

## Stopwatches and Click Boxes: The Intersection of Scientific Management and Family Medicine

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**A**t the beginning of the 20th century, Frederick Taylor applied the scientific method to the manufacturing industry to determine the “one best way to do every job.”<sup>1</sup> His method, now known as “time and motion study,” systematically recorded a worker’s movements, using direct observation and stopwatches. Taylor would analyze multiple methods of completing a task, such as bricklaying, to determine which method was the most efficient. After identifying the one best way, Taylor proposed two additional principles to maximize efficiency—the proper selection of workers and the importance of training workers in the one best way. This scientific approach to management and work continues to impact how organizations function today.

Family physicians likely identify with this desire for efficiency in organizations, and opportunities exist throughout our clinics and classrooms to improve processes of care and learning. In this issue, Young and colleagues introduce this method in an assessment of the use of electronic health records (EHRs) in outpatient clinics.<sup>2</sup> Although EHRs are still a developing technology, the work product they are intended to optimize—the physician’s note—is a foundational component of patient continuity. Physician notation originated as a means to record facts for the physician’s own memory in the care of the patient. It then evolved to include a physician’s recorded observations and decision-making processes to share with colleagues. Today, it is expected to demonstrate a physician’s comprehensive record of care, collaboration, and patient communication. The

physician’s note recounts the patient’s story in the physician’s voice.

The electronic health record is intended as an efficiency innovation to increase access, accuracy, and portability of the record. In pursuit of meaningful use,<sup>3</sup> developers have knitted together a haberdashery of tools and templates, creating EHR platforms that act as vital signs records, guideline checklists, decision aids, open-ended journals, insurance coding databases, and on and on. In our contemporary setting, Taylor would measure again and again how physicians encode and decode the electronic record, and he may, after years of study, determine a “one best way” to click the boxes. However, this is where patient care differs from brickwork. Bricks need to all be the same size, the same shape. Not only is every patient unique, every physician-patient relationship and every physician-patient encounter is separate and distinct.

Taylor’s scientific management approach can provide evidence-based improvements to process-oriented questions, such as workflow, clinical space design, and inventory control. Yet this approach is unlikely to uncover answers to patient-centered questions. Attempts to standardize disease management disregard patient autonomy and undermine physician professionalism. Hartzband and Groopman asserted that the genetic, physiologic, and cultural diversity of patients contribute to the lack of agreement among medical experts on how best to diagnose and treat common medical conditions such as hypertension and hyperlipidemia.<sup>4</sup> The clinical uncertainty family

physicians encounter in everyday practice substantially differs from the predictable work of bricklaying.

However, we can still learn from Taylor's method.<sup>1</sup> Young and colleagues<sup>2</sup> demonstrate that when engaging an EHR for patient care, physicians spend a greater portion of their time interacting with the EHR itself than with the patient. Superficially, this is alarming, but even from a scientific perspective, we can interpret this finding as the epitome of inefficiency—a finding that suggests the tool (EHR) is more important than the consumer (patient).

Time and motion study is a valuable first method to demonstrate how EHRs are used. Next, we need diverse research methods to understand the role of EHRs in patient care. We need better usability testing in the overall design of EHR platforms to understand not only how physicians use the tool, but also how they can integrate it into patient care. We need mixed methods research to understand how both physicians and patients perceive the value of the tool. We need more feasibility studies to determine what resources physicians need so that they can focus on the living patient, whether it be time allowances, training opportunities, or the availability of scribes. And we need more system-wide studies of the ability of the EHR to make meaningful impact on the speed of information access, the reach of information sharing, and the usefulness of clinical decision tools from a global perspective.

As family medicine educators, we need to learn more about how to integrate EHRs, from the perspective of patient care, interpersonal skills, team functioning, and practice-based management, and we need to incorporate what we learn into our teaching. This requires teaching on how to use and implement electronic records. It requires modeling from our preceptors to demonstrate how they have surmounted these obstacles in their own practice.

The industrialists who followed Frederick Taylor voiced a backlash to his approach to employee management. They argued that organizations are not machines to finely tune, in which workers are interchangeable widgets. Taylor's approach focused on increasing efficiency and productivity through structure, power, and compensation, without regard for the needs of employees, the social nature of work, or the concept of nonfinancial rewards. His method of learning about efficiency translated into an approach to managing workers that did not always sit well with the workers. Although we value efficiency in family medicine, we increasingly recognize the critical role of individual needs, group dynamics, and the intangible benefits we each receive in our clinics and classrooms. We know we aren't factory workers, and we need to resist efforts to transform medicine into a machine, for ourselves, but primarily, for our patients.

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### **Family Medicine Call for Submissions: The Outcomes of Family Medicine for America's Health**

The Family Medicine for America's Health (FMAHealth) Board of Directors and the journal *Family Medicine* announce our intention to publish a theme issue of *Family Medicine* to highlight the lessons learned and accomplishments of FMAHealth's 5-year collaborative effort to drive improvement in American health care, demonstrate the value of primary care, and reform the specialty of family medicine. The purpose of the theme issue will be to provide an assessment of the project and to update the journal's readers about FMAHealth's progress in achieving its goals.

Papers for the theme issue will be considered if they are submitted to the journal by July 1, 2018. All submissions should comply with the journal's Instructions for Authors and must be submitted into the journal's electronic manuscript management system. Further details regarding submission requirements, and types of articles sought, can be found at <https://journals.stfm.org/media/1367/fmahealth-call-for-papers.pdf>.