Medical Information and Bureaucracy: F.A. Hayek and the Use of Medical Knowledge

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The medical profession attracts adherents to its tenets by its knowledge, the efficacy of its ministrations, and its winsome attitudes. It does not major in coercion. It is a force in metaphor only. Private medicine must always make suggestions to the patient, not demands, and a prescribed treatment is always subject to the voluntary consent of the patient, who has been informed without systematic bias from outside.

Third-party payment arrangements have fundamentally altered the nature of this interaction.

The Function of Medical Information

Interaction between the medical professional and the patient is largely an exchange of information. The patient provides the medical professional with information on symptoms, medical history, family background, and less quantifiable information such as beliefs, motivations, and behavior patterns. The medical professional then analyzes this information, and may make a diagnosis and suggest a plan for treatment. For most of history, the information exchange between the medical professional and the patient has been private, with patient satisfaction being the primary determinant of medical success.

The 20th century saw a decline in the relative importance of patient satisfaction, as a third party with coercive power over medical professionals and patients—the civil government—began to intrude upon the information exchange. Unlike private medical practice, the civil ruler does not depend on voluntary consent, and in fact the use of unconcealed coercion seems to be accelerating. Satisfying a voluntarily consenting patient has become less important than meeting the requirements of a central authority that professes to have an interest in the patient's well being.

As medical practice has become more answerable to the regulating state, it has become ineluctably less accountable to the patient. There has been a corresponding increase in requirements to transfer information about a patient—and the medical professional's dealings with that patient—to a central authority. Medical insurance plans, instead of being an information-bearing component of a free market, have become substantially another arm of government's central authority, as a consequence of market-deforming government-mandated contract requirements and the favor of a pre-tax dollar benefit.

Here the medical professional struggles to compress a complex decision process into a report for the central authority. Because of the nature of medical information, relevant bits of information will not be—cannot be—communicated. Yet intermediaries at a central office fall victim to a fatal conceit. The reams of statistical aggregates that flow into their offices—the number of adverse drug reactions, the number of medication errors in hospitals, the number of undiagnosed diabetics, the average length of hospital stay for congestive heart failure—contribute to a belief that these voluminous streams of data provide the knowledge sufficient for control.

Condemnatory conclusions are drawn, thinly disguised as "opportunities for improvement." While these may sometimes be legitimate opportunities for improvement, they nearly always are opportunities for the centralizers to exercise greater control, greater coercion. Coercive methods include "guidelines" attached to economic and legal sanctions for deviations, lawsuits, sham peer reviews, activist licensure boards, a life of infamy in the National Practitioner Data Bank, forbidden treatment methods, and criminal prosecution for variances in billing or controlled drug prescription.

The centralizers are likely to forget that nuances of each patient situation preclude rigid adherence to any "standard" treatment. Private medicine may not presume to have a monopoly for this particular patient on the best way to define the problem or on how to alleviate it. Private medicine is forced by competition to remember that studies of groups of people discover commonalities, but that in application the particularities need to have the final rule. The science of therapeutics comes largely from statistical descriptions of groups.

The physician must decide which study provides the best fit for each patient. If an otherwise relevant study included few women, but today's patient is a woman, can it be usefully applied? Studies are like an array of possible stage sets. The physician decides which set is the best one on which to act out the play with each patient. The National Cholesterol Education Program says to use statin drugs under certain conditions. This patient has one of the conditions, but has trouble affording all his medications. Cholesterol reduction in his case offers very little "bang for the buck." The physician advises omitting a statin.

The fact that any medical treatment involves a sacrifice of some other good is objectionable to medical statists. Yet medical care does compete with other, perhaps nonmedical, goods and services that also contribute to a person's health. The resources devoted to drugs could have been spent on a marginally safer car, a carbon monoxide detector, or a handrail by the front steps.

Pharmaceuticals will produce a declining marginal contribution to health, and continuing indefinitely to add pharmaceuticals in an effort to produce health would eventually reduce health. Insisting on a new drug could diminish a person's health if this restricts the person to a suboptimal mix of medical care versus other goods and services. The broader array of tradeoffs taken into account by the patient and the private physician should trump the invariably narrower view of the central controller.

