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Commentary

Can a Healthcare "Lean Sweep" Deliver on What Matters to Patients?

Comment on "Improving Wait Times to Care for Individuals with Multimorbidities and Complex Conditions Using Value Stream Mapping"

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Abstract

Disconnects and defects in care – such as duplication, poor integration between services or avoidable adverse events – are costly to the health system and potentially harmful to patients and families. For patients living with multiple chronic conditions, such disconnects can be particularly detrimental. Lean is an approach to optimizing value by reducing waste (eg, duplication and defects) and containing costs (eg, improving integration of services) as well as focusing on what matters to patients. Lean works particularly well to optimize existing processes and services. However, as the burden of chronic illness and frailty overtake episodic care needs, health systems require far greater complex, adaptive change. Such change ought to take into account outcomes in population health in addition to care experiences and costs (together, comprising the Triple Aim); and involve patients and families in co-designing new models of care that better address complex, longer-term health needs.

Keywords: Wait Times, Multimorbidities, Lean Methodologies, Patient Experience, Chronic Care, Triple Aim

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Sampalli et al[1] describe how they engaged patients living with multiple chronic conditions and their healthcare providers in a "value creation" exercise that led to positive results for both parties and the health system. The study site was the primary healthcare Integrated Chronic Care Service (ICCS) at the Nova Scotia Health Authority (NSHA, formerly Capital Health) in Halifax, NS, Canada. The quality dimensions they tackled – access, coordination, efficiency and patient-centeredness – are relevant to health systems across Canada and internationally. We summarize the background, problem and approach and then present recommendations for consideration.

By way of background, the Canadian Foundation for Healthcare Improvement (CFHI), a not-for-profit agency funded by the Government of Canada to accelerate healthcare improvement, supported Sampalli et al[1] as one of 11 interprofessional teams involved in pan-Canadian improvement collaborative that aimed to improve patient- and family-centred approaches to chronic disease management.[2] Teams involved in the Atlantic Healthcare Collaboration for Innovation and Improvement in Chronic Disease (AHC) received structured support for chronic care design, implementation, change management, evaluation and performance measurement through access to educational workshops and webinars as well as guidance from expert faculty, coaches and mentors. The NSHA team was unique in its focus on multimorbidity care and a value creation Lean improvement approach; and their efforts were recognized with a 3M Health Care Quality Team award.[3]

Problem

As the burden of chronic illness and frailty has overtaken acute, episodic needs, the performance of healthcare in Canada has ceased to be the exemplar it once was on the international stage. A case in point of this poor performance are the findings from the 2014 Commonwealth Fund "International Health Policy Survey of Older Adults in 11 Countries," which ranked Canada last for its long wait times for primary and specialist care.[4] In Canada, more than half of the population (56% of Canadians aged 12 years or older) report living with at least one chronic condition such as diabetes or cardiovascular diseases.[5] As our population ages – in Atlantic Canada, at a faster rate than elsewhere – this disease burden will rise, placing increased strain on health system resources and costs.[6] At the same time, the health system must adapt to better meet the needs of those living with complex and longer-term conditions.[7]

Approach

To address the quality gaps, Sampalli et al[1] applied a "value stream mapping" (VSM) approach to understand current care processes, redefine future state and then set out an action plan to get there. Specifically, VSM is a Lean technique that documents, analyzes and, ultimately, improves workflows to produce a service that delivers value to customers (in this case, patients).[8] Improving value and what matters to patients

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should be the preeminent goal of healthcare systems.[9] The promise of Lean is that it creates value through eliminating waste (eg, time waiting, excess supplies, additional movement, excessive transportation, etc.) and redefining processes and services with the customer-patient perspective in mind.[10,11] The successful application of Lean at high-performing health systems such as Virginia Mason Medical Center[12] and ThedaCare[13] as well as within Canada (eg, across Saskatchewan's health system[14] and in Winnipeg, Manitoba at St-Boniface Hospital[15]), has raised attention of its potential.[11]

