MATHEMATICA Policy Research

REPORT

FINAL REPORT

Money Follows the Person 2013 Annual Evaluation Report

February 25, 2015

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Submitted to:
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Contract Number: HHSM-500-2010-00026I/HHSM-500-T0010

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ACKNOWLEDGEMENTS

This research was conducted by Mathematica Policy Research under contract with the Centers for Medicare & Medicaid Services (HHSM-500-2010-00026I/HHSM-500-T0010). The authors wish to thank Effie George and Mike Smith for all their guidance and input. We also thank Bob Schmitz and Randall Brown for providing extremely useful comments on an earlier draft that strengthened and improved the final version. We also thank Jennifer Littel, who edited the report, and Emily Wharton and Ciara Bradnan who helped with the production of the report. Most importantly, we thank theMoney Follows the Person (MFP) grantees for their diligence in preparing their semiannual progress reports and quarterly data files. Without the information they provide and their hard work ensuring high-quality information, we would not be able to evaluate this demonstration in such detail. In addition, we thank the MFP grantees for their hard work serving Medicaid enrollees who need long-term services and supports.

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I. INTRODUCTION AND BACKGROUND

The national Money Follows the Person (MFP) demonstration continued to grow in 2013. Cumulative MFP enrollment increased to more than 40,000 transitions by the end of December 2013, a 35 percent growth over the total number at the same point in 2012. As of December 31, 2013, 45 states had received MFP grants; Florida and New Mexico were awarded MFP grants in 2011 but later rescinded them in 2012. Among the 45 MFP grantees, two (Montana and South Dakota) were in the program-planning phase in 2013, and one original grantee (Oregon) continued as a suspended program while it redesigned its operations. During 2013, 42 states were actively transitioning participants through their MFP programs; one of these states (Alabama) began transitioning people to the community for the first time during the second half of the year.

This report is the fifth in a series of annual reports that Mathematica Policy Research is producing for the national evaluation of the MFP demonstration funded by the Centers for Medicare & Medicaid Services (CMS) (CMS Contract Number HHSM-500-2010-00026I/HHSM-500-T0010). It provides basic information about the program and how it grew and changed during calendar year 2013. It also updates and summarizes analytic studies Mathematica conducted during the year.

A. Background

1. Basic features of the MFP program

Each state in the MFP demonstration must establish a program that has two components: (1) a transition program that identifies Medicaid beneficiaries in institutional care who wish to live in the community and helps them do so, and (2) a rebalancing program that allows more Medicaid long-term care expenditures to flow to community services and supports. MFP programs (like Medicaid programs in general) are subject to general federal requirements, but the design and administration of each MFP program are unique and tailored to state needs.

Transition programs. By statute, the MFP program is for people institutionalized in nursing homes, hospitals, intermediate care facilities for individuals with intellectual disabilities (ICFs/IID), or long-term psychiatric facilities. Participants must have been in institutional care for at least 90 days and eligible for Medicaid coverage.[1]

On the day they transition to the community, MFP participants begin receiving a package of home- and community-based services (HCBS). Federal matching payment for these services are financed by the state's MFP grant funds. MFP-financed services continue for as many as 365 days after the date of transition. After exhausting their 365 days of eligibility for the MFP program, participants continue to receive the HCBS they need through the state plan and/or a waiver program, depending on their eligibility for these services.

[1] Until the passage of the Affordable Care Act, MFP required participants to be institutionalized for a minimum of 180 days, and they had to be eligible for full Medicaid benefits for at least one month before the transition to be eligible for the program. The Affordable Care Act reduced the length-of-stay requirement to 90 days, but states may not count any rehabilitative care days covered by Medicare.

MFP programs may provide up to three categories of services: (1) qualified HCBS, (2) demonstration HCBS, and (3) supplemental services. Qualified HCBS are services that beneficiaries would have received regardless of their status as MFP participants, such as personal assistance services available through a 1915(c) waiver program or the state plan. Demonstration HCBS are either allowable Medicaid services not currently included in the state's array of HCBS (such as assistive technologies) or qualified HCBS above what would be available to non-MFP Medicaid beneficiaries (such as 24-hour personal care). MFP requires states to maintain needed services after participants leave the program as long as they maintain Medicaid eligibility, and demonstration HCBS tend to be short-term services that are needed to help people adjust to community living. States can also provide supplemental services to MFP participants that are not typically reimbursable outside of waiver programs but facilitate an easier transition to a community setting (such as a trial visit to the proposed community residence). States receive an enhancement to the Federal Medical Assistance Percentage (FMAP), which is drawn from their MFP grant funds, when they provide either qualified HCBS or demonstration HCBS.[2] They receive the regular FMAP, which is also drawn from their MFP grant funds, when they provide supplemental services. In general, the MFP demonstration allows states to provide a richer mix of community services for a limited time to help facilitate a successful transition to the community.

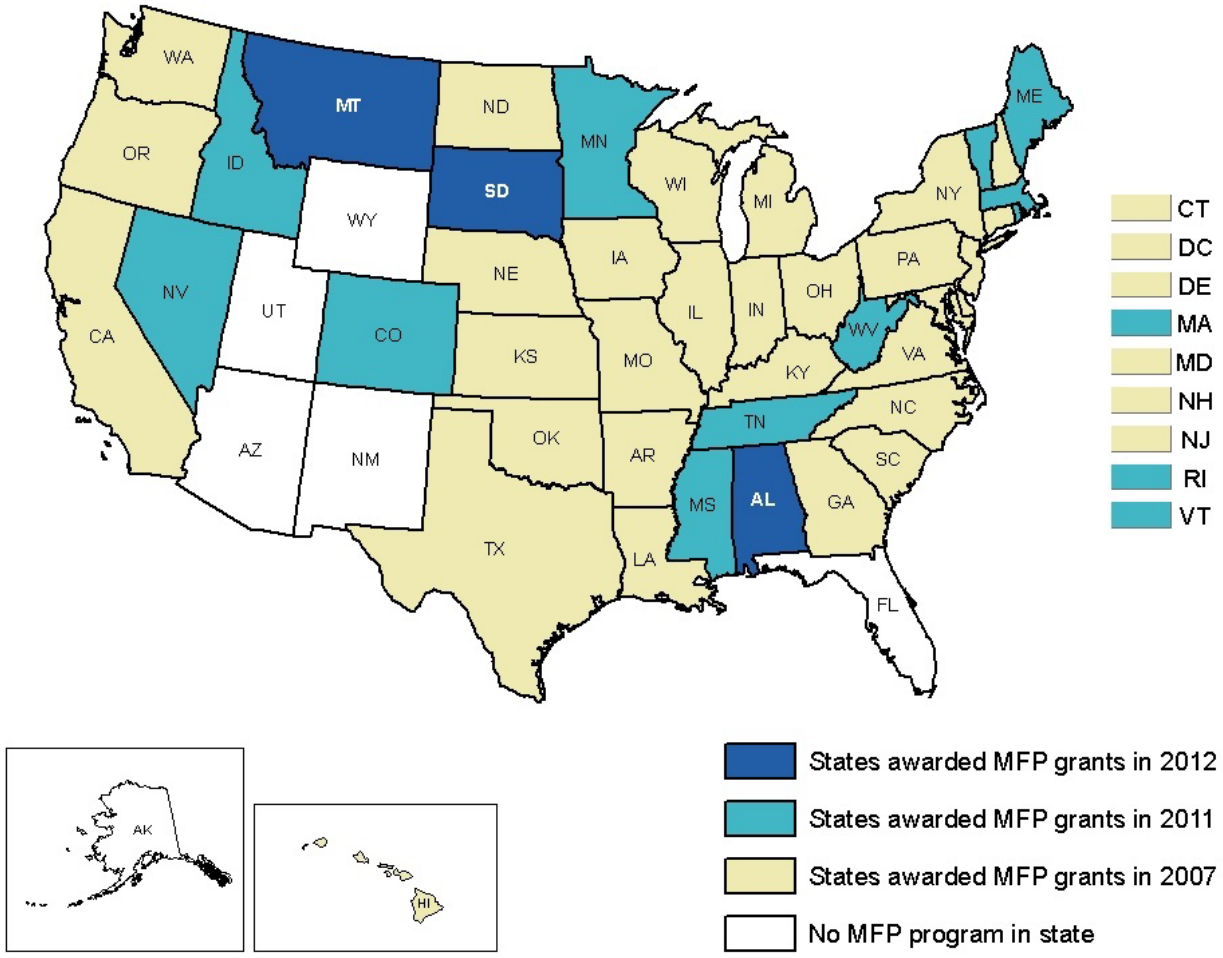
Rebalancing programs. The rebalancing program is subject to fewer basic requirements than the transition program. States must use the enhanced matching funds they receive when MFP participants use qualified HCBS or demonstration services to finance changes in their long-term services and supports (LTSS). States may use the enhanced funds in a variety of ways, including (a) financing the provision of services, which includes improving housing supports; (b) expanding the availability of HCBS programs (such as increasing HCBS waiver slots); (c) improving access to HCBS, including supporting transitions of people not eligible for MFP; and (d) supporting providers with workforce initiatives, trainings, and incentives, as well as facility closures and right sizing. Each state sets benchmarks for measuring the success of its selected rebalancing strategy.

2. MFP grant awards

CMS began awarding MFP demonstration grants in January 2007 with 17 initial awards, followed by 14 additional awards in May 2007. In January 2011, another 13 states received MFP grants, bringing the total number of states with MFP grants to 43, plus the District of Columbia (Figure I.1). Alabama, Montana, and South Dakota received planning grants in 2012. New Mexico formally withdrew from the grant program in 2012 and Florida withdrew in 2013. As of the end of December 2013, 44 states and the District of Columbia either had an operating MFP program or were developing their programs.

[2] The MFP-enhanced FMAP is set in statute and cannot exceed 90 percent $(\text{state's.regular.FMAP} + [1 - \text{state's.regular.FMAP}] * .5)$. The state's regular FMAP also included the enhancements that states received through the American Recovery and Reinvestment Act of 2009, retroactive to October 1, 2008.

Figure I.1. Map of MFP demonstration grants



Note: New Mexico and Florida received MFP grant awards in 2011. New Mexico withdrew from the program in 2012 and Florida withdrew in 2013.

B. Purpose of this report

In March 2007, CMS contracted with Mathematica to conduct a national evaluation of the MFP demonstration and the contract was renewed in 2012 (CMS Contract Number HHSM-500-2010-00026I/HHSM-500-T0010). This fifth annual report for the MFP demonstration covers the program from its inception through December 2013. The primary purpose of the report is to describe the status of the program as of December 31, 2013, including how states are progressing on their transition and HCBS expenditure goals.

The following chapters present analyses that include basic descriptive information about the program, assessment of how expenditures and utilization of select medical care services change when someone transitions, and the HCBS that participants receive while in the program. As in the previous annual reports, the work presented here adds to the foundation for the national evaluation and an assessment of program effects. At its most fundamental level, the national evaluation of the MFP program seeks to understand whether the program met its goals to (a) increase the number and proportion of long-term institutionalized Medicaid enrollees who live

successfully in the community, and (b) facilitate state rebalancing of long-term services and supports. MFP programs are anticipated to have an array of effects on beneficiaries who need LTSS, including increases in the likelihood and number of transitions from institutional to community settings and the proportion of long-term care expenditures accounted for by HCBS.

C. Road map to the report

The next chapters are organized around two broad types of analyses: (1) an assessment of program implementation, growth, and the types of HCBS that MFP participants receive and (2) participant-level outcomes after the transition to community living. Chapter II describes the overall growth of the MFP demonstration and assesses whether state grantees are achieving their transition goals. Chapter III examines state-level implications of MFP and the larger picture of how states are using both MFP and the Balancing Incentive Program individually and together to rebalance their long-term care programs. Chapter IV assesses how expenditures and utilization of emergency department and inpatient services change at the individual level after someone transitions to the community. The assessment also compares MFP participants to a matched sample of other transitioners to determine whether the MFP program is associated with a different level and mix of expenditures during the first year after transitioning to HCBS. We find that MFP participants always have HCBS expenditures that are statistically significantly greater than the HCBS expenditures of other similar transitioners. To understand more about the composition of the HCBS MFP participants receive, Chapter V provides descriptive statistics about the HCBS that MFP participants receive during the year after their transition to the community.

II. PROGRESS ON STATUTORY TRANSITION GOALS

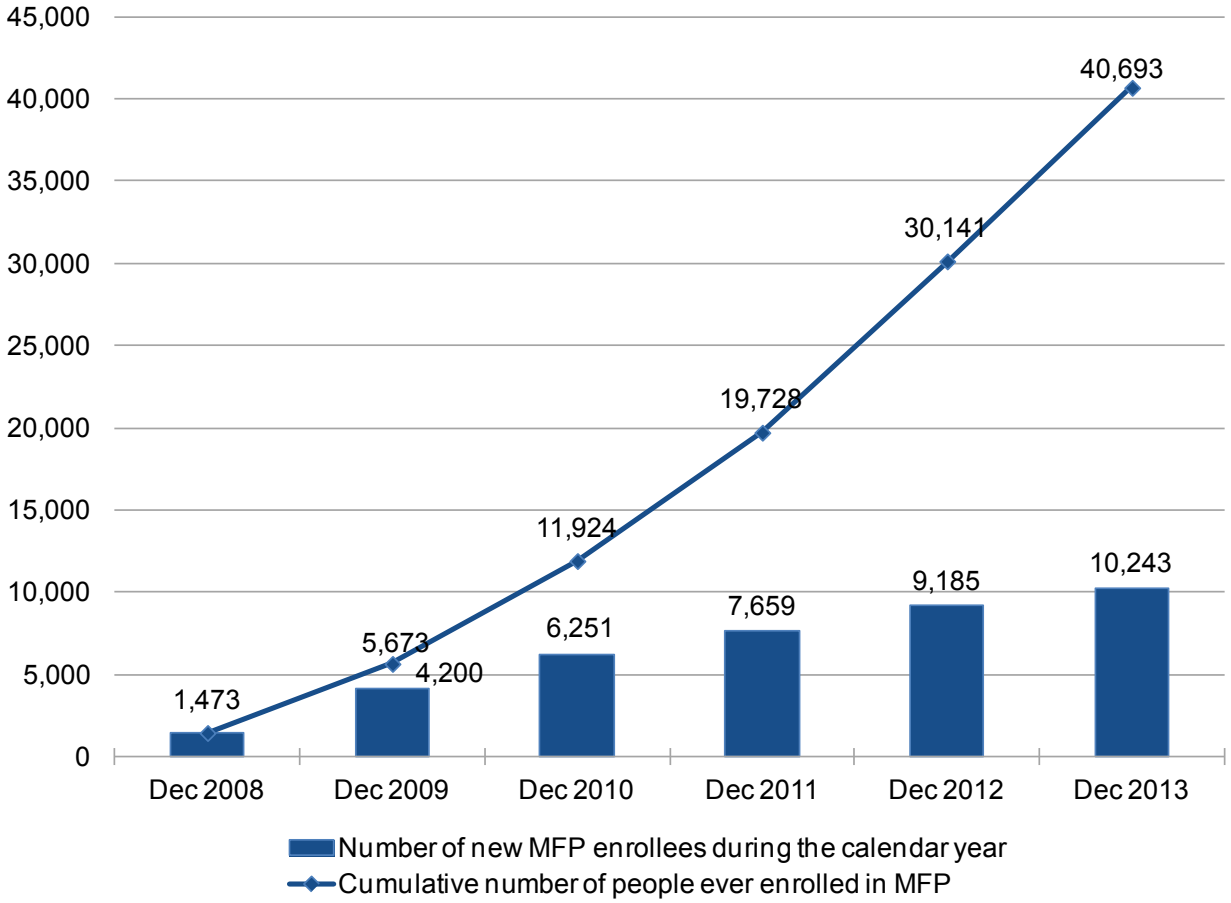
Calendar year 2013, the sixth full year of implementation of the national MFP demonstration, marks a continuation of steady growth in program enrollment. At the end of 2013, 42 states were actively transitioning participants through their programs, which included five states that launched their transition programs during the year: Alabama, Colorado, Minnesota, South Carolina, and West Virginia. From January 1 to December 31, 2013, MFP grantees transitioned a total of 10,243 new participants to the community (see Table A.1), an 11 percent increase from the year before (9,208 transitioned in 2012). By the end of 2013, the cumulative number of transitions stood at 40,693.

This chapter examines MFP enrollment during 2013 and reviews trends in MFP transitions and factors that have affected the pace of transitions in some states. It also discusses changes in the mix of participants since the demonstration was launched in 2008. This chapter concludes with a discussion of states' progress in meeting annual state-established targets for the first statutory goal—the number of institutionalized individuals that programs transition back to the community—during the first six years of program implementation (2008 through 2013).

A. Current program enrollment statistics

Since the start of the MFP demonstration in late 2007 and now through December 2013, state grantees have transitioned more than 40,000 people from institutions to the community where they received LTSS (Figure II.1). A total of 10,243 individuals enrolled in MFP and transitioned to the community in 2013; 10 states accounted for 62 percent of these transitions (Table A.1). Among those transitioning, about 38 percent were adults age 65 or older, 38 percent were individuals under the age of 65 with physical disabilities, 16 percent were individuals with intellectual disabilities, 8 percent were individuals with mental illness, and about 2 percent were classified as Other (Figure II.2).

Figure II.1. Total MFP enrollment, 2008–2013



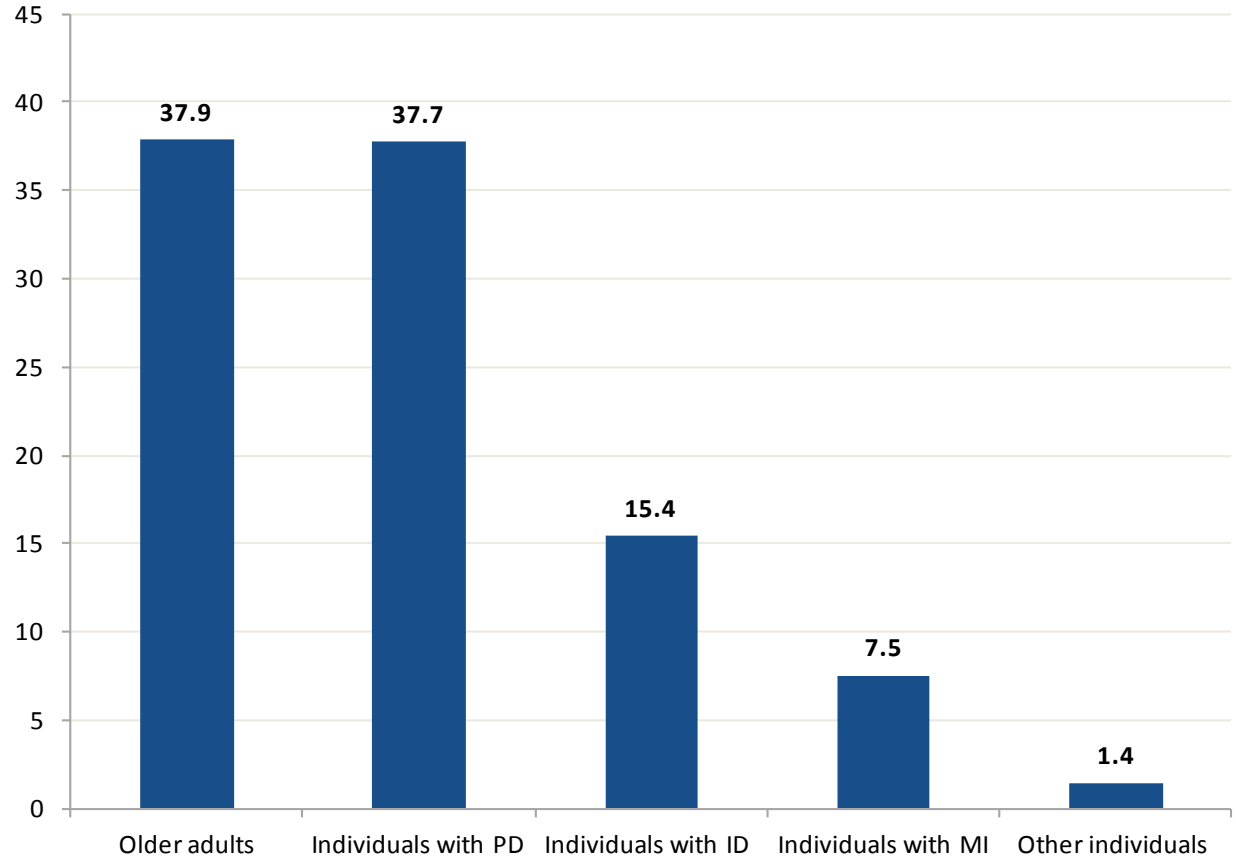
Source: Mathematica analysis of State MFP Grantee Semiannual Progress Reports, 2008–2013.

Notes: N = 10 states in June 2008; 30 states in December 2008, June 2009, December 2009, June 2010, December 2010, and June 2011; 34 states in December 2011; 35 states in June 2012; 37 states in December 2012; 41 states in June 2013; and 42 states in December 2013.

Numbers in the figure might not match numbers from previous reports due to efforts to retrospectively improve data quality.

Beginning in 2011, MFP grantees could adjust the reported number of cumulative transitions to reflect lags in claims reporting and retroactive updates. Consequently, the cumulative number of people ever enrolled at the end of 2011, 2012, and 2013 does not match the sum of the number of new enrollees during the calendar year and the cumulative number enrolled as of the end of the previous year.

Figure II.2. Distribution of MFP participants who transitioned during calendar year 2013, by population subgroup



Source: Mathematica analysis of State MFP Grantee Semiannual Progress Reports, January to December 2013.

Note: N = 42 states in 2013.

ID = intellectual disabilities; MI = mental illness; PD = physical disabilities.

B. Program enrollment over time

In 2013, MFP transitions continued to grow (Figure II.1). A total of 10,243 individuals enrolled in MFP and transitioned to the community in 2013, bringing the number of people ever enrolled in MFP to 40,693, which represents a 35 percent increase in cumulative enrollment (10,552) since the end of 2012. This growth rate sustains the strong upward trend in enrollment seen during each successive year of the program's operation.

One factor that contributed to growth in enrollment is the addition of several states that began to implement their MFP programs in recent years. Thirteen states were awarded MFP grants in 2011, 11 of which began to transition MFP participants to the community since that time. Three additional states (Alabama, Montana, and South Dakota) were awarded MFP grants in 2012, one of which transitioned its first participant to the community in 2013 (Table II.1). Other factors contributing to recent growth in transitions include program maturation and expanded operating capacity. Many states have increased their transition coordination capacity

by hiring additional staff to grow their programs and help address barriers to transition. The Money Follows the Person 2012 Annual Evaluation Report (Irvin et al. 2013) includes a discussion of factors that contributed to growth in enrollment over the course of the MFP demonstration.

Table II.I. States that began MFP transitions, 2011 through 2013

2011 (n = 4)	2012 (n = 4)	2013 (n = 5)
Idaho, Massachusetts, Rhode Island, and Tennessee	Maine, Mississippi, Nevada, and Vermont	Alabama, Colorado, Minnesota, South Carolina, and West Virginia

Notes: Grantees that were awarded MFP grants in 2011 include Colorado, Florida, Idaho, Maine, Massachusetts, Minnesota, Mississippi, Nevada, New Mexico, Rhode Island, Tennessee, Vermont, and West Virginia. Florida and New Mexico later rescinded their MFP grants. Alabama, Montana, and South Dakota were awarded MFP grants in 2012. Montana began to transition participants in May 2014. South Dakota is in the program planning phase and has not yet begun to actively transition participants.

South Carolina was awarded an MFP grant in 2007 and actively began transitioning participants in January 2013.

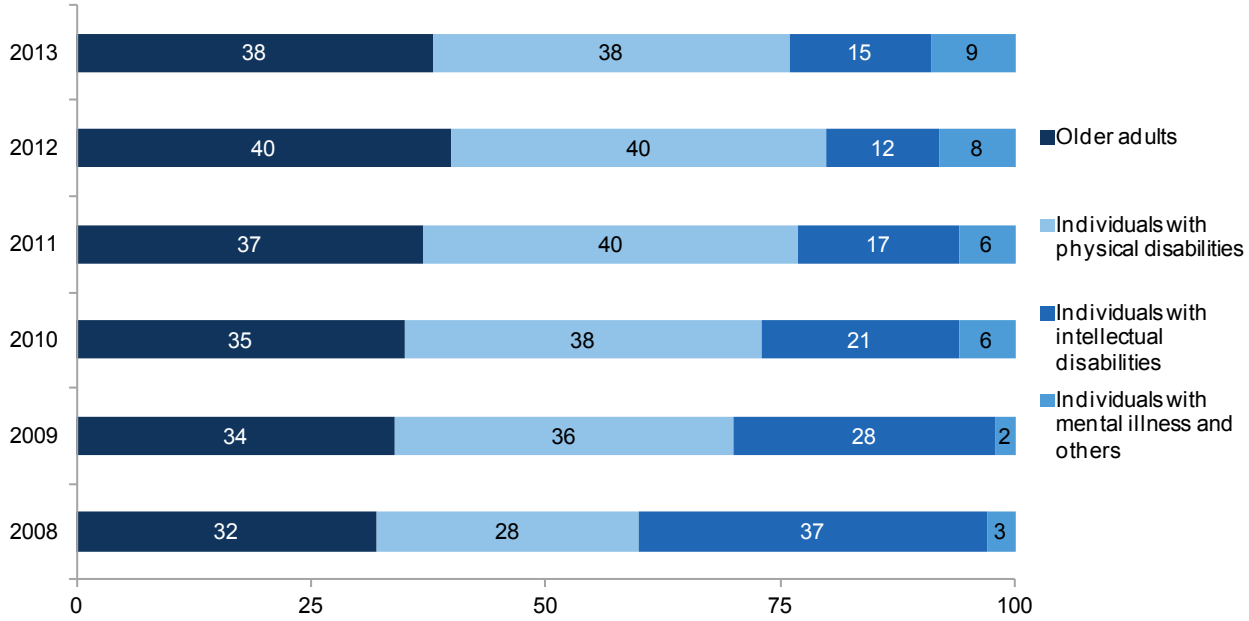
In examining state variation in the number of people who enrolled and transitioned during 2013, five states (Arkansas, Indiana, Kansas, Missouri, and New Hampshire) experienced declines of more than 20 percent in 2013 after experiencing a gain in 2012. Several factors have contributed to slowed progress in these states, including a change in transition coordination vendor in Indiana that affected enrollment into the program; implementation of managed care in Kansas; lower than expected number of Section Q referrals in Missouri; and increased acuity among MFP transition candidates in New Hampshire. (Arkansas did not report any challenges enrolling people or achieving its 2013 transition goal).[3] We also looked at trends in enrollment in the states that had the highest number of transitions in 2013. Ten states (California, Connecticut, Georgia, Maryland, New Jersey, New York, Ohio, Texas, Tennessee, and Washington) transitioned a total of 6,319 participants to the community in 2013, which comprised about 60 percent of the total number of transitions in 2013. In two of these states (Georgia and Tennessee), enrollment declined between 9 and 15 percent since 2012. In two other states (New York and Ohio), enrollment increased during 2013, but the increase was smaller than the

[3] The Minimum Data Set (MDS) is the nursing facility resident assessment instrument used for all nursing facility residents. Changes made to MDS Section Q questions (effective October 1, 2010) require that all residents be asked directly if they would like to speak with someone about moving back to a home or community residence. If the resident responds affirmatively, nursing home assessors must make a referral to a state or local contact agency, which will arrange for someone to speak to the resident about community living options.

increase from 2011 to 2012. Five states (Connecticut, Maryland, New Jersey, Texas, and Washington) had increased enrollment from 2012 to 2013, ranging from 6 to 58 percent.

Since the demonstration was launched in 2007, the mix of individuals transitioned each year (new enrollees) has changed (Figure II.3). During the six years of program implementation, older adults have gradually increased as a share of new enrollees, accounting for 32 percent in 2008, peaking at 40 percent in 2012, and decreasing slightly to 38 percent in 2013. The proportion of nonelderly individuals with physical disabilities accounted for 28 percent in 2008, increased to 40 percent in 2011, and has since declined to 38 percent in 2013. By contrast, the proportion of new enrollees with intellectual disabilities has declined, decreasing from 37 percent in 2008 to 12 percent in 2012 and then increasing slightly to 15 percent in 2013. The share of new enrollees with serious mental illness or other conditions has steadily increased during the first six years, peaking at 9 percent in 2013.

Figure II.3. Annual distribution of MFP participants by population group, 2008–2013



Source: Mathematica analysis of State MFP Grantee Semiannual Progress Reports, 2008–2013.

Note: N = 10 states in June 2008; 30 states in December 2008, June 2009, December 2009, June 2010, December 2010, and June 2011; 34 states in December 2011; 35 states in June 2012; 37 states in December 2012; 41 states in June 2013; and 42 states in December 2013.

