MATHEMATICA
Policy Research

**FROM:** Mathematica Policy Research **DATE:** 9/05/2016

**SUBJECT**: Quality Measure Development and Maintenance for CMS Programs Serving Medicare-Medicaid Enrollees and Medicaid-Only Enrollees:
**Questions for Public Comment on Medicaid HCBS Measure**

***Project Overview:***
The Centers for Medicare & Medicaid Services (CMS) has contracted with Mathematica Policy Research and its partners, the American Medical Association, Brandeis University, the National Committee for Quality Assurance, and Truven Health Analytics, to develop measures for the following groups of Medicaid beneficiaries: (1) those eligible for both Medicare and Medicaid, or "dual enrollees"; (2) those receiving long-term services and supports (LTSS) through managed care organizations; and, (3) people with complex needs and high costs, substance use disorders, and physical and mental health integration needs. The contract number is HHSM-500-2013-13011I, Task Order #HHSM-500-T0004.

***Documents and Measures for Comment:***
As part of its measure development process, CMS requests interested parties to submit comments on the candidate or concept measures that may be suitable for this project.

This call for public comment concerns the measure specifications, and justification, for measures for one (1) measure for Medicaid beneficiaries who receive home and community-based services (HCBS).

- HCBS-1 – Admission to an Institution from the Community

The Measure Information Form (MIF) and Measure Justification Form (MJF) for this measure are available in separate files here: <Duals &HCBS measures MIFs & MJFs.zip>

The project team seeks public comment on the following questions:

General Questions

1. Does the candidate measures capture an important domain of quality for the specified Medicaid population?
2. Are you aware of any new or additional measures (beyond those listed in the MJF) that address this quality domain and have already been validated and widely used, are now under development, or will be submitted for consensus-based entity (NQF) endorsement?
3. Are the measure specifications in the MIF clear, for example, the numerator, denominator, and any potential exclusions? What should be more clearly defined?
4. Are any revisions to the specifications needed either to make measure reporting more feasible, or to include or exclude certain individuals or events?
5. Are the proposed reporting levels, such as state, region, or specified Medicaid programs (i.e. HCBS waivers) for the measure appropriate?

6. Are you aware of any new or additional studies that should be included in the MJF that support (or weaken) the justification for developing the measure? If so, please describe the findings and provide a full citation.

Questions specific to HCBS-1

1. HCBS-1: The measure specifications for HCBS-1 include enrollees in 1915c HCBS waivers and users of HCBS state plan benefits. Is it useful and appropriate to report the measure at the detailed waiver or state plan benefit level, or should measure results be reported at an aggregated level across these programs?
2. HCBS-1: How should HCBS use for FFS beneficiaries be defined? Should the denominator count people using any type of HCBS, such as personal care assistance, durable medical equipment and non-emergency transportation? Or should it be defined based on certain types of HCBS, or specified combinations of HCBS use?
3. HCBS-1: Should the measure denominator exclude individuals who do not use HCBS for a minimum length of time? If so, what should this time period be and why?

***Public Comment Instructions:***

- If you are providing comments on behalf of an organization, include the organization's name and contact information.
- If you are commenting as an individual, submit identifying or contact information.
- Please do not include personal health information in your comments.
- In the subject line of your message, put **Public Comments Duals-HCBS**
- Send your comments **by close of business September 29, 2016** to MedicaidQualMeasures@mathematica-mpr.com

# Measure Information Form

## *Project Title:*

Quality Measure Development and Maintenance for CMS Programs Serving Medicare-Medicaid Enrollees and Medicaid-Only Enrollees

## *Project Overview:*

The Centers for Medicare & Medicaid Services (CMS) has contracted with Mathematica Policy Research and its partners, the American Medical Association, Brandeis University, the National Committee for Quality Assurance, and Truven Health Analytics, to develop measures for the following populations of Medicaid beneficiaries:

- People eligible for both Medicare and Medicaid, or "Dual enrollees"
- People receiving long-term services and supports (LTSS) through managed care organizations
- People with substance use disorders, beneficiaries with complex needs, physical and mental health conditions, or who receive LTSS in the community, corresponding to the priority areas of the Medicaid Innovation Accelerator Program

The contract name is Quality Measure Development and Maintenance for CMS Programs Serving Medicare-Medicaid Enrollees and Medicaid-Only Enrollees. The contract number is HHSM-500-2013-13011I, Task Order # HHSM-500-T0004.

## *Date:*

Information included is current on July 13, 2016.

## *Measure Name*

Admission to an institution from the community among Medicaid fee-for-service (FFS) home and community-based service (HCBS) users.

## *Descriptive Information*

### Measure Name (Measure Title De.2.)

Admission to an institution from the community among Medicaid FFS HCBS users.

### Measure Type De.1.

Outcome

### Brief Description of Measure De.3.

Rate of institutional admissions (nursing facility or intermediate care facility for individuals with intellectual disabilities [ICF/IID]) per 1,000 months of HCBS use among Medicaid FFS beneficiaries age 18 and older. Two rates will be reported: (1) one for short stays, defined as stays of fewer than or equal to 100 days in the institution, and (2) one for long stays, defined as stays greater than 100 days in the institution. Time frame for rate: 1 year.

### If Paired or Grouped De.4.

The currently proposed measure for Medicaid FFS HCBS users is paired with a measure specified for Medicaid Managed Long-Term Services and Supports (MLTSS) enrollees called "Admission to an Institution from the Community."

### Subject/Topic Areas De.5.

This measure is for a new topic area: community integration - long-term services and supports (LTSS).

