The Institute of Healthcare Improvement (IHI) developed the Triple Aim framework as a way of simultaneously improving the patient care experience, improving the health of the population, and reducing the per capita cost of health care.\textsuperscript{1, 2} This framework is increasingly being used as the guidepost for health care systems seeking to transform their service delivery models to achieve greater value for care and better meet the needs of patients and communities.

At the same time, many communities are also struggling with how to best meet the health care needs of people experiencing homelessness. This is a population that has disproportionately high rates of poor health and frequent use of emergency department and inpatient health care services.\textsuperscript{3} As hospitals, health plans, and health systems seek to better align their services to achieve one or more of the Triple Aim’s goals, gaps in community services—such as a shortage of affordable housing and a lack of safe hospital discharge options—threaten to undermine these efforts.

To fill this gap, medical respite care programs are targeted interventions that provide acute and post-acute medical care for patients who are homeless and are too ill or frail to recover from a physical illness or injury on the streets, but are not ill enough to be in a hospital.\textsuperscript{4} This policy brief is intended to illustrate how medical respite care programs can help health care systems achieve the Triple Aim, and to suggest applicable outcome measures that align these programs with the Triple Aim framework. Understanding how medical respite care adds value to health systems and facilitates a better continuum of care for very vulnerable patients may yield greater recognition and financial support for this community-based program model.

**Health System Stakeholder Perspectives**

Hospital systems, health insurers, state Medicaid programs, and public health leaders are key vested stakeholders in the cost and quality of the health care services they manage and/or deliver. Increasingly, provider payments are being linked to the value of the service provided (rather than the quantity), with a greater focus on tracking outcome measures and developing innovative ways to achieve good health at a lower cost. There is tremendous incentive in the current environment to partner with community programs who can help better address the underlying problems that drive poor health, frequent emergency department visits, longer inpatient stays, and higher readmission rates. Low reimbursements from public programs (or no reimbursement at all for patients who are uninsured) only compound these issues. Establishing a partnership with a medical respite program better meets the needs of both vulnerable patients and the health care system. Using the Triple Aim as a framework to facilitate this partnership helps root the goals in a manner that is now familiar to most health systems.
Medical Respite Care

While medical respite programs vary broadly in terms of staffing and services, admission criteria, and setting (shelter-based, stand-alone facility, motel placements, etc.), the goals are the same: to provide a safe place for people who are homeless to rest and recuperate after a hospital stay, while connecting them with needed clinical care and wraparound services. Medical respite programs fill a gap in available community services when hospitals have no safe or appropriate discharge options for a population that has disproportionately poor health and significant chronic and acute care needs. These programs are ideal venues for coordinating complex care, providing case management, meeting post-acute transitions of care metrics, linking to behavioral health care, and working to achieve a longer-term care plan (ideally by connecting patients to permanent housing options).

Measuring the Triple Aim

The following sections outline the meaning of each goal in the framework and suggest possible outcome measures that would align with this aim. These sections draw upon IHI’s Guide to Measuring the Triple Aim: Population Health, Experience of Care, and Per Capita Cost.5

- **Aim #1: Improve Population Health**

IHI defines ‘population health’ as the health outcomes of a group of individuals, including the distribution of such outcomes within the group. These groups are often geographic populations such as nations or communities, but can also be other groups such as employees, ethnic groups, people with disabilities, prisoners, or any other defined group [such as individuals experiencing homelessness].6 This definition includes health outcomes like health and functional status as well as mortality, intermediate outcomes like the disease burden within a specific group, and individual factors like behavioral and physiological issues.

There are a number of existing measures or survey tools to draw upon to calculate these elements of population health. These include county-level data on mortality, disease burden, and other factors at County Health Rankings and Roadmaps;7 health-outcomes information from standardized assessments such as short form (SF)-12 or 36,8 the CDC Health Related Quality of Life (HRQOL)-14,9 or the Behavioral Risk Factor Surveillance System (BRFSS).10 Risk assessment scores are often used by health insurers to assess the risk of an individual (for illness or cost) relative to the average group score (known as DxCG risk scores), or determined from a health risk assessment. However, for a specific subpopulation like people experiencing homelessness, additional measures may need to be created to capture the reality of service utilization and related cost. Table 1 illustrates possible outcome measures that medical respite programs may help influence related to population health.
Table 1. Changes in Population Health due to Medical Respite Intervention

