Prevention Paradigms, Over-Diagnosis and Treatment, and Mad Men

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INTRODUCTION

Over just fifty years, health care in the United States has undergone astonishing changes that parallel changes in patterns of thought, presumptions about individual rights, and the roles of doctor and patient in maintaining health and treating illness. Briefly proposed, professional white male authority that dominated health care has splintered into a diverse world of physicians and alternative providers, the patient has a central place in legal evaluation of medical decision making and more than lip service from doctors and hospitals, and the business and bureaucracy of health care delivery and finance make some medical choices far more likely than others.

Much change can be traced to the sheer power of medicine to intervene. The great public health story of the 20th century is
the virtual elimination of epidemic infectious diseases such as typhoid, whooping cough, diphtheria, polio, and measles. More effective antibiotics reduced time for recovery from infections and resulted in survival for many.

In the 1980s, new surgical techniques made some surgeries and other interventions less alarming, disfiguring, or otherwise harmful to patients' overall health and recovery, so decisions to treat had fewer apparent onerous consequences. Health care individually and collectively does, however, have a price tag that many find shocking.

Prevention and treatment practices warrant scrutiny because a number of established recommendations, though stated with great certainty in practice guidelines and articles, are causing significant patient anxiety, iatrogenic illness, and unnecessary care. Physicians adhere to harmful rules and guidelines and potentially outmoded treatment practices out of an inclination to practice as they were taught, a desire to provide all necessary care to their patients, and fear of liability that suggests that more care might be a shield against an accusation of malpractice for failure to diagnose or effectively treat.

A number of recommendations for diagnosis and treatment


4. See Barry Meier, When One Size Doesn't Fit All, N.Y. TIMES, Aug. 18, 2009, at B1 (regarding a guideline set by the Nat'l Committee for Quality Assurance recommending abrupt reduction of blood sugar levels in diabetics, which caused some patients illness and death).

have changed over time. For example, recommendations for the use of fetal monitors attached to the infant’s head during labor changed from recommended for nearly all births to use only in high-risk births because the monitors correlated with birth defects.\(^6\) Certain highly promoted drugs were limited for some patients or excluded from the market.\(^7\) In recent years, physicians were warned not to routinely use blood screenings for prostate cancer because the risk of mortality is low and the risks of morbidity from treatment are very high.\(^8\) New diagnostic imaging for breast cancers, and the use of DNA testing for the BRCA genes that indicate increased likelihood of developing breast cancer may not be solely blessings when the patient chooses between very aggressive treatment for a condition that might never develop and an exaggerated sense of risk to life.\(^9\)

Although many health care interventions are easier to bear than in the past,\(^10\) preventive measures are not, in themselves, risk free. Invasive procedures such as angiograms for heart blockage diagnosis, mammograms for breast cancer, and virtual (imaging) colonoscopy involve radiation exposure. Side effects of anesthetic drugs and new “designer” drug combinations for more perplexing diagnoses may cause predictable or

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7. See An Introduction to Lipitor Side Effects, EMedTV, http://cholesterol. emedtv.com/lipitor/lipitor-side-effects.html (last visited Dec. 5, 2010) (Regarding side effects of Lipitor and other “me-too” drugs (i.e., drugs for similar purposes placed on the market to compete)).

8. See generally, Ralph H. Blum & Mark Scholz, Invasion of the Prostate Snatchers (2010) (regarding the number of unnecessary and debilitating surgeries).


10. For example, the greater comfort of using very sharp, disposable needles rather than sharps sterilized in an autoclave, emerging slightly duller for each use.
unanticipated patient harm. Follow-up measures include more invasive diagnostics, drugs or other treatments. Surely, such risks should be justified by patient benefits.

A Catch 22 in calling for more limited prevention is that U.S. health care leaves untested groups of people who do develop symptoms but lack access and coverage. The 2008 recommendation of the U.S. Preventive Services Taskforce that mammograms be recommended only beginning at age 50, rather than the previous age 40, exposes the problem. It also created an outcry that women in their forties were being shortchanged. Potentially, all women were to be shortchanged by change from annual to biannual screenings and fewer tests for cervical cancer.

