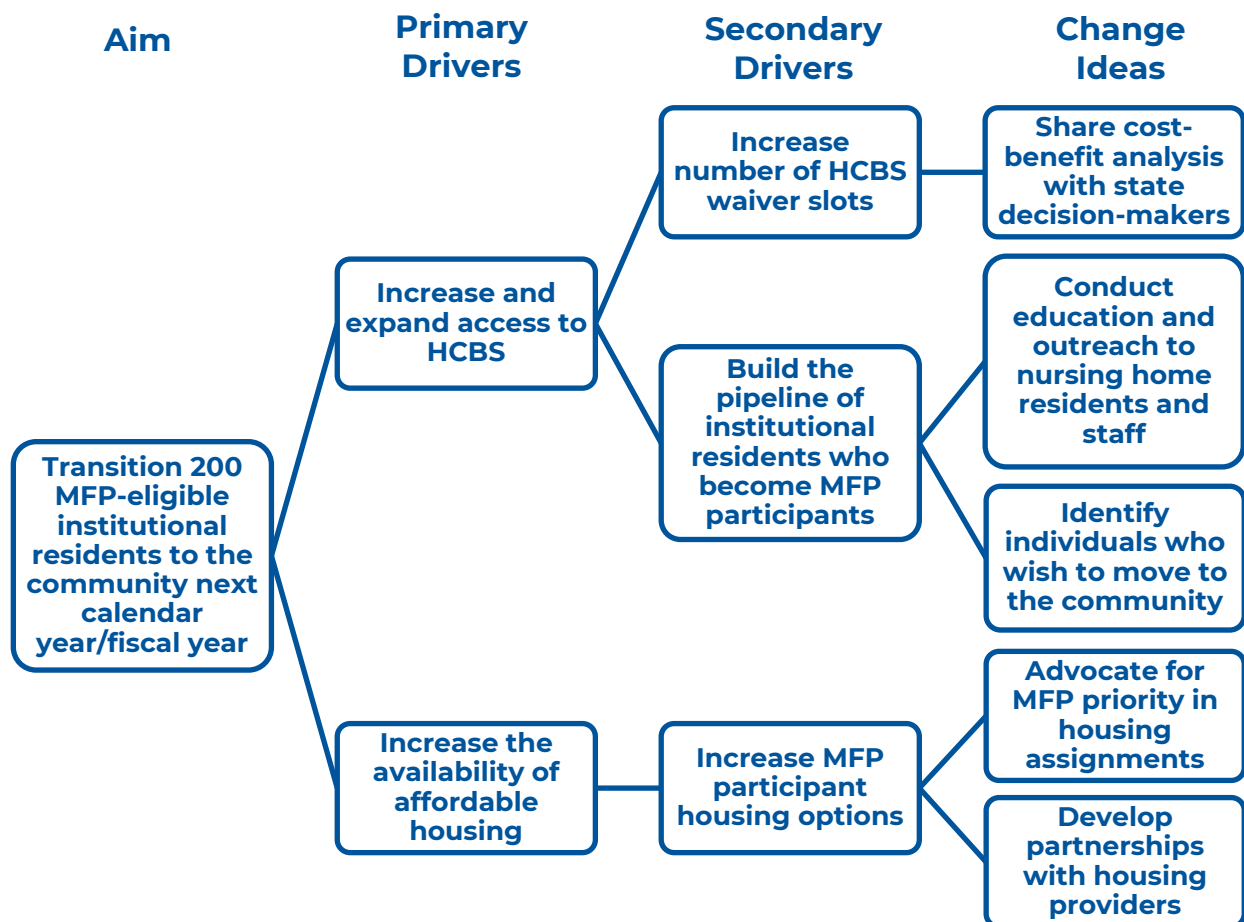
A driver diagram is a visual representation of what drives the achievement of a program improvement goal. A driver diagram considers the goals of MFP performance improvement, the strategies to reach those goals, and the outcomes.

Drivers are defined as either primary or secondary.

- / Primary drivers are the high-level, systemic factors that lead to a goal. These drivers contribute directly to the goal. For example, increasing and expanding access to HCBS would directly increase the number of MFP participants who receive HCBS after transitioning to the community.
- / Secondary drivers are the actions or components that influence the primary drivers. Secondary drivers can be used to identify changes that affect primary drivers. For example, increased number of HCBS waiver slots increases access to HCBS, which drives the number of transitions.

See an example driver diagram in **Figure 6** below:

**Figure 6. Example MFP driver program**





## Appendix B. MFP Data sources

Below are several MFP data sources that grantees can use to measure program performance. Although each grantees's Medicaid data systems are different, these sources reflect the most common types of data collected and reported by MFP programs.

