

# Getting standardization right

Elise Paradis MA PhD Chanté De Freitas MSc Ruth Heisey MD CCFP FCFP Karen Burrell MSW RSW  
 Lisa Fernandes PharmD CDE Jane McLeod RN Cynthia R. Whitehead MD PhD CCFP FCFP

The rise of evidence-based medicine (EBM)<sup>1</sup> during the past few decades has inspired primary care clinicians to consider the role of standardization in their practices. We have seen the proliferation of protocols and guidelines to manage an increasing variety of conditions and illnesses. While some, such as the Rourke Baby Record, have become an integral part of primary care practice,<sup>2-4</sup> others, including the multiplicity of disease-specific guidelines, have seen more resistance and been decried as incompatible with the complexity of primary care.<sup>5</sup> For instance, how are family physicians and nurse practitioners expected to reconcile contradictory guidelines developed by specialists in the case of a patient who has osteoarthritis, chronic kidney disease, depression, high blood pressure, gastroesophageal reflux, and urinary incontinence?

In what follows, we use insights from the sociology of standardization to refine our Canadian primary care community's thinking around the topic. The case for standardization is generally well known; standards help translate evidence into practice, reduce harmful variation, and support equitable care for vulnerable populations. We suggest a more critical approach to the topic and address several questions: when standardization is most optimal, when standardization is less optimal, and how we can improve the likelihood of success of our standardization efforts in primary care.

Primary care clinicians must work across a range of biopsychosocial issues. Understanding which contexts and for what situations standardization is most likely to positively affect patient care will help us all dedicate our resources more effectively and efficiently.

## What is standardization?

Sociologists have defined *standardization* as a process of harmonizing things or practices across time and space through the generation and implementation of agreed-upon rules.<sup>6</sup> Standardization has been one of the core forces behind modernity. For example, the standardization of time was fundamental to the growth of transporting goods and passengers by railway in the 19th century. More recently, the TCP (transmission control protocol) and IP (Internet protocol) standards have enabled communication on the Internet.

To better understand the effect of standardization on primary care, we find it useful to follow the lead of Timmermans and Epstein<sup>6</sup> and divide standards into 4 types: design standards, which determine the specifics of tools and technical systems (eg, graduated syringes); terminology standards, which enable expert

communication (eg, the International Classification of Diseases); performance standards, which set practice goals (eg, number of patients seen per day; compliance with recommended screening tests for colorectal, breast, and cervical cancer); and procedural standards, which specify steps in a given process (eg, intrauterine device insertion, maternity care, diabetes care).

These different types of standards have certain things in common: they are developed over time, require broad buy-in and continuous uptake, and require regular verification to be effective. Yet clinicians must resist the temptation to conflate these types of standards and ignore their differences. Enforcing design standards for the production of goods such as syringes is an altogether different endeavour than enforcing procedural standards in complex human systems. The latter are generally developed to handle *statistically frequent* events and disease presentations and are thus often too simplistic to account for infrequent or rare events and abnormal, atypical, or comorbid disease presentations. When we create a world of standards to define a nonstandard world, we run the risk of rendering diversity invisible; of assuming that the white male is the “standard” person; of ignoring the effects of racism, sexism, and other structural inequities on health care delivery.

Indeed, standardization can limit the adaptability, flexibility, and uniqueness of systems. It constrains how individuals interpret and tackle the diversity and uniqueness of the situations in which they are placed and of every person they interact with. In primary care, the trade-offs between patient-centred care and standardization protocols can be real, especially since very few studies reflect the complexity of managing patients with multiple comorbidities.<sup>5</sup> Moreover, while much of the EBM literature recognizes the need for adaptation of global performance and procedural standards to local contexts, generally the success of such standards is seen in their portability and scalability *across* contexts.<sup>7</sup> This is what Pronovost et al call the “extend” stage of evidence translation into practice.<sup>8</sup>

While a graduated syringe will be portable across extreme contextual variations—from patient to patient, from the poles to the tropics, from primary care to the operating room—procedural standards will not, especially if they are not developed locally and championed organizationally and do not place patients and their journeys at the centre of all continuous improvement systems.<sup>9</sup>

