

QUICK REFERENCE GUIDE TO PROMISING CARE MODELS FOR PATIENTS WITH COMPLEX NEEDS

Table 1: Patient-Centered Care Attributes, Outcomes, and Contact Information

Melinda Abrams, Meredith Brown, Jamie Ryan, and Tanya Shah

Model	Target Population	Care plan	Ongoing review of care plan	Inter-professional care team	Point of contact	Active coordination	Information sharing	Training	Quality Improvement	Outcomes	Learn More
		Attributes of Person-Centered Care*									
<a href="#"><u>Care Management Plus</u></a>	Originally designed for age 65+ adults with multiple comorbidities such as diabetes, frailty, dementia, depression, and other mental health needs; the model has been adopted for nonelderly patients with complex needs	✓	✓	✓	✓	✓	✓	✓	✓	Controlled study comparing patients receiving care management in seven intervention clinics with similar patients in six control practices within Intermountain Healthcare found: <ul style="list-style-type: none"> <li>• decreased hospitalization rates after two years for intervention patients; result significant only for patients with diabetes (<a href="#">learn more</a>)</li> <li>• approximately 20% reduction in mortality among all Care Management Plus patients; reduction most pronounced in patients with diabetes (<a href="#">learn more</a>).</li> </ul>	David Dorr Professor and Vice Chair, Medical Informatics; Professor, General Internal Medicine and Geriatrics, OHSU e: dorr@d@ohsu.edu p: 503-418-2387 www.caremanagementplus.org
<a href="#"><u>Care Transitions Intervention (CTI)</u></a>	Age 65+ community-dwelling adults with at least one acute or chronic condition requiring posthospital care (excludes psychiatric conditions)	✓	✓	✓	✓	✓	✓	✓	✓	In a randomized controlled trial, intervention patients had significantly lower rehospitalization rates at 30 days and 90 days than control patients. Mean hospital costs were lower for intervention patients than control patients at 180 days ( <a href="#">learn more</a> ).  Summary review shows CTI yields return on investment of 131% per year and annual savings of \$2,311 per enrollee ( <a href="#">learn more</a> ).	<a href="http://caretransitions.org/">http://caretransitions.org/</a>

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<a href="#">CareMore</a>	Medicare Advantage plan members in California, Nevada, Arizona, Virginia, Ohio, and Medicaid managed care plan members in Tennessee		✓	✓	✓		✓			<p>As reported in 2011, CareMore's Medicare Advantage plan achieved the following:</p> <ul style="list-style-type: none"> <li>• 30-day hospital readmissions rate lower than for overall Medicare population (13.8% vs. 19.6% for Medicare fee-for-service)</li> <li>• members' per capita health spending 15% less than regional average</li> <li>• hospital length-of-stay 3.2 days shorter compared to 5.6-day average in Medicare fee-for-service (<a href="#">learn more</a>).</li> </ul> <p>Results not yet available for Medicaid program (<a href="#">forthcoming case study</a>).</p>	Sachin H. Jain, MD, MBA, FACP President and CEO CareMore Health System e: Sachin.Jain@caremore.com
<a href="#">Chronic Disease Self-Management Program (CDSMP)</a>	Adults with one or more chronic conditions							✓		<p>Randomized clinical trial of 952 patients age 40+ with chronic conditions compared CDSMP patients with wait-list control subjects. After six months of treatment, patients experienced:</p> <ul style="list-style-type: none"> <li>• fewer physician visits, emergency room (ER) visits, and hospitalizations and shorter hospital stays</li> <li>• more energy, less fatigue, fewer social limitations, and greater improvement in self-reported health (<a href="#">learn more</a>)</li> <li>• fewer ER and physician visits, reduced health distress, and improved self-efficacy compared to baseline, even after two years (<a href="#">learn more</a>).</li> </ul> <p>National survey of 1,170 CDSMP participants in 17 states found:</p> <ul style="list-style-type: none"> <li>• significant reductions in ER visits and hospitalizations at six months and reduction in ER visits at one year.</li> <li>• potential net savings of \$364 per participant, after accounting for cost of program (<a href="#">learn more</a>).</li> </ul>	Kate Lorig Director, Stanford Patient Education Research Center e: Lorig@stanford.edu
<a href="#">Commonwealth Care Alliance</a>	Dual-eligible age 65+ adults enrolled in Senior Care Options Program (a Medicare Advantage Special Needs Plans in Massachusetts) and dual-eligibles age 64 and younger in Massachusetts One Care Program	✓		✓		✓	✓			<p>Internal Commonwealth Care Alliance data suggests Senior Care Options enrollees (dual-eligibles age 65+) experienced:</p> <ul style="list-style-type: none"> <li>• 48% fewer hospital days than comparable dual-eligibles in fee-for-service environment</li> <li>• 66% fewer nursing home placements (<a href="#">learn more</a>).</li> </ul> <p>Results not yet available for One Care program, but early experience was published in case study (<a href="#">forthcoming case study</a>).</p>	Christopher D. Palmieri President and CEO e: cpalmieri@commonwealthcare.org