C. Achievement of annual transition goals

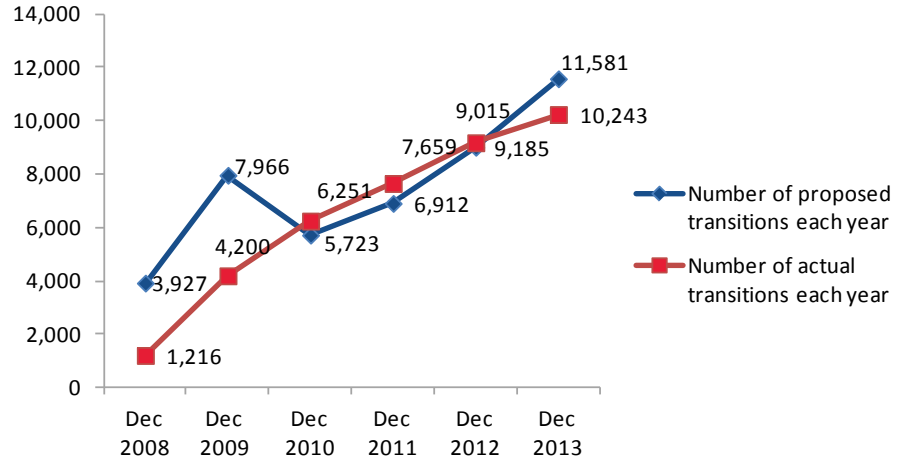
The Deficit Reduction Act of 2005, which authorized the MFP program, requires state grant applications to specify the projected numbers of eligible people they would transition each year of the MFP demonstration by targeted population [DRA, §6071(c)(5)]. CMS allows states to modify their goals on an annual basis when they submit requests for supplemental budget funds.

For this reason, overall transition goals in many states—and the aggregate transition goal for all states—have changed over time.

The 42 MFP grantees actively transitioning participants in 2013 achieved 88 percent of the transition goal for 2013, transitioning 10,243 people of the 11,581 transitions planned for the year. Calendar year 2013 marked the first year since 2009 that the MFP program at the national level fell short of achieving the aggregate annual transition goal. Nevertheless, the total number of individuals transitioned to community living (10,243) through MFP during 2013 is the highest since the inception of the MFP demonstration.

As in the earlier years of the MFP demonstration, states may have set overly ambitious transition goals for 2013. The aggregate transition goal increased by 28 percent from 2012 (9,015) to 2013 (11,581), which suggests that some MFP grantees may have overestimated what they could accomplish during the year (Figure II.4). Several states were still in the early phases of their programs in 2013; collectively, the nine states that started transitions in 2012 (Maine, Mississippi, Nevada, and Vermont) or 2013 (Alabama, Colorado, Minnesota, South Carolina, and West Virginia) achieved 46 percent (295 of 643) of their transition goals in 2013. Based on experience in other states, fewer than expected transitions occur during the start-up phase when procedures and systems are not fully implemented. In addition, during the second half of 2013, more than half of all MFP grantees reported challenges transitioning the projected number of individuals they proposed to transition during 2013.[4]

Figure II.4. MFP grantees' progress toward annual transition goals, 2008–2013



Source: Mathematica analysis of State MFP Grantee Semiannual Progress Reports, 2008–2013.

Note: N = 30 states in 2009 and 2010; 34 states in 2011; 37 states in 2012; and 42 states in 2013.

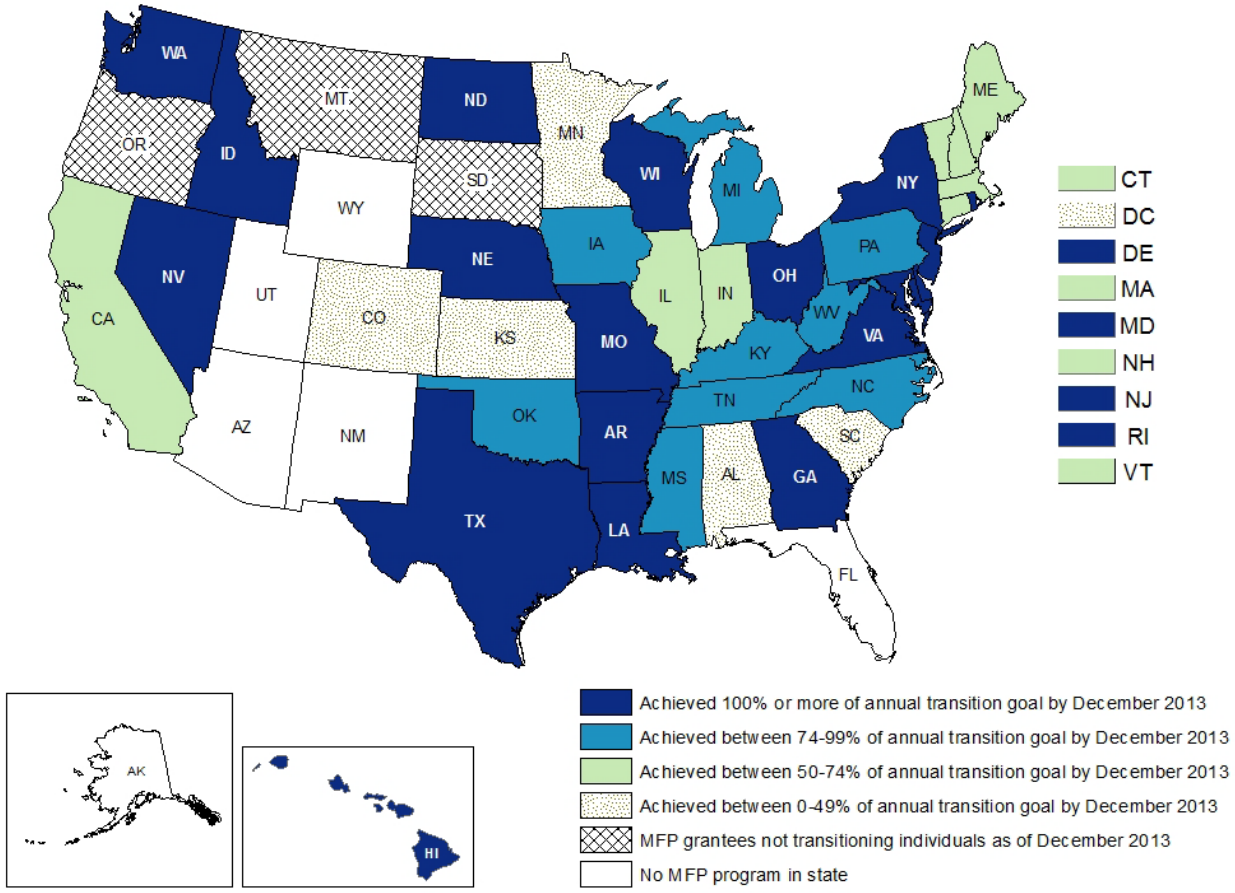
[4] Challenges cited by MFP grantees included reduction in the number of referrals received; staff shortages, including transition coordinators; housing challenges; delays in the closure of one or more ICFs-ID; inadequate HCBS capacity; procurement delays or change in vendor contracts; implementation of managed-care programs; and changes in the nursing facility level-of-care standards that have led to an increase in diversions from nursing homes to HCBS.

States varied in the degree to which they attained their transition goals for 2013 (Figure II.5). A total of 19 MFP grantee states achieved 100 percent or more of their annual transition goals by the end of December 2013. Of these grantee states, 5 (Arkansas, Delaware, Nevada, Virginia, and Washington) achieved 125 percent or more of their annual transition goals. Among the remaining 23 grantee states, 9 (Iowa, Kentucky, Michigan, Mississippi, Oklahoma, North Carolina, Pennsylvania, Tennessee, and West Virginia) achieved 75 to 99 percent of their annual transition goals, 9 (California, Connecticut, Illinois, Indiana, Maine, Massachusetts, New Hampshire, Oklahoma, and Vermont) achieved 50 to 75 percent of their transition goals, and the remaining 6 (Alabama, Colorado, District of Columbia, Kansas, Minnesota, and South Carolina) achieved less than 50 percent of their goals. It is worth noting that Colorado, Minnesota, South Carolina, and West Virginia transitioned their first participants during the first half of 2013, whereas Alabama transitioned its first participant in July 2013. The state grantees achieving, on average, less than 85 percent of their goals over a two-year period are required to establish an action plan and might need to adjust their program design or future transition goals so as not to jeopardize their receipt of supplemental MFP grant funds.[5] Twelve MFP grantees reported that they intend to change their transition goals in 2014 or subsequent years.[6]

[5] According to CMS guidance issued on July 10, 2014, when grantees do not reach at least 85 percent of annual transition goals over a two-year period, they are required to establish an Action Plan for how the transition benchmark will be achieved during the next 12 months. The benchmark percentage is based on an average of the preceding year and the current calendar year; however, when calculating the percentage, the first year of program operations may be excluded from this average. According to this guidance, "if a Grantee does not meet this minimum after the second year of an Action Plan, they will not be eligible for a supplemental budget request and/or may lose the ability to continue program administration of the grant."

[6] Five states (District of Columbia, Maine, New Hampshire, Tennessee, and Vermont) plan to reduce their transition goals, and two states (Idaho and Wisconsin) intend to increase their transition goals. Two states (Alabama and Minnesota) plan to revise their goals to reflect the delayed start date of their program, and three states (Louisiana, New York, and South Carolina) did not specify how they would amend their transition goals.

Figure II.5. MFP grantees' progress toward 2013 transition goals, January to December 2013, by state



Source: Mathematica analysis of State MFP Grantee Semiannual Progress Reports, 2013.

III. REBALANCING LONG-TERM SERVICES AND SUPPORTS AND PROGRESS ON STATUTORY HCBS EXPENDITURES GOALS

The results of the MFP transition program suggest a program that has been making steady progress. However, the national MFP demonstration is more than a transition program—it is also a rebalancing program. As discussed in Chapter I, when someone transitions to community living via an MFP program, grantee states receive an enhanced federal match, known as FMAP, for most of the HCBS they provide MFP participants. States must reinvest their enhanced FMAP payments with the goal of making HCBS more accessible. In doing so, it is expected that states with MFP programs will change their system of LTSS so that an increased proportion of expenditures flow to HCBS rather than to institutional care. This chapter examines states' progress with their MFP rebalancing programs and a closely related program, the Balancing Incentive Program, taken up by several MFP states. Created by the Affordable Care Act of 2010, the Balancing Incentive Program[7] also provides a mechanism for states to earn enhanced FMAP payments through the provision of HCBS. States that spend less than 50 percent of LTSS expenditures on HCBS are qualified to participate in the program. As with MFP, participating states are required to use these enhanced payments to rebalance their LTSS systems toward community-based care, achieving a ratio of 50 percent of LTSS spending for HCBS (or 25 percent in the case of Mississippi) by the end of the program, and states are required to make additional systems changes to support rebalancing (see Section C below for a description of these systems changes). Participating states receive an enhanced match on all HCBS provided statewide. Twenty-one have been approved for participation in the Balancing Incentive Program and all 21 were participating in MFP.

Because states must provide HCBS to earn rebalancing funds from both MFP and the Balancing Incentive Program, this chapter first examines state HCBS expenditures and then assesses how states have used MFP rebalancing funds and Balancing Incentive Program funds to support the shared goal of changing LTSS systems. Because so many states participate in both programs, this chapter also examines how states have leveraged the two programs' unique attributes to complement each other.

A. The balance of long-term services and supports over time

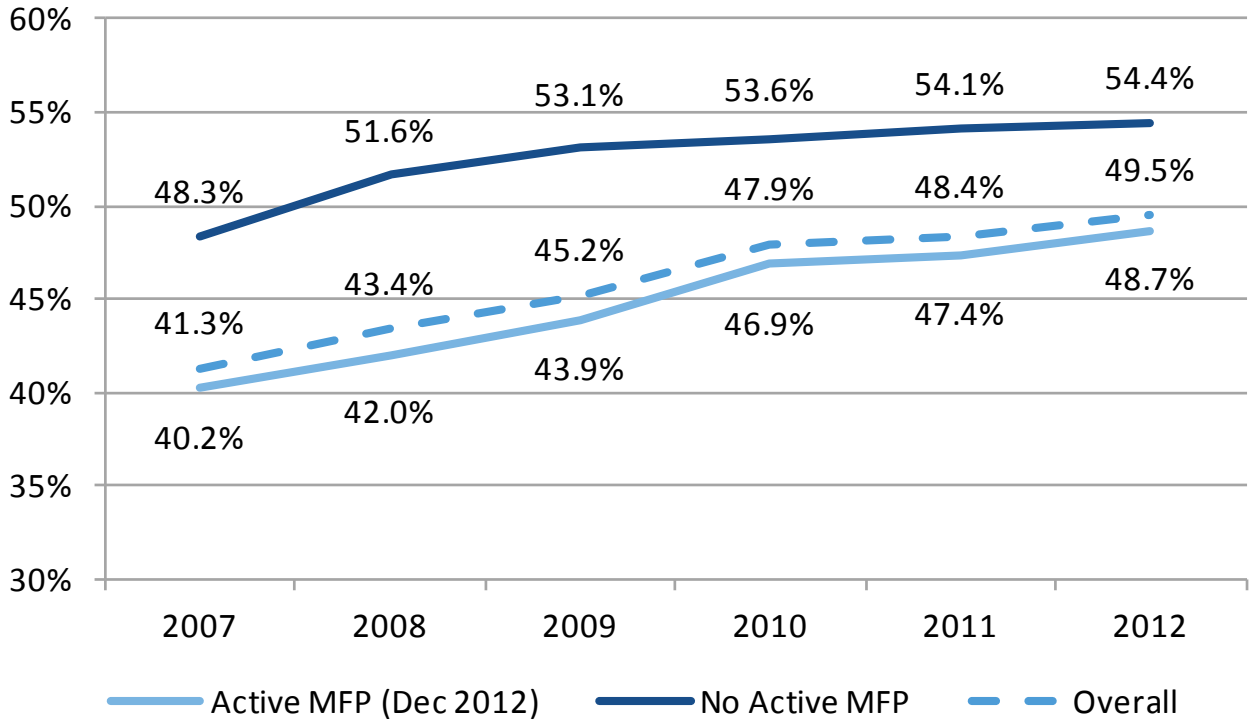
Annual summary expenditure data published by Truven Health Analytics indicate that historically many states have spent more on institutional-based care than HCBS, but this balance has been changing (Eiken et al. 2014). In 2012, nearly 50 percent of LTSS expenditures were for HCBS. The upward trend indicates that states have been making progress and changing their LTSS systems, with HCBS expenditures slowly increasing relative to institutional care expenditures (see Figure III.1).

When Truven's data are disaggregated, we find that the 37 states with an active MFP program as of December 2012 had increased the proportion of their LTSS spending accounted for by HCBS more rapidly than states without an active MFP program. Although states without an active MFP program have higher shares of HCBS overall, their rate of increase appears to be

[7] More information on the Balancing Incentive Program is available at http://www.balancingincentiveprogram.org.

slowing, while states with an active MFP program appear to be catching up. In the years since MFP began, states with active MFP programs realized equal or greater percentage point increases in the share of HCBS expenditures compared with non-MFP states. For example, the share of HCBS increased by 1.3 percentage points from 2011 to 2012 among states with an active MFP program, compared with 0.3 percentage points for states without an active MFP program.

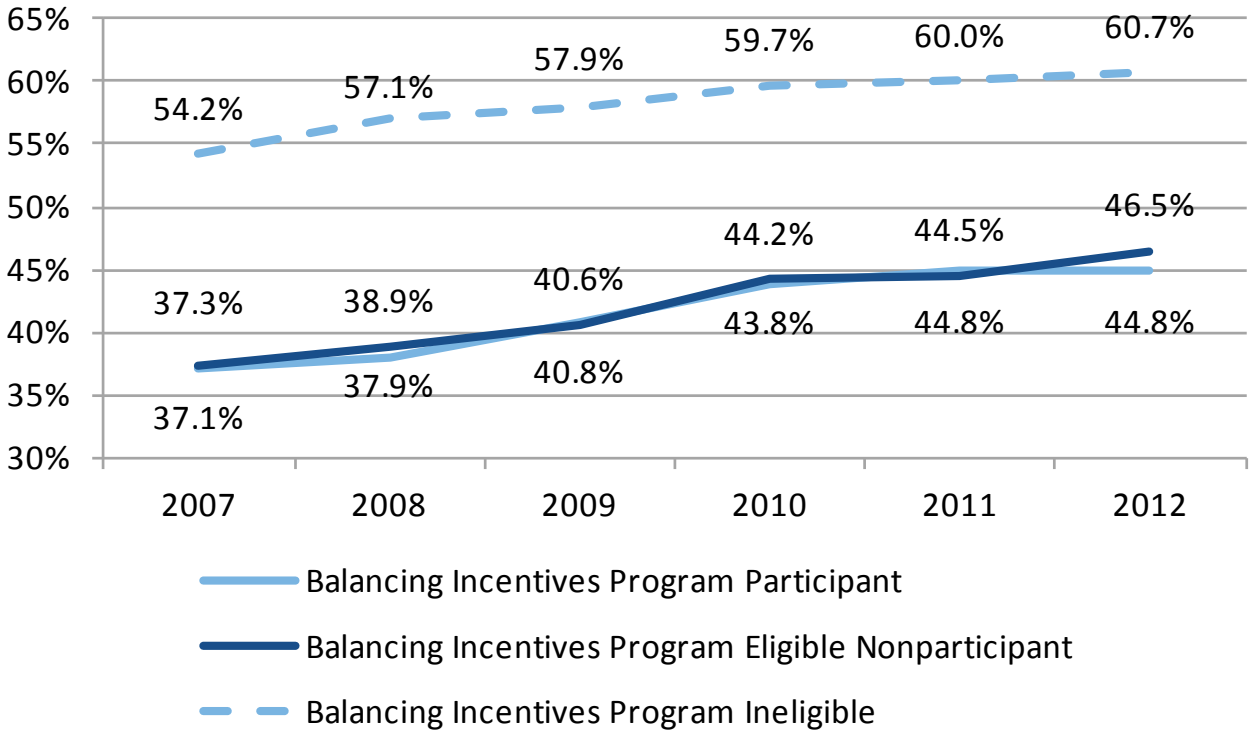
Figure III.1. Percentage of long-term services and supports expenditures accounted for by HCBS, by MFP status, 2007–2012



Source: Truven Health Analytics (Eiken et al. 2014).

States began participating in the Balancing Incentive Program in 2012, thus it is too early to assess any meaningful differences in rebalancing due to the program. Among the 37 states with an active MFP program as of December 2012, 31 were eligible for the Balancing Incentive Program because the proportion of their LTSS spending accounted for by HCBS was less than 50 percent in 2009. Over time, the balance of LTSS spending on HCBS was relatively the same between those eligible states participating in the Balancing Incentive Program and those not participating (see Figure III.2). In the last year of data available, 2012, we observe a divergence, but more years of data are needed to know whether this divergence is an anomaly. Analysis of future data will be useful to assess whether the efforts described in later sections of this chapter lead to the convergence or divergence in trends between MFP states participating and not participating in the Balancing Incentive Program.

Figure III.2. Percentage of long-term services and supports expenditures accounted for by HCBS among states actively participating in MFP as of December 2012, by 2012 Balancing Incentive Program status, 2007–2012



Source: Truven Health Analytics (Eiken et al. 2014).

B. State HCBS expenditure goals

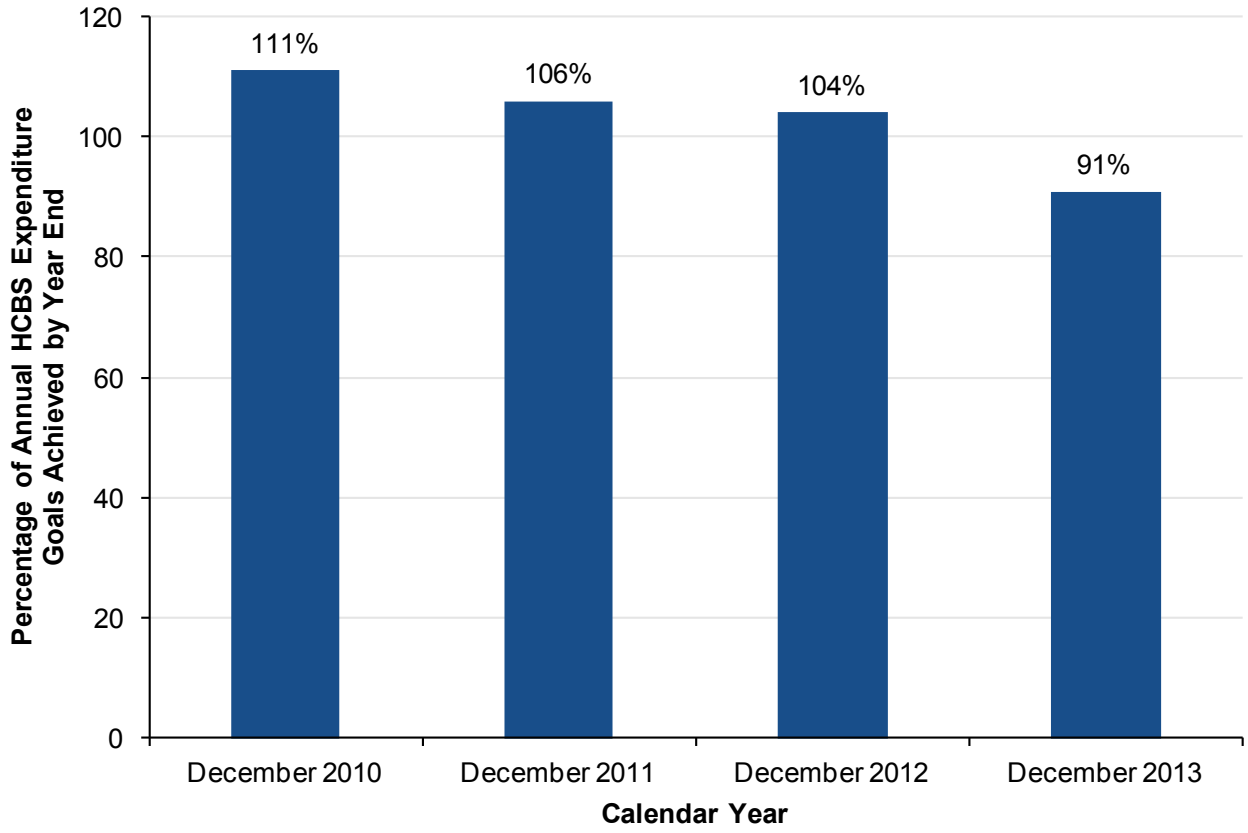
The federal statute that created the MFP demonstration requires grantee states to track and report their total qualified HCBS expenditures each year. These total expenditures are to include not just all HCBS spending on MFP participants, but all federal and state Medicaid spending on 1915(c) waiver services and home health, personal care, and other optional state-plan HCBS provided for all Medicaid beneficiaries.[8] By statute, states in the MFP program are required to set annual HCBS expenditure goals which, as with their transition goals, they can alter over time as the context in states change.

The 42 grantee states that actively transitioned participants during 2013 reported $63 billion in qualified HCBS expenditures that year, achieving 91 percent of their annual total qualified HCBS expenditures goal ($69,171,219,875). This represents a 6 percent increase in expenditures compared with 2012. However, 2013 spending is likely underestimated because the 2013 expenditure information for several states was incomplete (Table A.2). The 2013 expenditure data for one state (Illinois) were missing due to the delayed submission of fourth-quarter spending data, and five other states attributed their incomplete 2013 data to delays in the receipt

[8] Other optional state-plan HCBS include services such as adult day care, private duty nursing, and residential care.

of complete information. The completeness of the data may partially explain why 2013 marks the first time in recent years the state grantees did not exceed their aggregate expenditure goal (Figure III.3).

Figure III.3. MFP grantees' progress toward annual HCBS expenditure goals, December 2010 to December 2013



Source: Mathematica analysis of State MFP Grantee Semiannual Progress Reports, 2010 to 2013.

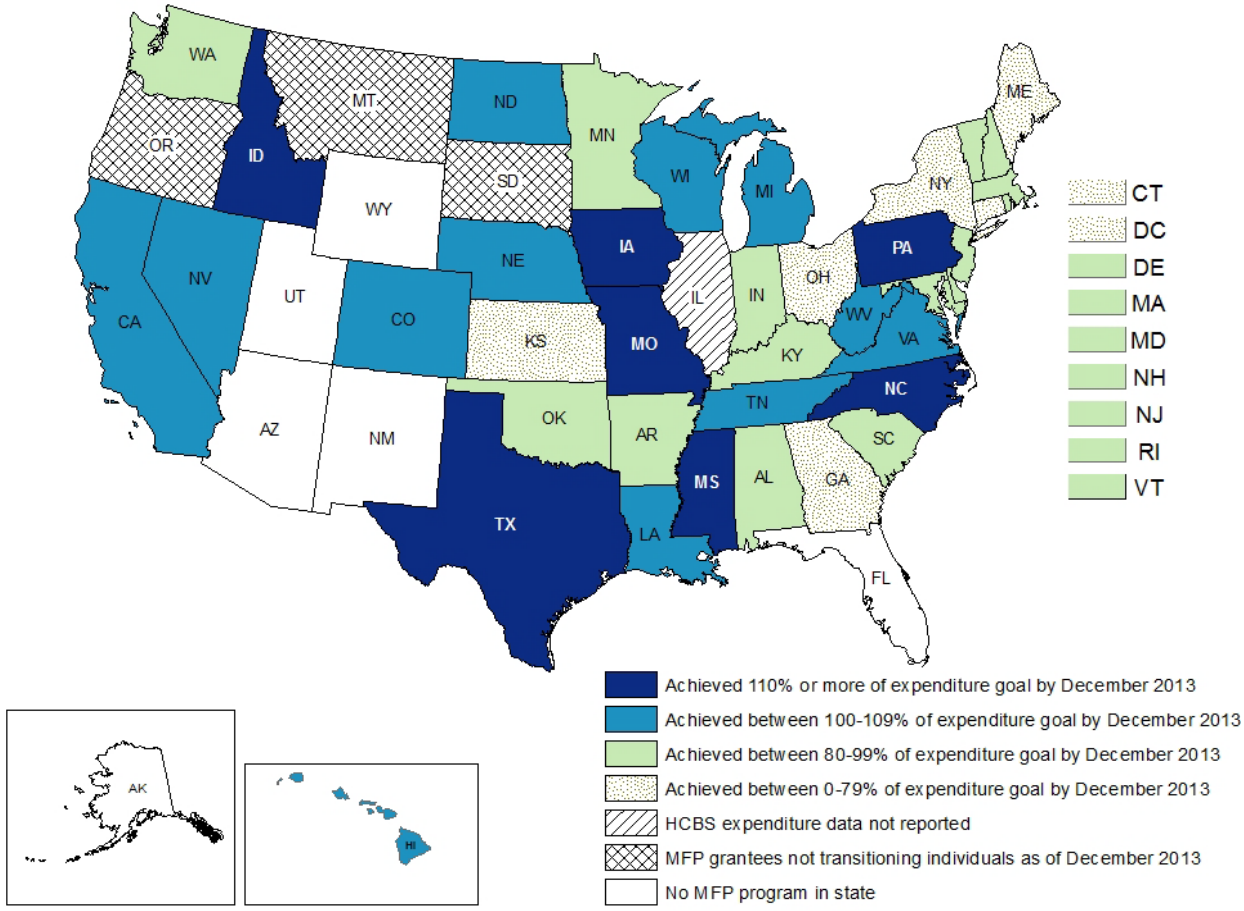
Note: N = 29 states in 2010; 33 states in 2011; 35 states in 2012; 42 states in 2013.

During 2013, there was considerable variation in the extent to which MFP grantee states achieved their annual HCBS expenditure goals. For 2013, the percentage of HCBS expenditure goals achieved ranged from 35 percent in Connecticut (one of the states with incomplete expenditure information) to 149 percent in Mississippi (Table A.2).[9] Excluding Oregon, 19 grantee states met or exceeded their 2013 spending goals. Seven of these states (Idaho, Iowa, Mississippi, Missouri, North Carolina, Pennsylvania, and Texas) achieved more than 110 percent

[9] Oregon reported achieving 233 percent of its 2013 HCBS spending target; however, this target only includes expenditures for its populations of older adults and individuals with physical disabilities. Actual HCBS spending in 2013 includes expenditures for its population with intellectual disabilities, which was excluded from its reported expenditures in past years. Hence, Oregon's 2013 expenditure goal does not match directly with the state's reported expenditures.

of their spending goal in 2013. Conversely, of the 22 states that spent below their goals, 7 achieved less than 80 percent of their 2013 spending goal (Figure III.4).