<table>
<thead>
<tr>
<th>Element of Care</th>
<th>Outcome Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health outcomes</td>
<td>Decreased mortality for high-need, high-risk population                                                                                              Improved rate of successful connections to outpatient primary and behavioral health care, and specialty care                                                                                     Improved rate of successful transitions between care venues (hospital to nursing home, assisted living, skilled nursing facility, hospice, detox provider, etc.)</td>
</tr>
<tr>
<td></td>
<td>Increased rate of self-reported health improvement and/or functional status                                                                                         Increased rate of compliance with care plan and medications ordered at hospital discharge                                                                                                         Increased connection to benefits such as health insurance, disability, food and housing assistance, etc.</td>
</tr>
<tr>
<td></td>
<td>Increased connection to services such as adult education/job training, transportation, case management, etc.</td>
</tr>
<tr>
<td>Disease burden</td>
<td>Reductions in high-risk behavior related to communicable disease [such as tuberculosis (TB), flu, sexually transmitted infections, HIV, hepatitis C, etc.]                                                                                                                                         Reductions in behavioral health crisis episodes (to include both mental health conditions and substance use disorders)                                                                                                                        Increased rate of delivery of preventive health screenings (such as breast/cervical/colon cancer, depression/suicide/mental health, alcohol/substance use, obesity, immunizations, intimate partner violence, etc.)</td>
</tr>
<tr>
<td></td>
<td>Lower risk assessment scores using standardized tools                                                                                                                                                                 Increased use of harm reduction strategies (such as use of condoms, fewer sexual partners, access to clean syringes, reduced polysubstance use, etc.)                                                                                                                   Linkages to substance use disorder treatment, including medications</td>
</tr>
<tr>
<td>Behavioral &amp; Physiological Factors</td>
<td>Lower rates of risk behaviors such as smoking, unprotected sex, and substance use                                                                                                                           Increased rates of physical exercise and nutrition/diet management                                                                                                                                   Increased rate of health education delivered (such as nutrition, smoking cessation, etc.)                                                                                                           Increased connection to family and community supports</td>
</tr>
</tbody>
</table>

**Aim #2: Improve the Experience of Care**

‘Experience of care’ is best measured based on feedback from the patients who receive care, often through standardized surveys focused on satisfaction with services, such as the Consumer Assessment of Healthcare Providers and Systems (CAHPS®), which could include questions/data from two surveys:

- The Clinician & Group survey (CG-CAHPS), which assesses patient experience with staff and providers in doctors’ offices,11 or
- The CAPHS Hospital survey (H-CAPHS), which assesses patient experience with recent inpatient hospitalization (this survey endorsed by the National Quality Forum).12

Frequent hospital and ED utilization for conditions that could be treated in an outpatient setting not only increase costs (see Aim #3 below), but can also impact an individual’s experience of care. Some measures may need to be tailored to the unique experience of individuals experiencing homelessness rather than issues not generally relevant to a
housed patient population. As health care payers (such as Medicare and Medicaid) move toward adjusting portions of hospital payments based on patient satisfaction scores and quality of clinical care as part of value-based purchasing initiatives, these metrics become especially important.

To evaluate this element of the Triple Aim framework, IHI recommends using six factors for excellence in care based on the Institute of Medicine’s *Crossing the Quality Chasm*: safe, effective, timely, patient-centered, equitable, and efficient. Table 2 illustrates possible outcome measures aligned with these six factors that medical respite programs may help influence related to patient experience of care.

**Table 2. Changes in Experience of Care due to Medical Respite Intervention**

<table>
<thead>
<tr>
<th>Element of Care</th>
<th>Outcome Measures</th>
</tr>
</thead>
</table>
| Safe            | Reduce incidence of unsafe hospital discharge  
                  | Reduce incidence of negative media attention due to “patient dumping”  
                  | Patient feedback reporting decreased feelings of discrimination and/or stigma due to housing status  
| Effective       | Provider knew important elements of patient’s medical history (CG-CAHPS)  
                  | Someone followed up with patient to give test results or discuss prescribed medications (CG-CAHPS)  
| Timely          | Reduction in premature hospital discharge  
                  | Patient received timely appointments and care for urgent and non-urgent issues, as well as received timely answers to questions (CG-CAHPS)  
                  | Responsiveness of hospital staff (H-CAHPS)  
| Patient-centered| Patient feedback expressing increased trust in system, greater ability to self-manage health conditions, and better ability to navigate care system  
                  | Providers explained things in a way that was easy to understand, as well as listened carefully, showed respect, and spent enough time with patient (CG-CAHPS)  
                  | Clerks and receptionists were helpful, courteous, and respectful (CG-CAHPS)  
                  | Satisfaction with communication with nurses and doctors, as well as about medicines (H-CAHPS)  
                  | Patients understood their care when they were discharged (H-CAHPS)  
| Equitable       | Increased rate of providing less restrictive environment of care (i.e., community-based care instead of more restrictive inpatient-level)  
                  | Satisfaction scores for patients experiencing homelessness are equal to those for patients who are not homeless  
| Efficient       | Faster rate of identifying discharge venue and care plan  
                  | Decreased hospital staff time spent coordinating care with multiple community providers  

**Aim #3: Reduce Per Capita Cost**

IHI recommends looking at ‘per capita cost’ through three lenses: from the demand lens of consumers/patients, from the intermediate lens of health care plans and insurers (like Medicare and Medicaid), and from the supply lens of various providers. Measures can compare pre-post medical respite intervention, or comparisons with other patients who are homeless but who did not receive an intervention. Table 3 illustrates possible
outcome measures that medical respite programs may use to demonstrate reductions in per capita cost across these three stakeholder groups.