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<a href="#">Community Aging in Place—Advancing Better Living for Elders (CAPABLE)</a>	Low-income elderly who need assistance with at least one activity of daily living like self-feeding or two instrumental activities of daily living like managing money	✓		✓			✓	✓		<p>Multiple studies suggest improvements in patients' ability to live independently:</p> <ul style="list-style-type: none"> <li>• 79% of participants improved their self-care over course of five months (<a href="#">learn more</a>).</li> <li>• 94% of intervention group participants thought program made life easier for them; 67% saw decrease in average ADL problems (<a href="#">learn more</a>).</li> <li>• 53% of participants exhibited improvement in depressive symptoms; average program cost was \$2,825 per participant (<a href="#">learn more</a>).</li> </ul>	<p>Sarah Szanton, PhD, ANP, FAAN Associate Professor and PhD Program Director, Johns Hopkins School of Nursing e: <a href="mailto:sszanto1@jhu.edu">sszanto1@jhu.edu</a></p>
<a href="#">Geriatric Resources for Assessment and Care of Elders (GRACE)</a>	Low-income elderly with multiple diagnoses	✓	✓	✓	✓	✓	✓	✓	✓	<p>After two intervention years of three-year controlled research study (<a href="#">learn more</a>):</p> <ul style="list-style-type: none"> <li>• emergency department use significantly lower in intervention group compared to usual care</li> <li>• hospitalization rate significantly lower in high-risk patients in intervention group compared with high-risk patients receiving usual care</li> <li>• among high-risk patients, program was cost-neutral in first two years and cost-saving in third year (post-intervention).</li> </ul>	<p>Dawn Butler, JD, MSW Director, GRACE Training and Resource Center e: <a href="mailto:butlerde@iu.edu">butlerde@iu.edu</a></p>
<a href="#">Guided Care</a>	Older adults with multiple chronic conditions who are at risk of high health expenditures in the next year	✓	✓	✓		✓	✓	✓		<p>20-month cluster-randomized trial at three health systems in Baltimore–Washington area, representing over 800 patients, found Guided Care participants experienced (<a href="#">learn more</a>):</p> <ul style="list-style-type: none"> <li>• 29% decrease in home health episodes</li> <li>• 37% fewer skilled nursing facility days</li> <li>• 15% fewer emergency department visits</li> </ul> <p>Improvements more pronounced among Guided Care patients receiving primary care from integrated delivery system.</p>	<p>e: <a href="mailto:guided@jhsph.edu">guided@jhsph.edu</a></p>

