

COMPLEX, CHRONIC, CO-MORBID: THE CCC PATIENT



Challenges in healthcare are usually framed through the lens of a single disease, like the growing diabetes epidemic or the high rate of heart failure rehospitalization. However, 31.5 percent of all Americans suffer from multiple, difficult to manage diseases¹ — a patient population we define as complex, chronic, co-morbid, or CCC patients.

Patients with complex, chronic, co-morbid conditions command disproportionate healthcare industry spending. In fact, the nearly one-third of the U.S. population that have multiple chronic conditions drive a staggering 71 percent of U.S. healthcare spending. But the financial burden also falls to patients and families, where multiple chronic conditions increase the risk of high cost services such as hospitalizations and emergency room visits.¹

Managing this population's care and identifying which patients are at growing health risk, and when, is especially challenging.² Payers and post-acute care providers have shared these concerns with us: getting the patient to engage in their healthcare, getting the clinician to make timely intervention, and getting all parties to align on the definition of quality care. We believe that driving real improvements in their outcomes will require a new approach to their care management — and that this is a global opportunity.

Managing this population's care and identifying which patients are at growing health risk, and when, is especially challenging.² We believe that driving real improvements in their outcomes will require a new approach to their care management.

We define CCC patients as:

COMPLEX: Their health is influenced by socioeconomic, cultural, environmental, and behavioral factors, along with health-related factors.³

CHRONIC: They require ongoing medical care and have long-lasting physical and mental health conditions, such as heart failure, diabetes, COPD, hypertension, and depression.⁴

CO-MORBID: They have multiple diseases, disorders, or conditions, and may develop more with age.³

COMPLEX	CHRONIC	CO-MORBID
Disease burden influenced by both non-health and health-related factors	Persistent health conditions that require ongoing medical care	Multiple diseases or chronic conditions that occur simultaneously

MULTIPLE CHRONIC CONDITIONS TRIGGER UNIQUE HEALTHCARE CHALLENGES

Comorbidity adds complexity to caring for patients. For example, even if a patient has multiple chronic conditions, specialists tend to treat only the disease in their area of expertise. Most treatment guidelines for one disease don't offer considerations for addressing other comorbidities.^{5,6}

In fact, a study among senior Australians found that many chronic conditions are more likely to occur alongside other conditions than on their own. For example, high blood pressure and heart disease or high blood pressure and diabetes are more likely to occur together than independently.⁷

Chronic conditions and comorbidities make it challenging for CCC patients to understand and manage their health.

Chronic conditions and comorbidities make it challenging for CCC patients to understand and manage their health. Studies show that CCC patients:

- Receive preventative care at lower rates due to clinicians' competing demands to see more patients, while preventative healthcare services are increasingly recommended⁸
- Have limited understanding of how to manage their diseases through self-care⁹
- See multiple clinicians across multiple specialties, making it hard to remember physician instructions¹⁰
- Take multiple medications but usually don't understand precautions or side effects, which has the potential to alter compliance and increase safety risks¹¹

Many patients with complex, chronic, co-morbid conditions want more help and want to be more actively involved in their care, but they don't feel they have the necessary information or support.³ Similarly, clinicians treating these challenging patients want an efficient way of monitoring their whole patient — rather than focusing on a single disease, and rather than waiting for regular follow-up appointments.

CONNECTING CCC PATIENTS TO CARE MANAGEMENT SERVICES

Medtronic Care Management Services (MCMS) can play an important role in addressing unmet needs of the CCC patient population. Our remote monitoring program is designed to give patients a more active role in their care management while helping to enable clinicians to gauge their patients' health status outside the hospital setting. Through daily symptoms data and biometric readings, clinicians can track the patient's multiple conditions over time, aggregate patient data, prioritize patients for further assessment, and potentially intervene before an acute event occurs.