Figure III.4. MFP grantees' progress toward 2013 HCBS expenditure goals, by state



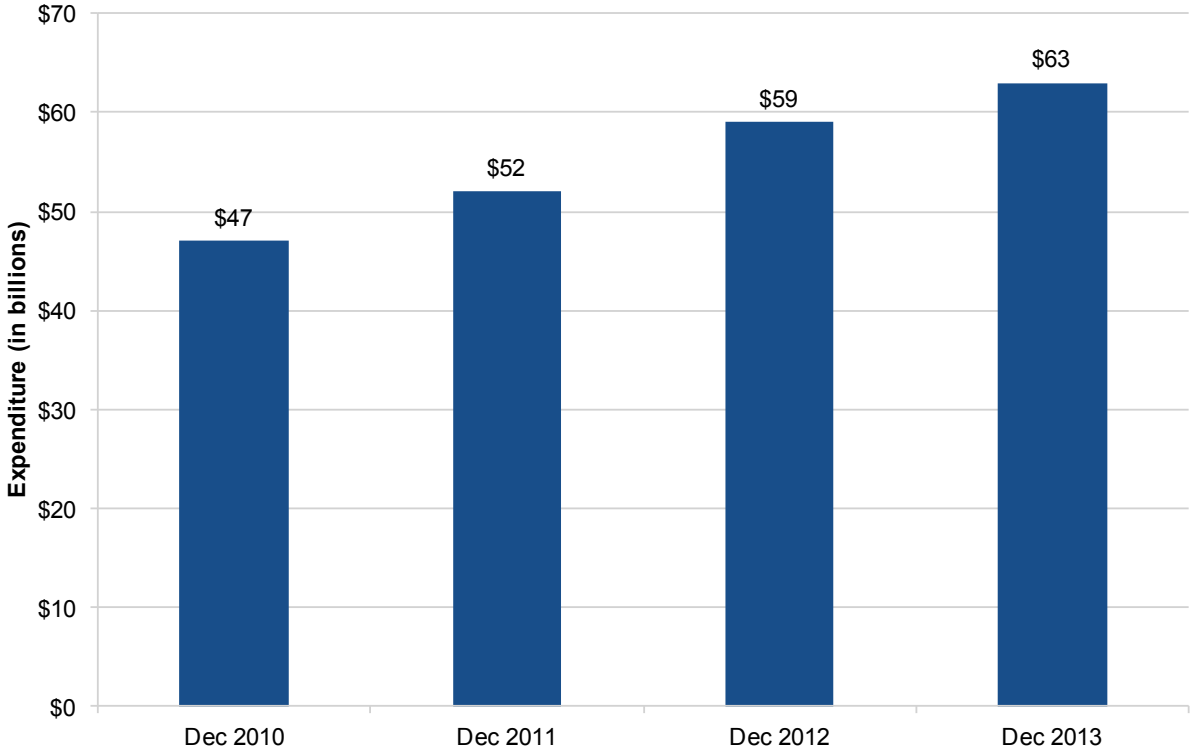
Source: Mathematica analysis of State MFP Grantee Semiannual Progress Reports, July to December 2013.

Of the 22 states that did not achieve their 2013 HCBS expenditure goals, 6 states (Connecticut, Kansas, Maine, Illinois, New Hampshire, and New Jersey) reported that their 2013 HCBS expenditure totals are incomplete due to delays receiving data or exclusion of costs for certain populations or services. Other states expect their reported 2013 expenditures to change in response to claims lags. Some states also reported barriers to achieving their HCBS goals, including the implementation of cost control measures that slowed growth (District of Columbia), a change in contractor (Indiana), and a temporary injunction that delayed transitions for the population with intellectual disabilities (Oklahoma).

In the aggregate, total qualified HCBS expenditures have grown steadily since 2010 (Figure III.5). From 2010 to 2011, total spending across all grantee states increased 11 percent from $47 billion to $52 billion, then increased 14 percent, reaching $59,160,187,220 at the end of 2012. Qualified HCBS spending continued to grow during 2013, totaling nearly $63 billion in

December 2013. From 2012 to 2013, four states (District of Columbia, Oregon, Tennessee, and Texas) increased their qualified HCBS spending more than 20 percent. One state (Tennessee) increased its HCBS spending 44 percent from 2012 to 2013.

Figure III.5. Total qualified HCBS expenditures, 2010–2013



Source: Mathematica analysis of State MFP Grantee Semiannual Progress Reports, 2010 to 2013.

Note: N = 29 states in 2010; 33 states in 2011; 35 states in 2012; 42 states in 2013.

C. Rebalancing funds

Although states accumulate rebalancing funds from the enhanced FMAP payments they receive through both the MFP demonstration and the Balancing Incentive Program, how these funds are accumulated differs between the two programs.[10, 11] Through MFP, states generate rebalancing funds from the enhanced FMAP they receive for the HCBS provided to MFP participants during the first 365 days of community living. Although the enhanced FMAP that MFP provides is sizable for states, they do not start receiving these funds until the MFP transition program is up and running with people receiving services in the community, and until

[10] States receive enhanced FMAP as a result of MFP. As discussed below and presented in Figure III.6, states are accumulating these funds over time.

[11] State must account for the enhanced FMAP from MFP and the Balancing Incentive Program separately.

the state has implemented a process to claim the extra federal matching funds. [12] For large programs in particular, this start-up phase can be lengthy.

In contrast to the MFP program, the Balancing Incentive Program provides a smaller enhanced FMAP (2 percent, except in Mississippi, which is eligible for a 5 percent enhanced FMAP), but the enhanced payment is received for all HCBS the state provides to every Medicaid enrollee. States may begin claiming the enhanced match on all HCBS spending immediately after approval of their applications without waiting until they have implemented any aspect of their program. For these reasons, states are expected to generate Balancing Incentive Program funds more quickly than MFP rebalancing funds.

The programs also differ in their requirements for the rebalancing funds accumulated by the states. MFP states must implement a transition program and also establish a set of program benchmarks by which their performance is assessed (two benchmarks must account for the number of transitions and their total qualified HCBS expenditures). In contrast, Balancing Incentive Program states are required to meet two standardized benchmarks: (1) increase HCBS spending to 50 percent of LTSS spending (or 25 percent in the case of Mississippi) and (2) implement three structural changes to their LTSS system. The three structural changes are:

1. Design and implement a core standardized assessment process to collect a standard set of functional data on people applying for HCBS that help determine eligibility, identify support needs, and inform service planning.
2. Create a "no wrong door/single entry point" (NWD/SEP) system that ensures statewide access to comprehensive and timely information about community living options and provides timely eligibility determination and enrollment into community-based services.[13]
3. Design and implement conflict-free case management procedures ensuring that clinical or nonfinancial eligibility determination is separated from direct service provision.

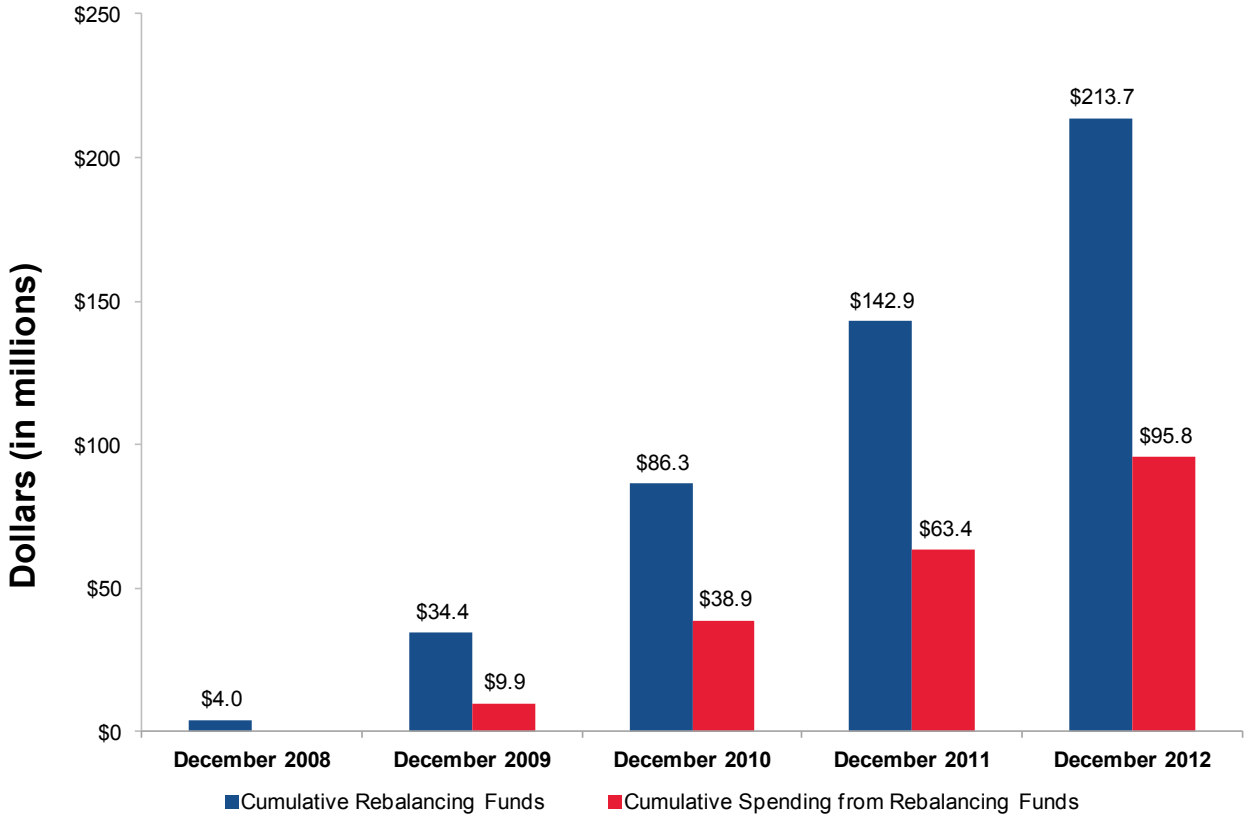
1. States' receipt and spending of rebalancing funds

MFP. States have been steadily accumulating MFP rebalancing funds the program's inception in 2007 (Figure III.6). These funds have grown from nearly $4 million at the end of calendar year 2008 to nearly $214 million across 30 states by the end of calendar year 2012.

The rate at which states spend these funds has been slower than their accumulation rate. By the end of 2012, the most recent data available, states had spent slightly more than $95.8 million, or about 45 percent of the amount accrued. However, spending might be higher than these estimates suggest, because several states have not been able to report on their rebalancing fund spending (California, Georgia, New Hampshire, and Wisconsin) or have inconsistently reported this spending (Arkansas, Delaware, Hawaii, and Kansas).

[12] The enhanced FMAP rate that states receive is equal to taking the published FMAP for the state, dividing it by half, and adding that percentage to the published FMAP rate. For example, a state with 50 percent FMAP would receive 75 percent FMAP under MFP.
[13] Throughout the report we shorten NWD/SEP to NWD.

Figure III.6. Cumulative accrual and expenditure of state rebalancing funds, December 2009–December 2012



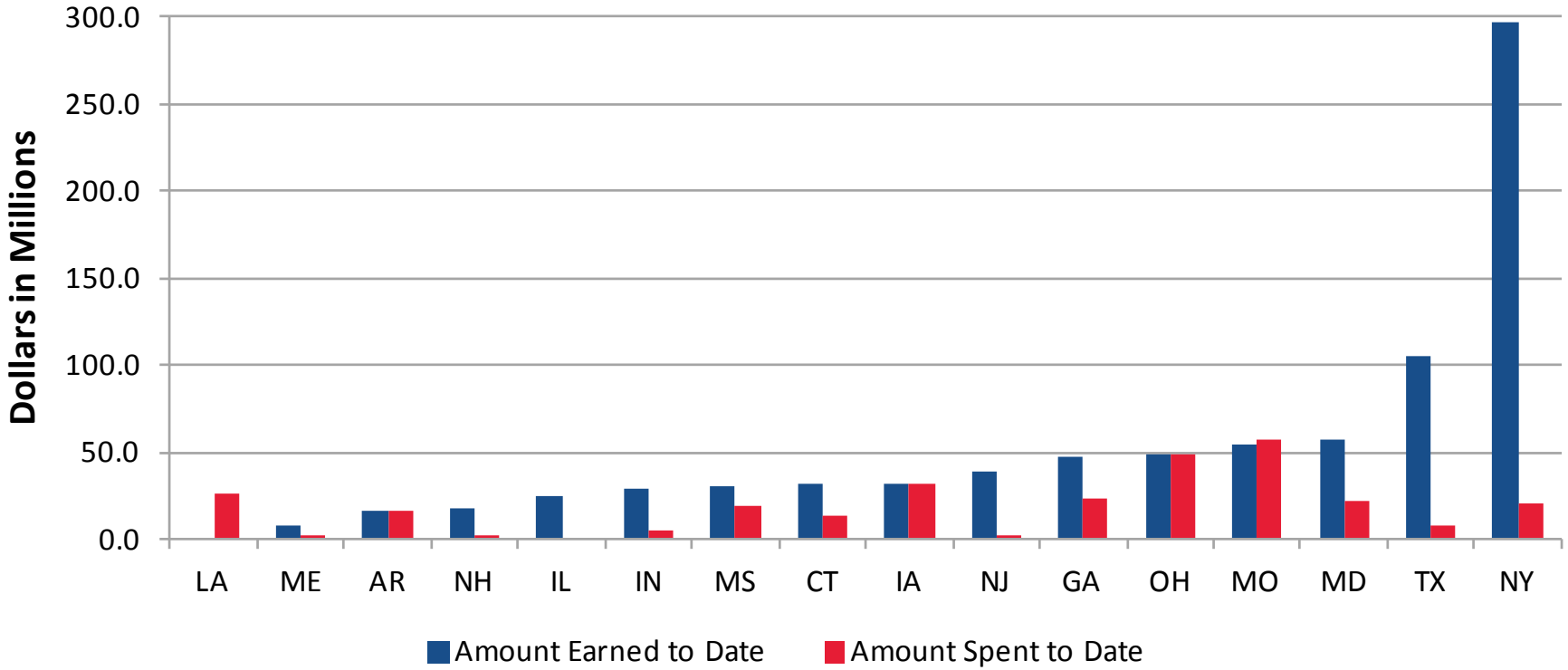
Sources: Mathematica analysis of State MFP Grantee Semiannual Progress Reports, 2010–2013, and the 2013 state budget worksheets.

Note: N = 30 states in 2008–2010; 37 states in 2011; 43 states in 2012.

Balancing Incentive Program. As with MFP, the amount of rebalancing funds states earn through the Balancing Incentive Program—and how they spend these funds—varies by state (Figure III.7). Of the 16 states reporting total rebalancing funds earned and spent as of the first quarter of 2014, two states—New York and Texas—reported the largest accumulation of funds, approximately $296 million and $104 million, respectively. New York reported spending only about 7 percent of total funds (approximately $20 million) to date, and Texas reported spending 8 percent of total funds (approximately $8 million). In contrast, Missouri and Ohio reported the highest spending amounts to date among all states: approximately $57 million and $48 million, respectively. These two states are also the only states that reported spending 100 percent of the rebalancing funds they had accumulated through the Balancing Incentive Program. Nine of the 16 states reported spending less than 50 percent of accumulated funds, and 7 spent less than 25 percent.[14]

[14] See below for examples of how states are using—or plan to use—these funds.

Figure III.7. Cumulative Balancing Incentive Program funds earned and spent by March 2014



Source: Mathematica analysis of data provided by Missions Analytics, the technical assistance provider for the Balancing Incentive Program. The data were self-reported by the states in their Balancing Incentive Program progress reports submitted to CMS.

2. How states are using their rebalancing funds

MFP rebalancing funds. MFP states used their rebalancing funds on several initiatives in 2012 to support general rebalancing goals and additional state-specific benchmarks. These activities can be broadly classified into the following categories:

- Improving pathways to HCBS
  - Outreach and education (9 states)
  - Assessment tools and processes (5 states)
  - Non-MFP transitions (5 states)
  - Teaching self-advocacy (2 states)
- Financing provision of services
  - Transition services (7 states)
  - Full range of HCBS (14 states)
  - Housing supports (7 states)
- Expanding and supporting 1915(c) waiver programs (4 states)
- Supporting providers
  - Workforce initiatives (3 states)
  - Trainings for state staff, providers, and communities (5 states)
  - Provider incentives and rate setting (4 states)
  - Facility closures and right sizing (3 states)
- Investing in strategic planning and research (8 states)
- Improving information technology systems (5 states)

Examples of these types of activities are described below.

Improving pathways to HCBS. The most common rebalancing activity by MFP states is outreach to residents of nursing homes and other facilities to provide information about community living options. New Jersey, Texas, and Wisconsin are using their rebalancing funds to market community-based living to all residents in institutional care and educate them about transition opportunities. In contrast, New York focuses its efforts on nursing home residents with limited care needs, informing them about HCBS, and providing referrals to discharge planners. Rebalancing funds are also used to support options counseling programs (Indiana and Maryland), peer-to-peer education programs (Maryland), and the development of a telephone- and internet-based information and referral system (Iowa). Three states used their rebalancing funds to develop a needs assessment tool (Ohio) or implement the Supports Intensity Scale (Iowa and Missouri), an assessment tool that measures functional ability and is used to inform support and services planning. Missouri and Texas offer self-advocacy initiatives for people with intellectual disabilities and their families; Missouri hired specialists to provide training and support, whereas Texas offered training on person-centered thinking. Five states (California, Connecticut, District of Columbia, North Dakota, and Washington) used rebalancing funds to help people who wanted to transition but either did not want to participate in MFP or were not eligible for MFP services.

Financing provision of services. Several states report using rebalancing funds to finance transition services for MFP participants. The District of Columbia, Missouri, and Nevada use their funds to pay for some initial expenses associated with establishing a new home (for example, moving expenses, utility payments, and household set-up costs). The District of Columbia also provides pre-transition education to participants, their families, and service planning teams. Illinois and Washington use MFP rebalancing funds to hire transition coordinators. In Wisconsin, these funds are used to provide early intervention services for MFP participants admitted into short-term rehabilitation to prevent them from becoming long-term residents. Texas funds the Austin State Supported Living Center (ASSLC) pilot program, which helps people with intellectual disabilities transition from the ASSLC to the community. The program offers residents information about community living options, opportunities to visit community resources, and intensive supports for those who transition into the community.

Grantee states also use rebalancing funds to finance or expand the full range of HCBS offered to people living in the community. Eight states (California, Hawaii, Iowa, Kansas, New Hampshire, Oregon, Pennsylvania, and Virginia) report using these funds to support existing HCBS offerings. Rebalancing funds are also used to expand HCBS to people served by managed care organizations (Delaware). In three states (New Hampshire, Vermont, and Washington), funds are being used to maintain HCBS funding while state budgets remain tight. Other uses include expediting assessments of HCBS needs (California) and providing equipment loans and device demonstrations to people living in the community (New York).

Rebalancing funds are frequently used to pay for housing services and housing search–related costs. Maryland, New York, and Ohio use these funds to support collaborative partnerships among the state, housing providers, and other stakeholders. New York, Ohio, and Washington are developing housing registries or locators to help people transition to appropriate community living arrangements. In Illinois and Washington, rebalancing funds are used to finance bridge subsidies, which provide short-term rental subsidies until a housing voucher or other housing-related subsidy becomes available. New Jersey uses rebalancing funds to develop new homes for people with intellectual disabilities by purchasing or rehabilitating existing properties.

Expanding and supporting 1915(c) waiver programs. Four states (Kentucky, Michigan, Oklahoma, and Oregon) report using rebalancing funds to increase the number of slots available for 1915(c) waiver programs.

Supporting providers. Several states are using their MFP rebalancing funds to support workforce initiatives, such as conducting research to better understand the state's workforce capacity for community-based long-term care (Ohio), developing videos to educate potential direct support workers about the rewards and challenges of such jobs (Texas), and providing a curriculum to develop a skilled direct support workforce for people with disabilities (Iowa). Several states also use these funds to provide training to the existing workforce, providers, and stakeholder communities. In Iowa and Texas, the state is training providers to use assessment tools for people seeking entry into intermediate care and nursing facilities, respectively. New Jersey is developing a web-based series of skill development courses for direct support professionals, and Washington is developing a train-the-trainer curriculum to instruct providers on how to handle critical incidents.

Some states use rebalancing funds to influence provider behavior by modifying incentives and reimbursement rates. For example, Maryland is using rebalancing dollars to address a shortage of providers for the traumatic brain injury waiver by providing a one-time incentive of $25,000 to providers who open a qualified residential site. These funds are intended to offset the start-up costs for providers and can be used to make environmental modifications to a group home, modify a vehicle for accessibility, or recruit staff. Indiana is using its funds to restructure its nursing facility rate methodology to discourage providers from accepting low-needs people into long-term institutional care. Two states report using funds to offer financial assistance to providers who choose to voluntarily close their nursing homes (Connecticut) or intermediate care facilities (Texas), and Maryland is using some of its funds to finance the closing of a specific facility.

Investing in strategic planning and research. Several grantee states use their rebalancing funds to conduct research or strategically plan for future rebalancing initiatives. Three states use these funds to conduct research: Georgia investigates events that result in reinstitutionalizations, Idaho researches the effect of transition management and transition services on reinstitutionalizations, and Texas uses a survey to gather information about its direct support workforce. Lastly, North Carolina reports using its funds to pilot test various methods of developing caregiver peer support practices.

Improving information technology systems. Five states report using rebalancing funds to develop or maintain information technology systems. For example, Ohio is developing a web-based tool to measure the balance of its LTSS system. In Washington, funds supported the development of a critical incident tracking system. Nebraska's funds helped the state implement an automated system to both track critical incidents within the population with intellectual disabilities and to enable service coordinators and providers to exchange referrals and information. The state is expanding the system's functionality so users will be able to develop individual support plans, create individual budgets, and submit bills.

Balancing incentive program and MFP rebalancing funds together. All of the states states participating in the Balancing Incentive Program are also participating in MFP. These states are using their Balancing Incentive Program funds to build on the systems, innovations, and infrastructure initiated by MFP programs. In this section, we provide examples of how states are leveraging work started under MFP to achieve the broader system changes required in the Balancing Incentive Program.

Forming the foundation for a balanced system. Nevada's balancing incentive program application articulates the role that MFP has played in many states in helping create the foundation for the comprehensive system changes the Balancing Incentive Program requires. It describes the MFP grant as "the change agent…to accomplish a larger LTSS vision," and notes that MFP "has set the stage for Nevada to also accomplish the three featured components required by the [Balancing Incentive Program] in developing a [NWD] system for our LTSS." More specifically, the application describes how MFP formed the "springboard" for change needed to move toward a NWD system.

Building on MFP systems and innovations. Nevada has been using MFP funds to develop a single, statewide case management database—the Social Assistance Management

System (SAMS)—to support MFP, waiver programs, and quality of care requirements. SAMS, which will facilitate information sharing across divisions, will form an important component of Nevada's NWD/SEP system through its role in eligibility determination and information sharing across agencies. It will also be used to collect the data for the core standardized assessment that the Balancing Incentive Program requires.

The Maryland Access Point (MAP) is a system of Aging and Disability Resource Centers (ADRCs) that provides options counseling and eligibility determinations for Medicaid LTSS. MAP's function is to streamline access to information about service options, expedite the eligibility process, and increase access to community-based care. MFP funds supported the statewide expansion of the MAP project. MAP employs an interagency working group that addresses structural and operational system changes to improve the way consumers access information about long-term care options and to facilitate the process of exploring community living options before someone enters institutional care. In its Balancing Incentive Program application, the state notes that "MAP also constitutes the core of the [NWD] effort as required by the Balancing Incentive Program and adopted by Maryland as part of the State's LTSS reform plan."

Expanding outreach strategies. In developing its NWD/SEP system, Massachusetts is leveraging and building on training materials created as part of existing state initiatives, including MFP, to provide training and ongoing support for frontline information and referral specialist staff. To help divert consumers from entering institutions, Nevada plans to use and build on its relationships with "critical pathway providers," such as hospitals, developed under MFP (and other programs). In addition, under MFP and through its ADRC network, Nevada has implemented a statewide marketing and outreach campaign regarding LTSS information and services. This campaign will form the basis of the public outreach component of the state's NWD system.

Expanding services started under MFP. Indiana is using Balancing Incentive Program funds to support transition programs started under MFP, including transitioning children and adolescents with serious emotional disturbances from psychiatric residential treatment facilities (PTRFs). They are also using their funds to support a waiver program administered through the Division of Disability and Rehabilitative Services that is transitioning people affected by the closure of 40 group homes and large private intermediate care facilities in the state. The state is also coordinating processes to ensure the appropriate waivers are available when MFP participants end their 365 days of MFP eligibility. Nevada plans to train existing MFP staff to use the state's core standardized assessment that will be developed for the Balancing Incentive Program.

Supporting the expansion of transition processes started under MFP. To ensure continuity of care for people who want to transition from institutional to community-based care, Massachusetts will use the Balancing Incentive Program to expand processes developed for its MFP program. Massachusetts developed a process to thoroughly check an individual's eligibility for waiver services before he or she moves from an institution to the community. The state has hired a new staff member to facilitate the process; this person reviews MFP applications to fully understand an individual's financial situation and ensure all eligibility documentation (for example, documentation of facility discharge date) is gathered before the transition.

Additionally, the state enrolls all MFP participants into existing (rather than MFP-specific) waivers, so participants are able to maintain eligibility for the waiver after the MFP period ends. The development of this process was funded with MFP rebalancing dollars and will now be expanded with Balancing Incentive Program funding to ensure more people receive these services when they are eligible.

As part of the Balancing Incentive Program, Illinois is expanding its MFP program to additional areas of the state for people with serious mental illness. Previously, most MFP transitions in Illinois occurred in the Chicago metropolitan area. Illinois plans to use Balancing Incentive Program funds to hire behavioral health transition coordinators who will provide outreach to potential MFP participants in other parts of the state.

Utilizing MFP Data. In addition to the structural changes and HCBS expenditure goals the Balancing Incentive Program requires, states must collect (1) service data, (2) quality data linked to population-specific outcomes, and (3) outcomes measure data. These data are not reported on a regular basis but must be available to CMS upon request within 30 days. States are encouraged to use these data for other initiatives (such as MFP or health homes) to satisfy program reporting requirements. Connecticut and Indiana are using the MFP Quality of Life survey to provide some of the required outcomes data for the Balancing Incentive Program.

Braiding MFP and Balancing Incentive Program resources. Several states mentioned using MFP rebalancing or administrative funds to support activities conducted under the Balancing Incentive Program. Texas' application noted that although the funds would be used for Balancing Incentive Program activities, any additional or supplemental activities identified during the three-year grant period will be funded through MFP administrative funds, if approved. New York's work plan also listed MFP as a funding source for specific Balancing Incentive Program activities. To achieve the requirement that HCBS account for at least 50 percent of all LTSS expenditures by the end of the program on September 15, 2015, New York is using MFP funds to increase housing capacity for people with developmental disabilities who wish to transition to the community. To more generally support community living for this population, New York is also using MFP funds to develop a cross-system crisis prevention and response system. The state plans to focus initially on regions affected by the closure of an intermediate care facility and to establish a peer counseling network. The state also plans to use MFP funds to cover costs of assistive technologies and environmental modifications.

Maryland is using MFP funding to support development of an automated assessment system, "LTSS Maryland," to conduct the initial and full assessment of financial and functionally eligibility for long-term care (referred to as the Level 1 and Level 2 assessments in the Balancing Incentive Program). Maryland's MFP operational protocol was revised to include costs for implementing this system.

IV. THE EFFECT OF THE MFP DEMONSTRATION ON INDIVIDUALS' POST-TRANSITION EXPENDITURES AND UTILIZATION

This chapter focuses on how medical and long-term care expenditures and use of selected potentially high-cost medical services change when Medicaid beneficiaries transition from institutional to community-based LTSS. A program such as MFP might not be considered successful unless it demonstrates that a formal transition program for long-term residents of institutions either generates savings or at least does not increase costs significantly for Medicaid programs. Therefore, this chapter focuses on the extent to which the changes in expenditures or use of inpatient and emergency department (ED) services that occur after someone transitions to the community can be attributed to the MFP program.

It is well established that Medicaid beneficiaries receiving HCBS have lower long-term care expenditures than those residing in institutions (Medicaid and CHIP Payment and Access Commission 2014). For people who previously resided in an institution, it is not clear whether transitioning to HCBS will lower expenditures if these individuals have significant needs or when savings might be realized by Medicaid programs. Other studies conducted as part of the national evaluation of MFP indicate that MFP participants, as well as others who transition to HCBS without the benefit of MFP, typically have substantial physical and cognitive care needs that might require more intensive or frequent LTSS than are typically provided to HCBS recipients (Ross et al. 2012). Because MFP participants have higher care needs than the overall population of Medicaid beneficiaries receiving HCBS, it is unclear whether transitioning from institutional care to HCBS will result in savings. The additional services provided through MFP programs as an investment in community-based LTSS might further constrain the savings gained from transitioning someone to community living in the short term, but savings might be realized later after MFP participation has ended if it assists long-term HCBS use. Furthermore, if the transition is not successful and the enrollee must return to institutional care, any Medicaid savings related to the transition might be short-lived. The ability of MFP programs to prevent or delay reinstitutionalizations will be important to any overall cost savings associated with the MFP program. Preliminary analyses of reinstitutionalization rates among the first MFP participants suggest that between 3 and 11 percent of participants return to institutional care within six months of the transition, depending on the targeted population, and these reinstitutionalization rates are no different than the rates experienced by others who transitioned without the benefit of the MFP program (Irvin et al. 2012).

It is also possible that the lower LTSS expenditures might be offset to some extent by increased medical care expenditures that can result from the less intensive supervision people might receive in the community relative to an institutional setting. Previous work has demonstrated that Medicaid beneficiaries who transition from institutional care to the community are at greater risk for acute medical events that lead to costly hospitalizations (Wysocki et al. 2014). MFP programs and the more intensive services they offer might help constrain any increase in medical care costs that occurs when someone moves to a community residence. Therefore, the effectiveness of MFP should be measured against the experience of those who transition outside the program.

This chapter aims to answer several questions about the expenditures (medical and LTSS expenditures) and potentially high-cost service use of people who transition from institutional care to community-based LTSS. We first determine to what extent total expenditures change after someone transitions to community living. Expenditures are measured over the 12 months before the transition and the 12 months after the transition. Next, we decompose the change in expenditures by assessing how the mix of expenditures for LTSS changes after the transition and how medical care expenditures change.

