# Effective Care for High-Need Patients: Opportunities for Improving Outcomes, Value, and Health

# **Executive Summary**

### Introduction

transportation (Hayes et al., 2016b). In terms of demographics, a consensus of the available literature demonstrates that high-need individuals are disproportionately older, female, white, and less educated (Cohen et al., 2015; Hayes et al., 2016b; Joynt et al., 2016). They are also more likely to be publicly insured, have fair to poor self-reported health (Hayes et al., 2016b), and be susceptible to lack of coordination within the healthcare system (Osborn et al., 2014). Their needs extend beyond care for their physical ail

key social risk factors include low socioeconomic status, social isolation, community deprivation, and house insecurity.

While this starter taxonomy is useful, additional work is needed to develop an ideal taxonomy that presents holistic guidance on how care and finite resources should be targeted and delivered to improve the health of high-need individuals, and ideally reduce the cost of care. One challenge to achieving this is that most health information technology systems do not support integrated and streamlined data collection of patient's physical and behavioral conditions, their care utilization, and their social challenges. Additionally, multiple payers and varied benefits packages pose administrative and operational hurdles for the implementation of a taxonomy.

## **Care Models That Deliver**

The purpose of taxonomies is to align high-need patients with the care models that target their specific needs. For taxonomies to be actionable, successful care models for different segments of high-need patients must exist. Chapter 4 draws on the workshop series and a review of evidence syntheses and other literature to produce a list of attributes of successful care models and to map successful models to different high-need patient segments.

While the success of even the best care model will depend on the particular needs and goals of the patient group a model intends to serve,

which varies for different segments of high-need patients, all successful care models should foster effectiveness across three domains: health and well-being, care utilization, and costs. Care models that have been shown to be successful share a number of common attributes, which can be organized in an analytic framework with the fol-

Using this analytic framework, the planning committee identified fourteen successful care models for high-need patients and cross-refer

**Table 1 |** Clinical Group Features

Clinical Group	Features	
Children with complex needs	Have sustained severe impairment in at least four categories together with enteral/parenteral feeding or sustained severe impairment in at least two categories and requiring ventilation or continuous positive airway pressure a tinuous positive airway pressure (a)	
Non-elderly disabled	Under 65 years and with end-stage renal disease or disability based on receiving Supplemental Security Income(b, c)	
Multiple chronic	Only one complex condition and/or between one and five noncomplex conditions (b, c)	
Major complex chronic	Two or more complex conditions or at least six noncomplex conditions	
Frail elderly	Over 65 years and with two or more frailty indicators (d)	
Advancing illness	Other terminal illness, or end of life	

- a: Categories for children with complex needs are: learning and mental functions, communication, motor skills, self-care, hearing, vision
- b: Complex conditions, as defined in Joynt et al., 2016, are listed in Table 2-1 of the publication.
- c: Noncomplex conditions, as defined in Joynt et al., 2016, are listed in Table 2-1 of the publication.
- d: Frailty indicators, as defined in Joynt et al., 2016, are gait abnormality, malnutrition, failure to thrive, cachexia, debility, difficulty walking, history of fall, muscle wasting, muscle weakness, decubitus ulcer, senility, or durable medical equipment use.

#### Box 1

# Care Attributes of Successful Care Models

- Assessment. Multidimensional (medical, functional, and social) patient assessment
- Targeting. Targeting those most likely to benefit
- Planning. Evidence-based care planning
- Alignment. Care match with patient goals and functional needs
- Training. Patient and care partner engagement, education, and coaching
- Communication. Coordination of care and communication among and between patient and care team
- Monitoring. Patient monitoring
- **Linking.** Facilitation of transitions

Sources: Anderson et al., 2015; Bodenheimer and Berry-Millett, 2009; Boult and Wieland, 2010; Brown et al., 2012; McCarthy et al., 2015; Nelson, 2012.

• Teamwork.		

Finally, reliable monitoring and continuous improvement of effective models of care for highneed patients depends on high-quality data and analytics that can be used to match high-need individuals with specific interventions (Bates et al., 2014; Bradley et al., 2016; Dale et al., 2016; Rajkumar et al., 2015). High-quality data are also required for quality measurement to determine the impact that care models are having on care coordination, utilization, and cost. Currently, there are many disparate systems that cannot easily share information, making it difficult to assess the requirements of high-need individuals and whether they are getting appropriate care. Coordinated federal, state, and local government initiatives must identify barriers that currently inhibit data flow among the clinicians and organizations treating high-need populations and work to minimize those barriers while respecting pa-

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- Refining the starter taxonomy based on real-world use and experience to facilitate the matching of individual need and functional capacity to specific care programs;
- Integrating and coordinating the delivery of medical, social, and behavioral services in a way that reduces the burdens on patients and caregivers;
- Developing approaches for spreading and scaling successful programs and for training the workforce capable of making these models successful;
- Promoting payment reform efforts that further incentivize the adoption of successful care models and the integration of medical and social services;
- Establishing a small set of proven quality measures appropriate for assessing outcomes, including return on investment, and continuously improving programs for highneed individuals; and
- Creating road maps and tools to help organizations adopt models of care suitable for their particular patient populations.

While each stakeholder sector individually may impact a patient's life, a community, or even a regional health delivery system, one of the most expensive and challenging populations for the current health care system will remain underserved until there is a unified effort—rather than small, incremental steps—to improve care for the nation's high-need patients and to reduce the cost of delivering that care.

#### References

Anderson, G. F., J. Ballreich, S. Bleich, C. Boyd, E. DuGoff, B. Leff, C. Salzburg, and J. Wolff. 2015. Attributes common to programs that successfully treat high-need, high-cost individuals. American Journal of Managed Care 21(11):e597-600.