This new topic area is focused on improving the ability of Medicaid beneficiaries receiving community-based LTSS, also referred to as home and community-based services (HCBS), to live in home or community-based settings as long as possible.[1]

### Crosscutting Areas De 6.

Care Coordination: Care Coordination.

## *Measure Specifications*

### Measure-specific Web Page S.1.

Not applicable. This measure is still under development.

### If This Is an eMeasure S.2a.

Not applicable. This is not an eMeasure.

[1] https://www.medicaid.gov/state-resource-center/innovation-accelerator-program/community-integration-ltss/ci-ltss.html

### Data Dictionary, Code Table, or Value Sets S.2b.

Not applicable. This measure is still under development.

### For Endorsement Maintenance S.3.

Not applicable. This measurement is still under development.

### Numerator Statement S.4.

Number of admissions to a nursing facility or ICF/IID during the measurement year among FFS Medicaid beneficiaries 18 and older who are receiving Medicaid HCBS services and meet HCBS eligibility criteria (e.g., minimum length of HCBS use, which will be defined during the testing period).

Numerator statement may change as this measure is still under development.

### Time Period for Data S.5.

The proposed data period is 12 months (calendar year).

However, the optimal data period will be determined during the measure testing phase.

### Numerator Details S.6.

The number of admissions to an institution (nursing facility or ICF/IID) during an eligible month of HCBS use. An eligible month must be preceded by a minimum length of HCBS use, which will be defined during the testing period. Admissions representing transfers from other institutions are excluded, except for transfers from hospitals when the hospital admission occurred during an eligible month of HCBS use. A beneficiary can be counted more than once in the numerator if the individual had more than one admission to a nursing facility or ICF/IID during eligible months of HCBS use during the measurement year.

Value set codes constituting nursing facilities and ICF/IIDs will be compiled and presented in forthcoming work.

Numerator details may change as this measure is still under development.

### Denominator Statement S.7.

Number of months of HCBS use in the measurement year for Medicaid FFS HCBS users age 18 and older who are receiving Medicaid HCBS services and meet HCBS eligibility criteria (e.g., minimum length of HCBS use, which will be defined during the testing period).

Denominator statement may change as this measure is still under development.

### Target Population Category S.8.

Populations at Risk: Populations at Risk
Populations at risk: Dual-eligible beneficiaries
Populations at risk: Individuals with multiple chronic conditions
Senior Care

### Denominator Details S.9.

Age: 18 and older
Benefit: Medicaid FFS HCBS users
Eligibility Criteria: Sum of Medicaid HCBS beneficiary months meeting HCBS eligibility criteria (e.g., minimum length of HCBS use, which will be defined during the testing period) during the measurement year.

Denominator details may change as this measure is still under development.

### Denominator Exclusions (NQF Includes "Exceptions" in the "Exclusion" Field) S.10.

Exclusions for minimum length of HCBS use will be explored during testing. Denominator exclusions may change as this measure is still under development.

### Denominator Exclusion Details (NQF Includes "Exceptions" in the "Exclusion" Field) S.11.

To be determined. Denominator exclusion details may change as this measure is still under development.

### Stratification Details/Variables S.12.

Potential strata include:

1. Age: 18 – 64 vs. 65 and older
2. Type of institution: NF or ICF/IID
3. Dual-eligible vs. Medicaid-only beneficiary

The need for stratification will be evaluated during the measure testing phase.

### Risk Adjustment Type S.13.

The need and methods for risk-adjustment will be evaluated during the measure testing phase.

### Statistical Risk Model and Variables S.14.

The need and methods for risk-adjustment will be evaluated during the measure testing phase.

### Detailed Risk Model Specifications S.15.

The need and methods for risk-adjustment will be evaluated during the measure testing phase.

### Type of Score S.16.

Rate/proportion.

### Interpretation of Score S.17.

Better quality is indicated by a lower rate. A higher rate of the number of admissions to an institution from the community per 1,000 beneficiary months is associated with lower quality of care, lower access to needed services and supports, and/or less care coordination. If HCBS beneficiaries are receiving high quality community-based services, they should have fewer institutional admissions, a shorter length of stay in institutions, and longer time in home or community settings.

### Calculation Algorithm/Measure Logic S.18.

Step 1: Determine eligible population (denominator).

Step 1A: Determine eligible population of Medicaid FFS HCBS users age 18 and older for each month during the measurement year.

Step 1B: Sum all eligible beneficiary HCBS months in the measurement year.

Step 2: Identify the numerator.

Step 2A: Identify the number of admissions to an institution (nursing facility or ICF/IID) from the community during an eligible month of HCBS use in the measurement year.

Step 2B: Sum all eligible short-term admissions in the measurement year (≤90 or 100 days).

Step 2C: Sum all eligible long-term-term admissions in the measurement year (>90 or 100 days).

Step 3: Calculate two rates for short-term and long-term admissions.

Step 3A: Calculate the short-term admission rate by dividing the number of short-term admissions (Step 2B) by the number of beneficiary-months (Step 1B) and multiply by 1,000.

Step 3B: Calculate the short-term admission rate by dividing the number of short-term admissions (Step 2C) by the number of beneficiary-months (Step 1B) and multiply by 1,000.

### Calculation Algorithm/Measure Logic Diagram URL or Attachment S.19.

No diagram provided.

### Sampling S.20.

Not applicable.

### Survey/Patient-Reported Data S.21.

Not applicable.

### Missing Data S.22.

The approach for addressing missing data will be determined during the measure testing phase.

### Data Source S.23.

Administrative Claims.

### Data Source or Collection Instrument S.24.

Both the numerator and denominator for this measure are based on administrative claims data.