We also explore whether the MFP demonstration can be associated with any of the changes in expenditures. To do this, MFP participants are compared with a matched sample of similar people who experienced the same transition but did not participate in the MFP program. Including these other transitioners are helpful in determining what would have happened had the MFP demonstration not been implemented.

We then examine changes in the probability of an inpatient admission and the probability of using ED services. As a way of controlling for severity of the event that lead to an ED visit, we distinguish between those ED visits that result in an inpatient admission and those that do not. We focus on these services because they are often costly, are sometimes avoidable with appropriate access to HCBS, and occur more frequently than reinstitutionalization but indicate when someone is at risk for readmission to institutional care. Similar to the expenditure analysis, inpatient and emergency events are identified in the 12 months before and the 12 months after the transition. We use the same matched sample from the expenditure analysis to determine whether MFP is associated with potentially high-cost medical services after MFP participants transition to the community.

A. Key findings

- Medicaid and Medicare total expenditures decline, sometimes substantially so, during the first 12 months after someone transitions from institutional care to HCBS. MFP participants with physical disabilities or mental illness had higher post-transition total expenditures than a matched set of people who transitioned to the community outside the MFP program. The higher post-transition total expenditures are primarily attributable to higher HCBS expenditures, reflecting the design of the MFP program.
- After the transition, MFP participants have greater average HCBS expenditures compared with other transitioners with similar characteristics, but typically have lower post-transition Medicaid and Medicare medical care expenditures. Thus, MFP participants' higher HCBS expenditures are partially offset by the higher medical expenditures the other transitioners incur.
- Inpatient care and ED use, both potentially high-cost services, however, do not explain the differences in medical care expenditures. The likelihood of using these services after transition was not significantly different between MFP participants and other transitioners with similar characteristics.

B. Study population

This chapter includes MFP participants who transitioned at any point from 2008 through 2010. The analysis also includes a comparison group of other Medicaid enrollees who transitioned to HCBS without MFP during the same time period ("other transitioners").[15] Although we do not know why someone does or does not participate in MFP, we assume the other transitioners fall into three broad groups: (1) those who do not want the assistance of the MFP program because they have adequate support from family and friends, (2) those who lack knowledge about the program because outreach efforts had not reached them, and (3) those who want to move into a community residence that does not qualify for MFP, including most forms of assisted living or a group home of more than four people.[16]

Because MFP programs transition four broad groups of Medicaid enrollees who have differing care needs, we performed all analyses separately by target population: (1) people age 65 or older who transitioned from nursing homes, (2) people younger than age 65 with physical disabilities who transitioned from nursing homes, (3) those with intellectual disabilities who transitioned from ICFs-IID, and (4) those with mental illness. The targeted population with mental illness includes people who transitioned from all types of facilities.[17] Table IV.1 presents the sample sizes available for our analyses. More information on data and methods is available in Appendix B at the end of this report.

[15] To address selection bias, we created a second comparison group of people who transitioned in 2006 or 2007—before the MFP demonstration began. The results were similar across the two comparison groups, and in the body of the report we only present results based on the contemporaneous group. These comparisons adjusted for observable characteristics but do not account for the presumably higher informal support available to people who transition outside of the MFP program.

[16] By statute, the MFP program allows three types of qualified residences: (1) a home the participant or a family member owns, (2) an apartment, or (3) a group home of no more than four unrelated people. Only Medicaid enrollees who move to a qualified residence are eligible for the MFP program. Most, but not all, forms of assisted living do not qualify for MFP.

[17] Compared with earlier studies published by the national evaluation, this chapter takes a different approach to defining the target populations. Rather than solely relying on the type of institution from which someone transitioned to determine the population classification, we also used diagnosis codes and selected procedure codes to identify people with mental illness. As a result, the first three groups defined above comprise people who transitioned from a specific type of institution (nursing home or ICF-IID) and had no evidence of a mental illness in claims records, whereas the fourth group includes all those with a mental illness, regardless of the type of institution from which they transitioned. Our new approach reclassifies a substantial number of individuals, but we found that the main results are not particularly sensitive to this reclassification. More information is available in Appendix B at the end of this report.

Table IV.1. Sample sizes available, by target population

Target population	MFP participants 2008 to 2010	Transitioners from 2008 to 2010
Total across all populations	4,972	29,057
Older adults	512	5,628
People with physical disabilities	738	3,141
People with intellectual disabilities	521	1,545
Mental illness	3,201	18,743

Source: Mathematica analysis of MFP transitioners from 29 states and Medicaid beneficiaries who transition outside the program from 49 states, from 2008 through 2010.

C. Data and methods

A more detailed explanation of data and methods are available in Appendix B. Total expenditures include all Medicaid-paid services and Medicare-paid Part A and Part B services (for those eligible for both programs), but excludes Medicaid or Medicare administrative expenditures, paid prescription drugs, and out-of-pocket expenditures. Expenditures for LTSS consist of all Medicaid HCBS and institutional long-term care payments; medical care expenditures are all Medicaid payments not otherwise classified as LTSS expenditures plus all Medicare expenditures for those eligible for Medicare.

We used Medicare and Medicaid inpatient claims to identify beneficiaries who had an inpatient hospitalization. Current procedural terminology (CPT) codes and revenue center codes were used to distinguish between ED visits that resulted in an inpatient stay and those that did not.

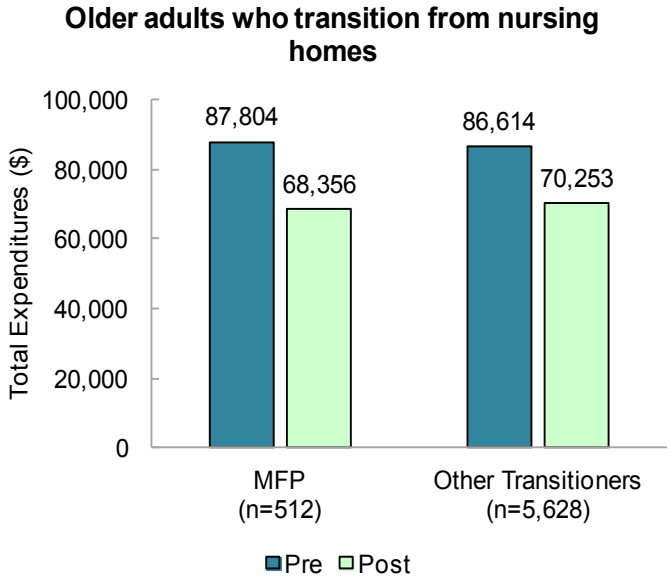
To assess the effect of MFP on the change in total expenditures from time periods before and after the transition, we used single nearest neighbor propensity score matching with replacement to select other transitioners who matched MFP participants on observable demographic characteristics, disability status, pre-transition total expenditures, and, when available, cognitive and functional status based on information available from the nursing home MDS. More details about our methods appear in Appendix B.

D. Change in total expenditures

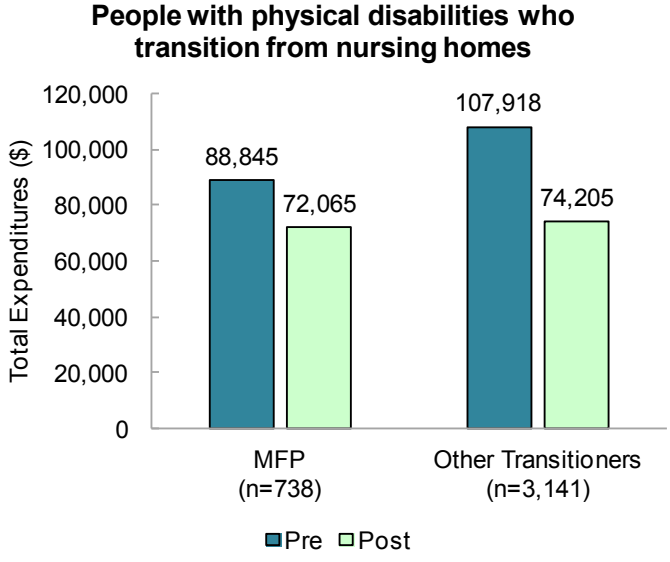
Regardless of the population considered, total expenditures decline after the transition to community living (Figure IV.1). Expenditures decreased by 15 to 48 percent, depending on the target population. Among MFP participants only, those with intellectual disabilities who transition from ICFs-IID had the largest absolute reduction in total expenditures ($27,000), and older adult MFP participants who transitioned from nursing homes had the greatest percentage point reduction (22 percent). The decline in total expenditures for MFP participants does not

necessarily represent the effect of MFP, because those who move to community-based LTSS outside of the MFP program also experienced large declines in total expenditures after transitioning. If MFP removes barriers for long-term care recipients who would like to transition to the program, then a portion of this decline can be attributed to MFP; however, our analysis is not designed to detect this effect. Compared with other transitioners, MFP participants tend to have lower pre-transition total expenditures, suggesting that MFP participants are a select group who might have lower care needs or use less costly services or have less access to medical care. Thus, any analysis of how MFP might affect post-transition expenditures needs to control for the differences between MFP participants and other transitioners, because some states, such as Texas, already had programs to transition Medicaid beneficiaries from institutional to community-based care.

Figure IV.1. Average total expenditures 12 months before and after transition for MFP participants and other transitioners, by target population, 2008–2010

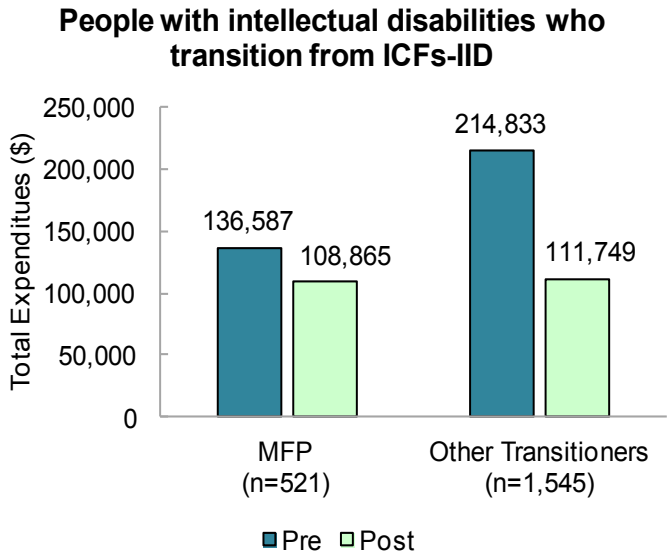


Older adults: Among MFP participants, total expenditures decreased by 22 percent in the year after transition, compared with the 19 percent decline among other transitioners.

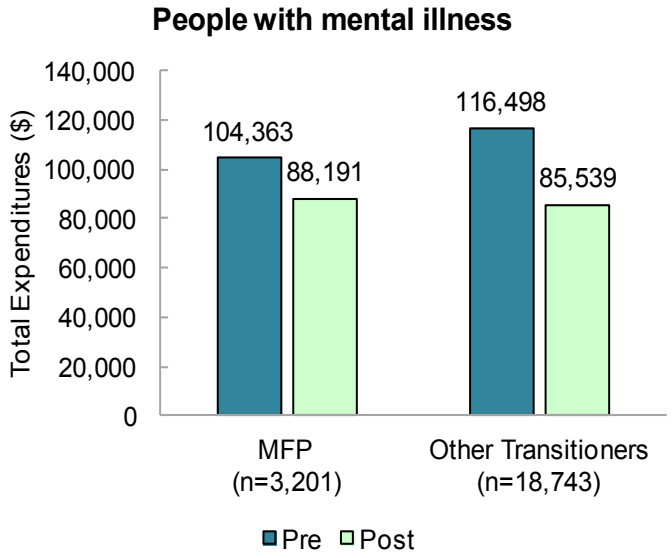


People with physical disabilities: Total expenditures decreased by 19 percent for MFP participants and 31 percent for other transitioners in the year after transition. The difference in the pre-transition expenditures suggests that MFP participants and other transitioners differ in important ways, and these differences need to be controlled for when assessing the effect of MFP on the change in expenditures.

Figure IV.1 (continued)



People with intellectual disabilities: Total expenditures decreased by 20 percent for MFP participants and 48 percent for other transitioners in the year after transition. The difference in the pre-transition expenditures suggests that MFP participants and other transitioners differ in important ways, and these differences need to be controlled for when assessing the effect of MFP on the change in expenditures.



People with mental illness: Total expenditures decreased by 15 percent for MFP participants and 27 percent for other transitioners in the year after transition. The difference in the pre-transition expenditures suggests that MFP participants and other transitioners differ in important ways, and these differences need to be controlled for when assessing the effect of MFP on the change in expenditures.

Source: Mathematica analysis of average Medicaid and Medicare expenditures for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

HCBS = home and community-based services; LTSS = long-term services and supports; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities.

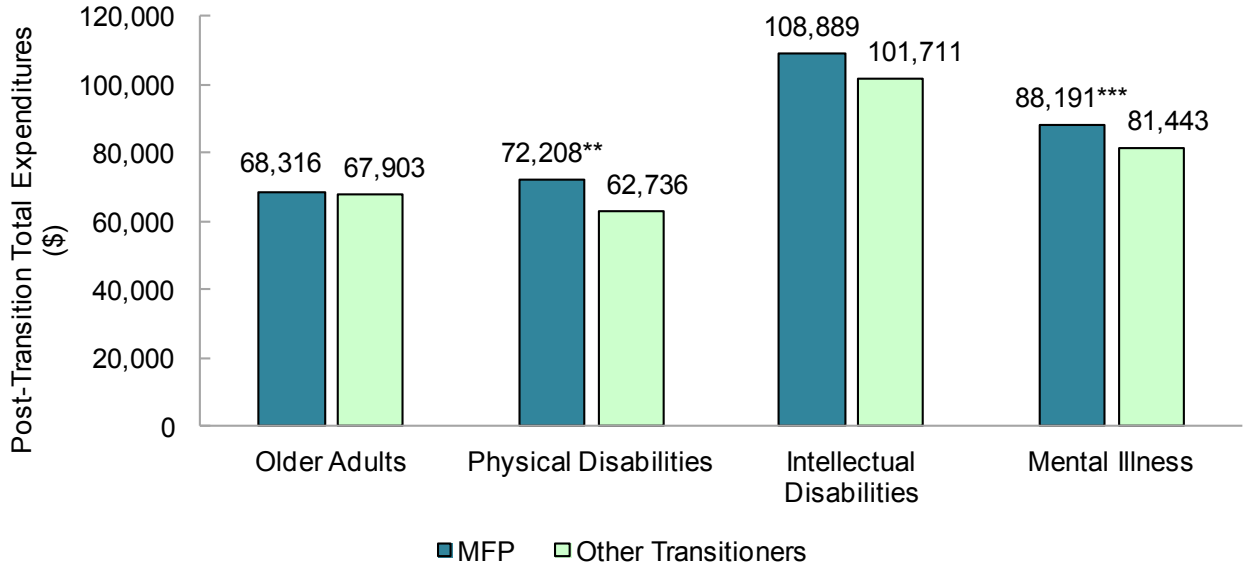
1. Effect of MFP on change in expenditures

Higher total expenditures in the year before the transition might indicate that other transitioners are different from MFP participants; in particular, they might have greater care needs and poorer health status or they might have better access to services. Basic descriptive information about MFP participants and other transitioners suggests these two groups are different in important ways. For example, MFP participants were less likely to use the ED or have a hospital admission during the year before the transition to the community (see Table B.2

in Appendix B). As a result, to assess the post-transition expenditures of MFP participants relative to other transitioners, we compared the post-transition expenditures of MFP participants with those of a selected comparison group members who matched MFP participants on an array of demographic characteristics, pre-transition expenditures and service use, and diagnoses, as well as functional assessments for those who had resided in nursing homes.

Based on the matched comparison group, we found that total expenditures for MFP participants after the transition were similar to or greater than expenditures for other transitioners (Figure IV.2). MFP participants with mental illness or physical disabilities had total post-transition expenditures that were 9 and 15 percent greater, respectively, than those of other transitioners in the same target population.

Figure IV.2. Average total expenditures 12 months after transition for MFP participants and matched samples of other transitioners, by target population, 2008–2010



Source: Mathematica analysis of average Medicaid and Medicare expenditures for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

Notes: The matched sample of other transitioners is based on a propensity score matching approach described in more detail in Appendix B. The sample size for the matched sample is found in Table B.3 of Appendix B.

HCBS = home and community-based services; LTSS = long-term services and supports; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities.

**Statistically significant difference between MFP participants and other transitioners at the .01 level, two-tailed test.

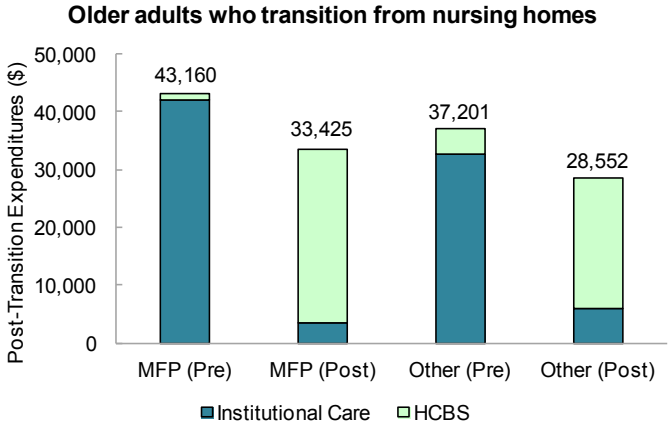
***Statistically significant difference between MFP participants and other transitioners at the .001 level, two-tailed test.

A decomposition of expenditures is required to understand how the component parts of expenditures (LTSS and medical care) changed after the transition. This decomposition might also shed more light on the effects of MFP on post-transition expenditure patterns.

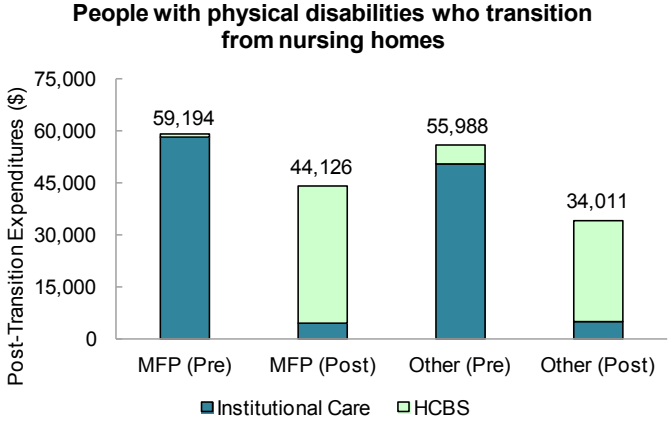
2. Decomposition of the change in LTSS expenditures

LTSS expenditures—which include expenditures for both institutional care and HCBS—declined in the 12 months after people transitioned to the community. Across all groups, expenditures for institutional care fell substantially, whereas HCBS expenditures increased (Figure IV.3). MFP participants typically had higher pre-transition institutional care expenditures than other transitioners (the one exception is those with intellectual disabilities) and had lower post-transition institutional care expenditures. Post-transition institutional care expenditures were not zero because some beneficiaries returned to institutional settings within 12 months of their transition to the community. Conversely, HCBS expenditures increased after the transition and MFP participants had higher post-transition HCBS expenditures than other transitioners, consistent with the additional HCBS the MFP programs provide.

Figure IV.3. Average LTSS expenditures 12 months before and after transition for MFP participants and other transitioners, by target population, 2008–2010

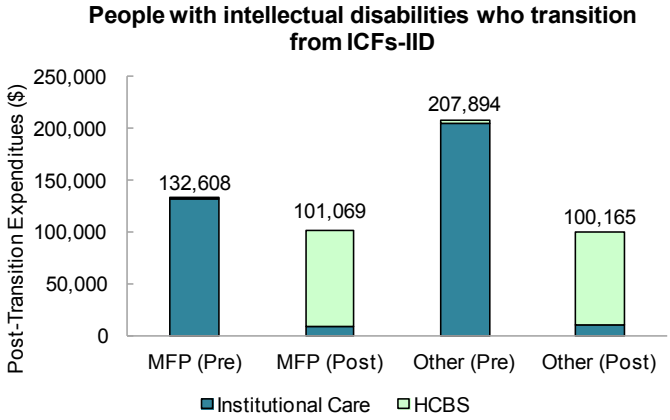


Older adults: LTSS expenditures decreased by 23 percent for MFP participants and 23 percent for other transitioners. For both groups, HCBS dominate LTSS expenditures after the transition.

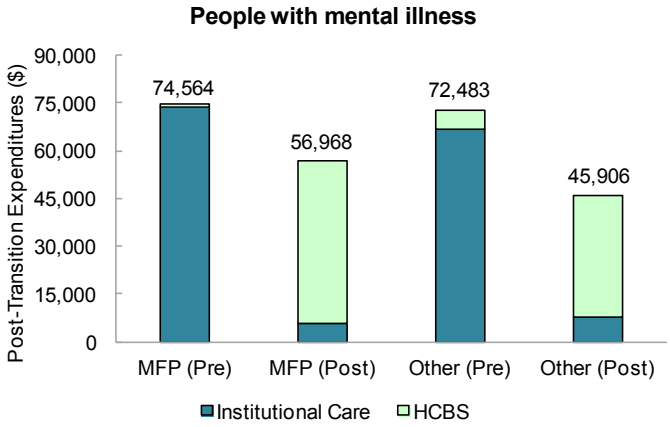


People with physical disabilities: LTSS expenditures decreased by 25 percent for MFP participants and 39 percent for other transitioners. For both groups, HCBS dominate LTSS expenditures after the transition.

Figure IV.3 (continued)



People with intellectual disabilities: LTSS expenditures decreased by 24 percent for MFP participants and 52 percent for other transitioners. For both groups, HCBS dominate LTSS expenditures after the transition.



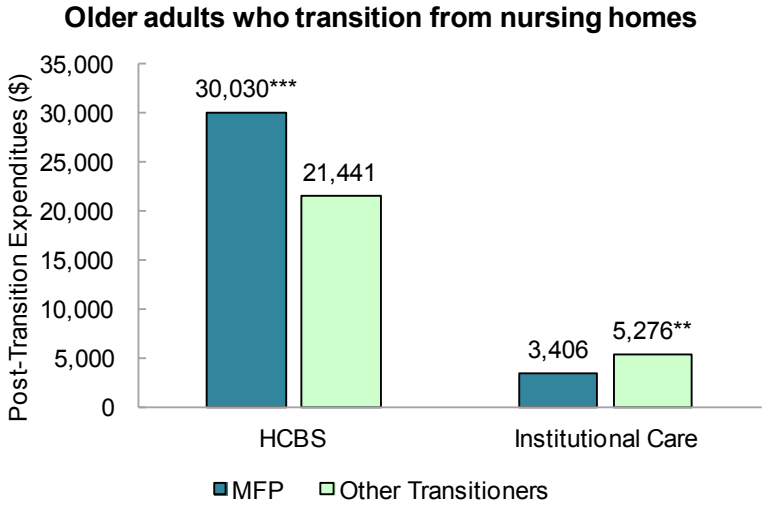
People with mental illness: LTSS expenditures decreased by 24 percent for MFP participants and 37 percent for other transitioners. For both groups, HCBS dominate LTSS expenditures after the transition.

Source: Mathematica analysis of average Medicaid and Medicare expenditures during the 12-month periods before and after transition for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

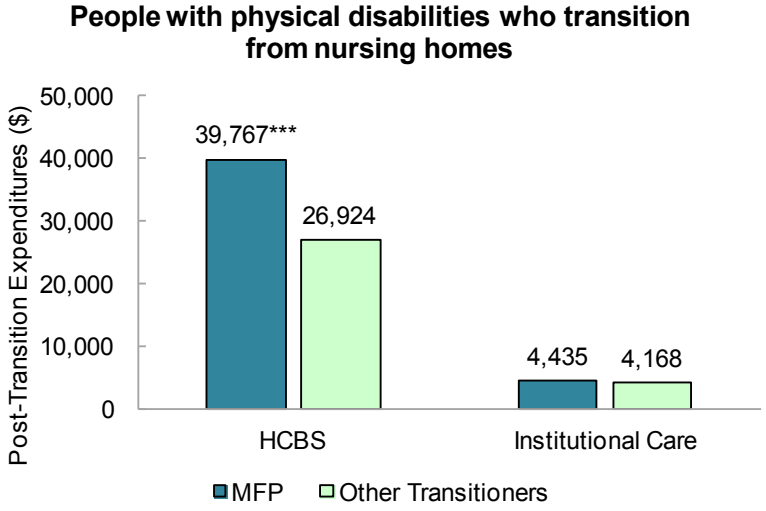
HCBS = home and community-based services; LTSS = long-term services and supports; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities.

When we compared the post-transition expenditures of MFP participants with those of a matched sample of other transitioners, we found that MFP was associated with higher expenditures for LTSS during the first year after transition (Figure IV.4). This pattern is true for all target populations and is attributable to the higher HCBS expenditures for MFP participants. MFP participants received $8,500 to $13,000 of additional HCBS relative to other transitioners, which reflects the additional supports MFP programs provide, a key design feature of the program.

Figure IV.4. Average LTSS expenditures 12 months after transition for MFP participants and matched samples of other transitioners, by target population, 2008–2010

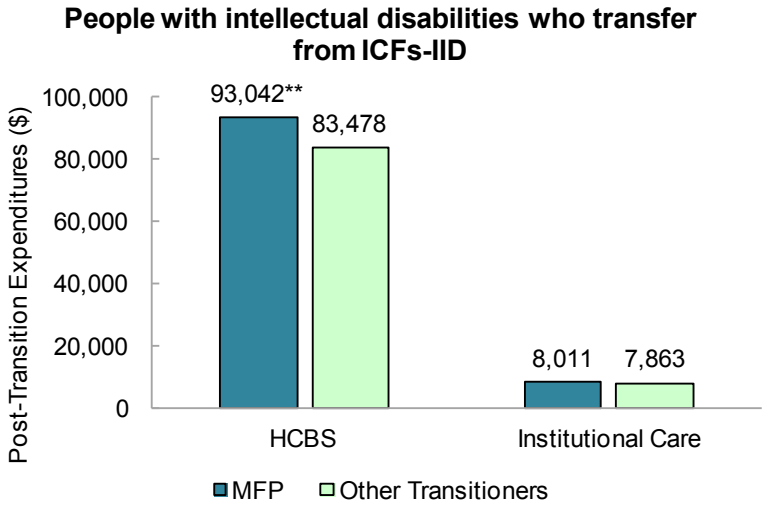


Older adults: Compared with other transitioners, MFP participants had greater post-transition HCBS expenditures but lower post-transition institutional care expenditures.

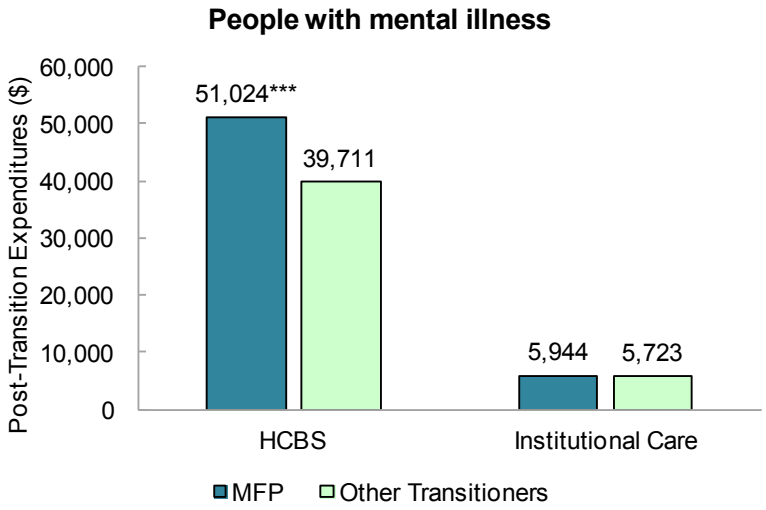


People with physical disabilities: Compared with other transitioners, MFP participants had greater post-transition HCBS expenditures but similar post-transition institutional care expenditures.

Figure IV.4 (continued)



People with intellectual disabilities: Compared with other transitioners, MFP participants had greater post-transition HCBS expenditures but similar post-transition institutional care expenditures.



People with mental illness: Compared with other transitioners, MFP participants had greater post-transition HCBS expenditures but similar post-transition institutional care expenditures.

Source: Mathematica analysis of average Medicaid and Medicare expenditures for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

Notes: The matched sample of other transitions is based on a propensity score matching approach described in more detail in Appendix B. The sample size for the matched sample is found in Table B.3 of Appendix B.

HCBS = home and community-based services; LTSS = long-term services and supports; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities.

**Statistically significant difference between MFP participants and other transitioners at the .01 level, two-tailed test.

***Statistically significant difference between MFP participants and other transitioners at the .001 level, two-tailed test.