The Economics of Knowledge in Medicine

The centralizers in medical practice are facing a knowledge insufficiency that some economists have traced to the nature of the knowledge itself. Six decades ago, the economist Friedrich A. Hayek observed that the problem of communicating relevant

information to a central economic planner is perhaps insurmountable, because the most pertinent information is frequently of the sort that cannot be recorded and transmitted to a central economic bureau.

Economists had failed, Hayek suggested, in that they were asking the wrong questions. Economists had been seeking the best economic arrangement, "if we possess all the relevant information, if we can start out from a given system of preferences, and if we command complete knowledge of available means."[1, p. 145] Hayek pointed out that this approach is misguided, because no one ever possesses all the relevant information or has certainty of individual preferences. Incited to overconfidence by volumes of aggregate statistics and streams of other data, those at centers of control do not realize their profound limitations stemming from ignorance of the local particulars.

For example, the central medical controllers may know that angiotensin converting enzyme (ACE) inhibitors are generally good to control congestive heart failure, but do not know that 20 years of experience with Ms. Askins has established her invariable capacity to mismanage any pharmacological program involving more than three drugs. She takes three others even more important than the ACE inhibitor, and there is no reliable family member to come alongside and help her adjust to taking four drugs. Her heart failure is not a current symptomatic problem.

The medical profession today faces the same problem that Hayek points out. Some apparent early successes in public health seemed to indicate that central control could be beneficial. Indeed, the information gathered by central nodes of control is not inevitably useless. A public health official can see epidemics that are too scattered in time and space for an individual practitioner to notice. That vision of the public health official can be transmitted to the individual practitioners and public to the advantage of nearly everyone.

However, while epidemiology is implicit in most patient encounters, it is the salient determinant in few of them. What matters in patient care varies hugely with each encounter. For Mr. Murphy, what matters is that his fear of having a colon cancer is addressed. For Mrs. Waters what matters is that the office visits are brief. Mr. Holder wants pain relieved. Mrs. Johnson can afford no more than four of the six medicines recommended to her, and has transportation problems getting back and forth to medical care.

Aggregated data can never be expected to encompass myriad particulars. The view from a center will always miss many variations, but decisions will inevitably be based on aggregated data whenever decision-making power is removed from the buyer and seller of a good or service in the marketplace. When control is turned over to an entity that measures success or failure by continuance in political power rather than satisfaction of the recipient of the good or service, the inefficiencies and frustratingly pedantic rules of bureaucracy will result.

The Austrian economist Ludwig von Mises argued that bureaucracy, with its inattention to relevant specific details, results from the inadequacy of the measure of success. In a market economy, profit and loss signal whether or not the customers' perceived needs are being filled. When the market is replaced with a third party, especially the state, profit is no longer the criterion of success, and irreconcilable conflicts over the best use of limited resources ensue.

Bureaucracy itself is not the problem—it is simply a consequence of the decision to turn authority over to the state. Mises writes, "There is a field, namely, the handling of the apparatus of government, in which bureaucratic methods are required by necessity. What many people nowadays consider an evil is not bureaucracy as such, but the expansion of the sphere in which bureaucratic management is applied."[2, p48]

> Public administration, the handling of the government apparatus of coercion and compulsion, must necessarily be formalistic and bureaucratic. No reform can remove the bureaucratic features of the government's bureaus. It is useless to blame them for their slowness and slackness. It is vain to lament over the fact that the assiduity, carefulness, and painstaking work of the average bureau clerk are, as a rule, below those of the average worker in private business…. In the absence of an unquestionable yardstick of success and failure it is almost impossible for the vast majority of men to find that incentive to utmost exertion that the money calculus of profit-seeking business easily provides. It is of no use to criticize the bureaucrat's pedantic observance of rigid rules and regulations. Such rules are indispensable if public administration is not to slip out of the hands of the top executives and degenerate into the supremacy of subordinate clerks. These rules are, moreover, the only means of making the law supreme in the conduct of public affairs and of protecting the citizen against despotic arbitrariness.[2, p131]

To apply this more specifically in the present, we can observe that because medicine has become less of a for-profit arrangement between the physician and patient, and because government has become the payer and controller, von Mises's "bureaucratic management" has become characteristic of medicine.