### Data Source or Collection Instrument (Reference) S.25.

No instrument provided.

### Level of Analysis S.26.

Medicaid 1915(c) HCBS Waiver Program
HCBS State Plan Benefit
Total State-Level HCBS Population

The level of analysis may change as this measure is still under development.

### Care Setting S.27.

Post-acute/Long Term Care Facility: Nursing Home/Skilled Nursing Facility
Other: ICF/IID
Other: Community Settings

### Composite Performance Measure S.28.

Not applicable.

# Measure Justification Form

## *Project Title:*

Quality Measure Development and Maintenance for CMS Programs Serving Medicare-Medicaid Enrollees and Medicaid-Only Enrollees

## *Project Overview:*

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- People eligible for both Medicare and Medicaid, or "Dual enrollees"
- People receiving long-term services and supports (LTSS) through managed care organizations
- People with substance use disorders, beneficiaries with complex needs, physical and mental health conditions, or who receive LTSS in the community, corresponding to the priority areas of the Medicaid Innovation Accelerator Program

The contract name is Quality Measure Development and Maintenance for CMS Programs Serving Medicare-Medicaid Enrollees and Medicaid-Only Enrollees. The contract number is HHSM-500-2013-13011I, Task Order # HHSM-500-T0004.

## *Date:*

Information included is current on August 31, 2016

## *Measure Name:*

Admission to an institution from the community among fee-for-service (FFS) Medicaid home and community-based service (HCBS) users.

## *Type of Measure*

Outcome

## *Importance*

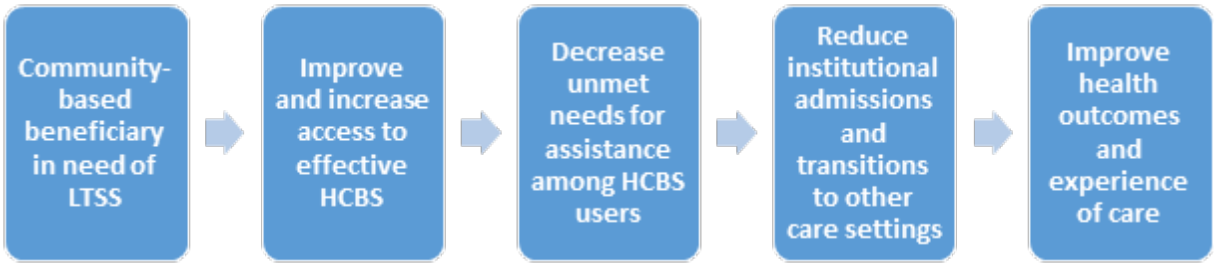
### 1a—Opportunity for Improvement

Most individuals with long-term services and supports (LTSS) needs want to live at home or in community settings, and the Supreme Court *Olmstead* decision obligates states to provide LTSS in the most integrated setting appropriate to the needs of qualified beneficiaries (Guo et al. 2015; Keenan 2010; Reaves and Musumeci 2015; Rosenbaum 2000). Although states have made significant progress in rebalancing their LTSS systems to provide more HCBS, many Medicaid beneficiaries still reside in institutions, a costly alternative that can be associated with a number of adverse outcomes. A key goal of HCBS is to delay admission to an institution or to divert people from them, and evidence suggests that there is significant variation across states in the rate of institutional admissions among Medicaid HCBS users (Schmitz et al. 2014).

1a.1.

This is a measure of health outcome. It is the rate of institutional admissions (nursing facility or intermediate care facility for individuals with intellectual disabilities [ICF/IID]) per 1,000 months of HCBS use among Medicaid FFS beneficiaries age 18 and older.

### 1a.2.—Linkage




1a.2.1 Rationale

Most individuals with LTSS needs want to live at home or in community settings (Guo et al. 2015; Keenan 2010). Medicaid is the largest payer of LTSS, and although states have made significant progress in rebalancing their LTSS systems to provide more HCBS, many Medicaid beneficiaries still reside in institutions. Approximately 1 million Medicaid beneficiaries reside in institutions (Harris-Kojetin et al. 2013; CMS 2013). In 2009, about 443,000 individuals were admitted to a nursing home for the first time, and about 6,000 individuals were newly admitted to ICF/IIDs (Schmitz et al. 2014). Spending for HCBS varies considerably across states; about 25.5 percent of Medicaid LTSS expenditures goes to HCBS in Mississippi, and about 78.9 percent goes to HCBS in Oregon (Eiken et al. 2015).

Institutional admissions are costly and can be associated with a number of adverse outcomes. A key goal of HCBS is to delay or divert institutional admissions, so it is important to understand institutional admission rates among Medicaid HCBS users. This measure is proposed to fill this important gap.

The measure is intended to affect care by reducing institutional admissions among FFS Medicaid HCBS beneficiaries by providing policy-relevant information, stratified by important subgroups of HCBS users, to states about the performance of their HCBS systems. States can improve performance on this measure through targeted and effective provision of HCBS, including person-centered care planning, timely access to high quality services, and coordination across services and providers (Felix et al. 2011; Greiner et al. 2013; Sands et al. 2012). Reducing the use of institutions through better HCBS should lead to improvements in health outcomes, including an increase in quality of life and care satisfaction, a decrease in unmet needs, and a decrease in care transitions and adverse outcomes.

It is important to note that a specific performance target does not exist, and the purpose of the measure is to focus on the provision of effective HCBS. The measure's intent is to help gauge the strength and performance of HCBS systems across states, not to discourage the use of all institutional care.