## When standardization works

Design and terminology standards generally work to improve portability and uniformity of interventions and

communication. Terminology standards, however, evolve historically—sometimes organically from within health care, sometimes externally through pressure from activist communities. The removal of homosexuality from the *Diagnostic and Statistical Manual of Mental Disorders*, 2nd edition, in 1973, for instance, transformed how health care workers were trained and expected to interact with gay and lesbian patients. Recent conversations about infant genital surgery aims to do the same for intersex conditions. Changing our terminology and language about homosexuality as a natural variation in sexual orientation versus a mental illness, for example, changes 2 things. First, it changes our perceptions of health, illness, and our patients. Second, through “looping effects,” it both reflects and influences changes in populations themselves.<sup>10</sup>

Standardization of processes is also essential for patient safety and can improve health outcomes. For example, the hospital-based practice of using 2 patient identifiers with every new clinical encounter is essential to ensure safe care and should be adopted by all family practice offices.

Some powerful procedural standards are widely used in Canadian family practice: the diabetes flow chart is deemed a best practice by physicians treating patients with diabetes, and physician payments for diabetes care are tied to its use.<sup>11</sup> Other successful examples include the Rourke Baby Record, an evidence-based assessment tool for infants and young children. This tool combines nursing- and physician-led assessment sections and mobilizes data from World Health Organization growth charts. It has been shown to be effective and is at its most useful when used interprofessionally.<sup>12</sup>

Such standardized tools suggest an evidence-based process that can lead primary care teams to provide holistic care by questioning local practices and inviting the redefinition of the roles and scopes of different clinicians. They can help teams navigate issues of ownership and control by identifying who is the best-placed clinician to offer a specific aspect of care. While use of practice improvement frameworks such as Lean are still rare in primary care, they have shown promise in more acute care settings.<sup>9</sup> In particular, the inclusion of all team members and the responsibility of front-line staff for improving processes and creating value for patients are principles we should espouse. We all believe that we provide higher-quality care when we have greater role clarity and consistent expectations.

### When standardization falls short

Standardization is not a panacea. It is a starting point for digging deeper into the case of every specific, unique person in front of us. Patients trust us to do what is right for them, and not for the statistically most frequent version of the patient with a similar condition or in a similar situation. Standardization should guide—without stifling connection, customization, and creativity.

In health care, EBM and clinical guidelines build on published research to generate standards that purport to help clinicians choose the best path for their patients. Yet, as we know from more than a decade of research on the topic, they are unevenly used in clinical practice and have a limited effect on clinical decision making.<sup>13-15</sup> In fact, standards rarely match the complexity of the processes they are trying to standardize and might—in some situations—detract from the ultimate goal of improved quality of care and patient outcomes.

We believe that the challenge is even greater in primary care, where we aim to provide holistic care: to see the whole person in his or her full psychosocial systems and during his or her lifespan. Our patients cannot be broken down into body parts or systems, and thus there might be conflicting standards for one single patient, particularly for those with more than one disease. As Upshur and others have noted, treating a patient with multiple comorbidities by applying a host of disease-specific guidelines is both conceptually and practically problematic.<sup>16,17</sup>

Similarly, we need to be careful when aiming to standardize the practices of individual practitioners and teams. On one hand, it seems obvious that standardizing examination room supplies across multiple providers and teams will increase efficiency. On the other hand, it is not clear that standardizing the way interprofessional primary care teams work together will yield similarly obvious benefits. Without careful consideration of the patients those teams serve and of the clinicians involved (their personalities, expertise, skills, preferences, etc), it is not clear whether standardization might hamper fruitful variation in practice.

We must recognize that some of our standardized processes limit our patients' access to the very services we build for them, especially when the needs of health care providers are orthogonal to those of patients. For example, Friday morning nutrition or social work clinics align well with our regular work force schedule. However, many patients might be unable to attend sessions held during regular business hours, whether because of precarious employment, child care or elder care responsibilities, or unsupportive managers. Others with social anxiety or mental health issues might find group activities of any kind problematic. We must take care not to create standardized processes that only work for a narrow set of patients. If we do not keep patients (in all their multifaceted and diverse selves) at the centre of our standardization efforts, we might inadvertently cause harm.

