



Chapter Four: Measuring for Success

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Chapter Overview

Measuring the effect of a care transitions program is an important challenge. It requires an understanding of the relevant outcomes and the processes leading to them, detecting meaningful changes in those outcomes, and accurately attributing improvements to the care transitions program. Evaluating program outcomes can not only help the partnership understand the impact of the care transitions efforts but also produce results that can be included in messages to key stakeholders and new potential partners.

Comparing Evaluation to Performance Measurement

To effectively measure the success of your program, it may be good to consider the difference and extent to which you can measure performance or demonstrate a program evaluation. For the purpose of uniformity, it is helpful to examine some standard definitions of these terms according to the U.S. Government Accountability Office (GAO).

Performance measurement: Performance measurement is the ongoing monitoring and reporting of program accomplishments, particularly progress toward pre-established goals. It is typically conducted by program or agency management. Performance measures may address the type or level of program activities conducted (process), the direct products and services delivered by a program (outputs), or the results of those products and services (outcomes). A “program” may be any activity, project, function, or policy that has an identifiable purpose or set of objectives.

Program evaluation: Program evaluations are individual systematic studies conducted periodically or on an ad hoc basis to assess how well a program is working. They are often conducted by experts external to the program, either inside or outside the agency, as well as by program managers. A program evaluation typically examines

achievement of program objectives in the context of other aspects of program performance or in the context in which it occurs. Four main types can be identified, all of which use measures of program performance, along with other information, to learn the benefits of a program or how to improve.¹¹

Therefore, performance measurement is necessary but not sufficient for evaluation. At the same time a robust performance measurement process will help contribute to your program's success. GAO's comparison of performance measurement and evaluation states that "both forms of assessment aim to support resource allocation and other policy decisions to improve service delivery and program effectiveness. But performance measurement, because of its ongoing nature, can serve as an early warning system to management and as a vehicle for examination of program performance and context allows for an overall assessment of whether the program works."¹²



The Importance of Planning Ahead

To be effective, your program must capture information and track changes that would otherwise be lost in the void between provider settings. AAAs and ADRCs have implemented a variety of different tracking strategies including linking systems and developing a sense of accountability with partners. Your partnership can expect changes in two general areas: individual and family level outcomes as well as system level changes that affect individual and family outcomes. Together, your initiative should track structural and process changes as well as outcomes at both the individual level (e.g., consumer experience or satisfaction, change in functional status) and provider level (e.g., efficiency, effectiveness, and quality).

Data and information will likely come from multiple sources. While billing records (from the hospital) or Medicare claims data (from CMS or your State's QIO) will be important in demonstrating cost effectiveness and patient level health improvement, they are not sufficient to promote quality improvement. Data on structural and process changes will inform your efforts, allow for changes, and make the case for continued partnership.

Therefore, it will be critical to factor your evaluation plan into the planning and assessment phase of your work. Determining the local root causes associated with failed transitions will help indicate where to track changes in outcomes. Also, factoring the added impact of supportive services into any evidence based intervention you are implementing will be a valuable tool for bridging the gaps between medical and social services. A way to help map this process and understand the potential impact of your program is to develop a logic model. Logic models can:

- Clearly identify program goals, objectives, activities, and desired results.
- Clarify assumptions and relationships between program efforts and expected outcomes.

- Communicate key elements of the program.
- Help specify what to measure in an evaluation.
- Guide assessment of underlying program assumptions and promote self correction.

For more information about logic models, see the Planning Inventory available in Chapter Two of this toolkit.