*Reduction in the need for institutional care*

Research has shown that HCBS can reduce the need for nursing home care. In a study examining risk factors for long-term nursing home placement among participants in the Connecticut Home Care Program for Elders, those receiving personal care assistance services had significantly lower odds of nursing home placement (Greiner et al 2014). Focusing on the effects of the volume of HCBS care on nursing home placement, Sands and colleagues (2012) found that among enrollees in Indiana Medicaid's Aged and Disabled Waiver program, each five-hour additional increment in personal care and homemaking services significantly reduced the risk for nursing home placement. In terms of a quantifiable reduction in the use of nursing home care, Guo et al. (2015) found that an additional $1,000 increase in the use of Medicaid-funded home care in the Case and Counseling Demonstration and Evaluation program reduced nursing facility use by 2.75 days per year on average. Overall, these studies indicate that not only particular types of HCBS but also a greater volume of HCBS can reduce the use of nursing home care.

*Impact on health outcomes*

Most individuals with LTSS needs prefer to live at home or in community settings and avoid admissions to nursing homes and other institutions (Guo et al. 2015; Keenan 2010). Keeping individuals in the community improves the quality of their lives and care experience. For instance, evidence from the Money Follows the Person demonstration program shows that

one year after Medicaid beneficiaries moved from an institution to a home or community setting in which enhanced HCBS were offered, they were more satisfied with their lives, their living arrangements, and their care. Their unmet needs for personal assistance diminished, and they faced fewer barriers to integrating themselves into the community (Irvin et al. 2015).[1]

Reducing institutional admissions, particularly long-stay admissions, also reduces the risk that beneficiaries will get stuck in an institution unnecessarily because they lose community supports and housing after entering the institution. On any given day, approximately 5 to 12 percent of nursing home residents in all states have a minimal need for skilled nursing services and could live in community settings if they had suitable housing and supports (Mor et al. 2007). Typically, the longer an individual remains in an institution, the more his or her community resources diminish (Arling et al. 2010). Evidence suggests that, in states with lower levels of investment in HCBS and higher rates of nursing home use, the proportions of residents in nursing homes who require only minimal levels of care are higher, and the rate at which these individuals are discharged to the community is lower compared to states with higher levels of HCBS investments and lower rates of nursing home use (Mor et al. 2007; Arling et al. 2011). This finding suggests an opportunity to improve HCBS among beneficiaries who do not require intense levels of skilled care and could be supported in the community.

Reducing institutional admissions among HCBS users can also reduce stressful transitions between care settings that can lead to negative health outcomes. For example, these transitions among frail older adults have been shown to lead to a decline in health status (Naylor, Kurtzman, and Pauly 2009). Additional impacts on health outcomes that can be achieved by reducing institutional admissions through the provision of higher quality HCBS include reducing unmet needs and reducing adverse outcomes, such as falls and acute hospitalizations, which can occur when care is not timely or coordinated (Naylor, Kurtzman, and Pauly 2009; Freedman and Spillman 2014; Allen, Piette, and Mor 2014; Komisar, Feder, and Kasper 2005; Sands et al. 2006).

### 1a.3.—Linkage

1a.3.1. Source of Systematic Review

- Clinical Practice Guideline recommendation – ***complete sections 1a.4, and 1a.7***
- US Preventive Services Task Force Recommendation – ***complete sections 1a.5 and 1a.7***

[1] The Money Follows the Person demonstration program was designed to help move Medicaid beneficiaries living in an institution for at least 90 days to a home or community setting in which enhanced HCBS are offered.

- Other systematic review and grading of the body of evidence (*e.g., Cochrane Collaboration, AHRQ Evidence Practice Center*) – ***complete sections 1a.6 and 1a.7***

✓ Other – complete section 1a.8

### 1a.4.—Clinical Practice Guideline Recommendation

1a.4.1. Guideline Citation

Not Applicable.

1a.4.2. Specific Guideline

Not Applicable.

1a.4.3. Grade

Not Applicable.

1a.4.4. Grades and Associated Definitions

Not Applicable.

1a.4.5. Methodology Citation

Not Applicable.

1a.4.6. Quantity, Quality, and Consistency

Not Applicable.

### 1a.5.—United States Preventative Services Task Force Recommendation

1a.5.1. Recommendation Citation

Not Applicable.

1a.5.2. Specific Recommendation

Not Applicable.

1a.5.3. Grade

Not Applicable.

1a.5.4. Grades and Associated Definitions

Not Applicable.

1a.5.5. Methodology Citation

Not Applicable.

### 1a.6.—Other Systematic Review of the Body of Evidence

1a.6.1. Review Citation

Not Applicable.

1a.6.2. Methodology Citation

Not Applicable.

### 1a.7.—Findings from Systematic Review of Body of the Evidence Supporting the Measure

1a.7.1. Specifics Addressed in Evidence Review

Not Applicable.

1a.7.2. Grade

Not Applicable.

1a.7.3. Grades and Associated Definitions

Not Applicable.

1a.7.4. Time Period

Not Applicable.

1a.7.5. Number and Type of Study Designs

Not Applicable.

1a.7.6. Overall Quality of Evidence

Not Applicable.

1a.7.7. Estimates of Benefit

Not Applicable.

1a.7.8. Benefits Over Harms

Not Applicable.

1a.7.9. Provide for Each New Study

Not Applicable.