A related, quite serious glitch is mistrust in the health care system to provide the care that sick and at-risk people need. Many are underserved, lacking even the most basic health care and health care coverage. The Patient Protection and Affordable Care Act (PPACA) of 2010 is already engaged to help individuals with chronic conditions that have been uninsurable through state high-risk pools, will help to cover those who lack employer coverage by mandates for larger employers with subsidies for smaller employers. Any articulated

11. This article only tangentially includes issues related to clinical trials halted because of deaths or morbidity in consenting participant patients. Most relevant to prevention and treatment concerns is whether a patient is effectively informed so it is possible to give consent.

12. See generally JOSEPH HELLER, CATCH-22 (1961) (a situation created when a necessary solution can only be reached if one is not in the situation); see also Wikipedia, http://en.wikipedia.org/wiki/Catch-22_(logic) (last modified Oct. 19, 2010) (illustrating a lively use of the phrase “Catch-22”).


14. Curiously, men are not advised to be screened for breast cancer, except perhaps in a family with anomalous BRCA genes (i.e., because of illness in women family members) although when male breast cancer manifests it is a far greater threat to life than most breast cancers in women.


generalization, whether law, regulation or professional practice, that denies the prospect of care to the uncared-for is rightly suspect.

The pattern of testing has always been a hopeful one as technology evolves. Diagnostic discovery provides the technique for detection, followed by recognition of shortcomings, including misdiagnoses, false negatives and false positives. Given imperfection, how often should a diagnostic procedure be used and paid for? And, again given imperfections, how aggressive should follow-up be? The questions, and the interactions of the players, have become too complicated to be free of doubt. Even if motives are pure, assessments are skewed by differing knowledge and purposes.

This essay focuses on doctors and patients who are in a paradigm of diagnostics based on generalizations and general health clues, followed by technical testing and imaging with results often subject to varying interpretations. Then, if results suggest an anomaly, the health care response often is more invasive diagnostics or surgery and/or powerful drugs. The discussion seeks to shed light on why prevention is out of our control as an aspect of American culture. The factors include a convergence of changes, factual, technological, and social, in the past few decades. The narrative assumes, without conclusion, that this is a relatively brief interval on the medical front resulting from rapid change. It may not be so ready for resolution on the cultural front. A window into that cultural confusion is popular entertainment which grapples with aspects of health care and business, to which the discussion will refer.


17. See generally STEVEN R. FELDMAN, COMPARTMENTS: HOW THE BRIGHTEST, BEST TRAINED, AND MOST CARING PEOPLE CAN MAKE JUDGMENTS THAT ARE COMPLETELY & UTTERLY WRONG (2009) (asserting that diagnosis and treatment recommendations, and indeed, thinking in complex situations generally, is tainted by perspective, including medical specialization and training).
RUNAWAY PREVENTION: WHAT IS THAT?

The World Health Organization describes preventive care with emphasis on patient habits that, by advice and change, might reduce the epidemiological incidence of such conditions as cardiovascular problems, cancer, and chronic respiratory diseases. The most prevalent problems include tobacco use, inactivity, poor diet, and alcohol consumption, which the WHO asserts are not routinely addressed by health care providers in patient contacts for emerging or chronic complaints.

While prevention of chronic illness due to destructive habits is laudable and necessary for a productive and happy population, the model that urges better habits has not caught on in either physician or patient enthusiasm. Apparently today's habit, personal or professional, trumps prospective chronic illness in many instances in the developing and developed countries.

