## Appendix

### Table A: Selected List of Interventions to Reduce Preventable Readmissions Organized by Level of Supporting Evidence

<table>
<thead>
<tr>
<th>Organization &amp; Intervention</th>
<th>Target Population</th>
<th>Actions Included</th>
<th>Key Players</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interventions with Very Strong Evidence of Reduction in Avoidable Readmissions</strong>&lt;sup&gt;xvi&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| Boston Medical Center  
Re-Engineered Discharge/RED  
[http://www.bu.edu/fammed/projectred/](http://www.bu.edu/fammed/projectred/) | All adult BMC patients | Patient education; comprehensive discharge planning; AHCP; post-discharge phone call for medication reconciliation | Nurse discharge advocate, clinical pharmacist | Hospital and home (phone only) |
| Care Transitions Program  
[http://www.caretransitions.org/](http://www.caretransitions.org/) | Community-dwelling patients 65 and older | Care Transitions Intervention (CTI); medication self-management; patient-centered record (PHR); follow-up with physician; and risk appraisal and response | Transitions coach | Home |
| Evercare<sup>™</sup> Care Model  
[http://evercarehealthplans.com/about_evercare.jsp?bsessionid=NNDDDjFMB8B](http://evercarehealthplans.com/about_evercare.jsp?bsessionid=NNDDDjFMB8B) | Patients with long-term or advanced illness, older patients or those with disabilities | Primary care and care coordination; NP care in nursing home; personalized care plans | Nurse practitioner or care managers | Home and nursing home |
| Transitional Care Model (TCM)  
[http://www.transitionalcare.info/](http://www.transitionalcare.info/) | High-risk, elderly patients with chronic illness | Care coordination; risk assessment; development of evidence-based plan of care; home visits and phone support; patient and family education | Transitional care nurse (TCN) | Hospital and home |
| **Interventions with Some Evidence of Reduction in Avoidable Readmissions**<sup>xvii</sup> | | | | |
| Commonwealth Care Alliance: Brightwood Clinic<sup>xvii</sup> | Low-income Latinos with disabilities and chronic illnesses | Primary care and behavioral health care coordination; reminder calls for preventive care; multidisciplinary clinical team; follow-up; health education and promotion; support groups; bilingual staff; non-clinician home visits | Nurses, nurse practitioners, mental health and addiction counselors, support service staff | Community |
| Community Care North Carolina  
[http://www.communitycarenc.com/](http://www.communitycarenc.com/) | Medicaid patients | Local network of primary care providers: DM for asthma, HF, diabetes; ED; pharmacy initiatives; case management for high-risk/high-cost patients | Primary care providers | Community |
| Heart Failure Resource Center  
| Home Healthcare Telemedicine  
[http://www.innovativecaremodels.com/care_models/18/key_elements](http://www.innovativecaremodels.com/care_models/18/key_elements) | Recently discharged with congestive heart failure or COPD | Telehealth care; telemonitoring; in-home visits, | Telemedicine nurse and traditional home health nurse | Home |
<p>| Kaiser Permanente Chronic Care Coordination | Patients with four or more chronic illnesses; recently | Multidisciplinary chronic care team; needs-based care plans; patient communications | Specially trained nurses, licensed clinical social | Hospital and long-term care |</p>
<table>
<thead>
<tr>
<th>Organization &amp; Intervention</th>
<th>Target Population</th>
<th>Actions Included</th>
<th>Key Players</th>
<th>Where</th>
</tr>
</thead>
<tbody>
<tr>
<td>IHI Transition Home for Patients with Heart Failure: St. Luke’s Hospital</td>
<td>Patients with congestive heart failure</td>
<td>Admission assessment for post-discharge needs; teaching and learning; early post-acute care follow-up; patient and family-centered handoff communication</td>
<td>Multidisciplinary team, including nurses, clinicians, and hospital executives</td>
<td>Hospital and home</td>
</tr>
<tr>
<td>Novant Physician Group Practice Demonstration Project</td>
<td>Medicare fee-for-service beneficiaries</td>
<td>Implement Comprehensive, Organized Medicine Provided Across a Seamless System (COMPASS); for providers: evidence-based practice standards, education and inpatient to outpatient systems; For patients: chronic and preventive care guidelines, education, and disease management</td>