Last, when we standardize mindlessly, we run the risk of undervaluing expert clinical traits such as adaptability, flexibility, discretion, and interpretation.<sup>18</sup> We lose our ability to see diversity and uniqueness. Instead of trying to fit the apocryphal round peg in a square hole, we must recognize process standards for what they are: a first approximation, an invitation to see the very person in front of us. Communication tools such as SBAR—the

situation, background, assessment, recommendation method<sup>19</sup>—are a great heuristic to start a conversation. Yet, to build relationships and provide the best possible care, clinicians must learn to move beyond the otherwise canned, artificial-sounding standard, and consider their own values and their patients' values as well.<sup>20</sup> We can hear the difference between a genuine interaction and a scripted one. Our patients can too.


### Getting standardization right

Clearly, standards in health care are incredibly useful. The structure they provide allows us to focus on the more complicated and complex aspects of the care we provide and to connect with our patients to identify where our support is most acutely needed.

How do we use the best parts of standardized processes and practices without stifling flexibility and creativity? A first step might be to acknowledge that there will always be a productive tension between the efficiencies achieved by standardization (eg, of clinic flow processes such as standardized workspaces and team processes for patient care navigation) and maintaining creative, patient-centred approaches.

A next step could be to clarify the different processes and practices of care that might or might not benefit from standardization. Returning to the terminology of Timmermans and Epstein,<sup>6</sup> perhaps we should expect standardization to help with design and terminology standards but exercise more caution when considering performance and procedural standards such as team relationships or ensuring that our diverse patients receive culturally specific, personalized care.

A further step will be to monitor the effects and implications (both intended and unintended) of various standardization efforts.<sup>9</sup> Without this, we might fail to recognize both positive and negative consequences of practice model changes. Ongoing transparent engagement of all individuals involved in the care team is essential.

Finally, as with all other change processes, it is critical to pay attention to power dynamics among clinicians and with patients. Who decides what, where, and when to standardize? Who is involved in the creation of standards? Who has the privilege to exercise professional judgment in the face of standards? Whose own professional practice is constrained by others? To get standards right, we must do 2 things. First, we must develop process and performance standards that are sensitive to the knowledge, needs, and dignity of all care team members. Second, and most important, we must ensure that we place patient outcomes at the centre of our standardization efforts and explicitly acknowledge and incorporate the voices of patient groups that have historically been excluded. If we fail to address these power inequities, we will fail to get standardization right. 

**Dr Paradis** is a sociologist and Assistant Professor in the Leslie Dan Faculty of Pharmacy at the University of Toronto in Ontario, and Scientist at The Wilson Centre in the University Health Network. **Ms De Freitas** is a qualitative researcher in Toronto. **Dr Heisey** is Chief of Family Medicine and Medical Director of the Peter Gilgan Centre for Women's Cancers at Women's College Hospital in Toronto and Clinician Investigator and Associate Professor in the Department of Family and Community Medicine at the University of Toronto. **Ms Burrell** is a clinical social worker and psychotherapist at the Women's College Hospital Family Practice Health Centre, and Adjunct Lecturer in both the Factor-Inwentash Faculty of Social Work and the Department of Family and Community Medicine at the University of Toronto. **Dr Fernandes** is a clinical pharmacist at Women's College Hospital Family Practice Health Centre and Assistant Professor (status only) in the Department of Family and Community Medicine at the University of Toronto. **Ms McLeod** is a registered nurse at Women's College Hospital Family Practice Health Centre. **Dr Whitehead** is a family physician at Women's College Hospital, Professor in the Department of Family and Community Medicine at the University of Toronto, and Director and Scientist at The Wilson Centre.

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#### Correspondence

**Dr Cynthia R. Whitehead**; e-mail [cynthia.whitehead@utoronto.ca](mailto:cynthia.whitehead@utoronto.ca)

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