Health care routine in developed countries, particularly the United States, has turned to a variety of technological diagnostics, including computerized mammogram readings that detect far smaller anomalies than older imaging and widespread screening for cancer cells in the prostate rather than older screenings to detect lumps and other anomalies. The technical ability to improve such detection is lauded and medical centers advertise and are judged on their state-of-the-art equipment and practices although ideal practices and long-term effects can only be assessed with time. Improvement over older technologies,
assessed differently or not at all, might never be clear.\footnote{23}

Prevention implied intervention is based on diagnosis as well. Once an anomaly is detected, further diagnostics and treatments are recommended. Further procedures might include such measures as biopsy, more extensive surgery, chemotherapy, radiation or drug therapy. An example of diagnostics and treatment that has changed is the widespread use of radiation in diagnostics, in the form of imaging.\footnote{24} In the middle of the 20th century, pregnant women were X-rayed for routine diagnostic knowledge.\footnote{25} Radiation exposure was reduced over the years, but newer techniques need more power for multiple, three-dimensional images.\footnote{26} Exposure accumulates over a lifetime, however, and complex images of children now are common.\footnote{27} Misjudging the appropriate power of the radiation is just becoming a widely recognized issue in 2010.\footnote{28}

In general, it appears the American culture is hooked on

\begin{itemize}
\item \footnote{23} But see David H. Freeman, \textit{Lies, Damned Lies, and Medical Science}, \textit{The Atlantic}, Nov. 2010, at 76 (regarding Dr. John Ioannidis who has assembled a long-term team to detect and expose bad medical sciences).
\item \footnote{24} See \textit{Roentgenogram}, \textit{Encyclopædia Britannica} \url{http://www.britannica.com/EBchecked/topic/1560347/roentgenogram} (last visited Oct. 19, 2010).
\item \footnote{25} See generally G.W. Grier, \textit{The Value of a Lateral View in the Diagnosis of Pregnancy}, 14 \textit{Radiology} 571 (1930) (assuming the appropriateness of using X-ray diagnosis for pregnancy, which is still used to confirm pregnancy in some cultures); \textit{Prenatal X-Ray Exposure and Childhood Cancer in Twins}, \textit{New Eng. J. Med.} 541, 541 (1985) (on the hazards X rays of pregnancy).
\item \footnote{26} Malcolm Ritter, \textit{Angiogram rate suggests excessive testing}, \textit{Milwaukee J. Sentinel}, Mar. 11, 2010, at 8A (citing the fact that an angiogram, inserting dye into an arm or groin to thread radioactive dye to diagnose blocked heart arteries for follow-up surgery to prevent heart attack, have a 1\% risk of causing stroke or heart attack; Angiograms may be recommended for patients with risk profiles like high cholesterol, or symptoms like shortness of breath).
\item \footnote{27} Michele Munz, \textit{Are CT scans, especially for kids, overused?}, \textit{Orlando Sentinel} (Mar. 19, 2010), \url{http://www.orlandosentinel.com/health/sfl-kids-ct-scans-031810,0,7682533.story} (citing the 300\% increase in the number of scans for 3-D images of the body since 1993, with about 10\% done on children although their organs are more sensitive to damage and cumulative radiation exposure creates damage over a lifetime).
\end{itemize}
Perhaps if the balance between the desire to prevent speculative future harm now and the attendant follow-up to prevention measures were better understood, more effective health care could be devised, at least for those whose problems are not so "interesting." In any case, diagnostics lead to treatment whether warranted or not, or diagnostic results are not worth obtaining.

The media tells a narrative that reflects the cultural preoccupation. The popular syndicated television series House, for example, typically depicts a medical conundrum for a brilliant diagnostician and a remarkably unbusy team of specialists in training under his supervision. Costs might be mentioned but are not a constraint on the search for an answer. Since shows begin with some accident or physical collapse, it would appear it is about treatment, but patients' problems are never what they appear to be, so it is about diagnostics and intervention. A person initially admitted to hospital in difficult straits is subject to serial diagnostics and high-risk treatments of speculative benefits. House depicts both a patient's fantasy of infinite attention by highly skilled physicians, and a patient's nightmare of being the object of experimentation.


30. Tanner, supra note 21, at 6A ("[w]e've . . . exaggerated the benefits of early diagnosis" quoting Dr. Gilbert Welch of Dartmouth).

31. See Hadler, supra note 29, at 95-96 (screening should detect something meaningful to the patient, such as high likelihood of an important disease; should be efficient; should have few false positives or negatives; and something meaningful to be done regarding a true positive that provides more benefit than harm to the patient).


