

The Problem of Fragmentation and the Need for Integrative Solutions

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AN INTERACTIVE SERIES

In the United States^{1,2} and around the world³ we face enormous healthcare problems of unsustainable cost increases, poor quality, and inequalities. The low value of the US healthcare system and analogous difficulties in other countries have elicited calls for bold action. Strategic action, however, requires a deeper than surface understanding of the problem.

This is the first in a series of commentaries designed to help make sense of the problems and opportunities we face for understanding and improving health care and health. This series will address the following issues:

- The problem of fragmentation that underlies the more obvious health care crisis
- A generalist solution—to reducing fragmentation and fostering integration
- The nested hierarchy of health care—how health care can be organized to enable the higher levels that are unintentionally devalued by current approaches
- The paradoxical payoff of primary care—better whole-person and system outcomes despite apparently poorer quality disease-specific care
- Ways of knowing in health and health care—how understanding development in 4 complementary domains can inform a science and practice of integrated health care
- Cycles of renewal and adaption—that identify useful strategies for the current unstable position in the health care cycle

Your interaction with these ideas by reading and contributing comments at <http://annfammed.org/cgi/letter-submit/7/2/100> can be a nidus for hope, even as cynics argue that transformative change is not possible. The nattering nabobs of negativity⁴ are thinking too narrowly. Real change is possible with a different view that allows integrated solutions to emerge.

THE PROBLEM OF FRAGMENTATION

A wealthy man I know went from doctor to doctor to try to find a reason for his fatigue. Each doctor looked

in depth at the organ in which (s)he was an expert. Each did the latest tests. Each prescribed the latest drugs and devices. And the patient, the person, got worse. He was in charge of his healthcare; he bought the best of each commodity; but in the end his fatigue remained and he only felt more alone.

This man's experience was the opposite of healing. Healing requires relationships—relationships which lead to trust, hope, and a sense of being known.⁵ But our healthcare system doesn't deliver healing. It doesn't deliver relationships. Increasingly it delivers commodities that can be sold, bought, quantified, and incentivized. While the whole—whole people, whole systems, whole communities—gets worse.⁶ While governments, health care systems, and individuals spend more and more on healthcare, for less and less value.

Focused laboratory research is needed to understand the behavior of discrete treatments for discrete diseases, but improving health is fostered by a different science, one that considers the behavior of multiple interacting factors which advance the health of whole people within communities. It is the poor generalist health professional who considers only the disease and not the whole person. It is the poor policy maker that designs health care systems that deal only with discrete diseases and fails to create environments that support creative interaction between different parts of the system.^{6,7}

Underlying the current healthcare failings is a critical underappreciated problem: fragmentation—focusing and acting on the parts without adequately appreciating their relation to the evolving whole.⁸⁻¹⁰ This imbalance, this brokenness, is at the root of the more obvious healthcare crises of unsustainable cost increases, poor quality, and inequality. Fragmentation is at the heart of the ineffectiveness of our increasingly frantic efforts to nurture improvement.

Knowledge advanced greatly in the modern era by making sense of complicated things by understanding their parts. The ensuing rise in specialization¹¹ has led

to breathtaking advances from isolating, partitioning, and manipulating the components of physical, biological, and human systems. More recently, new insights in biology, physics, human organization, and other fields have led to understanding complex systems as more than the sum of their parts.¹²⁻¹⁵ Because of our fragmented understanding of the natural world, systems, and human interactions, however, health care has not kept up with these advances.¹⁶⁻²⁰ Specialized information has expanded without a similar expansion in our ability to integrate, prioritize, and personalize narrowly construed information. As a result, our ability to turn information into knowledge and knowledge into wisdom has diminished.²¹

The Unintended Consequences of Well-Intentioned Actions

The invisibility of this problem is important because fragmentation leads to well-intentioned actions that sometimes have the unintended consequence of making things worse.²² These unintended consequences include the following:

Inefficiency

A cacophony of narrowly-focused programs and services is an excellent strategy for expanding revenues for service and commodity providers. It is not a strategy for efficiently delivering health care.²³ Efficient health care requires an ability to personalize and prioritize based on "an acquaintance with the particulars,"²⁴ seen in the context of whole people, communities and systems. It is no coincidence that US healthcare is both the most fragmented and most costly in the world.²⁵

Ineffectiveness

Likewise, it is no fluke that the technologically advanced but fragmented US healthcare system ranks 37th in the performance of its healthcare system.²⁶ Spending more on the parts has not improved the whole. Similar criticisms of fragmented disease-by-disease efforts by the World Health Organization have been raised on the 30th anniversary of the Alma Ata plan for "providing a comprehensive, universal, equitable and affordable healthcare service for all."²⁷⁻²⁹ Today the efforts of public health, healthcare systems, and philanthropists are directed at narrow programs with insufficient attention to the larger whole they are trying to affect. Because of the lack of an integrative way of making sense of the world, the need to control and understand narrowly and the short-term incentives to divide and profit replace the greater promise of whole-system approaches. Because of the fragmentary configuration of current scientific evidence,³⁰ the narrowly defined "performance" that is being incentivized in pay-for-per-

formance³¹ schemes risks unintentionally disincentivizing optimal care of whole people and populations.³²⁻³⁴