In search of a measure for success or failure, central controllers latched onto what is measurable, though they lack the critical cues provided by monetary evidences of patient satisfaction. Still, things measurable and communicable to a central controller are not necessarily the same as those most important to patient care. In delivery of care to individuals, the things that count most often are those that do not lend themselves to being counted.

Moreover, when a physician does those things that are important and immeasurable, and fails to do trivial things that are measurable and easily communicable, the central controller finds the physician deficient. When physicians adjust their medical approach to satisfy the controllers, they sometimes leave their patients without the attentions they need and desire. The more powerful the central controller, the more likely the physician is to place greater weight on satisfying that controller than on satisfying the patient.

Thus, tragic absurdities become commonplace. The family at the bedside of the moribund patient receiving the last few hours of terminal comfort care gets a visit from a nurse inquiring as to whether the patient has ever had a shot to prevent pneumonia. Someone at a central node of information has noted that a large number of patients with respiratory ailments are discharged without any documentation of having received this preventive effort. The hospital is cited for this and defends itself by introducing a policy of mandatory inquiry. The family is disturbed by the double messages as to the prospects for survival. A patient consumed with concern that numbness and tingling is a harbinger of stroke is put off by the physician's insertion of sunscreen into the agenda. The physician is servicing his need not to be found deficient in an audit. The patient's needs are on hold.

Hayek's comment about economists is apropos to physicians:

> One reason why economists are increasingly apt to forget about the constant small changes which make up the whole economic picture is probably their growing preoccupation with statistical aggregates, which show a very much greater stability than the movements of the detail.[1, p 523-524]

Hayek continues, "…the sort of knowledge with which I have been concerned is knowledge of the kind which, by its nature, cannot enter into statistics and therefore cannot be conveyed to any central authority in statistical form."[1 p 524]

Centralization and Disease-Focused Audits

Diseases are aggregate constructs that, while they usually have a *sine qua non*, rarely show a perfectly congruent pattern from one patient to the next. Hypothyroidism manifests a broad range of symptoms, for example. To declare that a set of particulars in any one patient qualifies as a particular disease is to make a judgment about whether a patient falls on this or that side of a fuzzy line.

Thus, the physician's determination that a patient has a certain disease is a *decision* (as opposed to a *discovery*) about a set of symptoms that will always vary in type and degree from patient to patient. Figure 1 shows a set of decision variables that might influence a physician's decision as to whether a patient ("John Doe") has a certain disease. Any conclusion on this fictional case would be debatable. The variety of manifestations of a disease, and the consequent impossibility of unambiguous conclusions, means those who are in possession of only a digitized summary of a patient's condition, and the physician's subsequent decisions, cannot judge the physician's performance in any particular case.

Yet physicians are increasingly expected to provide such summaries to central bureaucracies, who have lately become more inclined to conclude that their possession of this limited data is sufficient to assess the physician's veracity or competency. Centralized planning for the care of an individual human being has progressed beyond mere algorithmic displays to pages of detailed hospital order sets. These sets can be viewed as time-saving and cautious reminders to be altered as required. Or, they can be time-consuming inquisitions demanding detailed reasons for decisions that may not easily be made objective.

Hayek wrote of the impossibility of reducing all information to measurable, "scientific" knowledge, and reminded readers of the importance of particularized knowledge:

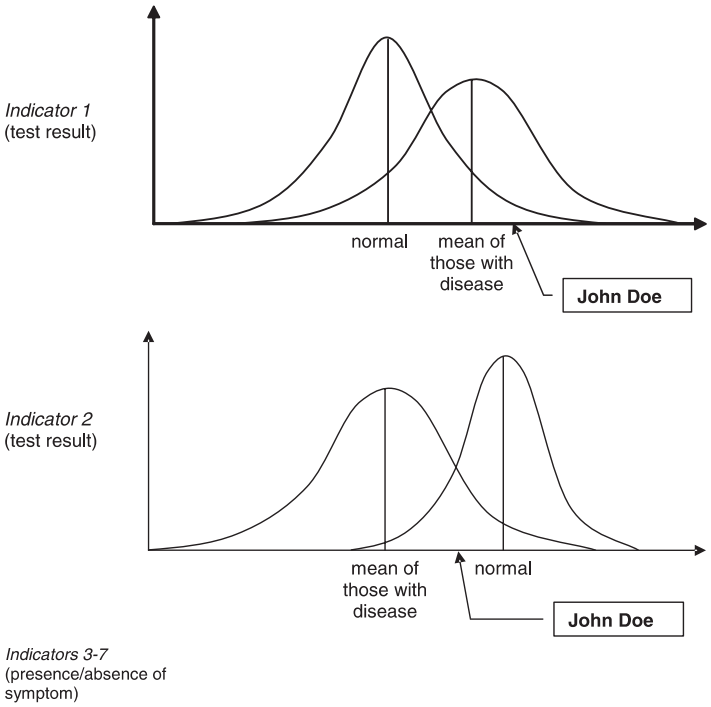
> Today it is almost heresy to suggest that scientific knowledge is not the sum of all knowledge. But a little reflection will show that there is beyond question a body of very important, but un-organized knowledge which cannot possibly be called scientific in the sense of knowledge of general rules: the knowledge of the particular circumstances of time and place. It is with respect to this that practically every individual has some advantage over all others because he possesses unique information of which beneficial use might be made, but of which use can be made only if the decisions depending on it are left to him or are made with his active cooperation.[1 p 521-522]

The basic requirement for patient care is to have a relationship with the patient. Relationships are not only complex, but highly subjective. How does one impart that Mr. Anver has been noted through the years to be stoical, while his sister is histrionic? The little frowny faces on the "fifth vital sign" of pain on the record have that gloss of objectivity that triggers repeated automated systems of institutional action. One is punished for varying from the centrally determined routine.

The outpatient glycosylated hemoglobin test was not obtained because it would have consumed the money needed for the medication to treat the diabetes. The physician prefers to proceed without that information rather than to have the patient proceed without the medicine. That is acceptable in the record, but some reviewers examine only the laboratory orders and miss the notation. The physician again faces the inquisitors. The multiple attempts by central authority to interfere with the physician's practice wear down the physician and degrade quality of care. Rather than being pinioned on a beach full of crocodiles and eaten in several chomps, the physician is staked out on an anthill, condemned to a thousand tiny regulatory bites.

Today, large numbers of patients are stuck in an expensive system that runs according to Karl Marx's labor theory of value. This is enshrined in the Current Procedural Terminology system, which stuffs all the subjective value of a patient-physician encounter into a false objectivity five digits long.

The payers make judgments from words on paper or in a computer file, not the experience of the encounter. They insist that if it was not written down it did not happen, as far as payment is concerned. Thus founded on an absurdity that all that was important was written down, they proceed to audit words. How many words were devoted to questions about the pulmonary system? How many words devoted to a family history, how many to examination of the joints, to reviewing X-rays, and so forth. Points for each sector are



		Headache	Nausea	Abdominal pain	Fatigue	Vertigo
Those with disease	Y	80%	58%	96%	90%	77%
	N	20%	42%	4%	10%	23%
John Doe		Y	Y	Y	N	N

Figure 1: Disease decision variables

summed in a complex and unreliable formula and the upshot points to the amount of payment.

Thus a patient who is treated by a physician who has known him well for many years, who has many years of experience and an excellent track record of success, may be paid the same or less than a novice physician who is not as medically astute, and is meeting this patient for the second time. In a free market, the patient probably would have valued the first physician more. In our Marxist payment scheme, the second physician may be paid more if he's adept at producing the words that count.