34. See id. Fox Television broadcast 2005, Episode 206 "Spin" (provides a number of useful examples, such as the line "[w]e haven't poked the patient with a sharp needle in a couple of hours, so . . .")
CANCER AS A CASE STUDY IN MISDIAGNOSES, ALARM, OVER-TREATMENT

Cancer diagnostics and treatment have an especially checkered history of preventive measures and treatment that may be attributed to misunderstandings about the nature of various cancer cells and how to respond to them. Also, it is reasonable to believe that cancerous cells occur in every human body.

Three reasonably common cancers have been the targets of aggressive measures for prevention and treatment, with varying justifications and results.

COLORECTAL CANCER

An example can be found in the evolution of colorectal screening, still highly recommended in the U.S. for patients beginning at age 50. In a 1996 article in the leading British medical journal, the Lancet, authors asserted that colorectal cancer kills 55,000 Americans each year. In two-thirds of the 133,500 cases diagnosed annually, regional or distal metastases are already present. Only six percent of patients with distant tumor spread will survive for five years after diagnosis. It is cruel irony that billions of dollars are spent treating patients with colorectal cancer when the disease is almost entirely preventable.

This malignancy begins as a small symptomless adenoma. If left in situ, the polyp becomes dysplastic over a decade or more, before evolving into carcinoma. The removal of polyps via the colonoscope prevents

35. See WELCH, supra note 29, at 7; Forty Years War, N.Y. TIMES series on cancer research and treatment, Natasha Singer, In Push for Cancer Screening, Limited Benefits, N.Y. Times, July 17, 2009, at A1; Gina Kolata, Advances Elusive in the Drive to Cure Cancer, April 23, 2009, at A1; see also HADLER, supra note 29 at 68-69 ("bad" cancer, since no cancer is a good thing, and "evil," extremely aggressive cancer).

36. WELCH, supra note 29, at 6-9.

cancer. No other tumor gives clinicians so much time to act. Provided colonoscopy is widely available (and in the USA there is a surplus of gastroenterologists), colorectal cancer could be more or less eradicated.  

The desire to detect and prevent potential cancer, couched in terms of certainty above, signals the outset of widespread physician training and recommendation for colonoscopy. The picture of false positives and follow-up procedures is illuminating. About fifty percent of colonoscopies find some abnormal growth, usually benign polyps, raising the question of whether the test should be repeated.

Current analysis says that colorectal cancer screening is inefficient for people under fifty or over eighty, because disease would be slow to develop and can be treated once symptoms appear. If a polyp obstructs the colon, bypass surgery is likely effective. If a polyp does metastasize and introduce cancer cells into the blood, the cells tend to go to the lymph nodes and liver rather than to lung or brain, resulting in chronic disease. However, an individual age fifty has on average a 2% chance of dying of colorectal cancer over the next twenty years; having a colonoscopy reduces that figure by about 1.2%.

**Breast Cancer**

The so-called breast cancer scare, caused by a lump or mammogram image, has become part of a most common story that turns a woman into a patient. Initially, recommended treatment included radical mastectomy including muscles and lymph nodes under the arm. With mammograms in the 1990s developed more limited surgeries, and later, breast reconstruction.

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39. See WELCH, supra note 29, at 44.
40. Id. at 108-09.
41. HADLER, supra note 29, at 65-76.
42. See generally SIDDHARTHA MUKHERJEE, THE EMPEROR OF ALL MALADIES: A BIOGRAPHY OF CANCER (2010)(on the changes to perception and treatment of breast cancer); see also STEVEN WOLOSHIN ET AL., KNOW YOUR CHANCES: UNDERSTANDING
Several studies have tracked patients with differing stages of cancer and different interventions over the decades. In one study, women who had a small, cancerous breast lump received radical mastectomy, simple mastectomy, or lumpectomy and radiation. The only difference in outcome over 25 years of survival depended on whether cancer cells had spread to the lymph nodes. If so, 50% of women survived only five years; if not, 50% survived for ten years. Even that implicit argument might be questioned, however, since the ability to identify metastases has improved steadily, perhaps yielding a greater survival rate.