Bachrach, D., S. Anthony, and A. Detty. 2014. State strategies for integrating physical and behavioral health services in a changing medicaid environment. New York, NY: The Commonwealth Fund.

Barnett, M. L., J. Hsu, and J. M. McWilliams. 2015. Patient characteristics and differences in hospital readmission rates. JAMA Intern Med 175(11):1803-1812.

Bates, D. W., S. Saria, L. Ohno-Machado, A. Shah, and G. Escobar. 2014. Big data in health care: Using analytics to identify and manage high-risk and high-cost patients. Health Affairs 33(7):1123-1131.

Blumenthal, D., G. Anderson, S. Burke, T. Fulmer, A. K. Jha, and P. Long. 2016. Tailoring complex-care management, coordination, and integration for high-need, high-cost patients: A vital direction for health and health care. In Discussion Paper, edited by N. A. o. Medicine. Washington, DC.

Bodenheimer, T., and R. Berry-Millett. 2009. Follow the money--controlling expenditures by improving care for patients needing costly services. New England Journal of Medicine 361(16):1521-1523.

Boult, C., A. F. Green, L. Boult, J. T. Pacala, C. Snyder, and B. Leff. 2009. Successful models of comprehensive care for older adults with chronic conditions: Evidence for the institute of medicine's "retooling for an aging america" report. Journal of the American Geriatrics Society 57(12):2328-2337.

Boult, C., and G. D. Wieland. 2010. Comprehensive primary care for older patients with multiple chronic conditions: "Nobody rushes you through". JAMA 304(17):1936-1943.

Bradley, E. H., M. Canavan, E. Rogan, K. Talbert-Slagle, C. Ndumele, L. Taylor, and L. A. Curry. 2016. Variation in health outcomes: The role of spending on social services, public health, and health care, 2000-09. Health Affairs 35(5):760-768.

Brown, R. S., D. Peikes, G. Peterson, J. Schore, and C. M. Razafindrakoto. 2012. Six features of medicare coordinated care demonstration programs that cut hospital admissions of high-risk patients. Health Affairs 31(6):1156-1166.

Cohen, D. J., M. M. Davis, J. D. Hall, E. C. Gilchrist, and B. F. Miller. 2015. A guidebook of professional practices for behavioral health and primary care integration: Observations from exemplary sites. Rockville, MD: Agency for Healthcare Resaerch and Quality.

Cohen, S. B. 2014. The concentration and persistence in the level of health expenditures over time: Estimates for the u.S. Population, 2011-2012. Stastical Brief 449 Agency for Health-care Research and Quality. http://meps.ahrq.gov/mepsweb/data\_files/publications/st449/stat449.pdf

Dale, S. B., A. Ghosh, D. N. Peikes, T. J. Day, F. B. Yoon, E. F. Taylor, K. Swankoski, A. S. O'Malley, P. H. Conway, R. Rajkumar, M. J. Press, L. Sessums, and R. Brown. 2016. Two-year costs and quality in the comprehensive primary care initiative. New England Journal of Medicine 374(24):2345-2356.

Dzau, V. J., M. B. McClellan, J. McGinnis, and et al. 2017. Vital directions for health and health care: Priorities from a national academy of medicine initiative. JAMA 317(14):1461-1470.

Hayes, K., G. W. Hoadland, N. Lopez, M. Workman, P. Fise, K. Taylor, R. Meltzer, and S. Seong. 2016a. Delivery system reform: Improving care for individuals dually eligible for medicare and medicaid. Washington, DC: Bipartisan Policy Center.

Hayes, S. L., C. A. Salzburg, D. McCarthy, D. C. Radley, M. K. Abrams, T. Shah, and G. F. Anderson. 2016b. High-need, high-cost patients: Who are they and how do they use health care? New York: The Commonwealth Fund.

Hong, C. S., M. K. Abrams, and T. G. Ferris. 2014a. Toward increased adoption of complex care management. New England Journal of Medicine 371(6):491-493.

Hong, C. S., A. L. Siegel, and T. G. Ferris. 2014b. Caring for high-need, high-cost patients: What makes for a successful care management program? New York, NY: The Commonwealth Fund. Joynt, K. E., J. F. Figueroa, N. Beaulieu, R. C. Wild, E. J. Orav, and A. K. Jha. 2016. Segmenting high-cost medicare patients into potentially actionable cohorts. Healthc (Amst).

McCarthy, D., J. Ryan, and S. Klein. 2015. Models of care for high-need, high-cost patients: An evidence synthesis. Issue Brief (Commonw Fund) 31:1-19.

McGinnis, T., M. Crawford, S. A. Somers. 2014. A state policy framework for integrating health and social services. The Commonwealth Fund.

Nelson, L. 2012. Lessons from medicare's demonstration projects on disease management, care coordination, and value-based payment Congressional Budget Office

Osborn, R., D. Moulds, D. Squires, M. M. Doty, and C. Anderson. 2014. International survey of older adults finds shortcomings in access, coordination, and patient-centered care. Health Affairs 33(12):2247-2255.

Rajkumar, R., M. J. Press, and P. H. Conway. 2015. The cms innovation center--a five-year self-assessment. New England Journal of Medicine 372(21):1981-1983.

Roberts, E., and G. Anderson. 2014 (unpublished). Analysis of medical expenditure panel survey. Johns Hopkins University.

Thomas-Henkel, C., A. Hamblin, and T. Hendricks. 2015. Opportunities to improve models of care for people with complex needs. Princeton, NJ: Robert Wood Johnson Foundation & Center for Health Care Strategies.



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