## 1a.8.—Other Source of Evidence

1a.8.1. Process Used

The Project Team performed a targeted literature review to identify literature to support the measure concept. For our targeted literature review, we searched academic journal articles published from 2008 to 2015 using MEDLINE, CINAHL, Scopus, and Ageline. We searched the gray literature using a Google custom search, focusing on federal and state agencies and organizations most likely to have relevant sources. In addition to our targeted academic journal article and gray literature searches, we focused on several reports from the National Quality Forum (NQF), including the following resources:

- Phase 1 of the NQF HCBS Committee's work, which defined a conceptual framework for HCBS quality measurement, including a set of broad domains and detailed subdomains of measurement (National Quality Forum 2015).
- Phase 2 of the NQF HCBS Committee's work, which included an environmental scan of measures, measure concepts, and instruments for HCBS quality measurement (National Quality Forum 2015).

We also conducted 13 expert interviews to gain diverse insights about the priority areas for measurement and the usefulness and feasibility of the identified measures for Medicaid. The interviews included individuals with expertise related to Medicaid policy and programs, measure development, and patient advocacy.

1a.8.2. Citations

Allen, Susan M., Elizabeth R. Piette, and Vincent Mor. "The Adverse Consequences of Unmet Need Among Older Persons Living in the Community: Dual-Eligible Versus Medicare-Only Beneficiaries." *The Journals of Gerontology: Psychological Sciences*, vol. 69, no. 1, 2014, pp. S51-S58.

Arling, Greg, Robert L. Kane, Valerie Cooke, and Teresa Lewis. "Targeting Residents for Transitions from Nursing Home to Community." *Health Services Research*, vol. 45, no. 3, June 2010, pp. 691-711.

Arling, Greg, Kathleen A. Abrahamson, Valerie Cooke, Robert L. Kane, and Teresa Lewis. "Facility and Market Factors Affecting Transitions from Nursing Home to Community." *Medical Care*, vol. 49, no. 9, September 2011, pp. 790-796.

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Eiken, Steve, Kate Sredl, Brian Burwell, and Paul Saucier. "Medicaid Expenditures for Long-Term Services and Supports (LTSS) in FY 2013: Home and Community-Based Services Were a Majority of LTSS Spending." Report submitted to the Centers for Medicare & Medicaid Services. Bethesda, MD: Truven Health Analytics, June 30, 2015.

Felix, Holly C., Glen P. Mays, M. Kathryn Stewart, Naomi Cottoms, and Mary Olson. "Medicaid Savings Resulted When Community Health Workers Matched Those With Needs to Home and Community Care." *Health Affairs*, vol. 30, no. 7, 2011, pp. 1366-1374.

Freedman, Vicki A., and Brenda C. Spillman. "Disability and Care Needs Among Older Americans." *The Milbank Quarterly*, vol. 92, no. 3, 2014, pp. 509-541.

Greiner, Melissa A., Laura G. Qualls, Isao Iwata, Heidi K. White, Sheila L. Molony, M. Terry Sullivan, Bonnie Burke, Kevin A. Schulman, and Soko Setoguchi. "Predicting Nursing Home Placement Among Home- and Community-Based Services Program Participants." *The American Journal of Managed Care*, vol. 20, no. 12, 2014, pp. e535-e536.

Guo, Jing, R. Tamara Konetzka, Elizabeth Magett, and Willian Dale. "Quantifying Long-Term Care Preferences." Medical Decision Making, vol. 35, no. 1, 2015, pp. 106-113.

Guo, Jing, R. Tamara Konetzka, and Willard G. Manning. "The Causal Effects of Home Care Use on Institutional Long-Term Care Utilization and Expenditures." Health Economics, vol. 1, suppl. 1, 2015, pp. 4-17.

Harris-Kojetin, L., M. Sengupta, E. Park-Lee, and R. Valverde. "Long-Term Care Services in the United States: 2013 Overview." Hyattsville, MD: National Center for Health Statistics. Vital Health Statistics, vol. 3, no. 37, 2013.

Irvin, Carol V., Noelle Denny-Brown, Alex Bohl, John Schurrer, Andrea Wysocki, Rebecca Coughlin, and Susan R. Williams. "Money Follows the Person 2014 Annual Evaluation Report." Washington, DC: Mathematica Policy Research, December 2015.

Keenan, Teresa A. "Home and Community Preferences of the 45+ Population." Washington, DC: AARP Public Policy Institute, November 2010. Available at http://assets.aarp.org/rgcenter/general/home-community-services-10.pdf.

Komisar, Harriet L., Judith Feder, and Judith D. Kasper. "Unmet Long-Term Care Needs: An Analysis of Medicare-Medicaid Dual Eligibles." *Inquiry*, vol. 42, no. 2, 2005, pp. 171-182.

Mor, Vincent, Jacqueline Zinn, Pedro Gozalo, Zhanlian Feng, Orna Intrator, and David C. Grabowski. "Prospects for Transferring Nursing Home Residents to the Community." *Health Affairs*, vol. 26, no. 6, 2007, pp. 1762–1771.

National Quality Forum. "Addressing Performance Measure Gaps in Home and Community-Based Services to Support Community Living: Initial Components of the Conceptual Framework." Interim Report. July 15, 2015a. Available at http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&ItemID=79920. Accessed October 2, 2015.

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Naylor, Mary D., Ellen T. Kurtzman, and Mark V. Pauly. "Transitions of Elders Between Long-Term Care and Hospitals." *Policy, Politics, and Nursing Practice*, vol. 10, no. 3, 2009, pp. 187-194.

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Rosenbaum, Sara. "The Olmstead Decision: Implications for State Health Policy." *Health Affairs*, vol. 19, no. 5, 2000, pp. 228-232.

Sands, Laura P., Yun Wang, George P. McCabe, Kristofer Jennings, Catherine Eng, and Kenneth E. Covinsky. "Rates of Acute Care Admissions for Frail Older People Living with Met Versus Unmet Activity of Daily Living Needs." *Journal of the American Geriatrics Society*, vol. 54, no. 2, 2006, pp. 339-344.