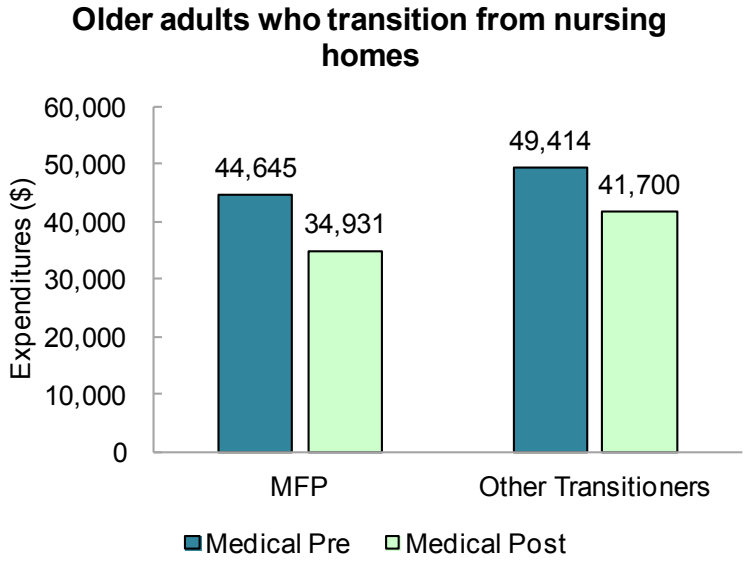
3. Change in medical care expenditures

The other component of total expenditures includes medical care expenditures for all other Medicaid and Medicare services not classified as LTSS. Medical care expenditures are also likely to change when someone transitions from institutional to community-based LTSS. These expenditures might decline as one's health status and functioning improves and the person becomes more independent, or the decline might result from lack of access to medical care if the person has difficulty getting around the community and becomes isolated. Alternatively, medical expenditures might increase if a program such as MFP helps people become more aware of their needs and increases their access to care. However, some people who receive 24-hour care and supervision over an extended period might experience an increase in their medical care costs when they transition to a community residence if they experience more falls, accidents, or other set backs.

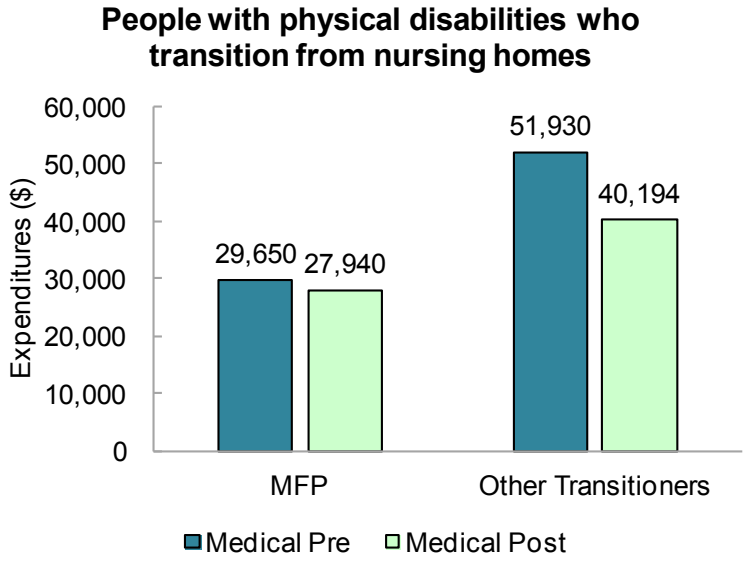
The data indicate that medical care expenditures increased after the transition for some target population but not others (Figure IV.5). In this analysis, medical expenditures include all Medicaid expenditures not otherwise classified as expenditures for LTSS and all Medicare expenditures for beneficiaries enrolled in both programs (excluding prescription drugs).[18] The Medicare expenditures include expenditures for outpatient services, inpatient care, and skilled nursing facility care, among other things. Those who transitioned from nursing homes—both older adults and younger residents with physical disabilities—had lower medical care expenditures after the transition. Conversely, medical care expenditures increased after the transition for those with intellectual disabilities. The change in medical care expenditures was more mixed for those with mental illness, increasing slightly among MFP participants and decreasing among other transitioners. Across all targeted populations, other transitioners had greater pre-transition medical expenditures relative to MFP participants, which suggests that MFP participants and other transitioners differ in important ways, and these differences need to be controlled for when assessing the effect of MFP.

[18] Among MFP participants, about 72 percent are dually eligible for Medicaid and Medicare. Almost all participants age 65 or older are eligible for Medicare, as are approximately 54 percent of those younger than age 65 who transition from nursing homes, and 68 percent of those who transition from ICFs/IID (data not shown).

Figure IV.5. Average medical care expenditures 12 months before and after transition for MFP participants and other transitioners, by target population, 2008–2010

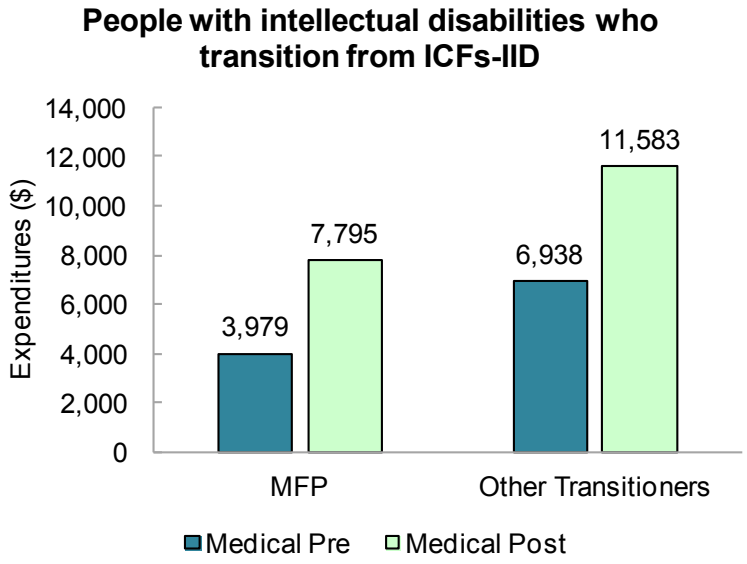


Older adults: After returning to the community, medical care expenditures declined for MFP participants and other transitioners by 22 and 16 percent, respectively.

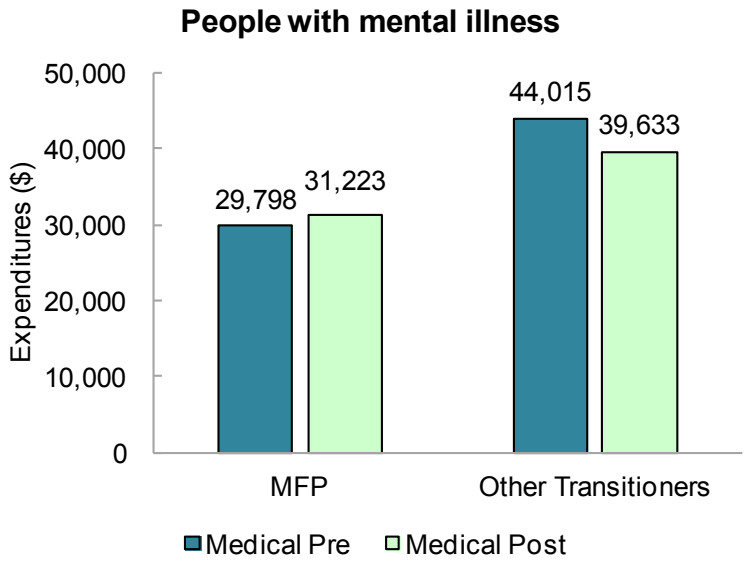


People with physical disabilities: Medical care expenditures declined for MFP participants and other transitioners by 6 and 23 percent, respectively, after returning to the community.

Figure IV.5 (continued)



People with intellectual disabilities: Medical care expenditures increased for MFP participants and other transitioners by 96 and 67 percent, respectively, after returning to the community.



People with mental illness: Medical care expenditures increased by 5 percent for MFP participants and decreased by 10 percent for other transitioners, after returning to the community.

Source: Mathematica analysis of average Medicaid and Medicare expenditures for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

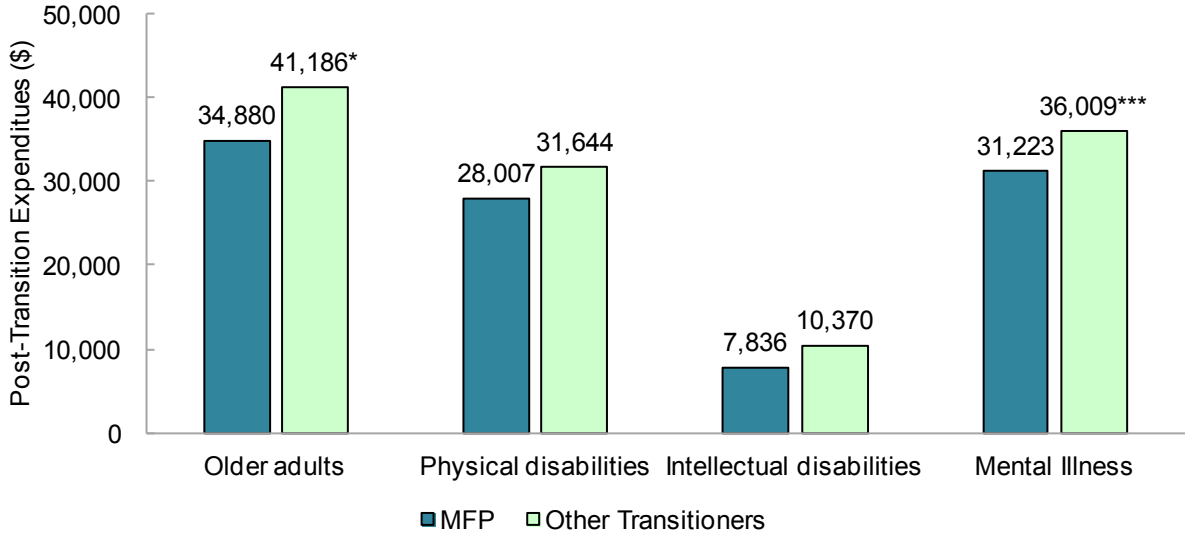
Notes: Medical expenditures include Medicaid-paid services not classified as LTSS expenditures and all Medicare expenditures.

HCBS = home and community-based services; LTSS = long-term services and supports; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities.

When we compared the post-transition medical care expenditures of MFP participants with those of the matched samples of other transitioners, we found that MFP was associated with significantly lower medical care expenditures after the transition for two of the four target populations (Figure IV.6). MFP participants who were older adults or had mental illness had significantly lower post-transition medical expenditures compared with others who transitioned

without MFP, but medical care expenditures were the same for MFP participants with physical or intellectual disabilities relative to other transitioners in their respective targeted population.

Figure IV.6. Average medical care expenditures 12 months after transition for MFP participants and matched samples of other transitioners, by target population, 2008–2010



Source: Mathematica analysis of average Medicaid and Medicare expenditures for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

Notes: The matched sample of other transitions is based on a propensity score matching approach described in more detail in Appendix B. The sample size for the matched sample is found in Table B.3 of Appendix B.

HCBS = home and community-based services; LTSS = long-term services and supports; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities.

*Statistically significant difference between MFP participants and other transitions at the .05 level, two-tailed test.

***Statistically significant difference between MFP participants and other transitioners at the .001 level, two-tailed test.

E. Change in inpatient and ED utilization

The previous section found that medical care expenditures for MFP participants change after they return to the community, and their medical care expenditures are often lower than those of Medicaid beneficiaries who transition without the support of the MFP program. To better understand the trends in medical expenditures for MFP participants after transitioning from institutional care to HCBS, we analyzed the use of high-cost medical care services that indicate a risk for reinstitutionalization but might be avoided with access to appropriate HCBS. Specifically, we study the probability of having (1) an ED visit that did not result in an inpatient

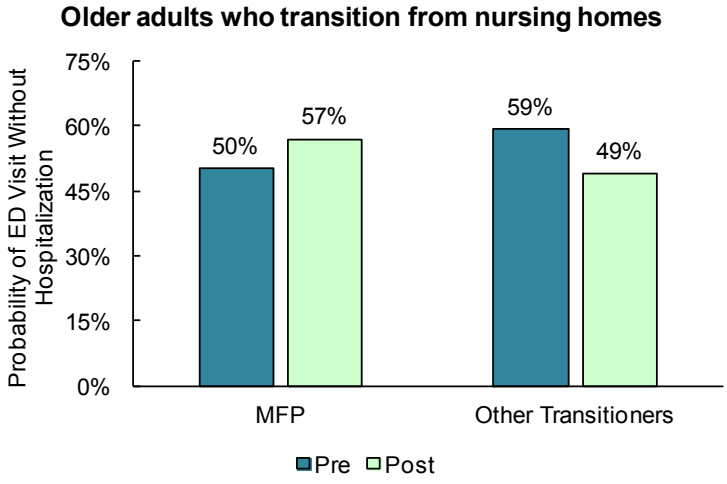
admission, (2) an ED visit that resulted in an inpatient admission, and (3) any type of inpatient admission. We stratified ED visits and inpatient admissions to differentiate among more severe events as well as those that might be more preventable with access to appropriate HCBS. We also examined whether MFP is associated with any changes in the use of these services by comparing the change in the use of these services among MFP participants with others who made the same transition but without the support of the MFP program, focusing on the 12 months before and 12 months after the transition.

1. ED visits that do not result in an inpatient admission

ED visits without hospitalization represent acute care events that are less severe or emergent than those that result in hospitalization. After transitioning to the community, the probability of an ED visit without hospitalization increased among MFP participants, but mostly decreased among other transitioners with the exception of individuals with intellectual disabilities (Figure IV.7). It is possible that the care available in the institutional setting might have precluded the need for some of these ED visits. Moreover, the increased ED use after transition might be a result of heightened awareness among patients and HCBS providers. The increase was particularly large for people with intellectual disabilities who transitioned from ICFs-IID.

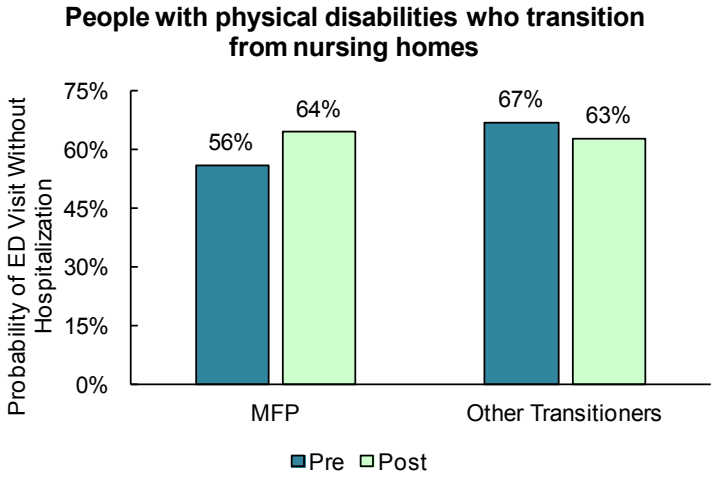
Compared with other transitioners, MFP participants tended to have lower pre-transition probabilities of having an ED visit without hospitalization. Thus, any analysis of how MFP might affect post-transition medical service use needs to control for the differences between MFP participants and other transitioners.

Figure IV.7. Probability of ED visit without hospitalization 12 months before and after transition for MFP participants and other transitioners, by target population, 2008–2010

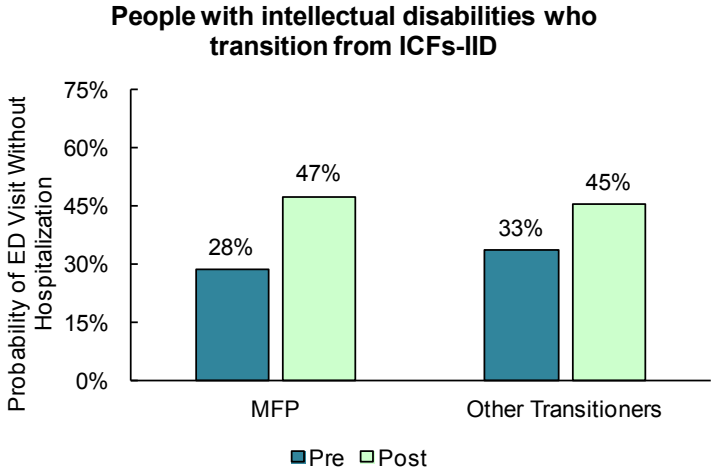


Older adults: Among MFP participants, the probability of having an ED visit without hospitalization increased by 7 percentage points (or 14 percent in relative terms), compared with a decrease of 10 percentage points (or 17 percent) for other transitioners.

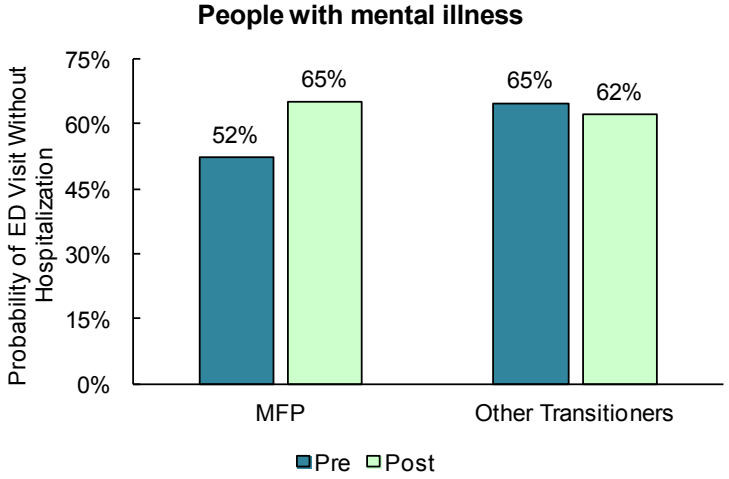
Figure IV.7 (continued)



People with physical disabilities: Among MFP participants, the probability of having an ED visit without hospitalization increased by 8 percentage points (or 15 percent in relative terms), compared with a decrease of 4 percentage points (or 6 percent) for other transitioners.



People with intellectual disabilities: The probability of having an ED visit without hospitalization increased substantially for both MFP participants (19 percentage points or 67 percent in relative terms) and other transitioners (12 percentage points of 36 percent).



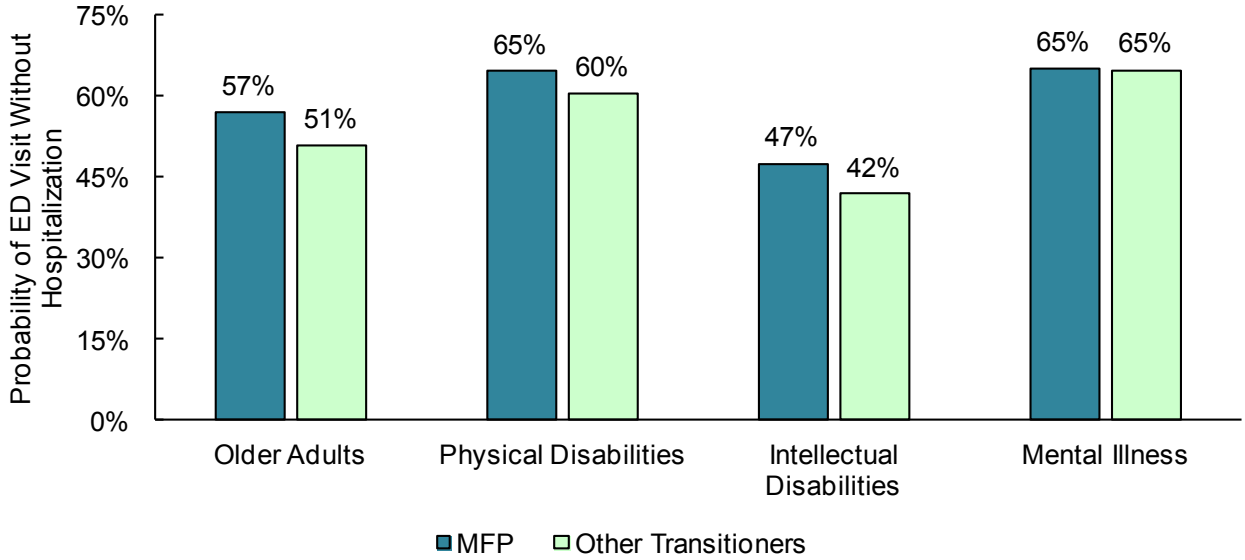
People with mental illness: Among MFP participants, the probability of having an ED visit without hospitalization increased by 13 percentage points (or 25 percent in relative terms), compared with a decrease of 3 percentage points (or 4 percent) for other transitioners.

Source: Mathematica analysis of Medicaid and Medicare claims for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

ED = emergency department; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities.

Although ED use was common for all transitioners in the 12 months after returning to the community, there were no statistically significant differences between MFP participants and the matched sample of other transitioners when controlling for pre-transition differences (Figure IV.8).[19] The lack of differences suggests that acute ED visits that do not result in a hospitalization do not explain MFP participants' lower medical care expenditures relative to other transitioners. However, ED visits without hospitalization were fairly common for both MFP participants and other transitioners. More than 60 percent of transitioners with physical disabilities or mental illness had an ED visit without hospitalization in both the pre- and post-transition periods.

Figure IV.8. Probability of an ED visit without hospitalization 12 months after transition for MFP participants and matched samples of other transitioners, by target population, 2008–2010



Source: Mathematica analysis of Medicaid and Medicare claims for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

Notes: The matched sample of other transitions is based on a propensity score matching approach described in more detail in Appendix B. The sample size for the matched sample is found in Table B.3 of Appendix B.

ED = emergency department.

2. Emergency hospitalizations

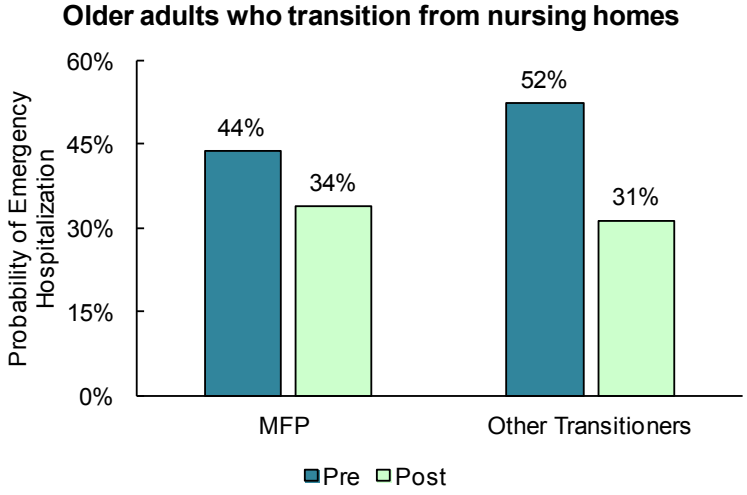
Although the chance of having an ED visit without hospitalization generally increased following transition, the chance of having an emergency hospitalization decreased, except for those with intellectual disabilities (Figure IV.9). Among beneficiaries who transitioned from

[19] When comparing MFP participants to other transitioners, all target populations of MFP participants—except people with intellectual disabilities—were statistically significantly more likely (at the 0.05 level or lower) to have an ED visit without hospitalization.

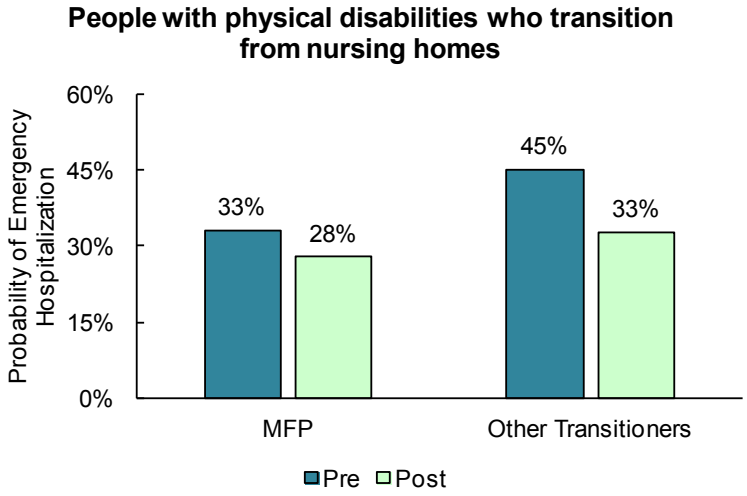
ICFs-IID, the probability of having an emergency hospitalization increased slightly (by one percentage point) for MFP participants and was unchanged for other transitioners.

In the pre-transition period, MFP participants often had a lower probability of emergency hospitalization compared with other transitioners. The exception was people with intellectual disabilities, for which there was a one percentage point difference.

Figure IV.9. Probability of an emergency hospitalization 12 months before and after transition for MFP participants and other transitioners, by target population, 2008–2010

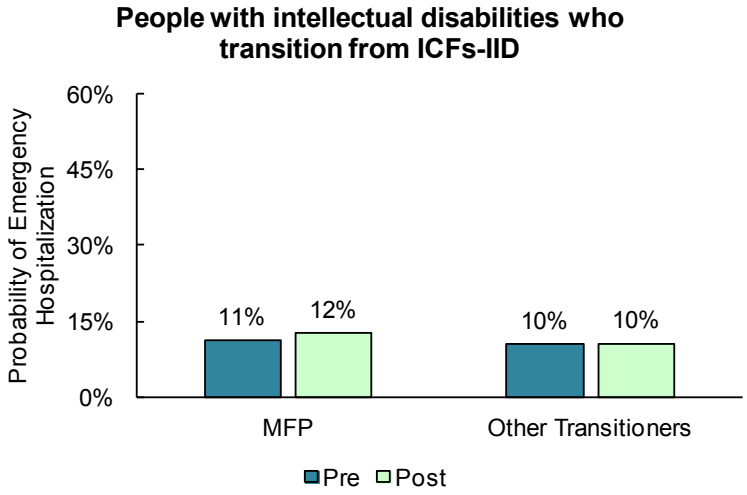


Older adults: The probability of having an emergency hospitalization decreased by 10 percentage points (or 22 percent in relative terms) for MFP participants and 21 percentage points (or 40 percent) for other transitioners.

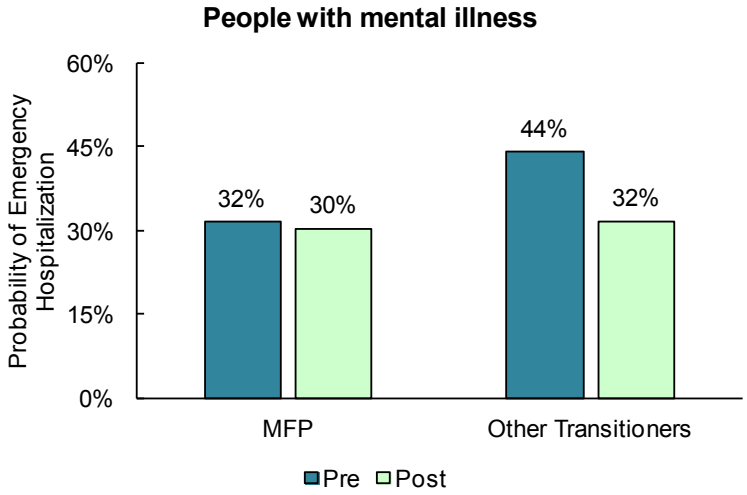


People with physical disabilities: The probability of having an emergency hospitalization decreased by 5 percentage points (or 16 percent in relative terms) for MFP participants and 12 percentage points (or 28 percent) for other transitioners.

Figure IV.9 (continued)



People with intellectual disabilities: The probability of having an emergency hospitalization increased slightly for MFP participants and was unchanged for other transitioners.



People with mental illness: The probability of having an emergency hospitalization decreased by 2 percentage points (or 4 percent in relative terms) for MFP participants and 12 percentage points (or 28 percent) for other transitioners.

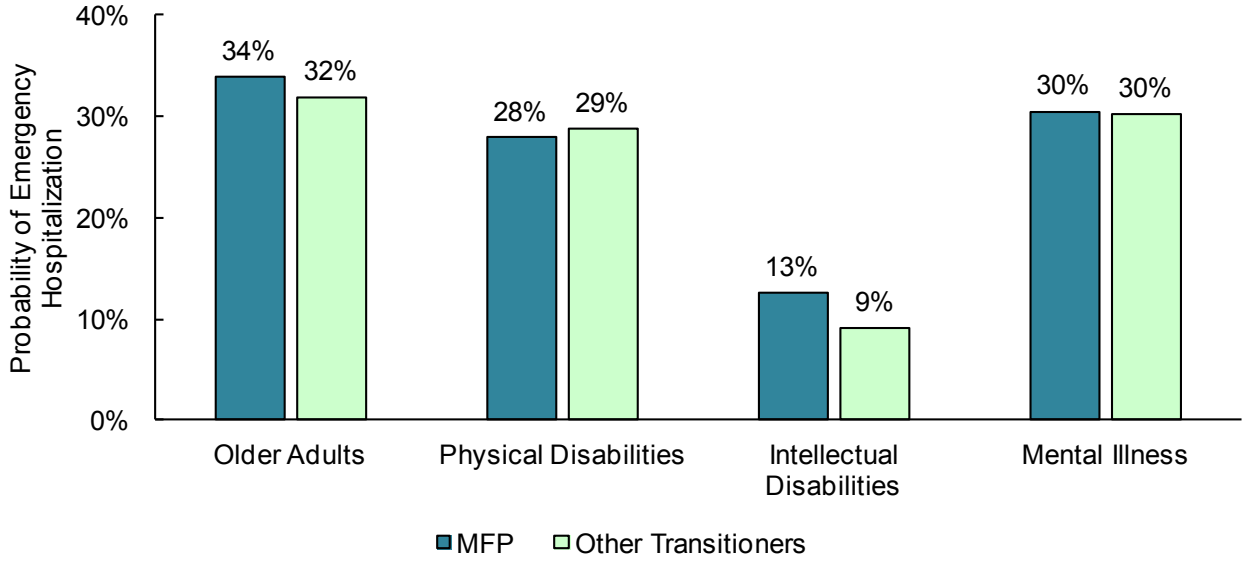
Source: Mathematica analysis of Medicaid and Medicare claims for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

ED = emergency department; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities.