Anticipation of breast cancer seems to produce strong risk-averse reactions, perhaps because women most likely to be tested have had older family members who endured the disease and intervention. Detection of the BRCA gene that indicates a risk of developing breast cancer from about 1.3% to approaching 50% over a woman’s lifetime has changed recommendations and patient choices in most interesting ways. Physicians, who are more cautious about genetic screening results, seem to be cautious about recommending preventive surgery. Women with the genetic determination and perhaps diagnosis of cancer in one breast, often choose to have the healthy breast removed. This is more likely the choice of a younger woman, one who wants to avoid any possibility of discovering breast cancer.

It is, however, a false comfort. Aside from the statistic that a woman who tests positive for the gene has only a one in two chance of developing the illness, the most likely site for a reoccurrence is the breast where cancer cells have been detected. The site of breast removal has no feeling. The power of risk

43. HADLER, supra note 29, at 80.
45. Id.
aversion is emphasized by the fact that the site of a breast removal lacks sensation that isn’t restored by reconstruction.

**PROSTATE CANCER**

Blood screening for an antigen (PSA) indicating prostate cancer cells was hailed for the possibility of early diagnosis and saving lives. The flaws in this expectation were reported in results of two major studies in 2010. A European study tracked men screened and not screened, and found a reduction in mortality of 20%. The U.S. study found no reduction in mortality.47 Given that the risk of mortality from prostate cancer is about 3%, the significance of the results does not differ greatly.48 An end of screening has now been recommended for men at age seventy-five.49 It has been asserted that PSA screening fails on all counts as necessary, effective, and in the interests of the patient.50

**THE SHIFT IN THE PURPOSES OF MEDICINE**

A number of fallacies arise in the struggle to supplant widely variable observational medicine with scientific, evidence-based care. Perhaps most fundamental is the shift from the symptom as the problem to be treated to the underlying disease. This is a shift to the physician’s agenda replacing the patient’s concerns.51 Emphasis on linear connection of a treatment and a


48. See Bernstein, supra note 28, at 170.

49. See, e.g., Gina Kolata, Cancer Group Has Concerns on Screenings, N.Y. TIMES, Oct. 21, 2009, at A1 (quoting the American Cancer Society Chief Medical Officer Otis Brawley “We don’t want people to panic . . . [b]ut I’m admitting that American medicine has overpromised when it comes to screening. The advantages . . . have been exaggerated”).

50. HADLER, supra note 29, at 97-98.

51. But see Denise Grady, Physician Revives a Dying Art: The Physical, N.Y. TIMES, Oct. 12, 2010, at D1 (describing the work of Stanford University’s Dr. Abraham Verghese who seeks to counter the weight of chemistry and imaging in medicine).
result also oversimplifies the issue, particularly in matters of mortality rates. Finally, the advances in diagnostics have created a scientific tunnel vision among physicians, researchers and foundations. Some of our diseases of great prevalence and concern were relatively rare in the past and show signs of receding, such as cardiovascular disease leading to heart attack and stroke. Others, like rheumatoid arthritis, are newer developments. When they recede as concerns, it does not necessarily mean the disease was understood or the treatment correct.

A recent example is the availability of a spinal fluid test for Alzheimer’s disease with 94% accuracy, announced in August 2010. Researchers are “testing hundreds of new drugs that, they hope, might change the relentless course of brain cell death” associated with the disease. However, there is no medical advantage to the patient. An editorial the following day noted that the test would be useful in identifying those who might wrongly be identified as Alzheimer’s patients when their actual disease might be treatable, which might be better diagnosed without a painful and risky spinal tap. It identified the advantage of early diagnosis as useful for understanding the course of the disease so drugs might be developed.

THE PATIENT AS A GENERALIZATION WITHIN A SPECIALIZATION

The perspective on the individual patient has changed over a century. This does not mean all individuals received more individual consideration, only that the template in the mind of the physician has changed.