Sands, Laura P., Huiping Xu, Joseph Thomas, III, Sudeshna Paul, Bruce A. Craig, Marc Rosenman, Caroline C. Doebbeling, and Michael Weiner. "Volume of Home- and Community-Based Services and Time to Nursing-Home Placement." *Medicare & Medicaid Research Review*, vol. 2, no. 3, 2012, pp. E1-E21.

Schmitz, Robert, Victoria Peebles, Rosemary Borck, and Miller, Dean. "Medicaid-Financed Institutional Services: Patterns of Care for Residents of Nursing Homes and Intermediate Care Facilities for Individuals with Intellectual Disabilities in 2008 and 2009." Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, May 2014. Available at https://aspe.hhs.gov/sites/default/files/pdf/137851/CarePatt.pdf.

## 1b.—Evidence to Support Measure Focus

1b.1. Rationale

The Supreme Court *Olmstead* decision found that unjustified institutionalization of persons with disabilities violates the Americans with Disabilities Act, so states are obligated to provide LTSS in the most integrated setting appropriate to the needs of qualified beneficiaries (Reaves and Musumeci 2015; Rosenbaum 2000).

Institutional use is a commonly used measure, and widely-regarded as an important indicator of timely access to quality HCBS, and effective care coordination among:

- Individuals (beneficiaries) – public opinion surveys consistently show the majority of older adults and people with disabilities generally prefer to receive services in community settings, rather than institutions.
- Community service providers – who gauge their progress and success by their ability to reduce or delay long-term institutional admissions among the people they serve.
- Health plans – whose capitation payment rates are designed to reduce the use of institutional services
- State Medicaid agencies – who have responsibility for supporting beneficiaries in community settings to delay or divert institutional admissions and to transition individuals who are admitted to institutions back to the community as soon as it is safe to do so.

1b.2. Performance Scores

Not applicable.

1b.3. Summary of Data Indicating Opportunity

One key study analyzed statewide institutional admissions among Medicaid HCBS users. Although the study does not capture all institutional admissions defined in this measure (e.g., Medicare admissions to skilled nursing facilities for dually eligible beneficiaries), it provides important information on the current performance of this measure and indicates that there is room for improvement in serving this vulnerable population.

The study, conducted for the Office of the Assistant Secretary for Planning and Evaluation, focused on Medicaid-financed use of nursing homes and ICF/IIDs in 2008 and 2009 (Schmitz et al. 2014). Of all Medicaid beneficiaries with new Medicaid-financed nursing home stays in 2009, about 23 percent had used HCBS in 2008 prior to their nursing home stay. Among those with nursing home stays lasting six months or less (beginning and ending during the first half of 2009), a greater share—31 percent—had used HCBS before their stay. New ICF/IID admissions are less common than new nursing home admissions, but a large

proportion of new ICF/IID stays are preceded by HCBS use. About 39 percent of beneficiaries with new Medicaid-financed ICF/IID stays in 2009 used HCBS in 2008 before their stay (Schmitz et al. 2014).

There is significant variation across states in HCBS use before a nursing home or ICF/IID stay. The percentage of first new nursing home stays in 2009 preceded by HCBS use in 2008 ranged from less than 10 percent in Florida, Louisiana, and Pennsylvania to more than 35 percent of stays in California and Idaho. Because fewer individuals enter ICF/IIDs, the variation across states is smaller, ranging from 0.0 percent in Vermont to 0.37 percent in North Dakota (Schmitz et al. 2014). However, these state-level estimates might mask variation by programs within a state, such as 1915(c) HCBS waiver programs.

Other evidence also suggests that there is significant variation across states in their performance with respect to institutional admissions. The State Scorecard on Long-Term Services and Supports reports the percentage of new nursing home stays that last 100 days or more. Among all nursing home admissions in 2014 (not limited to Medicaid or HCBS users), the median percentage of stays that lasted 100 days or more was 19.8; the highest share was in Louisiana (35 percent), and the lowest was in Oregon (10.3 percent) (Long-term Score Card 2014).

Studies suggest that the provision of community-based services impacts the use of institutional services. Among Medicaid beneficiaries, greater home care use reduced the likelihood of a nursing home stay and reduced the number of days in a nursing home among those who were admitted (Guo, Konetzka, and Manning 2015). Medicaid beneficiaries receiving personal care assistance services were found to have significantly lower odds of nursing home placement (Greiner et al. 2014). Other studies of Medicaid beneficiaries have found that additional hours of personal care and homemaking services significantly reduced the risk for nursing home placement (Sands et al. 2012). Overall, these studies indicate that particular types, and a greater volume, of HCBS can reduce the use of institutions.

1b.4. and 1b.5. Disparities

Not applicable.

Citations

Greiner, Melissa A., Laura G. Qualls, Isao Iwata, Heidi K. White, Sheila L. Molony, M. Terry Sullivan, Bonnie Burke, Kevin A. Schulman, and Soko Setoguchi. “Predicting Nursing Home Placement Among Home- and Community-Based Services Program Participants.” *The American Journal of Managed Care*, vol. 20, no. 12, 2014, pp. e535-e536.

Guo, Jing, R. Tamara Konetzka, and Willard G. Manning. “The Causal Effects of Home Care Use on Institutional Long-Term Care Utilization and Expenditures.” *Health Economics*, vol. 1, suppl. 1, 2015, pp. 4-17.