Types of Care Transitions Measures

Identifying measures to include in the care transitions program evaluation will help the partnership document the success of your efforts. In addition to the use of instruments from evidence based care transitions programs, the Aging Network has explored a variety of measures to evaluate care transitions activities, including the following:

Process and Structural Measures

Process measures depict the extent to which the program is operating as intended. An example of this includes assessing an intervention's reach in the target community. Process measures document the adequacy of certain structural elements across various health care settings and community provider settings taking part in your partnership. These measures can be used to track the level of intervention activity, such as the absolute numbers of participants offered, accepting and completing an intervention, and other project efforts. The measures may also be used to track administrative details related to the engagement/training of providers.¹³ Some process and structural measures could include:

- Number of people served
- Timeliness and completeness of information transferred

- Tracking and timeliness of referrals to other providers or settings
- Enrollment in and timeliness of specific services
- Number of hours of service through the intervention

For more examples, tools, and resources see the [Process Measure Chart \(PDF\)](#)

Developing Strong Outcome Measures

Outcome measures describe the intended result or consequences that will occur from carrying out a program or activity. They go beyond the description of a specific program's outputs, which often depicts ongoing processes, and relate to a community as a whole, depending on the size and reach of the program. Measures are most effective when the structure or process of care being measured is based on strong scientific evidence and linked to good outcomes, and when the outcome being measured is influenced or impacted by one or more specific interventions. To demonstrate that your efforts are effective, understanding the causes (or drivers) related to failed transitions will help you target your efforts and define your outcome measures. Outcomes should be:

- Plausible (a logical step in your causal model)
- Measureable (has an indicator that is operational and clearly measured)
- Practical (available or readily collectable)
- Moveable (is likely to demonstrate change)
- Compelling (depicts clinically meaningful change and tells a good story)

There are a number of great general resources available to the Aging Network for developing outcome measures and evaluating programs. To review the basics of outcome development, visit: http://www.cfm.org/caretransitions/toolkit_measure.htm.

¹³ NTOCC Transitions of Care Measures, Paper by the NTOCC Measures Work Group, 2008. http://www.ntocc.org/Portals/0/TransitionsOfCare_Measures.pdf

Health Care Utilization Measures

Monitoring and comparing participants' utilization of medical services can demonstrate outcomes related to efficiency and effectiveness. Tracking all-cause readmission rates adds particular value to a care transitions initiative because of their direct relationship to the primary program goal and their relevance to cost-benefit analyses. Utilization measures are often calculated from administrative claims data. However, they may be collected and reported by the providers themselves, which may offer advantages in timeliness and accuracy. Common measures evaluated by the Aging Network and hospital partners include:

- Readmission within specific intervals (30, 60, 90, and 180 days) and by status (inpatient/observation)
- Emergency department utilization and observation status stays within specific intervals that do not result in an admission
- Attendance at follow-up physician and specialist appointments
- Other health care provider visits within 30 days of discharge

For more examples, tools, and resources see the [Health Care Utilization Measures Chart \(PDF\)](#).

Clinical and Functional Status

Providers rely heavily on clinical/functional measures to assess acuity and overall health status. Effectively demonstrating that your care transitions effort contributed to an improved health and functional status for individuals can be a compelling message for continued partnership as well as diffusion of successful strategies. A systematic approach for capturing an individual's clinical and functional status provides the opportunity to learn more about the consumer, plan interventions, record individual progress, and evaluate and improve programs. Many organizations within the Aging Network have comprehensive intake forms that

include clinical and functional variables. One strategy to consider for documenting consumer change(s) over time is systematic readministration, using selected portions of intake instruments. Examples of functional status measures include:

- Need or have assistance with activities of daily living (ADLs) and instrumental activities of daily living (IADLs)
- Level of assistance needed with ADLs and IADLs (personal limitations, medial limitations, etc.)
- Presence and extent/impact of chronic conditions

For more examples, tools, and resources see the [Clinical and Functional Status Measures Chart \(PDF\)](#)

Satisfaction with Services Measures

Supporting transitions from hospital to home may include the provision of myriad services and supports, many of which consumers choose to self direct. Determining whether consumers are satisfied with the services and supports is now recognized as an important outcome and a basic responsibility of those who authorize and provide care. Examples of consumer satisfaction measures include:

- Helpfulness of care transitions specialist during the intervention process
- Degree to which preferences are factored into planning process
- Extent of unmet need

For more examples, tools, and resources see the [Satisfaction with Services Measures Chart \(PDF\)](#).