Recommendation I: Set Out to Improve Population Health Simultaneously With Improvements in Care Experience and Costs

In Lean terms, value is often defined as improving care experience while mitigating, containing or reducing costs. Sampalli et al[1] cite improved access, patient satisfaction and functional status as well as contained costs and efficiencies. The access and efficiency gains were achieved through reducing the ICCS wait times – from 13 months in 2012 to two months in 2014 – as well as creating new value-added services such as group visits, telehealth and telephone outreach.[1] These services are all aimed at helping patients and families better manage their diseases and gain quicker access to care; however, value for care as it relates to chronic care, extends beyond care experience and costs to overall health benefits, particularly at the population level.

The simultaneous pursuit of better care, cost and health are what the Institute for Healthcare Improvement has coined "Triple Aim."[16] Striving for health benefits beyond symptom management requires action beyond improving the referral-to-discharge pathway to what happens outside of hospital, clinics or even the healthcare encounter. Considerations of improving health requires identifying and designing outreach to patients before they are waitlisted or hospitalized, for example, by asking providers:

- What patients do you think are headed for a hospital admission? What patients are on a downward trajectory or spiral?
- For whom would you like to have eyes and ears in the home?
- What community supports exist to help intervene?[17]

These sorts of questions help focus on the patient as a person rather than as a disease state; and they encourage proactive responses that rely on community-based supports, including partnerships formed outside of healthcare that more greatly impact health.[18] New learning is shedding light on effective approaches for achieving Triple Aim in practice. Getting there requires: (1) population management approaches, (2) robust learning systems, and (3) managing change processes to achieve at-scale improvements.[19] These are critical components of complex, adaptive health systems, which aim to increase value for all who stand to benefit, thereby yielding system-level outcomes and improvements.

Recommendation II: Co-design Care by Working in Partnership With Patients and Families

What Sampalli et al[1] describe was, arguably, a needs-finding exercise – "introducing a simple tool in the form of a Hope and Needs survey allowing patients to self-select their care based on readiness seemed to make a significant difference to wait times as demonstrated in this initiative." Needs-finding is critical in healthcare, but it cannot replace the need for true co-design, which Sampalli et al[1] acknowledge: "Listening to and actively engaging patients in an appropriate manner can have significant impacts to flow processes in addition to an improvement in the patient experience." In terms of active engagement and co-designing services with patients, the "co" implies active patient (and family) partnership as well as shared leadership, with patients and families being able to input their perspectives and experiences to inform service design on a level playing field with healthcare providers and managers.[20] Such co-design goes beyond listening to or seeking input from patients and families to partnering with them to define the aims, measures and change processes; in other words, patients and families, must function as true partners in the learning system.[21]

Conclusion

Wait times are a persistent problem in healthcare in Canada, especially as it relates to access to specialist services.[22,23] The shift that Sampalli et al[1] describe from current state (fragmented, episodic, reactive care) to future state (coordinated, continuous, proactive care) is needed across the health system. Lean methods can greatly help to modify existing processes (after all, it is a product of the Toyota Production System[24] to optimize value-producing systems), but people living with chronic diseases also require entirely new approaches to care. More difficult to measure is the peace of mind that both patients and families feel when care is more coordinated and designed based on their needs. Optimizing value for care (where value is defined in terms of improved care, cost and health), requires new approaches to co-designing care with patients.

Ethical issues

Not applicable.

Competing interests

The authors work for the Canadian Foundation for Healthcare Improvement (CFHI), which provided support (through access to educational workshops, webinars as well as faculty, coaching and mentorship) to Sampalli et al[1] as part of the Atlantic Healthcare Collaboration for Innovation and Improvement in Chronic Disease. CFHI is a not-for-profit organization dedicated to accelerating healthcare improvement for Canadians. CFHI is funded through an agreement with the Government of Canada. Visit http://www.cfhi-fcass.ca/innovation for more information.

Authors' contributions

JYV conceptualized the content of the paper with input from CA; JYV drafted the manuscript and CA provided important feedback and agreed to the final version.

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