<td>Physicians, staff</td>
<td>Community</td>
</tr>
<tr>
<td>ProjectBOOST</td>
<td>Older adults</td>
<td>Medication reconciliation; general assessment of preparedness (GAP); teach-back; patient/caregiver education; communication; phone follow-up</td>
<td>Multidisciplinary care team</td>
<td>Hospital and home</td>
</tr>
<tr>
<td>Blue Shield of California Patient-Centered Management (PCM)</td>
<td>Complex patients with advanced illness. Piloted with CalPERS enrollees in Northern California</td>
<td>Patient education; care coordination; end-of-life management in seven care domains</td>
<td>ParadigmHealth team, including case manager and team manager, both</td>
<td>Home</td>
</tr>
<tr>
<td>Organization &amp; Intervention</td>
<td>Target Population</td>
<td>Actions Included</td>
<td>Key Players</td>
<td>Where</td>
</tr>
<tr>
<td>-----------------------------</td>
<td>-------------------</td>
<td>-----------------</td>
<td>-------------</td>
<td>-------</td>
</tr>
</tbody>
</table>
| Colorado foundation for Medical Care (CFMC)  
*Care Transitions Intervention (CTI)*, pilot project  
[http://www.cfmc.org/](http://www.cfmc.org/) | Elderly clinic patients, medical beneficiaries who have been hospitalized | Hospital visit, home visit, and follow-up calls by coach, focusing on the four CTI pillars | Transitions coaches (nurses) | Hospital and home |
| HealthCare Partners Medical Group  
[http://www.healthcarepartners.com/](http://www.healthcarepartners.com/) | Uses risk assessment to stratify patients and match to four levels of programs; special programs for frail patients | Self-management and health education; complex case management; high-risk clinics; home care management; disease management | Multiple interdisciplinary staff members | Hospital, home, SNFs |
| John Muir Physician Network  
*Transforming Chronic Care (TCC)* Program  
[http://www.johnmuirhealth.com/index.php/chronic_care_referral_program.html](http://www.johnmuirhealth.com/index.php/chronic_care_referral_program.html) | Eligible frail patients—most have heart failure, COPD, or diabetes | CTI; complex case management; disease management | Transition coaches, case managers, both with multiple backgrounds | Hospital and home |
| Sharp Rees-Stealy Medical Group  
[http://www.sharp.com/rees-stealy/](http://www.sharp.com/rees-stealy/) | High-risk patients, including all discharged from hospital or ED | Continuity of Care Unit (CCU); Telescale for HF patients; Transitions program for those near end-of-life | CCU: nurse case manager; Transitions: nurse | Hospital and home |
| St. Luke’s Hospital, Cedar Rapids, IA  
*Transitions Home for Patients with Heart Failure*  
[http://www.innovations.ahrq.gov/content.aspx?id=2206](http://www.innovations.ahrq.gov/content.aspx?id=2206) | Heart failure patients in pilot | Patient education using “teach-back”; home visit; post-discharge phone call; outpatient classes | Advanced practice nurse, staff nurses | Hospital and home |
| State Action on Avoidable Rehospitalizations (STAAR)  
[http://www.ihi.org/IHI/Programs/StrategicInitiatives/STateActiononAvoidableRehospitalizationsSTAAR.htm](http://www.ihi.org/IHI/Programs/StrategicInitiatives/STateActiononAvoidableRehospitalizationsSTAAR.htm) | All patients | Enhanced assessment of post-discharge needs; enhanced teaching and learning; enhanced communication at discharge; and timely post-acute follow-up | Hospital-based care team, representatives from skilled nursing facilities, home health agencies, patients, family caregivers, etc. | Hospital, home, and other post-acute/long-term care setting |
| Summa Health System, Akron, OH  
[http://www.summahealth.org/](http://www.summahealth.org/) | Low-income frail elders with chronic illnesses in community-based long-term care | Risk appraisal; integrated medical and psychosocial care based on Naylor and Coleman models | Interdisciplinary teams, including RN care manager, APN, AAA staff, etc. | Hospital, home, PCP office visits |
| Visiting Nurse Service of New York (VNSNY)  
[http://www.vnsny.org/](http://www.vnsny.org/) | Nursing Home patients post-hospitalization | Risk assessment with stratified interventions; self-management support, etc. | NPs; home nurses; home health aides | Hospital (for some patients) and home |
## Linking readmissions strategies to other national efforts