Long-term Score Card. “Percent of New Nursing Home Stays Lasting 100 Days or More.” 2014. Available at: http://www.longtermscorecard.org/databydimension/bar-chart?ind=738&tf=49#.V8SUOU0wiUl.

Reaves, Erica L., and Mary Beth Musumeci. “Medicaid and Long-Term Services and Supports: A Primer.” Washington, DC: Kaiser Family Foundation, December 2015. Available at https://kaiserfamilyfoundation.files.wordpress.com/2015/12/8617-02-medicaid-and-long-term-services-and-supports-a-primer.pdf.

Rosenbaum, Sara. “The Olmstead Decision: Implications for State Health Policy.” *Health Affairs*, vol. 19, no. 5, 2000, pp. 228-232.

Sands, Laura P., Huiping Xu, Joseph Thomas, III, Sudeshna Paul, Bruce A. Craig, Marc Rosenman, Caroline C. Doebbeling, and Michael Weiner. “Volume of Home- and Community-Based Services and Time to Nursing-Home Placement.” *Medicare & Medicaid Research Review*, vol. 2, no. 3, 2012, pp. E1-E21.

Schmitz, Robert, Victoria Peebles, Rosemary Borck, and Miller, Dean. “Medicaid-Financed Institutional Services: Patterns of Care for Residents of Nursing Homes and Intermediate Care Facilities for Individuals with Intellectual Disabilities in 2008 and 2009.” Washington, DC: Office of the Assistant Secretary for Planning and Evaluation, May 2014. Available at https://aspe.hhs.gov/sites/default/files/pdf/137851/CarePatt.pdf.

### 1c.—High Priority

1c.1. Demonstrated High-Priority Aspect of Health Care

High resource use, patient/social consequences of poor quality, other (care coordination).

1c.3. Epidemiologic or Resource Use Data

Institutional settings are costly. The median annual cost of nursing facility care in 2015 was $91,250 (Reaves and Musumeci 2015). For Medicaid, the annual average cost per resident for a nursing home stay is approximately $67,722 (U.S. Department of Health and Human Services). Based on studies by Larson et al. (2016) and Larkin et al. (2010), the annual average Medicaid cost per resident at an ICF/IID is approximately $139,000.

In comparison, the estimated cost for HCBS care is much lower. According to Reaves and Musumeci (2015), the average annual spending per participant on Medicaid HCBS in 2012 was $17,151.

1c.4. Citations

Larkin, K. Charlie, Sheryl Larson, Patricia Salmi, and Amanda Webster. "Residential Services for Persons with Developmental Disabilities: Status and Trends Through 2009." Minneapolis, MN: University of Minnesota, 2010.

Larson, Sheryl, Libby Hallas-Muchow, Faythe Aiken, Brittany Taylor, Sandy Pettingell, Amy Hewitt, Mary Sowers, and Mary Lee Fay. "In-Home and Residential Long-Term Supports and Services for Persons with Intellectual or Developmental Disabilities: Status and Trends Through 2013." Minneapolis, MN: University of Minnesota, 2016.

Reaves, Erica L., and Mary Beth Musumeci. "Medicaid and Long-Term Services and Supports: A Primer." Washington, DC: Kaiser Family Foundation, December 2015. Available at https://kaiserfamilyfoundation.files.wordpress.com/2015/12/8617-02-medicaid-and-long-term-services-and-supports-a-primer.pdf.

U.S. Department of Health and Human Services. "Cost of Care." Available at http://longtermcare.gov/costs-how-to-pay/costs-of-care/. Accessed June 20, 2016.

1c.5. Patient-Reported Outcome Performance Measure (PRO-PM)

Not applicable.

## *Scientific Acceptability*

### 1.—Data Sample Description

1.1. What Type of Data was Used for Testing?

Not applicable. Scientific acceptability will be determined during the measure testing phase.

1.2. Identify the Specific Dataset

Not applicable. Scientific acceptability will be determined during the measure testing phase.

1.3. What are the Dates of the Data Used in Testing?

Not applicable. Scientific acceptability will be determined during the measure testing phase.

1.4. What Levels of Analysis Were Tested?

Not applicable. Scientific acceptability will be determined during the measure testing phase.

1.5. How Many and Which Measured Entities Were Included in the Testing and Analysis?

Not applicable. Scientific acceptability will be determined during the measure testing phase.

1.6. How Many and Which Patients Were Included in the Testing and Analysis?

Not applicable. Scientific acceptability will be determined during the measure testing phase.

1.7. Sample Differences, if Applicable

Not applicable. Scientific acceptability will be determined during the measure testing phase.

### 2a.2—Reliability Testing

2a2.1. Level of Reliability Testing

Not applicable. Reliability will be determined during the measure testing phase.

2a2.2. Method of Reliability Testing

Not applicable. Reliability will be determined during the measure testing phase.

2a2.3. Statistical Results from Reliability Testing

Not applicable. Reliability will be determined during the measure testing phase.

2a2.4. Interpretation

Not applicable. Reliability will be determined during the measure testing phase.

### 2b2—Validity Testing

2b2.1. Level of Validity Testing

Not applicable. Validity will be determined during the measure testing phase.

2b2.2. Method of Validity Testing

Not applicable. Validity will be determined during the measure testing phase.

2b2.3. Statistical Results from Validity Testing

Not applicable. Validity will be determined during the measure testing phase.

2b2.4. Interpretation

Not applicable. Validity will be determined during the measure testing phase.

### 2b3—Exclusions Analysis

2b3.1. Method of Testing Exclusions

Not applicable. Exclusions will be determined during the measure testing phase.

2b3.2. Statistical Results From Testing Exclusions

Not applicable. Exclusions will be determined during the measure testing phase.