### Table 3. Changes in Per Capita Cost due to Medical Respite Intervention

<table>
<thead>
<tr>
<th>Aspect of Cost</th>
<th>Targeted Stakeholder</th>
<th>Outcome Measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand lens/ consumers</td>
<td>Community/public health</td>
<td>Reduced costs related to fewer emergency/911 transportation (ambulance, first responder)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduced costs related to use of public systems (jails, prisons, courts, police, etc.)</td>
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<tr>
<td></td>
<td></td>
<td>Reduced costs related to lower disease transmission &amp; averted future health care crises</td>
</tr>
<tr>
<td></td>
<td>Individual</td>
<td>Reduced copayments and other out of pocket expenditures due to lower service utilization</td>
</tr>
<tr>
<td>Intermediary lens/ health plans &amp; insurers</td>
<td>Health plans</td>
<td>Reduced costs per member per month (comparing costs to those likely incurred if patient stayed in hospital setting)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increased opportunity to meet health plan quality requirements such as health assessments</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increased opportunity to provide health education (e.g., smoking cessation, chronic disease management, etc.)</td>
</tr>
<tr>
<td>Supply lens/ providers</td>
<td>Hospitals</td>
<td>Reduced costs related to shortened inpatient length of stay</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduced costs related to fewer hospital readmissions</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Reduced number and related cost of emergency department visits</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Increased hospital and ED bed turnover rates (increasing hospital reimbursements &amp; possibly diversifying payer source)</td>
</tr>
<tr>
<td></td>
<td>Outpatient</td>
<td>Increase in third-party payments for services when patient is connected to health insurance plan</td>
</tr>
<tr>
<td></td>
<td>Specialists</td>
<td>Increase in reimbursement due to better appointment adherence (and fewer missed appointments due to lack of transportation &amp; assistance)</td>
</tr>
<tr>
<td></td>
<td>Pharmacy</td>
<td>Reduction in costs related to poor medication management</td>
</tr>
</tbody>
</table>

### Recommendations for Action

1. Discuss Triple Aim with key stakeholders (hospitals, health plans, public health leaders, state Medicaid directors and other payers, etc.) to determine how a medical respite program can assist in meeting outcome measure goals.

2. Meet with hospital discharge planners to discuss the current difficulties with patients who are homeless and assess the need for a medical respite program.

3. Identify data elements currently available and evaluate the integrity and/or sustainability of those measures.

4. Identify gaps in available data and a process for creating new data elements.

5. Identify responsible parties for documenting, evaluating, and reporting outcome data at periodic intervals.
6. Identify level of funding, model of payment, and a funding source needed to support a medical respite program.

7. Develop a small program at first to demonstrate value and establish working protocols before assessing how to scale up to meet ongoing needs.

8. Visit other medical respite programs to learn how to replicate what works best.

**Conclusion**

As health care systems continue to transform service delivery models to achieve greater value and better outcomes, the Triple Aim framework provides a data-driven structure that is both familiar and effective for partnering with medical respite care programs. These partnerships allow health system stakeholders and communities to better address the needs of people experiencing homelessness, while at the same time improving population health, increasing the patient experience of care, and lowering per capita costs.

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**References**

1. The Institute for Healthcare Improvement (IHI) is a not-for-profit organization leading the improvement of health care throughout the world. Founded in 1991, IHI is a catalyst for change, cultivating innovative concepts for improving patient care and implementing programs for putting those ideas into action. IHI uses improvement science to advance and sustain better outcomes in health and health care across the world. Currently, IHI is focused on four key areas: Pursuing Safe and High-Quality Care, Improving the Health of Populations, Building the Capability to Improve, and Innovating and Sparking Action. More information is available at: [http://www.ihi.org/](http://www.ihi.org/).

2. Institute for Healthcare Improvement. *A Primer on Defining the Triple Aim.* Available at: [http://www.ihi.org/resources/Pages/Publications/PrimerDefiningTripleAim.aspx](http://www.ihi.org/resources/Pages/Publications/PrimerDefiningTripleAim.aspx).


4. Further resources for medical respite care are listed above. More information is available at [https://www.nhchc.org/resources/clinical/medical-respite/](https://www.nhchc.org/resources/clinical/medical-respite/).


9. The CDC HRRQL-14 "Healthy Days Measure" tool can be found at [https://www.cdc.gov/hrqol/hrqol14_measure.htm](https://www.cdc.gov/hrqol/hrqol14_measure.htm).