After adjusting for observable pre-transition characteristics, there were no statistically significant differences between MFP participants and the matched sample of other transitioners in the likelihood of having an emergency hospitalization in the first year following transition (Figure IV.10).[20] After returning to the community, emergency hospitalization is common for MFP participants and other transitioners. Similar to the findings regarding ED visits without hospitalization, people with intellectual disabilities had a relatively low probability of emergency hospitalization compared with the other target populations.

[20] In addition, there were no statistically significant differences between MFP participants and those who transitioned prior to the implementation of the MFP program in the likelihood of having an emergency hospitalization during the first 12 months after transitioning.

Figure IV.10. Probability of an emergency hospitalization 12 months after transition for MFP participants and matched samples of other transitioners, by target population, 2008–2010



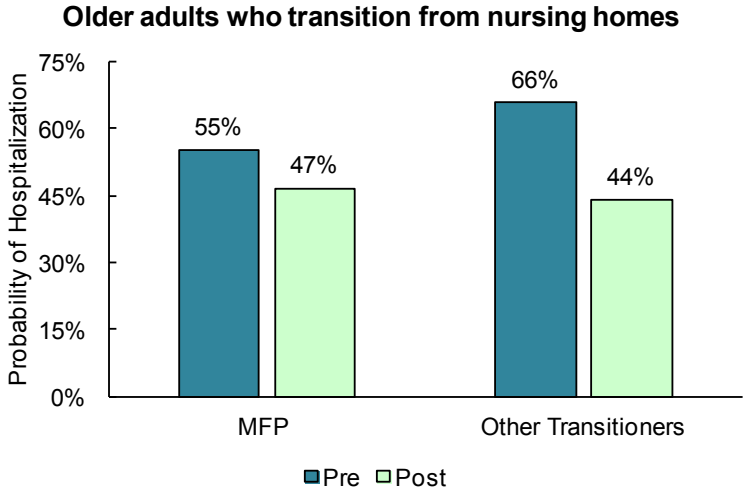
Source: Mathematica analysis of Medicaid and Medicare claims for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

Notes: The matched sample of other transitions is based on a propensity score matching approach described in more detail in Appendix B. The sample size for the matched sample is found in Table B.3 of Appendix B.

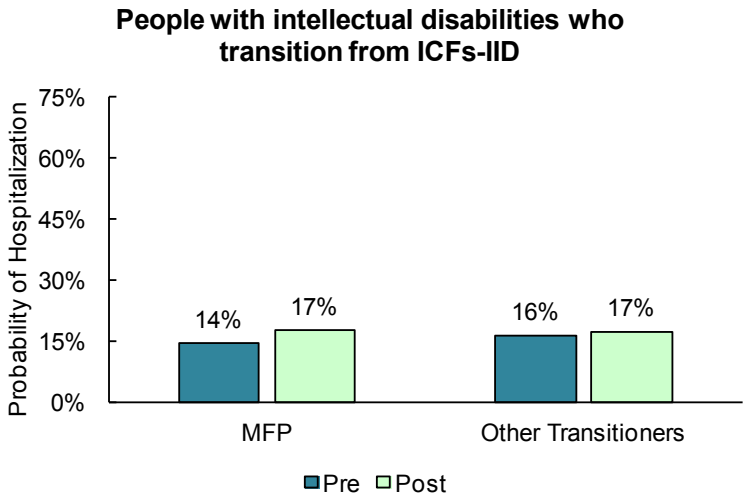
3. Any hospitalization

Changes in the probability of hospitalization (either emergency or planned) after transitioning varied among the target populations (Figure IV.11). For older adults and people with physical disabilities, the probability of hospitalization decreased for all transitioners after returning to the community. People with intellectual disabilities, on the other hand, were more likely to be hospitalized after transitioning to the community, although the change was fairly small (one percentage point). For people with mental illness, the likelihood of a hospitalization increased slightly for MFP participants but decreased for those who transitioned outside of the MFP program. In general, people transitioning outside of the MFP program had higher pre-transition hospital use, leading to greater relative changes in hospital use after transition.

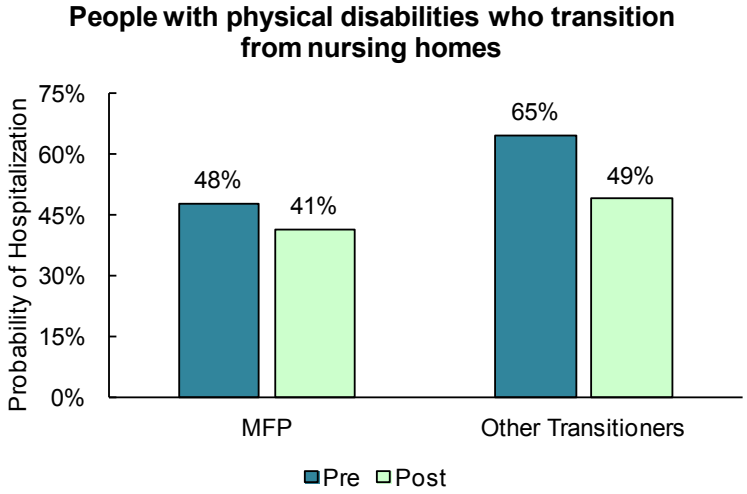
Figure IV.11. Probability of hospitalization 12 months before and after transition for MFP participants and other transitioners, by target population, 2008–2010



Older adults: The probability of having a hospitalization decreased by 8 percentage points (or 15 percent in relative terms) for MFP participants and 22 percentage points (or 33 percent) for other transitioners.

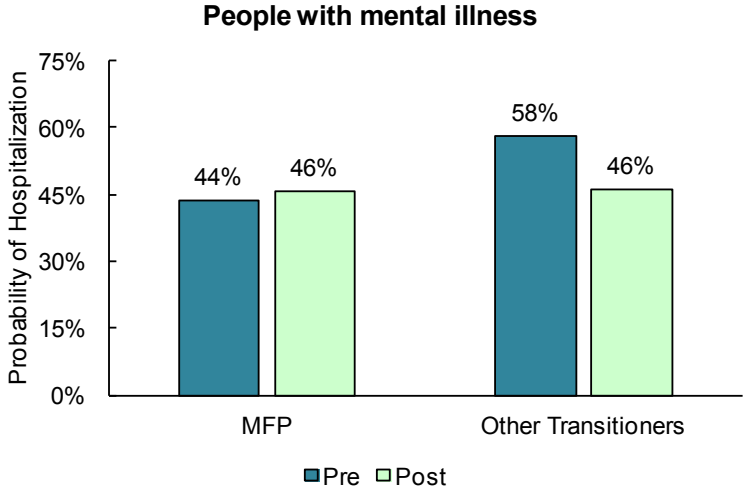


People with intellectual disabilities: The probability of having a hospitalization increased by 3 percentage points (or 21 percent in relative terms) for MFP participants and 1 percentage point (or 7 percent) for other transitioners.



People with physical disabilities: The probability of having a hospitalization decreased by 7 percentage points (or 14 percent in relative terms) for MFP participants and 16 percentage points (or 24 percent) for other transitioners.

Figure IV.11 (continued)



People with mental illness: The probability of having a hospitalization increased by 2 percentage points (or 5 percent in relative terms) for MFP participants and decreased by 12 percentage points (or 21 percent) for other transitioners.

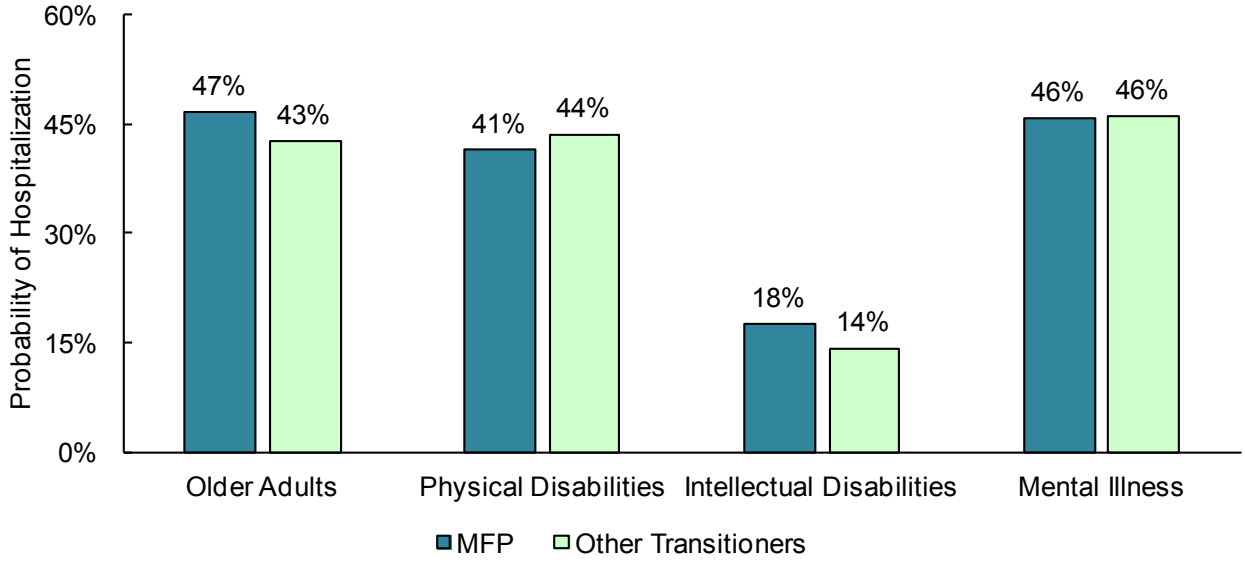
Source: Mathematica analysis of Medicaid and Medicare claims for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

ED = emergency department; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities.

After controlling for observable characteristics, there were no statistically significant differences between MFP participants and a matched sample of other transitioners in the likelihood of having an inpatient admission in the first year following transition (Figure IV.12).[21] More than 40 percent of transitioners classified as older adults, people with physical disabilities, and people with mental illness were hospitalized in a given year. People with intellectual disabilities, however, were far less likely to be hospitalized as other populations in the post-transition period.

[21] Similarly, there were no statistically significant differences between MFP participants and those who transitioned prior to the MFP program in the likelihood of having a hospitalization during the first 12 months after transitioning.

Figure IV.12. Probability of hospitalization 12 months after transition for MFP participants and matched samples of other transitioners, by target population, 2008–2010



Source: Mathematica analysis of Medicaid and Medicare claims for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

Notes: The matched sample of other transitions is based on a propensity score matching approach described in more detail in Appendix B. The sample size for the matched sample is found in Table B.3 of Appendix B.

F. Discussion

1. Expenditure analysis

The data suggest that although MFP programs provide more HCBS by design, they might also be effective at helping many participants avoid acute care episodes that could lead to a return to institutional care.

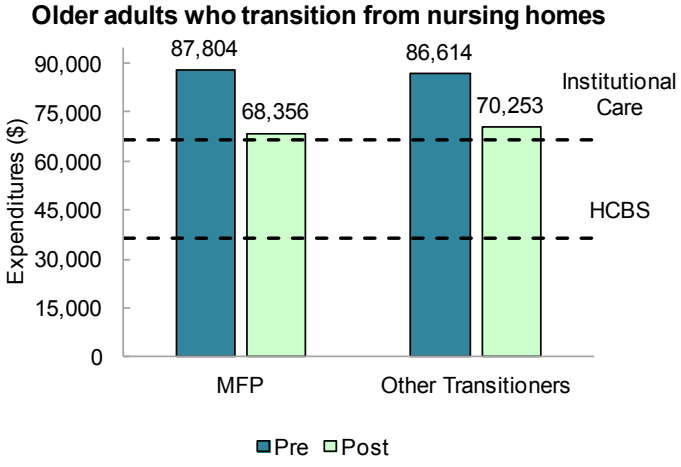
The preliminary evidence indicates that the total expenditures decline when people transition from institutions to community living. The decline occurs among both MFP participants and other Medicaid beneficiaries observed in claims data to be residing in institutions for long and then transition to community living and HCBS. The MFP program has a mixed influence on someone's total expenditures during the first 12 months after transition relative to the experience of Medicaid beneficiaries who transition outside of MFP. For people with physical disabilities or mental illness, MFP participation was associated with increased post-transition total expenditures, but there was no association between MFP participation and post-transition total expenditures for older adults or people with intellectual disabilities. Across all target populations, MFP participants clearly received more HCBS than did other transitioners, and their post-transition institutional care expenditures appear to be lower, but not significantly so, than those for other transitioners. MFP participants' greater post-transition HCBS expenditures are partially offset by the higher medical care expenditures that other transitioners

experience. This evidence suggests that although MFP programs provide more HCBS by design, they might also be effective at helping many participants avoid acute care episodes that could lead to a return to institutional care.

Those who transition might need substantial HCBS to live successfully in the community, but, on average, the greater spending on HCBS is partially offset by savings in institutional care expenditures, at least among those populations represented in this chapter. In addition, the savings in LTSS expenditures is not offset by increased medical care to treat acute events such as falls, accidents, or other setbacks, and the additional HCBS received by MFP participants might help avoid some of these acute medical events. The results for people with mental illness are particularly important in this regard if the additional HCBS provided by MFP programs is improving access to the treatment services they need. These early results suggest that on average, people who transition are well prepared and have sufficient supports in the community to live there successfully, at least for the first 12 months.

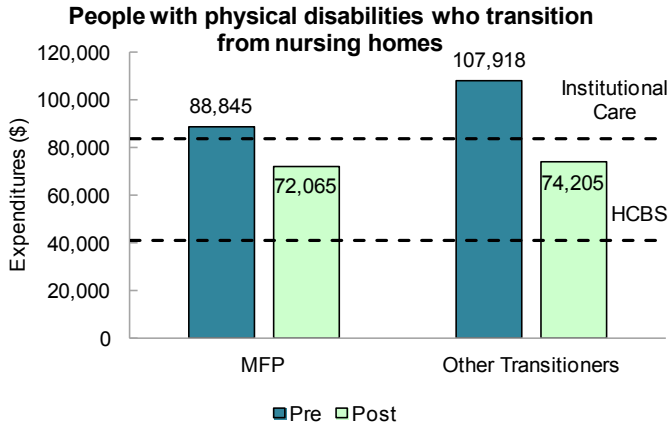
Because the literature on the total expenditures for people who transition among LTSS settings is sparse, we also developed estimates of annual total expenditures for long-term institution residents who do not transition and long-term users of HCBS. These estimates help us benchmark the results presented earlier. In Figure IV.13, we include annual total expenditures for Medicaid beneficiaries who lived for at least two consecutive years in an institutional setting, as well as annual total expenditures for people who used HCBS for at least two consecutive years. In most transition groups considered, pre-transition total expenditures were often greater than for those who remain in institution care for at least two years. MFP participants and other transitioners may have higher pre-transition expenditures relative to the institutional care benchmark if they are more likely to have had costly acute care events followed by subacute care and then long-term institutional based LTSS. After the transition, total expenditures frequently—but not always—fall below those of this benchmark group, but they continue to exceed those of people who have been using HCBS for at least two consecutive years. A more controlled analysis is needed to fully understand the differences in total expenditures between those who transition and those who do not.

Figure IV.13. Average total expenditures 12 months before and after transition for MFP participants and other transitioners compared to continuous LTSS users, by target population, 2008–2010

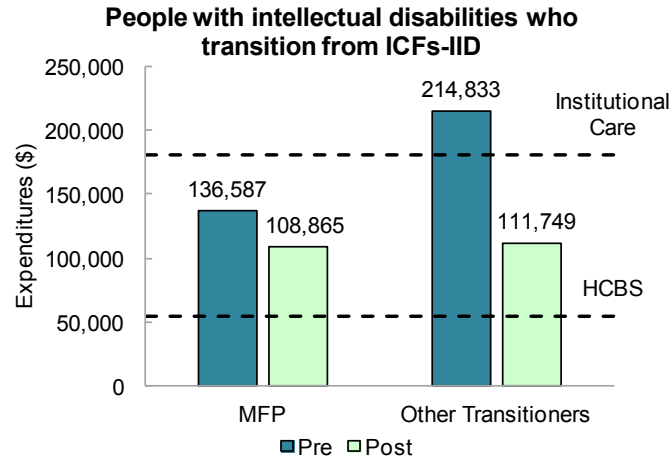


Older adults: After transitioning, total expenditures were similar to those in institutional care for at least two consecutive years but were much greater than those using HCBS for at least two consecutive years.

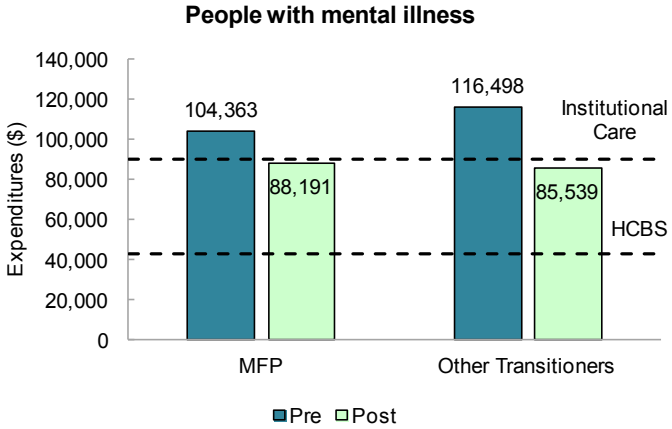
Figure IV.13 (continued)



People with physical disabilities: After transitioning, total expenditures were lower than the expenditures of those in institutional care for at least two consecutive years but were much greater than those using HCBS for at least two consecutive years.



People with intellectual disabilities: After transitioning, total expenditures were lower than the expenditures of those in institutional care for at least two consecutive years but were much greater than those using HCBS for at least two consecutive years.



People with mental illness: After transitioning, total expenditures were similar to the expenditures of those in institutional care for at least two consecutive years but were much greater than those using HCBS for at least two consecutive years.

Source: Mathematica analysis of average Medicaid and Medicare expenditures for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

Notes: Dotted lines represent the benchmarks for people in institutional care for at least two consecutive years and people who use HCBS for at least two consecutive years. The long-term LTSS users are defined in Appendix B.

HCBS = home and community-based services; LTSS = long-term services and supports; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities.

2. Utilization analysis

Changes in post-transition medical service use varied by target group and participation in MFP. The probability of an ED visit without hospitalization increased among MFP participants but mostly decreased among other transitioners with the exception of individuals with intellectual disabilities. Conversely, the chance of having an emergency hospitalization decreased for all transitioners except for those with intellectual disabilities. The probability of any hospitalization decreased for older adults and people with physical disabilities, but increased for those with intellectual disabilities. For people with mental illness, the likelihood of a hospitalization increased slightly for MFP participants but decreased for those who transition outside of the MFP program.

One goal of the utilization analysis was to determine whether the findings relating to medical care expenditures were reflected in similar findings for potentially high-cost service use such as ED and inpatient admissions. However, the findings do not explain why medical expenditures were lower for MFP participants in the 12 months after transition to the community relative to other transitioners. After controlling for observable differences, there were no statistically significant differences in the likelihood of having an ED visit or hospitalization (emergent and nonemergent) between MFP participants and others who transitioned during 2008–2010. Moreover, a comparison of MFP participants and others who transitioned during the 2006–2007 period, the pre-period before the MFP program began, suggests that utilization of ED visits without hospitalization typically is greater for MFP participants, but all other findings align when using different comparison groups.[22]

There are several potential explanations for the seemingly contradictory finding that MFP participants have lower medical expenditures but similar probability of ED and hospital service use. It is possible that the intensity of the services, rather than the probability of using a service, is driving these differences. For example, even though MFP participants and the matched set of other transitioners were equally likely to have a hospitalization, other transitioners might have required more intensive services during their inpatient stay; however, additional research suggests that intensity of services does not drive the difference in medical care expenditures (data not shown).[23] In addition, it is possible that the frequency of these services might drive this difference. For example, both groups might be equally likely to visit the ED but one group might visit the ED more often; however, other research not presented here also suggests this explanation does not account for the difference in medical care expenditures. It might also be the case that other services, such as physician visits, skilled nursing facility stays, or more specific instances of ED visits or hospitalizations (for example, those due to falls), might be driving the expenditure results. It is also possible that the samples are not balanced across the states, and

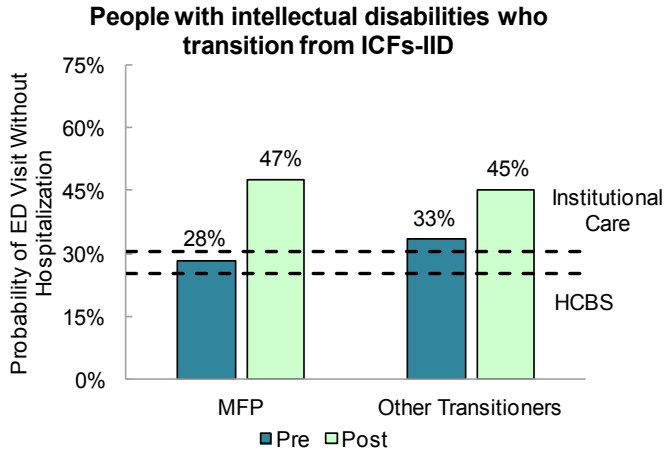
[22] We compared MFP participants to people who transitioned before MFP began in part to check the robustness of the results, but also to better control for any selection bias that may be occurring across MFP programs and influencing our estimates based on a contemporeanous comparison group.

[23] The volume of service use is another potential explanation. However, we also examined the number of inpatient stays and ED visits as well as the total number of inpatient days, and there were no statistically significant differences between MFP participants and the matched sample of other transitioners.

thus some of our results might be influenced by differences in state payment rates for Medicaid services. In addition, we might not have a large enough sample to detect the effects of MFP in only 12 months after transition and future analyses with larger samples may help to address this issue.

As in the cost section of this chapter, we developed estimates of the likelihood of having an ED visit without hospitalization, emergency hospitalization, and any hospitalization for long-term residents of institutions who do not transition as well as for long-term users of HCBS. These estimates, which have not been adjusted to control for the different characteristics of those who transition and those who do not, help us contextualize the results presented earlier. For all target populations except people with intellectual disabilities, the likelihood of having ED visits and hospitalizations was higher for transitioners than for both long-term residents of institutions and long-term users of HCBS. The results for people with intellectual disabilities were more nuanced (Figures IV.14–IV.16). People with intellectual disabilities who transition through MFP had a greater chance of having ED visits and hospitalizations compared with long-term residents of institutions and long-term users of HCBS. For people with intellectual disabilities who transition outside of MFP, the likelihood of having ED visits and hospitalizations was higher than for long-term users of HCBS. However, compared to long-term residents of institutions, they were more likely to have an ED visit without hospitalization, less likely to have an emergent hospitalization, and just as likely to have a hospitalization overall. A more controlled analysis is needed to fully understand the differences in utilization between those who transition and those who do not.

Figure IV.14. Probability of ED visit without hospitalization 12 months before and after transition for MFP participants and other transitioners compared to continuous LTSS users, by target population, 2008–2010



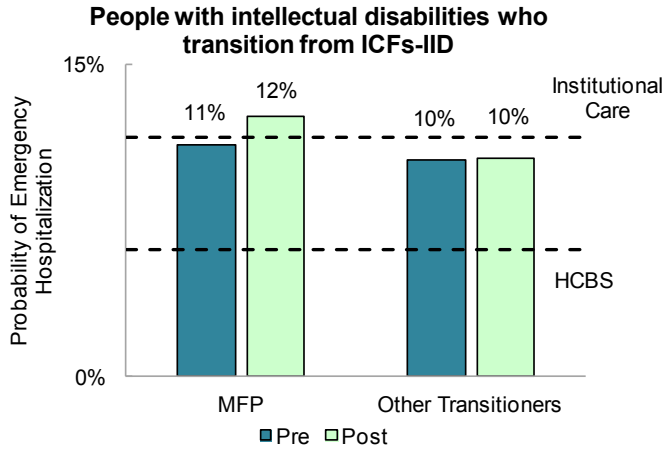
People with mental illness: After transitioning, total expenditures were similar to the expenditures of those in institutional care for at least two consecutive years but were much greater than those using HCBS for at least two consecutive years.

Source: Mathematica analysis of Medicaid and Medicare claims for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

Notes: Dotted lines represent the benchmarks for people in institutional care for at least two consecutive years and people who use HCBS for at least two consecutive years. The long-term LTSS users are defined in Appendix B.

ED = emergency department; HCBS = home and community-based services; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities.

Figure IV.15. Probability of emergency hospitalization 12 months before and after transition for MFP participants and other transitioners compared to continuous LTSS users, by target population, 2008–2010



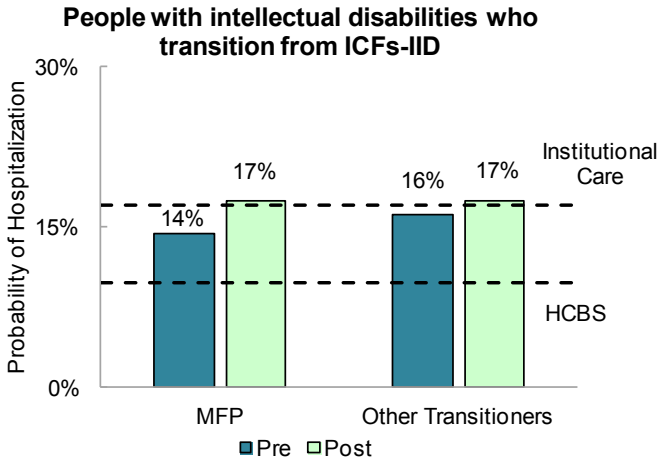
People with intellectual disabilities: After transitioning, MFP participants had a higher chance of having an ED visit without hospitalization than did long-term residents of institutions and long-term users of HCBS.

Source: Mathematica analysis of Medicaid and Medicare claims for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

Notes: Dotted lines represent the benchmarks for people in institutional care for at least two consecutive years and people who use HCBS for at least two consecutive years. The long-term LTSS users are defined in Appendix B

HCBS = home and community-based services; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities

Figure IV.16. Probability of hospitalization 12 months before and after transition for MFP participants and other transitioners, compared to continuous LTSS users, by target population, 2008–2010



People with intellectual disabilities: After transitioning, the probability of hospitalization was higher than for long-term users of HCBS and similar to long-term residents of institutions.

Source: Mathematica analysis of Medicaid and Medicare claims for Medicaid beneficiaries who transitioned from institutional to community-based LTSS from 2008 through 2010.

Notes: Dotted lines represent the benchmarks for people in institutional care for at least two consecutive years and people who use HCBS for at least two consecutive years. The long-term LTSS users are defined in Appendix B.

HCBS = home and community-based services; ICFs-IID = intermediate care facilities for individuals with intellectual disabilities.

G. Limitations and future research

The analysis in this chapter has several important limitations. It only assessed the total expenditures and service use during the first 12 months after the transition and not over a longer period. The results might therefore disproportionately reflect short-term events and adjustments stemming from a transition and might not capture what expenditures and service use might look like in subsequent years. The relative difference between the post-transition total expenditures and the annual expenditures of long-term HCBS users (see Figure IV.12) suggests that annual total expenditures of transitioners might decline further after the first year of community living.

The additional supportive services MFP participants receive for the transition during the first 12 months reflects one category of expenditures that would not be incurred in subsequent years. These additional services are by design and are mainly delivered near the time of transition (Peebles and Kehn 2014). Thus, they represent an investment in making the transition as successful as possible. However, some people might experience increasing medical care expenditures over time if community-based services cannot prevent or slow the progression of their health conditions. Expenditures might also increase if those who transitioned eventually return to institutional care. More research is needed to determine how the balance between LTSS and medical care expenditures changes over a longer period.

The analyses presented in this chapter only included people who lived for at least one year after the transition. Because the analyses did not consider people who died within 12 months of the transition, the results are not representative for the full range of people who transition, some of whom are near the end of life. Although few MFP participants receive hospice care through MFP, at least 10 percent of older adult MFP participants who transition from nursing homes die within 12 months of returning to community living (Irvin et al. 2012). This exclusion is important because total expenditures frequently escalate toward the end of life, and some terminally-ill patients in institutional care would prefer to spend their final months in a community setting.

The results might be influenced in part by how we developed the four target populations. We identified the four population groups in this chapter using claims data, and our method for identifying people with mental illness differed from how we identified the other three groups. The establishment of the group with mental illness was based primarily on diagnosis codes found in claims records, as well as a small set of procedure codes. This is an imprecise approach to identifying this population but represents what was feasible given the information available to the national evaluation at the time of the analysis. For example, data from the Preadmission Screening and Resident Review (PASRR) that Medicaid programs need to conduct before placing someone in long-term nursing home care was not available, which means we might have missed some people with mental illness. The other three groups were identified by the type of institution from which they transitioned: nursing homes or ICFs-IID. When either nursing home or ICF-IID residents were identified as having a mental illness, they were classified in the population with mental illness. Initially, we were concerned that this approach overidentified mental illness among people residing in nursing homes or ICFs-IID. However, the results based on groups defined solely on the type of institution from which they transitioned were very similar to the results presented in this report. Any errors introduced by our approach to identifying the four population groups seem to have little effect on the overall conclusions. Future work will try to incorporate information about mental illness from the nursing home MDS or the PASRR assessments to identify people with mental illness.