2b3.3. Interpretation

Not applicable. Exclusions will be determined during the measure testing phase.

### 2b4—Risk Adjustment or Stratification

2b4.1. Method of controlling for differences

Not applicable. Risk adjustment will be determined during the measure testing phase.

2b4.2. Rationale why Risk Adjustment is not needed

Not applicable.

2b4.3. Conceptual, Clinical, and Statistical Methods

Not applicable.

2b4.4. Statistical Results

Not applicable.

2b4.5. Method Used to Develop the Statistical Model or Stratification Approach

Not applicable.

2b4.6. Statistical Risk Model Discrimination Statistics (e.g., c-statistic, R2)

Not applicable.

2b4.7. Statistical Risk Model Calibration Statistics (e.g., Hosmer-Lemeshow statistic)

Not applicable.

2b4.8. Statistical Risk Model Calibration—Risk decile plots or calibration curves

Not applicable.

2b4.9. Results of Risk stratification Analysis

Not applicable.

2b4.10. Interpretation

Not applicable.

2b4.11. Optional Additional Testing for Risk Adjustment

Not applicable.

### 2b5—Identification of statistically significant and clinically meaningful differences

2b5.1. Method

Not applicable. Differences will be determined during the measure testing phase.

2b5.2. Statistical Results

Not applicable. Results will be determined during the measure testing phase.

2b5.3. Interpretation

Not applicable. This will be determined during the measure testing phase.

### 2b6—Comparability of performance scores

2b6.1. Method of testing conducted to demonstrate comparability

Not applicable. Comparability will be determined during the measure testing phase.

2b6.2. Statistical Results

Not applicable. Comparability will be determined during the measure testing phase.

2b6.3. Interpretation

Not applicable. Comparability will be determined during the measure testing phase.

## *Feasibility*

3a.1. How are the data elements needed to compute measure scores generated

Not applicable. Feasibility will be determined during the measure testing phase.

3b.1. Are the data elements needed for the measure as specified available electronically

Not applicable. Feasibility will be determined during the measure testing phase.

3b.3. If this is an eMeasure, provide a summary of the feasibility assessment

Not applicable. This is not an eMeasure.

3c.1. Describe what you have learned or modified as a result of testing

Not applicable. Feasibility will be determined during the measure testing phase.

3c.2. Describe any fees, licensing, or other requirements

Not applicable.  No fees, licensing, or other requirements at this phase.

## *Usability and Use*

### 4.1—Current and Planned Use

Planned use: Public reporting, Quality Improvement with Benchmarking (external benchmarking to multiple organizations), and Quality Improvement (internal to the specific organization).

4a.1. Program, sponsor, purpose, geographic area, accountable entities, patients

Not applicable. This is a new measure.

4a.2. If not publicly reported or used for accountability, reasons

Not applicable.  This is a new measure.

4a.3. If not, provide a credible plan for implementation

This measure is intended for use by states to monitor and improve the quality of healthcare. Stakeholder input supported this measure for public reporting and quality improvement.

4b.1. Progress on improvement

Not applicable.  This is a new measure.

4b.2. If no improvement was demonstrated, what are the reasons

Not applicable. This is a new measure.

## *Related and Competing Measures*

### 5—Relation to Other NQF-Endorsed Measures

5.1a. The measure titles and NQF numbers are listed here

There are no NQF-endorsed measures related to admission to an institution among HCBS users.

5.1b. If the measures are not NQF-endorsed, indicate the measure title

A related measure is specified for Medicaid Managed Long-Term Services and Supports (MLTSS) enrollees called “Admission to an Institution from the Community.” The measure for MLTSS enrollees is specified at the health plan level and will undergo testing in 2016, under the same project as the currently proposed measure (Quality Measure Development and Maintenance for CMS Programs Serving Medicare-Medicaid Enrollees and Medicaid-Only Enrollees). The currently proposed measure is specified for Medicaid FFS HCBS users.

### 5a—Harmonization

5a.1. Are the measure specifications completely harmonized

The measure specifications for the currently proposed measure are harmonized with the measure specifications for MLTSS enrollees. Both measures are undergoing testing.

5a.2. If not completely harmonized, identify the differences rationale, and impact

Not applicable.

### 5b—Competing measures

5b.1 Describe why this measure is superior to competing measures

There are no competing measures.

Additional Information

### Co.1.—Measure Steward Point of Contact

Centers for Medicare & Medicaid Services, Centers for Medicaid & CHIP Services, Roxanne Dupert-Frank, Mail Stop: S3-02-01, 7500 Security Boulevard ,Baltimore, MD, Roxanne.Dupert-Frank@cms.hhs.gov. (410) 786-9667

### Co.2.—Developer Point of Contact (indicate if same as Measure Steward Point of Contact

Mathematica Policy Research, Debra Lipson, DLipson@Mathematica-Mpr.com, (202) 484-9220

### Ad.1. Workgroup/Expert Panel Involved in Measure Development

A technical expert panel will be convened to discuss the development of this measure.

### Ad.2. Year the Measure Was First Released

Not applicable. This measure is still under development.

### Ad.3. Month and Year of Most Recent Revision

Not applicable. This measure is still under development.

### Ad.4. What is your frequency for review/update of this measure?

Not applicable. This measure is still under development.

### Ad.5. When is your next scheduled review/update for this measure?

Not applicable. This measure is still under development.

### Ad.6. Copyright Statement

Not applicable. This measure is still under development.

### Ad.7. Disclaimers

Not applicable. This measure is still under development.

### Ad.8. Additional Information/Comments

Not applicable.