Collecting dynamic data and providing actionable insights to clinicians can mean the difference between a well-managed patient and a high-risk patient. Technology services like MCMS' remote patient monitoring are designed to help bridge the information gap and give payers and clinicians a broader view of each patient's — and their whole population's — health, helping enable them to focus their attention.

Patients with complex, chronic, and co-morbid conditions are uniquely challenging to manage. MCMS is working with payers and clinicians to develop technology solutions that not only help this large and growing population, but also reflect the unique individual patients within it. Together, we believe we can help improve care management for CCC patients.

Patients with complex, chronic, co-morbid conditions are uniquely challenging to manage.

Sheri Dodd brings more than 25 years of experience in the pharmaceutical, medical device, and public health sectors to her role as vice president and general manager of Medtronic Care Management Services. Prior to joining Medtronic in 2010, she worked at the World Health Organization and Johnson & Johnson. She holds a joint MSc degree in health economics and epidemiology from the London School of Economics and the London School of Hygiene and Tropical Medicine.



REFERENCES

1. Agency for Healthcare Research and Quality. Multiple Chronic Conditions Chartbook. 2010 medical expenditure panel survey data. April 2014. AHRQ Pub. No. 14-0038. <https://www.ahrq.gov/sites/default/files/wysiwyg/professionals/prevention-chronic-care/decision/mcc/mccchartbook.pdf>
2. Centers for Medicare & Medicaid Services. Chronic conditions among Medicare beneficiaries. Chronic Conditions Chartbook: 2012 edition. October 2012. www.cms.gov/Research-Statistics-Data-and-Systems/Statistics-Trends-and-Reports/Chronic-Conditions/Chartbook_Charts.html
3. Valderas JM, Starfield B, Sibbald B, Salisbury C, Roland M. Defining comorbidity: implications for understanding health and health services. *Ann Fam Med*. 2009;7(4):357-63. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2713155/>
4. Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion. About chronic diseases. March 2019. <https://www.cdc.gov/chronicdisease/about/index.htm>
5. Sharma MA, Cheng N, Moore M, Coffman M, Bazemore AW. Patient with high-cost chronic conditions rely heavily on primary care physicians. *J Am Board Fam Med*. 2014;27(1):11-2. <http://www.jabfm.org/content/27/1/11.full>
6. Boyd CM, Darer J, Boult C, Fried LP, Boult L, Wu AW. Clinical practice guidelines and quality of care for older patients with multiple comorbid diseases: implications for pay for performance. *JAMA*. 2005;294(6):716-24. http://medstopper.com/files/ClinicalPracticeGuidelines_Quality-Care-for-Elder-Patients-with-Multiple-Comorbid-diseases.pdf
7. Islam MM, Valderas JM, Yen L, Dawda P, Jowsey T, McRae IS. Multimorbidity and comorbidity of chronic diseases among the senior Australians: prevalence and patterns. *PLoS One*. 2014;9(1):e83783. <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0083783>
8. Yarnall KS, Pollak KI, Østbye T, Krause KM, Michener JL. Primary care: is there enough time for prevention? *Am J Pub Health*. 2003;93(4):635-41. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC1447803/>
9. West Survey. Strengthening chronic care: patient engagement strategies for better management of chronic conditions. 2017. https://www.televox.com/downloads/west_chronic_disease_report.pdf
10. Vogeli C, Shields AE, Lee TA, et al. Multiple chronic conditions: prevalence, health consequences, and implications for quality, care management, and costs. *J Gen Intern Med*. 2007;22(Suppl 3): 391-395. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2150598/>
11. Chan FW, Wong FY, So WY, Kung K, Wong CK. How much do elders with chronic conditions know about their medications? *BMC Geriatr*. 2013;13:59. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3684528/>

Medtronic

Medtronic Care Management Services
7980 Century Boulevard
Chanhassen, MN 55317

Toll-free: 1 (888) 243-8881
Tel: (952) 361-6467
Fax: (888) 320-8881

UC202000677 EN © Medtronic 2019
All Rights Reserved.
Printed in USA. 5/2019

medtronic.com/mcms