Hospitals may currently be or previously have been involved in care delivery and patient safety initiatives that could serve as vehicles for implementing strategies to reduce preventable readmissions. By coordinating efforts in various priorities, hospitals are able to reap the most benefit for their investment, avoid duplicative work, and minimize burden on practitioners as they strive to improve the care that they deliver. The following table outlines strategies in some of the initiatives that could facilitate implementation of strategies to reduce avoidable readmissions:

**Table B: Linking Readmissions Strategies to Current National Strategies**

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Description</th>
<th>Overlap with Readmissions Strategies</th>
</tr>
</thead>
</table>
| **AHA Hospitals in Pursuit of Excellence (HPOE)**<sup>xxi</sup> | **Topic Areas:**  
  - **Care coordination**—focus on the discharge process and care transitions to reduce readmissions  
  - **Reduce hospital-acquired conditions** such as:  
    - surgical infections and complications; central line-associated blood stream infections; methicillin-resistant Staphylococcus aureus; clostridium difficile infections; ventilator-associated pneumonia; catheter-associated urinary tract infections; adverse drug events from high-hazard medications, and pressure ulcers  
  - **Implement health information technology (HIT)**—focus on leadership and clinical strategies to effectively implement HIT  
  - **Medication management**—use of HIT and performing medication reconciliation  
  - **Promote patient safety**  
  - **Patient throughput**—improving patient flow in ED, OR, and ICU |  
  - Risk screening of patients & tailored care  
  - Establishing communication with PCP  
  - Use of interdisciplinary/multidisciplinary team  
  - Care coordination  
  - Patient education  
  - Comprehensive discharge planning  
  - Patient/caregiver education using “teach-back”  
  - Scheduling and preparing for follow-up appointment  
  - Discussions about end-of-life treatment wishes  
  - Facilitate discharge to nursing homes  
  - Home visit  
  - Follow-up call  
  - Medication management  
  - Personal health records  
  - Establishing community networks  
  - Patient self management |
| **IHI Campaigns (100K and 5 Million Lives campaigns)** | **Components for the 100K Lives campaign:**  
  - **Deploy Rapid Response Teams**  
  - **Deliver Reliable, Evidence-Based Care for Acute Myocardial Infarction**  
  - **Prevent Adverse Drug Events (ADEs)** by implementing medication reconciliation  
  - **Prevent Central Line Infections**  
  - **Prevent Surgical Site Infections**  
  - **Prevent Ventilator-Associated Pneumonia** |  
  - Risk screening of patients & tailored care  
  - Care coordination  
  - Patient education  
  - Comprehensive discharge planning  
  - Patient/caregiver education using “teach-back”  
  - Medication management |
<table>
<thead>
<tr>
<th>Initiative</th>
<th>Description</th>
<th>Overlay with Readmissions Strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initiative</strong></td>
<td><strong>Description</strong></td>
<td><strong>Overlap with Readmissions Strategies</strong></td>
</tr>
</tbody>
</table>
| **Principles for the 5 Million Lives campaign (plus principles from 100K Lives campaign):** | - Prevent Harm from High-Alert Medications (focus on anticoagulants, sedatives, narcotics, and insulin)  
  - Reduce Surgical Complications  
  - Prevent Pressure Ulcers  
  - Reduce Methicillin-Resistant Staphylococcus aureus (MRSA) infection  
  - Deliver Reliable, Evidence-Based Care for Congestive Heart Failure...to avoid readmissions  
  - Get Boards on Board so that they can become far more effective in accelerating organizational progress toward safe care | |
| **Joint Commission Speak Up™ initiatives** | **Current initiatives:**  
- Help Prevent Errors in Your Care  
- Help Avoid Mistakes in Your Surgery  
- Information for Living Organ Donors  
- Five Things You Can Do to Prevent Infection  
- Help Avoid Mistakes With Your Medicines  
- What You Should Know About Research Studies  
- Planning Your Follow-up Care  
- Help Prevent Medical Test Mistakes  
- Know Your Rights  
- Understanding Your Doctors and Other Caregivers  
- What You Should Know About Pain Management  
- Prevent Errors in Your Child’s Care | - Patient education  
- Patient /caregiver education using “teach-back” |
| **Patient-Centered Medical Home (PCMH) [xii]** | **Characteristics of the Patient-Centered Medical Home (PCMH):**  
- **Personal physician**—for each patient  
- **Physician directed medical practice**—has collective responsibility for the ongoing care of patients  
- **Whole person orientation**—includes care for all stages of life; acute care; chronic care; preventive services; and end-of-life care led by personal physician.  
- **Care is coordination**—across all elements of the health care system (subspecialty care, hospitals, home health agencies, nursing homes) and the patient’s community (family, public and private community-based services). | - Establishing communication with PCP  
- Use of interdisciplinary/ multidisciplinary team  
- Care coordination  
- Patient education  
- Comprehensive discharge planning  
- Scheduling and preparing for follow-up appointment  
- Discussions about end-of-life treatment wishes  
- Facilitate discharge to nursing homes  
- Follow-up call  
- Medication management  
- Personal health records |
<table>
<thead>
<tr>
<th>Initiative</th>
<th>Description</th>
<th>Overlap with Readmissions Strategies</th>
</tr>
</thead>
</table>
| • **Quality and safety**—includes the following:  
  o care planning process  
  o Evidence-based medicine and clinical decision-support tools  
  o Active patients and families participation  
  o Information technology  
  o Patients and families participate in quality improvement activities at the practice level.  
  Enhanced access—**used through open scheduling, expanded hours and new options for communication between patients, their personal physician, and practice staff** | • Establishing community networks  
• Patient self management |
Contact Information for Some Interventions