Health Literacy, Consumer Understanding, and Empowerment

Health literacy is defined as “the degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions.” Integral to a successful transition are consumers’ and caregivers’ understanding of and ability to act on the instructions they are given when they leave the hospital or other care setting—whether it is their medication regimen, warning signs of complications, or even when and where their follow-up appointment is with their doctor. Low health literacy has been associated with increased hospitalization, greater emergency care use, poorer ability to demonstrate taking medications appropriately, and even increased mortality among seniors.¹⁴

For more examples, tools, and resources see the [Clinical and Functional Status Measures Chart \(PDF\)](#).

Measuring the Value of Connection to Community Based Long-Term Services and Supports within Care Transitions Programs

In addition to measuring the effectiveness of the care transitions program in reducing potentially preventable readmissions, organizations affiliated with the Aging Network have the capacity to track the connection to long-term services and supports provided in a community based setting. As part of the community-wide care transitions effort, it will be important to document the cost effectiveness and feasibility of long-term services and supports as part of the payment for new programs designed to reduce readmissions. As with any new program, it is important to develop a framework that will allow the organization to monitor costs, assess effectiveness of administrative functions, and quantify the impact of the care transitions program. Clearly articulating the impact of these additional

service components will be key to demonstrating the link between the Aging Network services to health care improvements now and in the future.

Access and Connection to Long-Term Services and Supports (LTSS)

Connection and linkage to LTSS is a unique contribution of Aging Network sites to care transitions partnerships. Increased access to LTSS during care transitions can be provided through a wide array of activities, from providing basic education about service options to completing assessments for Medicaid Waiver and Older Americans Act services prior to discharge.

One of the challenges of offering long-term services and supports through care transitions programs is the length of time that it takes to establish eligibility for publicly funded programs. Some Aging Network organizations have developed rapid eligibility determination processes, systems to prioritize applications from hospital patients, and fast-tracked referral mechanisms to ensure access and connection to these important services. Measuring the impact of these efforts can help organizations identify

¹⁴ Health Literacy Interventions and Outcomes: An Updated Systematic Review. <http://www.ahrq.gov/clinic/epsums/litupsum.htm>



and address unmet service needs and potential system barriers to create seamless access to services.

Caregiver and Social Supports

A critical factor that contributes to successful in-home long-term care is the provision of support and care from friends and family, yet these individuals are often excluded from the discharge conversation.¹⁵ Caregivers may also be unprepared for changes to their role post-discharge and, without proper support, the probability of rehospitalization and unnecessary nursing home admission increases.¹⁶ Care transitions programs recognize the important role of informal caregivers during the transition from hospital to home and include support strategies within the models and activities.

For more examples, tools, and resources see the [Caregiver and Social Supports Measures Chart \(PDF\)](#).

Community Living

Nursing home admission can contribute to the fiscal case for sustaining and expanding transitions programs. Some evidence based care transitions models specifically target

¹⁵ Brown-Williams, H. et al. (2006). *From Hospital to Home: Improving Transitional Care for Older Adults*. Health Research for Action: University of California, Berkeley, California.

¹⁶ Brown-Williams (2006)

individuals with multiple chronic conditions and other indicators, which may also be predictors for nursing home admission. While successfully aging in place may be a significant long-term outcome measure, the extent to which your program targets individuals at risk for spend down or nursing home admission will help you measure whether your program has an impact on some of these predictors. Demonstrating that the program actually avoids spend down to Medicaid and provides options for independent living in a preferred community setting can appeal to a number of diverse State and Federal funding sources.

For more examples, tools, and resources see the [Community Living Measures Chart \(PDF\)](#).

Quality of Life

Quality of Life (QoL) is a broad, multidimensional measure to assess the experiences of participants in a holistic manner. Some quality of life measures focus on community integration and isolation—key considerations for in-home long-term care.