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<a href="#">Health Quality Partners</a>	Medicare beneficiaries with chronic conditions	✓	✓	✓	✓	✓	✓	✓	✓	<p>Randomized controlled study found that six years of intervention among high-risk patients (<a href="#">learn more</a>):</p> <ul style="list-style-type: none"> <li>• reduced hospitalizations by 25%</li> <li>• reduced emergency department visits by 28%</li> <li>• reduced average monthly Medicare Part A/B expenditures by 21%.</li> </ul>	<p>Ken Coburn, MD, DrPH, FACPCEO Medical Director e: <a href="mailto:coburn@hqp.org">coburn@hqp.org</a></p>
<a href="#">Homeless Patient Aligned Care Teams (H-PACTs)</a>	Homeless veterans	✓		✓					✓	<p>In observational study of 33 sites, 17 were found to be high-performing, defined as having at least a 30% reduction in emergency department (ED) use or at least a 20% reduction in hospitalizations; nine were mid-performing, defined as having 0%–30% reduction in ED use or 0%–20% decrease in hospitalizations; and seven were low-performing, defined as having increase in ED use or hospitalizations (<a href="#">learn more</a>).</p>	<p>Ms. Erin E. Johnson HPACT National Program Manager p: 401-480-3373 e: <a href="mailto:erin.johnson4@va.gov">erin.johnson4@va.gov</a> Thomas P. O’Toole, MD National Director p: (401) 273-7100 ext. 6245 e: <a href="mailto:thomas.otoole@va.gov">thomas.otoole@va.gov</a></p>
<a href="#">Hospital at Home</a>	Older patients with a targeted acute illness that requires hospital-level care and who meet validated medical eligibility criteria and live within the designated geographic catchment area	✓	✓	✓					✓	<p>When compared to similar inpatients in 2009–2010, Hospital Home patients had (<a href="#">learn more</a>):</p> <ul style="list-style-type: none"> <li>• better clinical outcomes</li> <li>• higher satisfaction levels</li> <li>• lower average per patient costs, excluding physician costs.</li> </ul> <p>Prospective quasi-experiment with age 65+ patients in three Medicare Managed Care plans found (<a href="#">learn more</a>):</p> <ul style="list-style-type: none"> <li>• patients treated at Hospital at Home had shorter lengths of stay and lower average costs than hospital inpatients.</li> </ul>	<p>Bruce Leff, MD Professor of Medicine Johns Hopkins University School of Medicine e: <a href="mailto:bleff@jhmi.edu">bleff@jhmi.edu</a></p>
<a href="#">Hospital Elder Life Program (HELP)</a>	Older adults in a hospital setting with delirium or risk factors for delirium and/or functional decline			✓					✓	<p>Multiple studies suggest improvement in outcomes and reductions in spending:</p> <ul style="list-style-type: none"> <li>• 40% lower odds of developing delirium and 56 fewer days of delirium in intervention group (<a href="#">learn more</a>).</li> <li>• Reduced nursing home stays give potential for savings (<a href="#">learn more</a>).</li> <li>• One test hospital site saved approximately \$2,200 per case by preventing delirium (<a href="#">learn more</a>).</li> </ul>	<p>e: <a href="mailto:elderlife@hsl.harvard.edu">elderlife@hsl.harvard.edu</a></p>

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<a href="#">Improving Mood—Promoting Access to Collaborative Treatment (IMPACT)</a>	Older adults suffering from depression; adopted for other populations	✓	✓	✓	✓	✓	✓	✓	✓	<p>Randomized controlled trial of 1,801 age 60+ adults with major depression, dysthymic disorder, or both, found:</p> <ul style="list-style-type: none"> <li>• after 12 months, about half of IMPACT patients had 50% or greater reduction in depressive symptoms from baseline assessment compared to 19 percent of patients receiving usual primary care (<a href="#">learn more</a>)</li> <li>• over four-year period, total health care costs for IMPACT patients approximately \$3,300 lower per patient on average than those of patients receiving usual primary care—even after accounting for cost of providing intervention (<a href="#">learn more</a>).</li> </ul>	AIMS Center uwaims@uw.edu
<a href="#">Independence at Home</a>	Medicare beneficiaries with multiple chronic conditions and functional limitations	✓	✓	✓	✓	✓	✓	✓	✓	<p>Enrollees had:</p> <ul style="list-style-type: none"> <li>• fewer hospital readmissions within 30 days</li> <li>• follow-up contact with provider within 48 hours of hospital admission, hospital discharge, or emergency-department visit</li> <li>• medications identified by provider within 48 hours of discharge from hospital</li> <li>• preferences documented by provider</li> <li>• lower use of inpatient hospital and emergency-department services for such conditions as diabetes, high blood pressure, asthma, pneumonia, and urinary tract infection (<a href="#">learn more</a>).</li> </ul>	Elizabeth H. Sherman Director of Marketing and Communications, American Academy of Home Care Medicine p: 847.375.6307 e: esherman@aahcm.org www.aahcm.org
<a href="#">Interventions to Reduce Acute Care Transfers (INTERACT)</a>	Nursing home residents	✓	✓	✓				✓	✓	<p>Among the 25 nursing homes that completed the project and for which baseline and intervention hospitalization rate data were available, there was 17% reduction in all-cause hospitalizations; among the 17 homes rated by project team (masked to hospitalization rates) as “engaged,” reduction was 24% (<a href="#">learn more</a>).</p>	<a href="https://interact2.net/">https://interact2.net/</a>
<a href="#">Maximizing Independence (MIND) at Home</a>	People with dementia and other memory disorders	✓	✓	✓				✓		<p>18-month randomized controlled trial of 303 community-living elders found intervention:</p> <ul style="list-style-type: none"> <li>• delayed time to leaving home by nine months over two years of follow-up (median)</li> <li>• decreased adjusted hazard of leaving home by 37%</li> <li>• reduced safety and legal/advanced directive unmet needs</li> <li>• improved patient quality of life (<a href="#">learn more</a>).</li> </ul>	Quincy Samus, PhD Director, Translational Aging Services Core Johns Hopkins School of Medicine e: qmiles@jhmi.edu  Constantine (Kostas) Lyketsos, MD, MHS Elizabeth Plank Althouse