Although the expenditure measures only capture costs incurred by the Medicaid and Medicare programs, some important categories of costs are excluded. For example, we did not include prescription drug expenditures, which might be considerable for some, particularly for those with mental illness. The exclusion of prescription drug expenditures is one reason why we consider the analyses presented in this report as preliminary, and future work will include this key category of expenditures. In general, our analysis tries to capture spending on medical and LTSS, but other important expenses for those transitioning to the community should be considered. Ultimately, institutional care costs captured in this analysis are not directly comparable to the HCBS expenditures. The institutional care expenditures Medicaid programs incur include room and board costs. These types of expenditures cannot be identified and removed from the claims data nor can state-specific payment mechanisms like pay for performance or other nursing home reimbursement that occurs outside the rates. Conversely, HCBS expenditures do not include state or federal costs and supplemental payments associated with providing subsidized housing for those who transition to the community. Based on the number of MFP participants who transition to apartments, we hypothesize that roughly one-third of MFP participants qualify for housing vouchers (Morris et al. 2014). Medicaid beneficiaries have low incomes, and many are likely to benefit from housing vouchers and supported housing

programs. Similarly, total expenditures once in the community do not include subsidies provided by the Supplemental Nutrition Assistance Program or nutrition and other supportive services provided by local Area Agencies on Aging or Centers for Independent Living. Lastly, there are other administrative costs to states for recipients of LTSS, including assessments or care coordination that can be outside the scope of this analysis. It is unlikely we will be able to include the expenditures of other services in future work because of the difficulty and resources required to obtain and link these data with Medicaid and Medicare administrative data.

Although we examined three potentially high-cost categories of medical service use, we did not study important categories and subcategories of medical services. For example, we did not analyze physician visits or more specific instances of ED visits or hospitalizations, such as admissions for ambulatory care–sensitive conditions. Moreover, costly rehabilitation stays at a skilled nursing facility were not studied here but might account for some differences. Considering other types of medical service use would provide a more comprehensive assessment of the effect of MFP as well as potentially provide insight into the drivers behind the expenditure patterns found in this chapter.

Our approach to estimating the effect of MFP relied on samples of other transitioners who were matched to MFP participants on a wide range of observable characteristics, including pre-transition expenditures, medical service use, and functional assessments, when available. However, it is possible that our estimates do not adequately control for important differences between MFP participants and the comparison group. Our inability to control for characteristics that might matter, such as general health status, the availability of informal supports from friends and family, or the support received from case managers, might bias our estimates. Of particular concern is how the level of care needs of MFP participants compare to the needs of other transitioners. This issue is more likely to affect the analyses of populations with intellectual disabilities or those who transition from non-nursing home institutions because we do not have access to functional and cognitive status near the time of the transition, whereas such information can be obtained from the MDS for anyone who transitions from a nursing home. Regardless of the type of institution, controlling for the needs of people with serious mental illness is extremely difficult with the data available to the evaluation. People with mental illness may have few physical care needs, which means that in the MDS data they are frequently classified has having low care needs, when they may have significant care needs relating to a mental health condition and ability to manage in the community. The inability to control for these types of important factors might explain in part why some results, such as those for medical care costs, vary by targeted population.

The MFP demonstration is an ongoing program that is not scheduled to end for several more years. The national evaluation will continue to track the progress of this program, and these analyses will be repeated with more years of data, larger samples, additional comparison groups, and considerations for the effect of MFP on transition rates. To determine the long-term effects of MFP, the evaluation will assess expenditures over a longer post-transition period than was possible for this chapter. We will also explore more carefully the relationship between expenditures and use of services—particularly reinstitutionalizations and transitions to inpatient and subacute care—to better understand the drivers behind the changing expenditure and medical utilization profile of people who experience a transition in care settings for LTSS.

V. HCBS EXPENDITURES OF MFP PARTICIPANTS

A. Overview

MFP programs provide participants with a rich mix of HCBS to prepare for and support the transition from institutional to community-based care and to help them continue living in the community after they have settled into their new home. Analysis from Chapter IV showed that MFP participants receive significantly more HCBS than other Medicaid beneficiaries who transition to the community outside of the MFP program. These significantly higher HCBS expenditures are most likely explained by the additional services that are only available to and used by MFP participants, referred to as demonstration or supplemental services. Demonstration and supplemental services are intended to help participants transition successfully to community-based LTSS so they can live in the community over the long term. Ultimately, the MFP program will be considered a success if people receiving these additional HCBS experience greater quality of life and are able to live longer in the community than they would have without such support.

This chapter provides information on how the HCBS expenditures of MFP participants are distributed across different categories of services to identify those services that dominate in terms of use or expenditures. The analyses presented in this chapter are descriptive only and do not investigate the relationship between HCBS expenditures and post-transition outcomes. Furthermore, these analyses cannot explain the greater HCBS spending for MFP participants compared with other transitioners. Nonetheless, this chapter presents the first component of this work by providing information that helps us understand the cost of moving people to community-based care.

To summarize, we found that:

- In line with last year's report, the majority of HCBS spending is concentrated in home-based (primarily personal assistance services) and round-the-clock services (each category accounts for about 30 percent of all expenditures).
- Home-based and coordination and management services, as well as equipment, technology, and modifications, were provided to MFP participants in all 30 states available for analyses.
- The most commonly used HCBS was coordination and management services (73 percent of MFP participants used this service), and more than half of MFP participants used home-based services or equipment, technology, and modifications.

B. Array of home- and community-based services provided

To meet the care needs of its participants, each MFP program provides a diverse set of HCBS that spans many professional competencies and technology categories. We focus solely on HCBS services paid by the MFP program, which excludes some HCBS that MFP participants receive through HCBS the regular Medicaid program. To summarize the types of HCBS used by MFP participants, we adapted the HCBS taxonomy that Truven Health Analytics and Mathematica developed and tested for CMS (Eiken 2012; Wenzlow et al. 2011; Peebles and Bohl 2014). As with the HCBS taxonomy, the services are organized into 16 mutually exclusive service categories, but we added a 17th category to capture services that we could not classify

because of inadequate information on the claims record (for example, vague procedure code descriptions). Within each of the 16 categories that represent categorized services, we created 39 mutually exclusive subcategories of services. The 39 subcategories for this analysis are far fewer than the 66 subcategories used in the original HCBS taxonomy. We used a smaller number of subcategories because the volume of claims did not always support the level of detail that the HCBS taxonomy was designed to capture. When summarizing expenditures and service use by subcategory, we indicate when we adapted the HCBS taxonomy to better meet the needs of this study, whenever possible.

We analyzed the HCBS claims records reported by 30 state grantees.[24] We included 19,877 MFP participants who transitioned before the end of 2012 with at least one claim in the MFP services file. This analysis includes claims for $670 million in HCBS provided to MFP participants by the end of 2013.

Table V.1 provides a detailed breakdown of the HCBS categories and subcategories provided to MFP participants through calendar year 2013. Because many of the category names are general, we include a description of the types of services that comprise each category. For example, Coordination and Management includes services that support the transition to the community, including care management, logistical planning, and working with a specialist to identify community housing options.

[24] The analysis was based on data available from the quarterly MFP Services files that grantees submit to CMS for the national evaluation. HCBS provided by the state's regular Medicaid program were not included in this analysis.

Table V.1. Categories and subcategories of HCBS provided to MFP participants who transitioned by the end of calendar year 2013

HCBS category[a]	Description	MFP participants that used each service category		States that provided each service category	Expenditures for each service category
		Number	Percent	Number	Percent of national expenditures
1 Home-based services		11,129	56	30	31.3
1.1 Home health aide	Home health aide	1,616	8	16	1.4
1.2 Personal care	Personal or attendant care	9,755	49	28	27.1
1.3 Companion	Adult companion	547	3	10	0.7
1.4 Homemaker	Homemaker and chore services	1,868	9	17	2.1
2 Round-the-clock services		4,179	21	23	29.1
2.1 Group living	Group living	809	4	7	1.2
2.2 Shared living	Shared living, including adult foster care or adult family care	919	5	9	2.5
2.3 Residential, unspecified	Health and social services provided in the person's home or apartment in which a provider has round-the-clock responsibility for the person's health and welfare	2,485	13	18	25.4
3 Coordination and management		14,410	73	30	8.0
3.1 Transition[b]	Transition coordination, transition specialist	9,952	50	24	4.9
3.2 Housing supports[c]	Assistance with finding housing and housing specialists	996	5	5	0.2
3.3 Case management[d]	Case coordination, plan development	10,235	52	27	3.0

Table V.1 (continued)

HCBS category[a]	Description	MFP participants that used each service category		States that provided each service category	Expenditures for each service category
		Number	Percent	Number	Percent of national expenditures
4 Supported employment		468	2	18	0.7
4.1 Employment[e]	Prevocational, supported employment, other employment services	468	2	18	0.7
5 Day services		2,459	12	28	5.3
5.1 Day habilitation	Assistance in self-help, socialization, and/or adaptive skill provided in a fixed site during the working day	1,346	7	16	3.2
5.2 Adult day health	Health and social services provided in a fixed site during the working day	1,188	6	26	2.1
6 Nursing		4,011	20	24	3.7
6.1 Nursing	RN and LPN services	4,011	20	24	3.7
7 Meals		2,415	12	24	0.5
7.1 Home-delivered	Meals delivered to the home	2,244	11	23	0.5
7.2 Other meals	Meals (does not include home-delivered meals)	171	1	2	<0.01
8 Caregiver support		942	5	28	0.5
8.1 Caregiver support	Respite, caregiver counseling, and training	942	5	28	0.5

Table V.1 (continued)

HCBS category[a]	Description	MFP participants that used each service category		States that provided each service category	Expenditures for each service category
		Number	Percent	Number	Percent of national expenditures
9 Mental and behavioral health services		2,269	12	25	1.0
9.1 Behavioral health	Behavioral health, psychosocial rehabilitation, day treatment, substance abuse, psychologist or social worker services	2,269	12	25	1.0
10 Other health and therapeutic services		3,258	17	21	1.2
10.1 Nutrition	Nutrition counseling and supplies	196	1	9	<0.01
10.2 Physician services	Services provided by a physician, NP, PA	2,177	11	5	0.5
10.3 Prescription drugs	Prescription drugs and anesthesia	648	3	8	<0.01
10.4 Dental services	Services provided by a dentist or in a dentist's office	95	1	5	<0.01
10.5 OT/PT/ST	Occupational therapy, physical therapy, speech therapy	1,167	6	18	0.4
10.6 Administration of drugs	Medication administration and injections by a health professional	942	5	8	0.1
10.7 Other therapies	Other health and therapeutic services, including communication aids, service animals, and drug infusion therapy	1,784	9	10	0.2

Table V.1 (continued)

HCBS category[a]	Description	MFP participants that used each service category		States that provided each service category	Expenditures for each service category
		Number	Percent	Number	Percent of national expenditures
11 Services supporting participant self-direction		1,156	6	9	0.7
11.1 Self-directed funds	Funds allocated for self-direction	585	3	4	0.6
11.2 Assistance in self-direction	Assistance with the management of self-directed services and/or training in self-direction	741	4	7	0.1
12 Participant training		3,870	20	17	12.0
12.1 Training	Other training (exclusive of home care or skills training)	157	1	9	<0.01
12.2 Community support	Community supports, including independent living	3,730	19	14	12.0
13 Equipment, technology, and modifications		11,170	57	30	4.0
13.1 Personal systems	Personal emergency response systems (PERS)	4,780	24	25	0.2
13.2 Modifications	Home, vehicle, or workplace modifications	2,520	13	23	1.5
13.3 Equipment/ supplies	Equipment and supplies, including hospital beds, wheelchairs, surgical supplies, orthotics	8,095	41	26	2.2

Table V.1 (continued)

HCBS category[a]	Description	MFP participants that used each service category		States that provided each service category	Expenditures for each service category
		Number	Percent	Number	Percent of national expenditures
14 Transportation		2,238	11	22	0.6
14.1 Medical	Ambulance services	39	<1	6	<0.01
14.2 Nonmedical	All other transportation services (nonmedical, transportation escort, unspecified)	2,219	11	21	0.6
15 Hospice		51	<1	3	0.06
15.1 Hospice services[f]	Hospice services	51	<1	3	0.06
16 Other	Services that do not fit within the categories above	812	4	13	0.3
17 Unclassified	Services that could not be identified because of missing information on the claims records	1,302	7	22	0.9

Sources: Mathematica analysis of MFP services files and program participation data files submitted by 30 grantee states for 19,877 MFP participants transitioning by the end of 2012.

Note: Expenditures include qualified, demonstration, and supplemental services, but exclude all managed care expenditures. Texas was excluded because a high proportion of MFP participants were believed to receive HCBS through managed care. Therefore, their claims information is not equivalent to that for participants in fee-for-service systems. Idaho, Massachusetts, Maine, Nevada, Rhode Island, South Carolina, Tennessee, Vermont, and Wisconsin were excluded because they lack the data needed for analysis.

[a]The HCBS taxonomy developed by Eiken (2011) and tested by Wenzlow et al. (2011) served as a guide for the categories and subcategories presented in this table. The order of services represents the hierarchy of how services were classified.

[b]The percentage of individuals used is based on 19,877 MFP participants who had transitioned by the end of December 2012 from 30 states.

Table V.1 (continued)

[c]One state refers to pre-transition services for housing and care planning as relocation services.

[d]The HCBS taxonomy includes housing supports in the Other category of services. We included this service type in transition and case management services because of its critical role for the demonstration and potential similarities to the other service types in this category.

[e]The HCBS taxonomy treats case management as a stand-alone category, which includes transition coordination. We separated transition coordination from case management, given the important role of this service in the demonstration.

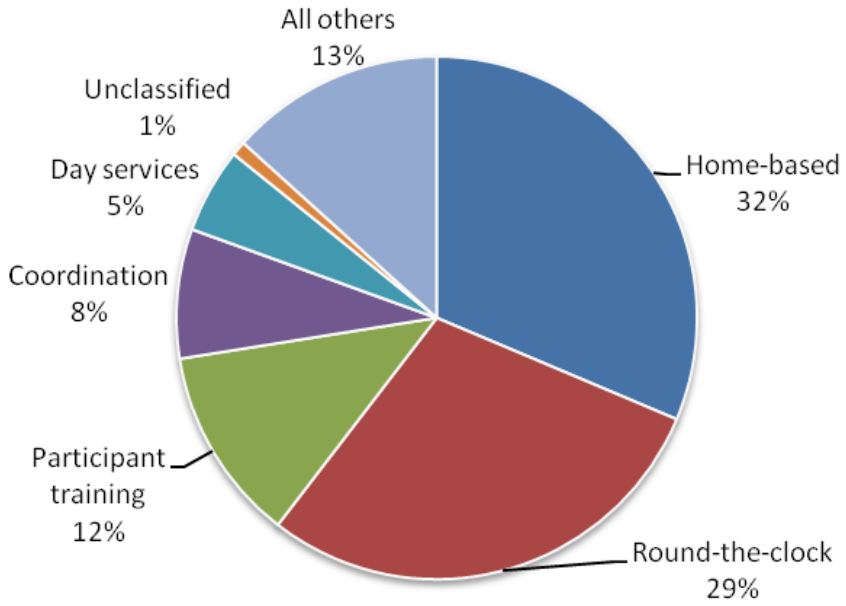
[f]In the HCBS taxonomy, prevocational services and supported employment are separate subcategories. We combined them because of the low volume of claims.

[g]The HCBS taxonomy does not treat hospice as a separate category, but as a subcategory in the Other category.

LPN = licensed practical nurse; NP = nurse practitioner; OT = occupational therapy; PA = physician assistant; PT = physical therapy; RN = registered nurse; ST = speech therapy.

Of the 17 categories of services MFP programs provided, home-based and round-the-clock services dominated, each making up about 30 percent of total HCBS expenditures for MFP participants (Figure V.1). Home-based services consist primarily of personal care assistance to help people perform activities of daily living, such as transferring in and out of a chair or bed, using the toilet, or showering. Round-the-clock services consist primarily of residential services, such as residential habilitation.[25] The dominance of residential services is driven by the observation that nearly all people with intellectual disabilities (who accounted for 15 percent of the MFP transitions by the end of 2012) use these services, and that residential services have higher per-user expenditures.

Figure V.1. MFP expenditures by service category



Source: Mathematica analysis of MFP services files and program participation data files submitted by 30 grantee states for 19,877 MFP participants transitioning by the end of 2012.

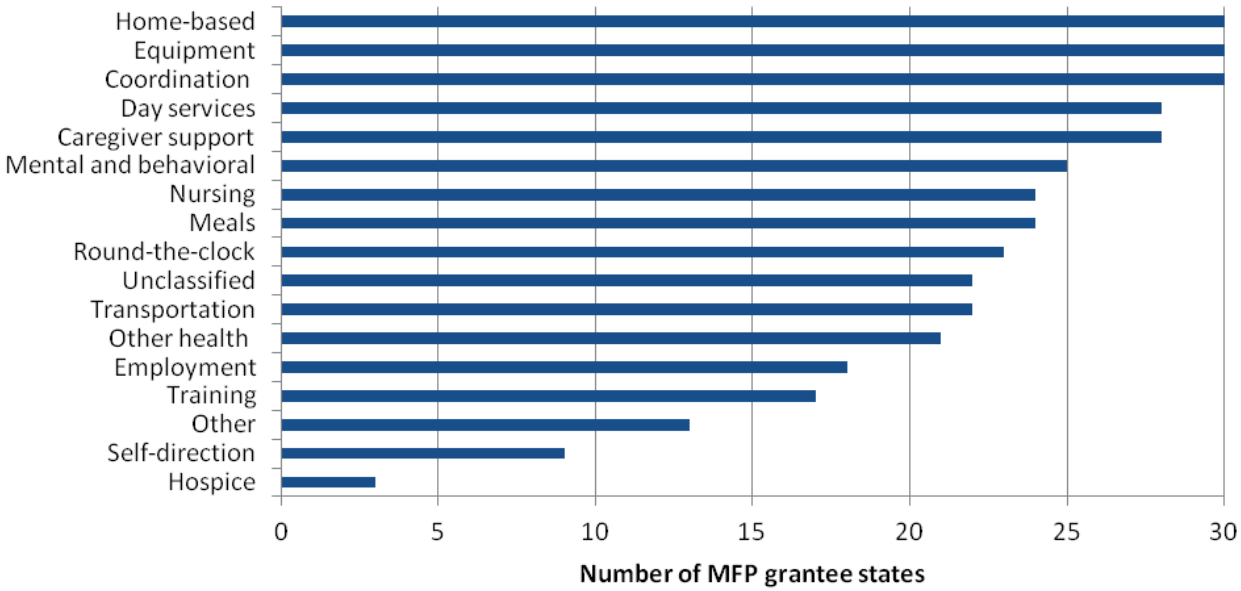
Notes: Expenditures include qualified, demonstration, and supplemental services, but exclude all managed care expenditures. Texas was excluded because a high proportion of MFP participants were believed to receive HCBS through managed care. Therefore, their claims information is not equivalent to that for participants in fee-for-service systems. Idaho, Massachusetts, Maine, Nevada, Rhode Island, South Carolina, Tennessee, Vermont, and Wisconsin were excluded because they lack the data needed for analysis. The All others category was broadly defined to include all other service categories not otherwise included in the six largest categories of expenditures; it includes the Other service category.

[25] Residential habilitation is defined as services that assist in acquiring, retaining, and improving self-help, socialization, or adaptive skills. To be considered residential services, they must be delivered in a residential setting, such as a group home or private residence, rather than a clinical or nonresidential setting. We could not differentiate most of the claims allocated to round-the-clock as group living or shared living, so they have been classified as residential, unspecified.

After accounting for home-based care and round-the-clock services, expenditures for participant training, coordination and management, and day services accounted for the next largest share of expenditures. Participant training, which includes community supports and independent living skills, accounted for 12 percent of total expenditures. Another 8 percent of expenditures were allocated to coordination and management, which includes case management, housing supports, and transition services. Day services, which include day habilitation and adult day health, totaled 5 percent of MFP expenditures. The remaining categories each represented less than 4 percent of total expenditures.

When the variety of HCBS is assessed at the state level, we found that all 30 MFP grantees analyzed provide home-based services; day services; coordination and management; and equipment, technologies, and modifications (Figure V.2). Overall, states provide a large variety of services. When excluding hospice, unclassified, and the Other service category, we found that two-thirds (20 of the 30 states state grantees) provide 11 or more of the remaining 14 categories of services. Eight states provide 13 categories (data not shown).

Figure V.2. Number of states providing each service category



Source: Mathematica analysis of MFP services files and program participation data files submitted by 30 grantee states for 19,877 MFP participants transitioning by the end of 2012.

Notes: Expenditures include qualified, demonstration, and supplemental services, but excludes all managed care expenditures. Texas was excluded because a high proportion of MFP participants were believed to receive HCBS through managed care. Therefore, their claims information is not equivalent to that for participants in fee-for-service systems. Idaho, Massachusetts, Maine, Nevada, Rhode Island, South Carolina, Tennessee, Vermont, and Wisconsin were excluded because they lack the data needed for analysis.

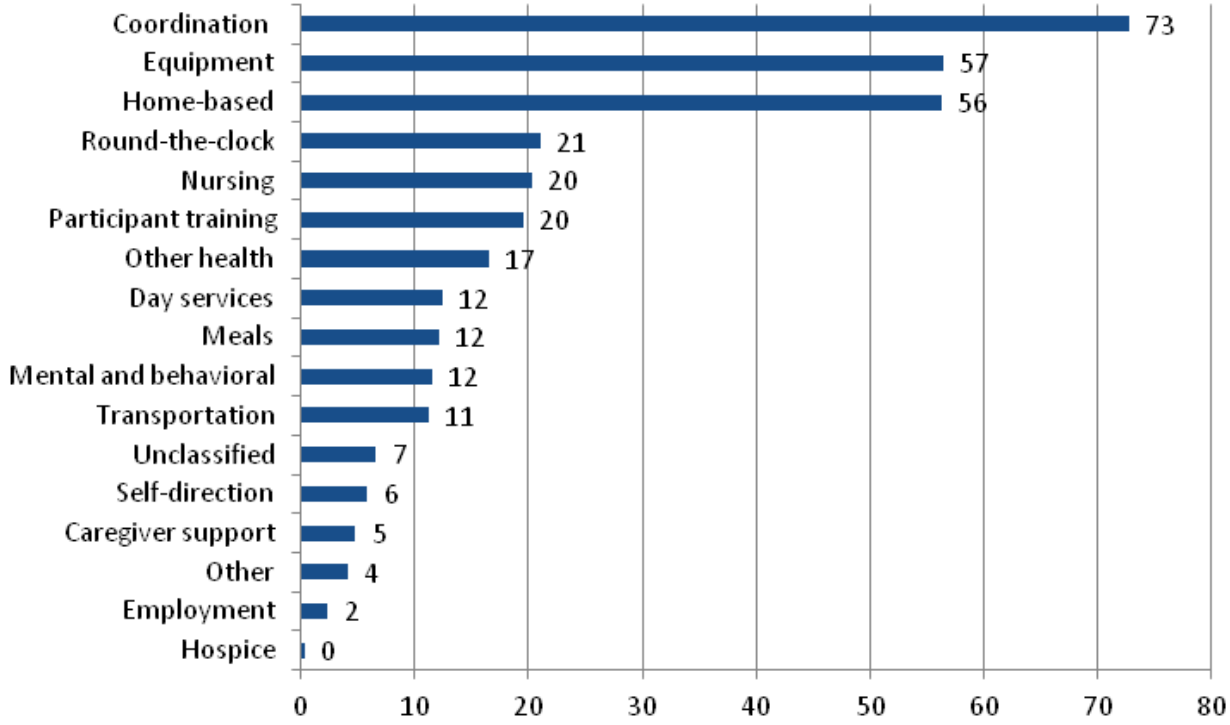
About 73 percent of MFP participants received coordination and management services, making it the most frequently used HCBS category (Figure V.3); however, this percentage likely under-represents the number of MFP participants who receive this service. Some states finance coordination and management with state administrative funds, which means the service does not generate a claim and is therefore undetectable in our analysis. It is possible that other services are provided through administrative funds and are also undetectable through our claims-based analysis. In addition, since last year's report, we have learned that some states finance certain HCBS for MFP participants through their regular state Medicaid funds, and therefore, these services are uncaptured in the data presented here. For a complete analysis, we would need to incorporate HCBS claims that appear in regular Medicaid claims records.[26] It is likely that almost all MFP participants receive some type of coordination and management service, which includes transitional care, housing supports, and case management.

Only two other service categories are used by more than half of MFP participants: (1) equipment, technology, and modifications; and (2) home-based services (Figure V.3). Roughly 20 percent of MFP participants use round-the-clock, nursing, and participant training services. Other health services are used by about 17 percent of participants, and the remaining categories are used by less than 13 percent of all MFP participants.

The claims data available for this study contained little information about the use of self-direction options and the provision of hospice care. Self-direction, which provides Medicaid beneficiaries the option of hiring or supervising their caregivers and managing a budget that they can use to obtain a variety of services, is a service delivery method that typically does not generate service claims. As a result, the claims data used for this study underreport participation in self-direction. Although we were able to identify self-direction for only 9 grantees, according to aggregate data reported by the grantees for 2013, 38 MFP state grantees had operational self-direction programs in place. In these states, 23 percent of MFP participants were self-directing some of their services according to state-reported data (Morris et al. 2014). The use of hospice services may also be underreported because some participants may be obtaining this service through the Medicare program rather than Medicaid and MFP. Our analysis does not account for Medicare services because we only analyze HCBS claims submitted for reimbursement by the state's MFP grant funds.

[26] Analyses presented in chapter IV indicate that roughly 15 percent of HCBS expenditures in the year after transition are captured from Medicaid claims, and the remainder comes from MFP claims. The HCBS found in Medicaid claims for MFP participants could represent a variety of things: (1) states reporting MFP claims in both their regular Medicaid records as well as in the MFP Services File or (2) HCBS reported as regular Medicaid services could be provided outside of the MFP enrollment period when people leave the program early, and (3) some states may not be aware that all HCBS provided while enrolled in MFP can be funded through the state's MFP grant funds.

Figure V.3. Percentage of MFP participants using each service category



Sources: Mathematica analysis of MFP services files and program participation data files submitted by 30 grantee states for 19,877 MFP participants transitioning by the end of 2012.

Notes: Expenditures include qualified, demonstration, and supplemental services, but exclude all managed care expenditures. Texas was excluded because a high proportion of MFP participants were believed to receive HCBS through managed care. Therefore, their claims information is not equivalent to that for participants in fee-for-service systems. Idaho, Massachusetts, Maine, Nevada, Rhode Island, South Carolina, Tennessee, Vermont, and Wisconsin were excluded because they lack the data needed for analysis.

C. Conclusion

We found that MFP programs offer a range of HCBS to participants, with some services dominating expenditures and use. Home-based services and round-the-clock services dominate expenditures, but coordination and management are the most commonly used services. These findings are consistent with the HCBS expenditures and use analysis in the 2012 Annual Report (Irvin et al. 2013).

The analyses in Chapter IV indicate that MFP participants tend to receive $8,500 to $13,000 (or 15 to 30 percent) more HCBS compared with other transitioners, depending on the target population. The analyses presented in this chapter were unable to distinguish the types of HCBS driving this difference, but they can be used to build hypotheses for future investigation. First, we hypothesized that the demonstration and supplemental services to which MFP participants have access explain part of this difference. These are often one-time or short-duration services

(Peebles and Kehn 2014). We cannot identify demonstration or supplemental services using MFP service records, but state-reported budget information showed that 30 percent of HCBS expenditures through 2011 are for such services (Irvin et al., 2013). We also hypothesized that MFP participants are more likely to use HCBS and receive more HCBS relative to other transitioners. More controlled analyses are needed to test these hypotheses.

There are important exclusions to our analyses. First, we excluded MFP participants when a claim or the enrollment record suggested they were in a managed long-term services and supports plan. Although managed care claims are sometimes suitable for research (Byrd et al. 2012), we have yet to validate managed care claims in the MFP services file. Second, we excluded all MFP participants from Texas because of at the time of the analysis we believed that many of the MFP participants in that state were in managed care.[27] Because Texas is the largest MFP program, excluding this state markedly reduces our sample. Third, we excluded HCBS not paid for by MFP in our analyses. When performing the expenditures analysis included in Chapter IV, we were able to quantify HCBS delivered to MFP participants paid through Medicaid state plan or waivers. We will attempt to incorporate managed care enrollees and non-MFP HCBS in future analyses.

Analyzing MFP participants' use of HCBS enables us to understand one component of what happens when someone transitions to the community. Although this chapter has reported expenditures and use by service category, we have yet to fully understand how HCBS spending and use relates to a successful transition, how states can tailor their programs to ensure success, and how enrollees fare after MFP participation ends. Further research into the program could define a successful transition and investigate how HCBS expenditures and use relate to the duration of time spent and quality of life achieved in the community. Understanding the linkage between service use, both overall expenditures and service mix, and the success of transitions is critical to understanding the components of successful transition programs.

