

## VIEWPOINT

## The McDonaldization of Medicine

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As put forth in *The McDonaldization of Society*, “the principles of the fast-food restaurant are coming to dominate more and more sectors of American society,”<sup>1</sup> including medicine (Table). While designed to produce a rational system, the 4 basic principles of McDonaldization—efficiency, calculability, predictability, and control—often lead to adverse consequences. Without measures to counter McDonaldization, medicine’s most cherished and defining values including care for the individual and meaningful patient-physician relationships will be threatened.

McDonaldization’s first dimension is efficiency, or the effort to find the optimal means to any end. While efficiency is “generally a good thing,”<sup>1</sup> irrationalities develop in the march toward ever-increasing efficiency. For example, while the drive-through window is efficient, its popularity often leads to long lines and errors by hard-pressed employees. Similarly, McDonaldized clinics often employ less expensive and skilled clinicians to reduce the time physicians spend with patients. The gains in efficiency, however, accrue to those pushing rationalization. From the patient’s perspective, the visit may be inefficient. The visit length increases while time with the physician (and his or her role as an empathetic clinician) decreases.

Calculability, or an emphasis on quantity rather than quality, has spread throughout medicine. As in fast food, quantity is often a poor surrogate for quality. Medical schools voluntarily provide data to be ranked on admission rates and average Medical College Admission Test scores, even though the former can be inflated and the latter have little predictive value.<sup>2</sup> Similarly, physicians and hospitals are subject to more metrics, many of limited utility. Even quality measures, such as length of stay, confuse quantity with quality. Patients are not immune to calculability as the care they receive is increasingly a function of cost and financial return to the system. Like fast-food restaurants that compete on number of customers served, insurers compete on number of lives covered.

Predictability is the assurance that products and services will be the same regardless of time or place. The drive toward predictability leads to the irrational homogenization of medical care. For example, while clinical guidelines are valuable, they lead to greater pressure on clinicians to treat all patients the same, as the recent breast cancer screening controversy highlights.<sup>3</sup> This approach is antithetical to patient-centered care that is responsive to the preferences, needs, and values of individual patients. Predictability can also undermine quality. Many fast-food restaurants eschew using fresh potatoes because frozen potatoes lead to more uniform fries. Similar trade-offs in medicine to achieve consistency can lead to poorer medical care. For example, scripted histories, overuse of checklists, or uniform

length of patient visits can result in equal care that does not address individual needs.

The final dimension of McDonaldization is control of humans by nonhuman technology,<sup>1</sup> which is increasingly applied to both physicians and patients. In fast-food restaurants, machines, not workers, control cooking. In medicine, resident physicians now spend far more time with computers (40%) than with patients (12%).<sup>4</sup> Billing codes and policies, which specify the length and content of visits, dictate the care that patients receive, influence clinicians, lead to unnecessary procedures, and can adversely affect patient health. The electronic medical record controls interactions between physicians and patients by specifying what questions must be asked and what tasks must be completed, thereby substituting the judgment of a computer for that of a physician. Consequently, physicians increasingly serve the needs of “meaningful use” criteria and electronic medical records, which interfere with patient care, decrease professional satisfaction, and are often inefficient.<sup>5</sup> These nonhuman technologies can reduce fast-food workers and physicians to robots and customers and patients to automatons.<sup>1</sup>

Despite their irrationalities, efficiency, calculability, predictability, and control are beneficial. For example, standardizing central venous catheter placement improves health by reducing catheter-related bloodstream infections.<sup>6</sup> Like fast-food restaurants, medicine should not be inefficient (searching for a patient’s medical record), incalculable (no measurement of outcomes), unpredictable (open-heart surgery without protocols), and uncontrolled (no code of physician ethics). The problem is excessive reliance on these principles.

Left unchecked, McDonaldization results in “unreasonable systems that deny the humanity, the human reason, of the people who work within them or are served by them.”<sup>1</sup> In medicine, excessive reliance on McDonaldized systems replaces energy and empathy with fatigue and inertia in residents and causes burnout in physicians. For patients, McDonaldization dehumanizes a very human relationship.

Antidotes to the McDonaldization of medicine are available. Micropractices combat the drive toward efficiency by reducing overhead and enabling patients and physicians to spend more time together. Incorporating the input and preferences of patients can help change reimbursement policies from calculating costs to delivering value for patients, which will increasingly be needed as the number with chronic neurological disorders increases. Reducing subsidies for institutional care and expanding training and reimbursement for care in the home can reduce the homogenization of care that stems from an overemphasis on predictability.

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Table. Dimensions of McDonaldization of Medicine

Dimension	Description	Example	
		Fast Food	Medicine
Efficiency	Choosing the optimal means to achieve a given end	Drive-through window, limited menu, self-ordering register, finger foods, customers clear their table	Minute clinics, broader use of medical assistants, robotic surgery, brief visits with physicians, patients complete questionnaires
Calculability	Calculating, counting, and quantifying means and ends, with quantity serving as a surrogate for quality	Big Mac, supersize options, No. of hamburgers sold, precise measurement of hamburger size (9.843 cm)	"Big Med," medical school rankings, RVUs to measure productivity, ICD-10, length of stay, 30-d readmission rates
Predictability	Services and products being very similar from one time and place to another time and place	Extensive use of logos, standardized appearance of stores, use of frozen products, assembly-line food production, scripted interaction with customers	Extensive use of logos, standardized order sets, checklists and templates, clinical pathways, scripted histories and physicals
Control	Increased control of humans through use of nonhuman technology	Factory farms of chicken and cattle, hormone-treated animals, precut and preprepared food, automated soft-drink dispenser, uncomfortable chairs	Billing codes, electronic medical record, debt burden, formularies, utilization review

Abbreviations: ICD-10, *International Statistical Classification of Diseases and Related Health Problems, Tenth Revision*; RVUs, relative value units.

Control by nonhuman technologies can be mitigated by limiting the size of bureaucracies, ensuring electronic medical records improve care, and reducing the financial burden of young physicians. Enforcement of antitrust laws can limit the size and scope of bureaucracies, which often have an irresistible drive for control, and ensure consumer choice. Vendors of electronic medical records that benefit from taxpayer incentives must be accountable to produce technology that facilitates better care and not simply more control. Finally, increasing residency compensation or reducing training would enable greater autonomy for future physicians to potentially choose fields that are more aligned with societal interests.

Neurology is not immune from McDonaldization. For example, the mission of the American Board of Psychiatry and Neurology is

not to serve the public or the profession but "to develop and provide valid and reliable procedures for certification and maintenance of certification."<sup>7</sup> Rather than burden psychiatrists and neurologists with onerous requirements of uncertain value, the board could promote public service and professional ideals by asking its members to engage in activities to improve the health of society. Such work could be caring for those with limited means, helping ensure the neurological well-being of young athletes, or preparing families for the increasing burden of Alzheimer disease. If we are going to count in medicine, let it not be the number of medical records reviewed but rather the number of lives touched, minds stimulated, and hearts moved. The struggle against the McDonaldization of medicine will be both increasingly necessary and ennobling.

#### ARTICLE INFORMATION

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