Though there is still no consensus on how QoL is conceptualized, widespread agreement exists on the dynamic interplay between physical, social, and psychological well being. Diminished health, depression, decreased productivity, and poor social relationships are just a few elements associated with poor QoL. Assessment results from this domain can guide service providers not only in the delivery of services to clients but also overall program management. The fact that QoL is a broad metric lends itself to both strengths and weaknesses. Many factors can affect QoL, and they may mask the true impact of your program.

For more examples, tools, and resources see the [Quality of Life Measures Chart \(PDF\)](#).



Measuring Integration—A Case Study

Demonstrating success for care transitions includes some basic performance measures. This chapter discusses not only the basics for evaluating your care transitions program but also connections to LTSS. This case study from Missouri illustrates how this may be put into practice.

From the beginning, we have conceived of our care transitions project and our efforts to develop a no wrong door approach into long-term supports and services as being integrated with each other. We feel that the most important tool to help streamline discharge planning is the effective use of options counselors with patients, their families, and caregivers. An options counselor can offer follow up post-discharge, a more thorough assessment of long-term care needs (especially nonmedical needs), and extensive knowledge of community based supports, all of which are directly linked to factors that influence hospital readmissions.

Our strategy to maximize opportunities for our target population (Medicaid-eligible individuals with disabilities) to live in the community post-hospitalization is centered on involving the options counselors in the discharge planning process. We evaluate the effectiveness by using the electronic client record to 1) track the number of referrals from discharge planners, 2) assess the rate of readmissions among those referred, and 3) assess the rate of successful community transitions among those referred who have completed the long-term planning process with the options counselor.

Our coalition of providers and partners has developed an evaluation plan that includes measures related to visibility and public awareness of the

project and the ADRC, the level of consumer trust and satisfaction, and the effectiveness of the ADRC. Random consumer surveys are conducted throughout the implementation to measure these items. A recordkeeping tool (part of management information systems) was designed to provide data on successful options counseling by tracking consumers who were able to either transition to or remain in the community, as well as the time it took to complete the planning process.

*Missouri Department of Health and Senior Services
Division of Senior and Disability Services
Hospital Discharge Planning Grant*

Questions to Consider and Practical Advice from the Field

Q: How are you tracking changes on various levels of your program?

Our efforts are twofold. Data collected by hospital staff and coaches will be used to track various aspects of the process to ensure our person-centered protocol is implemented consistently and correctly. Survey data will track satisfaction with our enhanced model. *South Carolina Bureau of Senior Services, Hospital Discharge Planning Grant*

Q: What else have you learned in the course of your program evaluation?

Initially, we focused on getting patients being discharged to home into services faster. In recent years, we have increased focus on patients being discharged to nursing homes to prevent short rehabilitation stays from becoming permanent. In analyzing data on follow ups, we determined that 500 HCBS enrollments resulted from information distributed during hospitalizations. Therefore, even if our staff isn't able to make an

immediate impact, the data show that people are turning to us later for services to remain in the community. *AAA 10B, Inc., Uniontown, Ohio*

In developing your partnerships and program plan, it may be helpful to include a researcher or research team with experience in evaluation (e.g., someone from a local university, a student, or team of students). Part of the planning is talking about what each partner would consider “success” for the program. That will help with the selection of measures to include. *AAA of Central Texas, ADRC Evidence-Based Care Transitions Program*

Promoting meaningful consumer engagement and sustained health self management for our target population requires a clear understanding of how variations in consumer characteristics (such as age, socioeconomic background, living arrangement, functional status, and so on) as well as variations in community characteristics (such as access to meaningful healthy living choices, transportation, and social networks) can jointly impact health outcomes. Once we understand how these different threads are interwoven, we can work more effectively with our hospital partners to design, market, and expand the care transitions supports most likely to enhance the health and well being of diverse consumer groups, while also reducing the overall costs required for their care. In this process, we can begin to shift the loci of control from the medical system to the consumer who, in activating a range of community health self management resources, can become more powerful partners in the delivery of health care. *Greater Lynn Senior Services, ADRC Evidence-Based Care Transitions Program*