- / **MFP Semi-Annual Progress Reports (SARs).** MFP SARs bring together data from different sources and topic areas, such as MFP transitions, re-institutionalizations, total Medicaid HCBS expenditures, rebalancing initiatives, and critical incidents. These data are collected and reported to the Centers for Medicare & Medicaid Services (CMS) by MFP grantees twice a year, allowing for measures to be tracked regularly over time.
- / **Participant surveys.** Surveys with MFP participants can help measure a program's effectiveness in providing person-centered care, meeting participants' goals, and ensuring participant satisfaction with care and services.<sup>15</sup>
  - MFP Quality of Life (QoL) survey. The MFP QoL survey<sup>16</sup> was created specifically for MFP grantees and can be a useful tool in comparing participant quality of life and satisfaction before and after MFP participation. While grantees are no longer required to use the survey, it may provide useful historical information for some grantees. The survey was conducted before transition, then about 11 months and 24 months after transition. The survey included questions about participant experience in areas like choice and control, access to personal care, community integration, and health status.
  - National Core Indicators (NCI) and National Core Indicators- Aging and Disabilities (NCI-AD). NCI and NCI-AD surveys measure community participation, choice, self-direction, safety, and other person-centered outcomes. The survey instruments assess performance and quality of HCBS programs and can be adapted for MFP program assessment and improvement. For more information, see <https://www.nationalcoreindicators.org/> and <https://nci-ad.org/>.
  - HCBS Consumer Assessment of Healthcare Providers and Systems Home and Community-Based Services (CAHPS) survey. The HCBS CAHPS survey gathers direct feedback from Medicaid participants in HCBS programs about their experiences. Questions examine participant experience in areas like getting services, communicating with providers, and community inclusion. For more information, see <https://www.medicaid.gov/medicaid/quality-of-care/performance-measurement/cahps-hcbs-survey/index.html>.
- / **Quality measures.** The data grantees collect for quality measures established by CMS or the National Committee for Quality Assurance (NCQA) can be used by MFP grantees to systematically measure and evaluate performance. These measures can provide a more comprehensive understanding of the quality of services and experiences of MFP participants. Many of these measures are part of the HCBS Quality Measure Set<sup>17</sup>, described in the box below.

### HCBS Quality Measure Set

The HCBS Measure Set is a set of nationally standardized quality measures for Medicaid-funded HCBS. CMS released the HCBS Measure Set to support consistent use of HCBS quality measures within and across states and to create opportunities for CMS and states to have comparative data on HCBS quality. States are encouraged to use the measure set to assess quality and outcomes in their HCBS programs, including MFP. The measure set includes many indicators that are derived from the HCBS CAHPS experience of care survey, as well as NCI and NCI-AD surveys, or other participant surveys. The set also includes other nationally standardized and tested measures related to key areas such as access, LTSS rebalancing, and community integration.

- / **Administrative data.** Grantee-reported administrative data are powerful because they capture individual-level detail on MFP participants that can be used to help understand patterns or trends across population groups. Grantees with MLTSS programs may have administrative data at the managed care plan level, while grantees with HCBS waiver programs may have such data at the waiver program level. Administrative data can include:
  - Case management records that contain demographic data like race/ethnicity, gender, and age
  - Section Q of the Minimum Data Set (MDS) that captures information about nursing home participants' interest in moving out of the institution back to home or community settings
  - Medicaid Management Information Systems (MMIS) that hold enrollment and claims data that can be useful for analyzing service use. MMIS data are converted into Transformed Medicaid Statistical Information System (T-MSIS) files and reported to CMS. T-MSIS files can be used for cross-state analyses and comparisons.
  - HCBS 1915 program data; for example, Form CMS-372 contains enrollment and spending information about participants in section 1915(c) waiver programs. States with section 1115 demonstration programs collect and report similar monitoring metrics.
  - Electronic visit verification (EVV) data that document information about delivery of Medicaid personal care services (PCS) and (by January 1, 2024) home health care services (HHCS) that require an in-home visit by a provider.
- / **Financial reporting.** Financial data can complement programmatic data by providing additional information about MFP service costs and spending. The primary financial reporting forms include the MFP Budget Workbook (containing the Worksheet for Proposed Budget and Budget Narrative); MFP Financial Forms A, B, C, & D; and Form CMS-64-i.

## Endnotes

<sup>1</sup> Institute for Healthcare Improvement. "Model for Improvement: Plan-Do-Study-Act (PDSA) Cycles." Available at <http://www.ihl.org/resources/Pages/HowtoImprove/ScienceofImprovementTestingChanges.aspx>. Accessed April 15, 2022.