Auditing words rather than interpersonal meaning leads to second-rate medicine. Of this scheme, Hayek says, "…in a system in which the knowledge of the relevant facts is dispersed among many people, prices can act to coordinate the separate actions of different people in the same way as subjective values help the individual to coordinate the parts of his plan."[1 p526]

Conversely, the central controller is greatly impaired in such coordination:

> "Even the single controlling mind, in possession of all the data for some small, self-contained economic system, would not—every time some small adjustment in the allocation of resources had to be made—go explicitly through all the relations between ends and means which might possibly be affected."[1 p525]

Yet, it is exactly this fruitless exercise that CPT coding attempts. Hayek's assertion has found systematic observational support in the finding that CPT coding cannot bear the weight assigned to it.[3]

Unfavorably compared to the practitioner highly competent in a particular disease, organ system, or manual skill is the practitioner who "merely" knows the patient and local conditions. Hayek describes the attitude toward this second body of knowledge:

> It is a curious fact that this sort of knowledge should today be generally regarded with a kind of contempt and that anyone who by such knowledge gains an advantage over somebody better equipped with theoretical or technical knowledge is thought to have acted almost disreputably.[1 p525]

Here is the crevice in which various medical associations and institutions insert their self-anointed wedge of central authority. We are not treating heart failure correctly. We are missing the diagnosis of diabetes. Pulmonary emboli are not being prevented.

Rare indeed is the audit that turns up such deficiencies, and then proceeds to inquire as to the reasons for each one, in particular. Could there have been particular, cogent reasons for the act of omission? The fault of not treating up to a "standard of care" presumes the ability to write a standard that omits knowledge of the circumstance and person.

We hear the querulous demand, "How could you dare not to use a standard approach to this disease?" Physicians should demand in return, "How could you dare to imagine that knowing the disease was sufficient to determine a standard of care? Are patients such ciphers that they matter so little?" It is incorrect to assume that variation introduced by patient issues is minimal; such variation is primary.

Although the benefits of market pricing are denied to most individual patients seeking private care, a thriving market has arisen to service the difficult and dangerous interface between patients, physicians, and their third-party insurance taskmasters. The frustrations of the central controllers over the intractability of their physician underlings are related to the magnitude of the penalties for noncompliance with their directives.

Physicians' fears produce a lucrative market, not to service a true medical need, but to assuage their desire for security from professional and financial ruin. As an example, Newt Gingrich is reported to have founded a for-profit Center for Health Transformation[4] whose centerpiece is a federal legislation-backed electronic medical record. There is nothing so profitable for a business as having the purchase of your product turned into a command performance. From the perspective of actual health, however, this is truly bad investing.

As another example, the National Committee for Quality Assurance (NCQA) promotes its imagination that it can discern, from aggregate laboratory data and record review, who is and who is not a high-quality physician. Applying for this recognition (or advertisement), physicians pay NCQA about $450.[5]

Summary

The insatiable demands of the production line for monitoring, feedback, control, and payment distract the physician from the ill person. Industries want uniformity of method and product. Medical care is embedded in individuality.

Hayek could have been referring specifically to personal physicians when he wrote:

> We need to remember only how much we have to learn in any occupation after we have completed our theoretical training, how big a part of our working life we spend learning particular jobs and how valuable an asset in all walks of life is knowledge of people, of local conditions, and of special circumstances.[1,p522]

Medicine as a center of controllers and a periphery of "providers" is a medical system governed by terrorism. The barbarians would sometimes cut off the heads of some of those they conquered and leave them on poles at the city gate as an intimidating reminder for others. Major penalties for minor infractions are actually tacit confessions of central authority impotence.

Consider, for example, controllers who are concerned about the time patients wait to get to their inpatient bed once the decision has been made in an outpatient department to admit them. Bereft through deficient resources of a real ability to accomplish the goal, those in the outpatient department may respond by wheeling the patient to a curtained area in a corridor and then taking the wheels off the gurney, pronouncing thus the patient's "arrival" at an inpatient bed. After a time, the center discovers the subterfuge and promulgates new regulations, and another round begins.

There is only one way to return control of the patient-doctor relationship to the axis that runs between the two. It is to recover a free market in medicine.

Patients who can vote with their feet and their wallets will regulate their care. Others can only pretend to do so.

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