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											Professor Johns Hopkins University e: kostas@jhmi.edu
<a href="#">Palliative Care</a>	The most seriously ill and those at end of life	✓	✓	✓	✓	✓	✓	✓	✓	<p>Significantly reduced utilization in all higher-cost settings, improved health outcomes, increased length of life, and increased patient and provider satisfaction (from Peterson table). Palliative care patients discharged alive had adjusted net savings of \$1,696 in direct costs per admission (P = .004) and \$279 in direct costs per day (P &lt; .001) including significant reductions in laboratory and intensive care unit costs compared with usual care patients (<a href="#">learn more</a>).</p> <p>Palliative care and hospice services improve:</p> <ul style="list-style-type: none"> <li>• patient-centered outcomes such as pain, depression, and other symptoms</li> <li>• patient and family satisfaction</li> <li>• receipt of care in place patient chooses.</li> </ul> <p>Some data suggest that, compared with usual care, palliative care prolongs life (<a href="#">learn more</a>).</p>	<a href="https://www.capc.org/">https://www.capc.org/</a>

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<a href="#">Partners Integrated Care Management Program</a>	Medicare beneficiaries who are high cost and/or have complex conditions	✓		✓	✓	✓	✓	✓		<p>After three years, intervention group exhibited:</p> <ul style="list-style-type: none"> <li>• 20% reduction in hospital admissions</li> <li>• 13% reduction in emergency department visits</li> <li>• 7% annual savings, after accounting for intervention costs (<a href="#">learn more</a>).</li> </ul> <p>Three-year demonstration period reduced mortality rate of intervention population, compared to comparison patients, after adjusting for baseline characteristics (<a href="#">learn more</a>).</p>	Eric Weil, MD e: EWEIL@mgh.harvard.edu
<a href="#">Program of All-Inclusive Care for the Elderly (PACE)</a>	Age 55+ adults who have Medicare and/or Medicaid, have chronic conditions and/or functional and cognitive impairments, live in service area of local PACE organization, and are Medicaid-certified as eligible for nursing home level care	✓	✓	✓	✓	✓	✓	✓	✓	<p>Recent review of literature found PACE enrollees experienced:</p> <ul style="list-style-type: none"> <li>• fewer hospitalizations but more nursing home admissions</li> <li>• better quality for certain aspects of care, such as pain management (<a href="#">learn more</a>).</li> </ul> <p>Overall, PACE appeared cost-neutral to Medicare and may have increased costs for Medicaid; more research needed to reflect current payment arrangements (<a href="#">learn more</a>).</p> <p>Subsequent study found PACE may be more effective than home- and community-based waiver programs in reducing long-term nursing home use, especially for those with cognitive impairments (<a href="#">learn more</a>).</p>	<a href="http://www.npaonline.org/">http://www.npaonline.org/</a>

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<a href="#">Transitional Care Model</a>	Hospitalized, high-risk older adults with chronic conditions	✓	✓	✓	✓	✓		✓	✓	Randomized controlled trial found one year after discharge ( <a href="#">learn more</a> ): <ul style="list-style-type: none"> <li>• 36% fewer readmissions</li> <li>• 38% reduction in total costs</li> <li>• short-term improvements in overall quality of life and patient satisfaction.</li> </ul>	Elizabeth C. Shaid, MSN, CRNP University of Pennsylvania School of Nursing p: 215-573-4471 e: NewCourtlandCenter@nursing.upenn.edu

\* Key characteristics include:

- Individualized, goal-oriented care plan based on person’s preferences.
- Ongoing review of person’s goals and care plan preferences.
- Care supported by interprofessional team in which person is integral team member.
- One primary or lead point of contact on health care team.
- Active coordination among all health care and supportive service providers.
- Continual information sharing and integrated communication.
- Education and training for providers and, when appropriate, for person receiving services and those important to that person.
- Performance measurement and quality improvement using feedback from person receiving services and caregivers.

Source: American Geriatrics Society Expert Panel on Person-Centered Care, “[Person-Centered Care: A Definition and Essential Elements](#),” *Journal of the American Geriatrics Society*, Jan. 2016 64(1):15-8.