<sup>2</sup> Driver diagrams are similar to logic models and can also be useful for identifying drivers that are (1) primary system-level factors, and (2) secondary actions and interventions that influence the primary drivers. See Appendix A for more information.

<sup>3</sup> Berwick, D. "Developing and Testing Changes in Delivery of Care." Academia and Clinic, 1998. Available at <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.911.5700&rep=rep1&type=pdf>. Accessed April 15, 2022.

<sup>4</sup> Institute for Healthcare Improvement. "Flowchart." Available at <http://www.ihl.org/resources/Pages/Tools/Flowchart.aspx>. Accessed April 15, 2022.

<sup>5</sup> Medicaid.gov. "Electronic Visit Verification (EVV)." Available at <https://www.medicaid.gov/medicaid/home-community-based-services/guidance/electronic-visit-verification-evv/index.html>. Accessed April 15, 2022.

<sup>6</sup> Shen, S. "7 Steps to Ensure and Sustain Data Quality." July 2019. Available at <https://towardsdatascience.com/7-steps-to-ensure-and-sustain-data-quality-3c0040591366>. Accessed April 15, 2022.

<sup>7</sup> MFP grantees report participation and service records monthly in T-MSIS, the national database for the Medicaid and Children's Health Insurance Program (CHIP). Additional information on person- and service-level data elements reported by MFP grantees is available at <https://www.medicaid.gov/medicaid/data-and-systems/macbis/tmsis/tmsis-blog/entry/47577>.

<sup>8</sup> The national average rate of re-institutionalization lasting more than 30 days, as of 2016. Source: Coughlin, R., J. Ward, N. Denny-Brown, B. Hagen, K. Maurer, E. Morris, J. Smoot, et al. "Money Follows the Person Demonstration: Overview of State Grantee Progress, January to December 2016." Page 28. Cambridge, MA: Mathematica Policy Research, September 2017. Available at <https://www.medicaid.gov/sites/default/files/2019-12/2016-cross-state-report.pdf>.

<sup>9</sup> Institute for Healthcare Improvement. "Run Chart Tool." Available at <http://www.ihl.org/resources/Pages/Tools/RunChart.aspx>. Accessed April 15, 2022.

<sup>10</sup> Institute for Healthcare Improvement. "Scatter Diagram." Available at <http://www.ihl.org/resources/Pages/Tools/ScatterDiagram.aspx>. Accessed April 15, 2022.

<sup>11</sup> For an overview of approaches to select comparison groups that support rigorous evaluation, see Bradley et al. 2020. "Selecting the Best Comparison Group and Evaluation Design." Available at <https://www.medicaid.gov/medicaid/section-1115-demo/downloads/evaluation-reports/comparison-grp-eval-dsgn.pdf>.

<sup>12</sup> Many states operate parallel transition programs for individuals who do not qualify for MFP—for example, for individuals who have not met the minimum length of stay requirement. In such cases, states may choose to compare outcomes for MFP participants with those who transition through the parallel program.

<sup>13</sup> See the Return on Investment Estimation toolkit for more information on conducting ROI analyses. Available at [https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/systems/hospital/qitoolkit/combined/fi\\_combo\\_returnoninvestment.pdf](https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/systems/hospital/qitoolkit/combined/fi_combo_returnoninvestment.pdf).

<sup>14</sup> Agency for Healthcare Research and Quality. "Health Care Quality Improvement (QI) Action Plan Template." Available at <https://www.ahrq.gov/evidencenow/tools/qi-action-plan.html>. Accessed April 15, 2022.

<sup>15</sup> More detailed information about person-reported outcome measures for Medicaid HCBS beneficiaries can be found at <https://www.medicaid.gov/medicaid/quality-of-care/downloads/hcbs-quality-measures-brief-2-person-reported-outcome.pdf>.

<sup>16</sup> Sloan, M., and C. Irvin. "Money Follows the Person Quality of Life Survey." Washington, DC: Mathematica Policy Research, 2007. Available at [http://www.mathematica-mpr.com/~media/publications/PDFs/health/MFP\\_QoL\\_Survey.pdf](http://www.mathematica-mpr.com/~media/publications/PDFs/health/MFP_QoL_Survey.pdf). Accessed April 15, 2022.

<sup>17</sup> The HCBS Quality Measure Set is available at <https://www.medicaid.gov/medicaid/quality-of-care/quality-improvement-initiatives/measuring-and-improving-quality-home-and-community-based-services-hcbs/index.html>.