[27] Recent discussions with Texas suggest that only certain target populations are in managed long-term services and supports programs and future analyses will include MFP participants from Texas.

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APPENDIX A

SUPPLEMENTAL TABLES

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Table A.1. Number of institutional residents who transitioned under MFP from January 1 to December 31, 2013, by population subgroup

State	Cumulative number through Dec. 2013	Total number	Older adults	People with physical disabilities	People with intellectual or developmental disabilities	People with mental illness	Other
Alabama[a]	8	8	1	7	0	0	0
Arkansas	676	153	30	48	75	0	0
California	1,562	393	124	218	49	2	0
Colorado[a]	23	23	2	11	4	4	2
Connecticut	1,862	574	306	203	27	38	0
Delaware	173	56	21	35	0	0	0
District of Columbia	150	18	12	3	3	0	0
Georgia	1,679	407	113	170	86	38	0
Hawaii	276	69	37	30	2	0	0
Idaho	140	74	21	35	18	0	0
Illinois	1,099	326	86	142	35	63	0
Indiana	1,055	244	132	91	0	21	0
Iowa	273	51	0	0	51	0	0
Kansas	1,099	182	35	110	29	0	8
Kentucky	509	106	26	32	32	6	10
Louisiana	783	315	140	148	27	0	0
Maine	16	15	4	7	0	0	4
Maryland	1,899	371	212	131	20	0	8
Massachusetts	520	255	169	57	12	17	0
Michigan	1,807	335	186	149	0	0	0

Table A.1 (continued)

State	Cumulative number through Dec. 2013	Total number	Older adults	People with physical disabilities	People with intellectual or developmental disabilities	People with mental illness	Other
Minnesota[a]	7	7	1	1	1	3	1
Mississippi	147	88	12	27	49	0	0
Missouri	827	164	33	95	34	0	2
Nebraska	328	96	48	36	6	0	6
Nevada	59	54	16	35	3	0	0
New Hampshire	212	43	21	16	1	0	5
New Jersey	1,060	433	165	94	174	0	0
New York	1,232	371	86	90	94	0	101
North Carolina	379	116	56	23	37	0	0
North Dakota	177	52	14	18	20	0	0
Ohio	4,391	1,250	174	401	112	563	0
Oklahoma	536	172	13	45	114	0	0
Oregon[b]	306	0	0	0	0	0	0
Pennsylvania	1,535	300	179	80	41	0	0
Rhode Island	116	64	41	23	0	0	0
South Carolina[a]	17	17	11	6	0	0	0
Tennessee	801	339	163	154	22	0	0
Texas	8,081	1,366	581	569	216	0	0
Vermont	84	52	36	16	0	0	0
Virginia	647	187	19	40	128	0	0
Washington	3,453	815	445	326	27	17	0
West Virginia[a]	31	31	10	21	0	0	0
Wisconsin	658	251	96	122	33	0	0
Total	40,693	10,243	3,877	3,865	1,582	772	147

Table A.1 (continued)

Source: State MFP Grantee Semiannual Progress Reports for January 1 to June 30, 2013 and July 1 to December 31, 2013, submitted August 30, 2013, and April 11, 2014, respectively.

[a]Alabama, Colorado, Minnesota, South Carolina, and West Virginia implemented new MFP programs during 2013.

[b]Oregon temporarily suspended its MFP program effective October 1, 2010, and stopped enrolling new participants.

Table A.2. Qualified HCBS expenditures, 2011–2013

State	% of 2013 spending target achieved as of December 2013	Qualified HCBS expenditures as of December 2013	Qualified HCBS expenditures as of December 2012	Qualified HCBS expenditures as of December 2011	2012-2013 percent change	2011-2012 percent change
Oregon[a]	232.7	$1,151,563,769	$646,564,141	$648,019,061	78.1%	-0.2%
Mississippi[b]	148.8	$373,453,323	$410,229,263	n.a.	-9.0%	n.a.
Texas	137.0	$4,628,299,597	$3,415,015,919	$3,378,681,461	35.5%	1.1%
Missouri	120.7	$1,273,658,732	$1,164,955,196	$1,032,114,154	9.3%	12.9%
Idaho	119.1	$241,366,809	$225,280,528	$190,543,631	7.1%	18.2%
Pennsylvania	115.7	$3,367,084,596	$2,896,371,697	$2,490,896,723	16.3%	16.3%
North Carolina	110.9	$1,509,284,533	$1,323,249,791	$1,915,779,480	14.1%	-30.9%
Iowa	110.5	$700,516,038	$637,203,118	$568,180,676	9.9%	12.1%
Hawaii	109.2	$201,189,927	$183,453,638	$179,994,236	9.7%	1.9%
Nevada[b]	108.8	$184,736,193	$172,595,409	n.a.	7.0%	n.a.
Colorado[c]	107.3	$902,847,972	n.a.	n.a.	n.a.	n.a.
Tennessee	106.5	$1,055,346,830	$735,297,490	$717,158,749	43.5%	-31.0%
Wisconsin[d]	106.3	$2,260,109,412	$1,964,438,418	$1,800,000,000	15.1%	9.1%
Michigan	104.7	$980,895,235	$955,047,026	$922,033,036	2.7%	3.6%
North Dakota	104.3	$197,252,292	$169,246,963	$129,241,252	16.5%	31.0%
California	103.8	$10,310,281,149	$9,819,315,380	$7,384,175,951	5.0%	33.0%
Louisiana	103.3	$836,384,603	$799,438,763	$768,248,101	4.6%	4.1%
Virginia	101.2	$1,396,893,011	$1,182,874,562	$1,107,374,113	18.1%	6.8%
Nebraska	100.8	$339,832,806	$308,129,544	$297,556,094	10.3%	3.6%
West Virginia[c]	100.0	$618,318,105	n.a.	n.a.	n.a.	n.a.
Vermont[b]	99.6	$58,934,060	$58,285,915	n.a.	1.1%	n.a.
Washington	98.8	$878,457,902	$859,167,918	$859,571,858	2.2%	0.0%
Maryland	97.6	$994,386,322	$869,801,085	$884,326,679	14.3%	-1.6%
Massachusetts	97.2	$3,536,769,981	$3,538,657,330	$3,057,232,175	-0.1%	15.7%
Minnesota[c]	97.1	$2,755,244,833	n.a.	n.a.	n.a.	n.a.

Table A.2 (continued)

State	% of 2013 spending target achieved as of December 2013	Qualified HCBS expenditures as of December 2013	Qualified HCBS expenditures as of December 2012	Qualified HCBS expenditures as of December 2011	2012-2013 percent change	2011-2012 percent change
South Carolina[c]	97.0	$526,281,987	n.a.	n.a.	n.a.	n.a.
Rhode Island	94.4	$470,092,979	NR	$68,577,722	-	-
Oklahoma	92.9	$472,593,570	$457,829,646	$465,198,882	3.2%	-1.6%
Alabama[c]	91.1	$593,124,952	n.a.	n.a.	n.a.	n.a.
Arkansas	84.6	$289,364,648	NR	$273,630,663	-	-
Indiana	84.4	$853,703,487	$841,087,179	$828,657,319	1.5%	1.5%
Kentucky	84.1	$635,238,537	$557,621,639	NR	13.9%	-
Delaware	83.0	$102,327,432	$104,699,997	$117,713,429	-2.3%	-11.1%
New Hampshire[e]	81.9	$267,251,789	$265,265,236	$251,356,942	0.7%	5.5%
New Jersey[e]	80.1	$991,302,449	$961,231,539	$1,147,639,370	3.1%	-16.2%
Georgia	78.2	$945,837,785	$1,091,322,670	$452,536,000	-13.3%	141.2%
New York	76.8	$10,442,280,541	$13,331,710,584	$11,141,127,094	-21.7%	19.7%
Ohio	76.8	$2,683,885,108	$2,436,977,724	$2,281,235,082	10.1%	6.8%
Dist. of Columbia	75.9	$552,126,899	$407,729,935	$488,413,049	35.4%	-16.5%
Maine[b, e]	72.1	$329,090,619	NR	n.a.	-	n.a.
Kansas[e]	68.1[d]	$418,667,500	$581,625,068	$595,878,030	-28.0%	-2.4%
Connecticut[e]	34.5	$1,357,869,500	$4,301,824,725	$3,982,424,577	-68.4%	8.0%
Illinois	0.0	NR	$1,486,642,184	$1,194,034,807	-	24.5%
TOTAL	90.6	$62,684,147,812	$59,160,187,220	$51,619,550,396	6.0%	13.8%

Source: State MFP Grantee Semiannual Progress Reports for July 1 to December 31, 2011; July 1 to December 31, 2012; and July 1 to December 31, 2013.

n.a. = not applicable; NR = not reported.

[a] Oregon's target level of spending does not include expenditures for individuals with intellectual or developmental disabilities; actual spending in 2013 is notably higher than target spending because it includes spending for this population.

[b] Maine, Mississippi, Nevada, and Vermont implemented new MFP programs during 2012.

[c] Alabama, Colorado, Minnesota, South Carolina, and West Virginia implemented new MFP programs during 2013.

[d] Wisconsin's 2011 expenditure figure is an estimate based on data available at the time.

[e] Calendar year 2013 expenditure data are incomplete.

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APPENDIX B

DATA AND METHODS

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A. Data

Our analyses used Medicare and Medicaid claims and enrollment files, Nursing Facility Minimum Data Set (MDS) assessment data, and Money Follows the Person (MFP) claims program participation files. These files allowed us to identify Medicaid beneficiaries who transitioned from institutional care to HCBS at any point from 2008 to 2010, beneficiaries who enrolled in the MFP program, expenditures in the 12 months before and after the transition, and characteristics to perform a propensity score matching analysis. We included Medicare claims from the Medicare Provider Analysis and Review (MedPAR), Carrier, Home Health, Outpatient, Home Health Agency, and Durable Medical Equipment files, Medicaid claims from the Medicaid Analytic eXtract (MAX) Other Therapy (which includes claims for outpatient, laboratory, home health, and premium payments), Long-term Care, and Inpatient files, and claims for MFP-paid HCBS from the MFP services file. Enrollment and demographic information came from the Medicare Master Beneficiary Summary File, the MAX Person Summary file, and the MFP Program Participants file.

B. Identifying MFP Participants and Other Transitioners

We identified MFP transitioners by using the MFP national evaluation enrollment records from 29 states with active grants at some point in 2008 through 2010.[1] Only those MFP participants with at least one MFP-paid HCBS claim were included in this study.

The comparison group of Medicaid beneficiaries who transitioned from institutional care to HCBS outside of the MFP program during the same 2008 through 2010 period was selected from all states except for Maine because of unavailable MAX data. In brief, the procedure to define a transition identified Medicaid beneficiaries with at least 3 contiguous months of institutional long-term care claims followed by a claim for HCBS (or record of HCBS waiver enrollment) in the month of transition or in either of the next two months. See Irvin et al. 2012 for a detailed description for identifying transitions outside of the MFP program is available elsewhere.

C. Target Populations

We stratify our analysis based on the target population category for all transitioners. In general, target populations are intended to capture the care needs of transitioners and reflect populations targeted by MFP programs. In the past, we relied solely on a Medicaid beneficiary's age and the institution from which they transitioned from. This study takes a different approach by also using diagnosis and procedure codes to identify people with mental illness.

Transitioners were divided into four populations: (1) older adults 65 and older who transition from nursing homes, (2) people with physical disabilities under the age of 65 who transition from nursing homes, (3) people with intellectual disabilities who transition from ICFs-IID, and (4) people with mental illness. People with mental illness include those transitioning

[1] States with MFP transitioners during the 2008 to 2010 period include Arkansas, California, Connecticut, Delaware, District of Columbia, Georgia, Iowa, Illinois, Indiana, Kansas, Kentucky, Louisiana, Maryland, Michigan, Missouri, Nebraska, New Hampshire, New Jersey, New York, North Carolina, North Dakota, Ohio, Oklahoma, Oregon, Pennsylvania, Texas, Virginia, Washington, and Wisconsin.

from psychiatric facilities or those from other facilities who had a claim with relevant diagnostic, procedure, revenue center, or provider codes for mental illness during the 24-month observation period (12 months before or after transition). If an individual could be classified into more than one category, the mental illness group received priority.

Table B.1 shows the sample size of the MFP participants and other transitioners and the distribution of each target population. MFP participants are a much smaller group of transitioners during the 2008 to 2010 period. For all transitioners, the new mental illness definition substantially reduces the number of people categorized as being in the older adults, physical disabilities, or intellectual disabilities target populations compared to the old definition that relied solely on the type of institution from which they transitioned from. The proportion of people re-categorized into the mental illness group was similar for MFP and other transitioners.

Table B.1. Comparison of Two Approaches to Defining the Target Populations

	Definition used in this chapter		Previous definition	
Target Population	MFP Participants 2008 to 2010	Transitioners from 2008 to 2010	MFP Participants 2008 to 2010	Transitioners from 2008 to 2010
Number of people in unmatched sample	4,972	29,057	4,972	29,057
Older adults	10%	19%	26%	47%
Physical disabilities	15%	11%	42%	32%
Intellectual disabilities	10%	5%	31%	16%
Mental illness	64%	65%	--	--
People who transitioned from psychiatric facilities[b]	--	--	0%	5%

Source: Mathematica analysis of MFP transitioners from 29 states and Medicaid beneficiaries who transition outside of the program from 49 states from 2008 through 2010.

Note: Previously, target populations in the MFP evaluation did not consider mental illness, which increased the older adults, physically disabled, and intellectually disabled populations.

[b] Using the old definition, the only way to identify individuals with mental illness was if they transitioned from a psychiatric facility.

D. Exclusions

We excluded people who transitioned for the following reasons: (1) enrollment in Medicare or Medicaid managed care, (2) no record of MFP claims for HCBS during the MFP enrollment period, (3) record of Medicaid-paid hospice services in the month of transition or in either of the next two calendar months, (4) death within the first 12 months after transition, and (5) more than a 1-month gap in Medicaid enrollment in the 12 months before or after transition.

E. Measures of Expenditures

The expenditures analysis takes the perspective of Medicaid and Medicare. There are three expenditure categories of interest: (1) total, (2) long-term services and supports (LTSS), and (3) medical care. Total expenditures include all Medicaid-paid services and Medicare-paid Part A and Part B services (for those dually-eligible for Medicare and Medicaid). Medicaid- or Medicare-paid prescription drugs were excluded. LTSS expenditures consist of all HCBS and institutional long-term care payments made by Medicaid. Medical care expenditures are all Medicaid payments not otherwise classified as LTSS expenditures plus all Medicare expenditures. Expenditures were defined using the "amount paid" field on Medicare and Medicaid claims, with one exception: we summed the Medicare payment amount and the pass through amount for inpatient and skilled nursing facility claims. Based on the year of transition, we inflated all expenditures by the annual medical care consumer price index to represent 2011 United States dollars. We did not consider housing grants, out-of-pocket expenditures, or any administrative expenses. Because we identified transitions between 2008 and 2010, the pre- and post-transition expenditures may reach into 2007 or 2011, respectively.

F. Measures of Utilization

The utilization variables capture emergency department (ED) visits and inpatient stays. We distinguished between two types of ED visits: those that resulted in an inpatient stay, and those that did not. We used Medicare and Medicaid claims to define the utilization variables. Inpatient admissions were identified using the MedPAR and MAX inpatient files. ED visits resulting in an inpatient admission were identified in the MedPAR and MAX inpatient files where the source of the inpatient admission for a MedPAR record was the ED or the UB-92 Revenue Center Code in the MAX IP file indicated ED services. ED visits not resulting in an inpatient admission were identified in the Medicare Outpatient files using revenue center and procedure codes that indicated services furnished in an ED. In the Medicaid OT file, revenue center codes, place of service, and procedure codes were used to identify ED visits not resulting in a hospitalization. Table X.2 presents the revenue center and procedure codes used to identify ED use.

Table B.2. UB 92 Revenue Center Codes and CPT Codes Used to Identify ED Use

Code Type	Codes
UB-92 Revenue Center	0450-0459, 0981
CPT	99281-99285

G. Comparison Group Selection

The key methodological challenge in estimating the effects of MFP program participation on expenditures is approximating the counterfactual – the outcomes that would have happened in the absence of MFP. Those who transition outside of the MFP program are a non-random, select group of transitioners that are most likely different from MFP participants.

To find a group of transitioners that resemble the sample of MFP participants, we used a matching procedure commonly referred to as propensity score matching (Rosenbaum and Rubin 1983). Matching allows for an approximation of an experimental design by assuming that the decision to participate is random conditional on a set of observable characteristics. The propensity score is estimated from a logistic regression fit on our analytic sample that includes both MFP participants and other transitioners. The dependent variable is MFP participation, and the independent variables (Table B.3) include factors that are hypothesized to be related to MFP program enrollment.

Table B.3. Independent Variables Included in the Propensity Score Estimation

Variable Name
Gender
Age at time of transition
Minority
Total expenditures in the year prior to transition
Number of conditions identified in the year prior to transition (CDPS)[a]
ED visit resulting in an inpatient admission in the year prior to transition
ED visit not resulting in an inpatient admission in the year prior to transition
Inpatient admission in the year prior to transition
MDS Level of Care[b]
Low
Medium
High
MDS ADL Summary Score (0-28)
0
1-6
7-15
16-21
22-28

Variable Name
MDS Cognitive Performance Scale (0-6)
0
1
2
3
> 4

Note: MDS Variables only included for people transitioning from nursing facilities. The ADL summary score captures a beneficiary's ability to perform the following ADLs independently: personal hygiene, locomotion, toilet use, eating, dressing, bed mobility and transferring. The measure ranges from 0 to 28, with lower scores representing greater independence.

The cognitive performance scale combines information on memory impairment, level of consciousness, and executive function, with scores ranging from 0 (intact) to 6 (very severe impairment).

[a] The CDPS is a hierarchical diagnostic classification system developed to describe the severity of illness among Medicaid beneficiaries (Kronick et al. 2000). Using ICD-9 diagnosis codes, the CDPS constructs major categories based on body systems (such as cardiovascular), or condition (such as diabetes).

[b] See Ross et al. 2012 for details on the construction of the level of care indicators.

ADL = activities of daily living; ED = emergency department visit; CDPS = Chronic Disability and Payment System

To select individuals to serve as MFP participants' counterfactuals, we implemented the matching process in three steps:[2]

1. Estimate the propensity score. Using logistic regression, we modeled the probability of transitioning from an institution to the community using MFP services. We fit separate models for each target population. Furthermore, we fit two models for the people with mental illness target population—one for those who transition from nursing homes and have MDS assessment data available, and one for those who transition from other settings and do not have MDS assessment data.
2. Select the single nearest neighbor (with replacement). There are multiple approaches for matching using propensity scores, and we used the single nearest neighbor approach with replacement. Using the results from the above models, for each participant we select the potential comparison group member with the closest absolute propensity score to serve as their counterfactual. To minimize potential bias in our estimates, the matching process is

[2] The propensity score estimation, matching, and testing algorithms were implemented using Stata's pscore (Becker and Ichino [2002]), and Leuven and Sianesi's (2003) psmatch2 and ptest routines.

conducted with replacement, so potential comparison group members can form the counterfactual for more than one participant. If potential comparison group members are selected more than once, that person received an additional weight in the final matched analysis. We also imposed the common support restriction, which excluded MFP participants with a propensity score either lower than the minimum score of other transitioners or higher than the maximum score. This led to the exclusion of one older adult MFP participant and three MFP participants with intellectual disabilities.

3. Determine bias reduction after matching. To determine the quality of our matches, we compared the means and standardized bias of the matching variables for the MFP participants to those of all members of the potential comparison group and then to the matched members. The absence of statistically significant differences in group means between MFP participants and the matched comparison group, as well as a reduction in absolute bias, suggest that our matching produced a reasonable comparison group, given our set of covariates.

Using matching to select a comparison group will produce unbiased estimates if two assumptions are met: (1) the set of observable characteristics used in the matching procedure includes all the factors that are related to both participation and the outcomes and (2) participants and comparison group members are "balanced" on observable characteristics conditional on their propensity score–that is, for each participant, there needs to be matched comparison group member(s) similar to the participant on observed characteristics (Rosenbaum and Rubin 1985). To help increase the likelihood that the former condition was met, we included in our matching process measures from the following domains: (1) total expenditure and selected service utilization in the year prior to transition, (2) presence of medical conditions, (3) demographics, and (4) health status and level of need measured prior to transition. To determine whether the latter condition was met, we performed several statistical tests to assess the quality of our matches.

H. Assessing the Matching Quality

Following Caliendo and Kopeinig (2008), we examined differences in the propensity scores, as well as the means, standardized bias,[3] and joint significance of the variables used in the matching process. We found that our models produced a matched comparison group with transitioners that looked similar to MFP participants for the characteristics included in the model. The absolute differences in the propensity score between the MFP participant and matched comparison group members were small (Table B.4).

[3] The difference of sample means in the treated and matched control subsamples as a percentage of the square root of the average of sample variances in both groups (Rosenbaum and Rubin [1985]).

Table B.4. Absolute Differences in Propensity Score, by Target Group

Sample	Mean	Standard Deviation	Median	Interquartile Range	Min	Max
Older adults	0.00006	0.00032	0.00001	<0.00001 – 0.00003	<0.00001	0.00499
People with physical disabilities	0.00010	0.00028	0.00004	0.00001 – 0.00009	<0.00001	0.03600
People with intellectual disabilities	0.00010	0.00016	0.00005	0.00002 – 0.00010	<0.00001	0.00114
People with mental illness	0.00002	0.00005	<0.00001	<0.00001 – 0.00001	0.00000	0.00188

To further assess the quality of the matches, we verified that the matching procedure produced few differences in the mean values between the MFP and comparison groups for the observed variables included in the models (Table B.5). To do so, we compare the means of covariate values conditional on the propensity score to test for differences between the MFP and comparison group for each target population. After matching the only remaining statistically significant difference at the 5 percent level was the MDS ADL summary score (16-21) for people with mental illness. The propensity score models also reduced the overall differences in means between the two groups, as measured by the standardized bias, in each of the regression model for each target group (results not shown in tables).

Table B.5. Means and P-Values for Independent Variables Included in the Propensity Score Estimation

Characteristic (Mean Values)		Older Adults			People with Physical Disabilities			People with Intellectual Disabilities			People with Mental Illness		
		MFP	Other Trans-itioners	p >|t|	MFP	Other Trans-itioners	p >|t|	MFP	Other Trans-itioners	p >|t|	MFP	Other Trans-itioners	p >|t|
Female	Unmatched	65.8%	73.5%	0.000	39.8%	49.1%	0.000	36.1%	39.4%	0.185	49.2%	59.4%	0.000
	Matched	65.9%	62.4%	0.241	39.9%	37.6%	0.364	36.3%	34.9%	0.650	49.2%	50.3%	0.410
Age	Unmatched	77.7	80.6	0.000	49.4	50.2	0.132	44.3	42.5	0.028	54.0	58.9	0.000
	Matched	77.8	77.8	0.884	49.5	49.3	0.833	44.1	43.9	0.811	54.0	53.9	0.792
Minority	Unmatched	37.7%	37.2%	0.839	46.9%	46.2%	0.736	29.0%	26.1%	0.207	31.8%	31.5%	0.742
	Matched	37.6%	40.3%	0.370	46.7%	44.6%	0.403	28.6%	30.5%	0.496	31.8%	32.0%	0.830
Number of CDPS conditions	Unmatched	12.3	12.2	0.229	8.9	9.6	0.000	7.4	7.6	0.250	11.1	11.5	0.000
	Matched	12.3	12.2	0.594	8.9	8.9	0.703	7.4	7.4	0.946	11.1	11.3	0.094
Total expenditures ($)	Unmatched	87,804	86,614	0.631	88,845	107,918	0.000	136,587	214,833	0.000	104,363	116,498	0.000
	Matched	87,772	89,828	0.565	88,949	87,421	0.616	136,487	136,923	0.930	104,363	103,030	0.481
ED visit resulting in an inpatient stay	Unmatched	43.8%	52.3%	0.000	33.1%	45.2%	0.000	11.1%	10.4%	0.648	31.6%	44.1%	0.000
	Matched	43.8%	43.6%	0.950	33.2%	32.9%	0.912	11.2%	10.8%	0.843	31.6%	32.4%	0.453
ED visit not resulting in an inpatient stay	Unmatched	50.2%	59.1%	0.000	56.0%	67.0%	0.000	28.4%	33.3%	0.037	52.2%	64.8%	0.000
	Matched	50.3%	51.5%	0.708	56.1%	55.2%	0.714	28.6%	27.8%	0.783	52.2%	52.5%	0.822
Inpatient stay	Unmatched	55.1%	65.7%	0.000	47.8%	64.5%	0.000	14.4%	16.2%	0.333	43.8%	58.1%	0.000
	Matched	55.2%	54.0%	0.707	48.0%	49.5%	0.567	14.5%	14.9%	0.861	43.8%	45.8%	0.097
MDS Level of Care: Medium	Unmatched	46.7%	41.4%	0.020	46.7%	45.4%	0.508				46.1%	43.5%	0.023
	Matched	46.6%	45.0%	0.616	46.9%	45.7%	0.638	28.4%	33.3%	0.037	46.1%	48.5%	0.103
MDS Level of Care: High	Unmatched	36.7%	48.3%	0.000	32.1%	42.5%	0.000	28.6%	27.8%	0.783	28.1%	39.7%	0.000
	Matched	36.8%	36.6%	0.948	32.2%	33.0%	0.739				28.1%	27.5%	0.610
MDS Cognitive Performance Scale: 1	Unmatched	16.8%	13.9%	0.068	18.4%	17.4%	0.489	14.4%	16.2%	0.333	24.0%	19.2%	0.000
	Matched	16.8%	16.4%	0.867	18.5%	16.0%	0.215	14.5%	14.9%	0.861	24.0%	23.4%	0.654

Table B.5 (continued)

Characteristic (Mean Values)		Older Adults			People with Physical Disabilities			People with Intellectual Disabilities			People with Mental Illness		
		MFP	Other Trans-itioners	p >|t|	MFP	Other Trans-itioners	p >|t|	MFP	Other Trans-itioners	p >|t|	MFP	Other Trans-itioners	p >|t|
MDS Cognitive Performance Scale: 2	Unmatched	22.1%	17.5%	0.010	11.5%	10.2%	0.276	-	-	-	16.9%	16.1%	0.366
	Matched	22.1%	21.3%	0.762	11.4%	10.6%	0.618	-	-	-	16.9%	17.7%	0.439
MDS Cognitive Performance Scale: 3	Unmatched	17.4%	23.7%	0.001	9.1%	10.3%	0.304	-	-	-	15.3%	22.8%	0.000
	Matched	17.4%	19.8%	0.335	9.1%	9.4%	0.857	-	-	-	15.3%	14.5%	0.413
MDS Cognitive Performance Scale: ≥ 4	Unmatched	11.9%	19.0%	0.000	14.4%	16.9%	0.090	-	-	-	10.4%	13.1%	0.000
	Matched	11.9%	11.2%	0.696	14.4%	16.6%	0.249	-	-	-	10.4%	9.4%	0.236
MDS ADL Summary Score: 1-6	Unmatched	16.8%	12.0%	0.002	18.7%	15.4%	0.030	-	-	-	24.4%	18.3%	0.000
	Matched	16.8%	17.8%	0.680	18.8%	15.2%	0.071	-	-	-	24.4%	24.3%	0.972
MDS ADL Summary Score: 7-15	Unmatched	29.3%	28.5%	0.690	26.2%	26.6%	0.811	-	-	-	27.6%	29.8%	0.031
	Matched	29.4%	28.0%	0.629	26.2%	24.6%	0.473	-	-	-	27.6%	29.7%	0.125
MDS ADL Summary Score: 16-21	Unmatched	31.3%	32.4%	0.608	21.8%	25.3%	0.046	-	-	-	20.8%	26.7%	0.000
	Matched	31.3%	31.1%	0.946	21.9%	23.0%	0.617	-	-	-	20.8%	20.3%	0.641
MDS ADL Summary Score: 22-28	Unmatched	12.5%	21.3%	0.000	16.1%	21.9%	0.000	-	-	-	9.2%	14.0%	0.000
	Matched	12.5%	12.5%	1.000	16.2%	18.3%	0.270	-	-	-	9.2%	8.0%	0.163

Source: Mathematica analysis of MFP transitioners from 29 states and Medicaid beneficiaries who transition outside of the program from 49 states from 2008 through 2010.

Note: Reference categories for the categorical variables included in the model are: MDS Level of Care: Low; MDS Cognitive Performance Scale: 0; and MDS ADL Summary Score: 0.

As a final check, we conducted a likelihood ratio test on the joint significance of all characteristics included in the propensity score model. Before matching, the independent variables were jointly statistically significant (Unmatched Column, Table B.6), but these independent variables were not jointly significant when comparing MFP participants to the matched comparison group (Matched Column, Table B.6).

Table B.6. Joint Significance Tests, by Target Group

	Unmatched		Matched	
Sample	LR chi2	p-value	LR chi2	p-value
Older Adults	142.21	0.000	5.58	0.998
People with physical disabilities	153.64	0.000	11.17	0.887
People with intellectual disabilities	62.95	0.000	1.39	0.994
People with mental illness	641.93	0.000	13.78	0.743

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