Inequality

In a fragmented system, it is easy to ignore the poor.³⁵ Doctors treat whoever comes through the door, often oblivious to the many barriers to entry. Manufacturers make their products based on economic niche more than public good.²³ Hospitals and healthcare systems strive to attract "the right case mix" to maximize profits, or just to stay in business. A patchwork of safety nets is stretched to their limits, and many people fall between the nets.³⁶⁻³⁸ The human and economic costs of injustice are staggering for individuals and communities deprived of health and its benefits for society.³⁹⁻⁴⁰ Further, the spiral of spending on healthcare risks worsening inequalities by siphoning resources from the social determinants of health that are even more important drivers of equitable population health.³⁹

Commoditization

Treating healthcare (one word) as a commodity can unintentionally devalue health care (two words). Health care involves relationships. Disease management programs are bought and sold with a trumping emphasis on the disease and a secondary focus on the person experiencing the illnesses.⁴¹ Information technology systems support narrowly evidence-based care of individual diseases, rather than higher level integration of care for prevention, mental health, multimorbid conditions, and acute concerns.⁴²⁻⁴⁶ Knowledge generation is narrowly partitioned in disease-specific institutes and initiatives without sufficient balancing research that transcends these boundaries. Specialists, drug and device makers, hospitals and service agencies focus on delivering their well-reimbursed services without a way to consider their effect on the whole person or system, or the opportunity costs on the social determinants of health, such as education and employment.³⁹ The promise of health care is reduced when it is treated as a commodity—when patients become customers, citizens become consumers, healers become providers, and costs for the public good of health care are shifted around like the proverbial hot potato.

Commercialization

The recent worldwide financial meltdown shows that the tremendous benefits of the market must be balanced by incentives toward the larger societal good.⁴⁷ Although private provision of healthcare services sometimes motivates convenience and satisfaction among those able to access services, private financing of healthcare disastrously has left too many out while fostering harmful overuse of marginal services by oth-

ers.^{48,49} Convenience and satisfaction are not the most important health care endpoints, and the pipe dream of a fully informed marketplace making the right health-care decisions has been shown to be woefully unrealistic.⁵⁰ The failed free market ideology of the US health-care system is being willingly imported by other countries to the detriment of more systemic approaches.

Deprofessionalization

By focusing their role narrowly on a technical skill, procedure, or body part, healthcare professionals have completed one part of their contract with society.^{51,52} But in focusing narrowly on expertise without also attending to their responsibility to the whole person and to society, healthcare providers have accepted the rewards of a profession without accepting the full responsibility. In buying into (and being paid well for delivering) manufacturing-inspired productivity models of healthcare, we have lost our professionalism and sold our souls without even noticing the transaction. We have settled for being technicians rather than compassionate healers in covenant with our communities. We have forgotten that higher levels of healing are possible by balancing the biotechnical with the biographical.⁵⁴

Depersonalization

Osler is quoted as saying "It is more important to know what sort of person has a disease than to know what sort of disease a person has."⁵⁴ The experience of healthcare in the United States, however, too often is one of not being known as a person. This experience affects the poor, who have difficulty getting access to basic medical care until their problems are emergencies. But it also is experienced by the rich and middle class, who receive as much (and often more) of the sometimes dangerous⁴⁹ commodities of healthcare as they want but feel abandoned when they need help putting together the pieces of their illness-shattered lives into a meaningful whole.⁵⁵

Despair and Discord

Patients appear to be more dissatisfied with healthcare in more fragmented systems.⁵⁶ Indeed, the failure of repeated fragmented attempts to fix the problems can result in a kind of shared hopelessness. When we see only parts, disconnected from the whole, we lose our ability to find incremental actions that are connected to larger evolutionary improvement. The search for single sustainable solutions gets in the way of fostering development toward equitable, integrated, personalized, prioritized health care. Furthermore, the fragmentation of healthcare leads to a get-what-you-can mentality among all involved. Developing shared goals, such as those present and sometimes beset in the Brit-

ish National Health Service,⁵⁷⁻⁶⁰ requires continuous attention, but discernment of how each person's health and health care affects the others can provide a platform for seeking a better way together.

Understanding the Problem

Understanding the fundamental problem of fragmentation in our disintegrating healthcare system is an important first step. Viewing health care as an evolving whole instead of only as fragmented parts can help us to feel hope where now there is cynicism. Personalization and relationship where now there is detachment and isolation. Professional and corporate shared responsibility where now there is narrow self-interest. High value health care where now there is waste and inequality. Maximizing the opportunities for health and healing, and abiding when healing and health are not possible.

In his inaugural address, President Obama decried "our collective failure to make hard decisions." An important first decision is to work to understand critical and actionable aspects of the problem. To improve health care and health, the hard and joyful choices necessary to reduce fragmentation await our thinking and acting differently.

In the next issue—the generalist solution.

To read or post commentaries in response to this article, see it online at <http://www.annfamned.org/cgi/content/full/7/2/100>.

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