1. **Care Transitions Program**
   http://www.caretransitions.org/

   Eric A. Coleman, MD, MPH
   The Division of Health Care Policy and Research
   13611 East Colfax Avenue, Suite 100
   Aurora, CO 80045-5701
   Phone: 303-724-2523
   Fax: 303-724-2486

2. **Project RED (Re-Engineered Discharge)**
   http://www.bu.edu/fammed/projectred/index.html

   Brian Jack, MD
   Principal Investigator
   Brian.Jack@bmc.org

3. **Project BOOST (Better Outcomes for Older adults through Safe Transitions)**
   http://www.hospitalmedicine.org/ResourceRoomRedesign/RR_CareTransitions/CT_Home.cfm

   Mark V. Williams, MD, FHM
   Principal Investigator
   Advisory Board Co-Chair
   Professor & Chief, Division of Hospital Medicine
   Northwestern University Feinberg School of Medicine
   Chicago, IL
   BOOST@hospitalmedicine.org

4. **Transitional Care Model**
   http://www.transitionalcare.info/

   Mary D. Naylor, PhD, RN, FAAN
   Marian S. Ware Professor in Gerontology
   Director, NewCourtland Center for Transitions & Health
   University of Pennsylvania School of Nursing
   Claire M. Fagin Hall, 3rd Floor (RM341)
   418 Curie Boulevard
   Philadelphia, PA 19104-4217
   naylor@nursing.upenn.edu


Not all of the actions listed for this particular strategy may correspond to the resource intensity identified.

The interventions listed here, though not comprehensive, represent some of the commonly used and referenced interventions for reducing avoidable readmissions. Details on the intervention are listed on Table 1 in the Appendix.

Not all the actions listed for this particular strategy may correspond to the resource intensity identified.

The interventions listed here, though not comprehensive, represent some of the commonly used and referenced interventions for reducing avoidable readmissions.

Not all the actions listed for this particular strategy may correspond to the resource intensity identified.

The interventions listed here, though not comprehensive, represent some of the commonly used and referenced interventions for reducing avoidable readmissions.


Information on this table is culled from the California Healthcare Foundation publication, Homeward Bound: Nine Patient-Centered Programs Cut Readmissions, and supplemented with other resources.

The interventions listed here, though not comprehensive, represent some of the commonly used and referenced interventions for reducing avoidable readmissions.


Interventions based on one or more of the models described in the other categories