An important consideration for us when trying to build a knowledge base of what works versus what doesn't is holding as close as feasibly possible to model fidelity and sites using similar interventions for the sake of comparisons and increasing sample size. Taking particular note of how the program we are implementing differs in any way from the original model is helpful for

conducting effectiveness research. *AAA of Central Texas, ADRC Evidence-Based Care Transitions Program*

It's been important through our planning process to develop protocol for not only sharing data or hospital censuses for admissions, but also including the reasons for the admissions as part of the shared information. This has been helpful in our efforts to better understand whether prior participants are readmitted for reasons related to lack of social supports, related to the initial (index) admission, or for another or new reason. *Tennessee Commission on Aging and Disability, ADRC Evidence-Based Care Transitions Program*

Q: Aside from evaluation tools you may be using related to an evidence based model, what are some data measures you are using?

Along with our hospital partners, we are monitoring hospital readmissions, emergency department visits, patient and caregiver satisfaction with planning coaching and person-centeredness, patient compliance, hospital referrals received, quantity of home and community based services referrals, patient well being, discharge plan completion and quality, cost of patient care post-hospitalization, provider satisfaction with training, and increased access to resources. *Idaho State University, Institute of Rural Health, Hospital Discharge Planning Grant*



We conduct a baseline screening of caregiver stress and care recipient medical and functional status as well as 6 month and 12 month follow-up data. In particular, we look at the risk of nursing home placement and rehospitalization, several items on the caregiver REACH II assessment. Process measures for identification of participants, screening and enrollment percentages are calculated. *AAA of Central Texas, ADRC Evidence-Based Care Transitions Program*

We are monitoring hospital readmissions, emergency department visits, patient and caregiver satisfaction with discharge planning, coaching, and the “person-centeredness” of their discharge, patient compliance with their discharge plan, hospital referrals received by the ADRC, and quantity of home and community-based service referrals. *South Carolina Bureau of Senior Services, Hospital Discharge Planning Grant*

Q: How are you measuring and tracking readmission rates with your local partners?

Within our health system we have established an identifier for all of our care transitions patients using an existing information system tracking tool; therefore, each time a patient is admitted there is an electronic notification to the care transitions team. This is integrated into our data collection process, which allows us to capture those patients that are readmitted to a hospital within our own health system. For patients who are readmitted outside of our health system we rely on a self reporting tool used during our follow-up survey. *Senior Health Services at Crozier Keystone Health System, ADRC Evidence-Based Care Transitions Program*

Based on a prior partnership agreement and state level legislation, the AAA has access to the hospital’s electronic record system (HInet CareCast) for all of its Medicaid Waiver case management clients served by the hospital. To obtain this access, the AAA and hospital each signed business affiliate and Health Insurance Portability and Accountability Act agreements. These agreements now

include permission to access records of non-Medicaid Waiver ADRC consumers referred by the hospital. Additionally, each care transitions program participant signs a consent form that includes permission for the ADRC to share information with hospital personnel. When there is a referral to the care transitions program, the ADRC receives a fax notification and is then able to access a client’s individual electronic hospital record. New agreements and processes will need to be negotiated for expansion to additional hospitals. *Washington Aging and Disability Services, ADRC Evidence-Based Care Transitions Program*

Additional Resources

- [Health Literacy CAHPS Resources](#)
- AHRQ Care Coordination Measures Atlas <http://www.ahrq.gov/qual/careatlas/>
- Performance Measurement Challenges and Strategies http://www.whitehouse.gov/sites/default/files/omb/part/challenges_strategies.html
- Performance Measurement Sports Analogy www.ojjdp.gov/grantees/pm/sport_analogy.html
- Logic Models www.ojjdp.gov/grantees/pm/logic_models_understanding.html
- REAIM—Evaluation Frameworks www.reaim.org

Tools

- [Process Measures Chart](#)
- [Health Care Utilization Measures Chart](#)
- [Clinical and Functional States Measures Chart](#)
- [Satisfaction with Services Measures Chart](#)
- [Caregiver and Social Supports Measures Chart](#)
- [Community Living Measures Chart](#)
- [Quality of Life Measures Chart](#)