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52. HADLER, supra note 29, at 16-17.
53. Id. at 18.
55. Id. at A14.
56. Id. (the senior author of the paper wisely asks 'How early do you want to label people?)
A LITTLE HISTORY OF GROUPS AND INDIVIDUALS

A trend in health care thinking involves grouping patients and their treatments. Inevitable as this is, historically by diagnosis and to some extent by class implying the ability to comply and to pay for care, developments have made greater intrusions on individual care than was ever institutionalized. The matter arises from notable change in the general mode for organizing thought, which changed with industrialization. In simplified terms, workers were envisioned and organized into dispensable units rather than people who had to find work within a reasonable distance that they could do. With this change, society could be concerned with only some aspects of a person.

No notable change in health care was effected because physicians continued to focus on the individual case and patient, allowing for the fact that some patients had far fewer rights to care than others. The potential existed, however, because people, for good or ill, were thought of as groups in a different mode. One might imagine that issues of class values and ethnicity were for some time dominated by the need for most to work, and well into the 20th century, the default occupation on the U.S. census was "farmer." Also, patients were no longer seen in the context of their own homes and families, but were more often admitted to institutions even for childbirth.

Individual-centered vision of thought eroded somewhat with World War II, in which men were soldiers rather than individuals and health care was dispensed accordingly. The impact of WWII on all societal norms is well documented. The next compelling image suggested the erosion of satisfaction with such generalization about people and bodies, and also with authority. Health care litigation institutionalized the doctrine

of informed consent in the 1960s, but the erosion of professional authority was slow and the physician/patient relationship remained the touchstone of health care.

**CODING**

Generalization, rather than case by case analysis, might be traced to another source as well, the implementation of coding for diagnoses. Two systems are primarily used in the U.S., one for inpatients (the HCPCS) and one for outpatients (the ICD-9-CM). HCPCS is based on a system in the late 1960s at Yale Medical School for use by the American Medical Association. It is the basis for Medicare diagnostic related groups (DRGs). The ICD-9-CM was developed by the World Health Organization, originally for the purpose of collection mortality statistics. Originally for more limited purposes, coding now records the patient’s diagnosis and treatments using alphanumeric identifiers to create a shorthand medical history from a narrative.

Coding has been identified as one more cause of depersonalization in health care. Clearly, much is lost when the narrative is reduced to codes. Also, the use of codes probably invites greater incidence of fraud. When the coder “upcodes” to avoid any risk of underpayment caused by a time-intensive patient or a miscalculation in the reimbursement associated with the code, it seems perhaps more prudent than dishonest. A single claim sheet that identifies a more costly code when a less costly code is appropriate is technically fraud, and a pattern of

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60. See, e.g., Canterbury v. Spence, 464 F.2d 772 (D.C. Ct. App., 1972) (one of several leading cases defining the emerging doctrine of informed consent).
upcoding is evidence for civil and criminal action.

Rates of reimbursement also affect physician choices about procedures. For example, Medicare pays about $1400 for an outpatient angiogram and about $3000 for the same procedure done in a hospital. Presumably, a physician will choose whichever option otherwise benefits the practice, a matter that tends to fall into a hospital-based or office-based routine. Increasingly complex questions of coding have become a significant part of the industry.

**PRACTICE GUIDELINES**

As health care choices became more complex in terms of choices and decision makers, increasing reliance has been placed on practice guidelines, alternatively termed parameters. Government and private payers have looked repeatedly to guidelines to promote more uniformity in treatments as courts and legislatures have adopted a national standard of care based on uniform education, testing, and skills.

Practice guidelines are fundamentally algorithms in graphic and descriptive forms that guide the physician to diagnosis and from there to choose the most appropriate treatment. In 1990, Congress authorized the creation of a new agency, now called the Agency for Health Care Research and Quality, to write optimum, evidence-based guidelines. It proves to be very difficult to capture many of the decisions physicians make regarding treatment. In Maine, a Commission overseeing a five year demonstration project in Maine, seeking to investigate the use of guidelines as a defense to medical malpractice, estimated that only about fifteen percent of what physicians consider can be captured in this form.

64. Ritter, *supra* note 26, at 8A.
65. See, e.g., Hall v. Hilbun, 466 So. 2d 856 (Miss. 1985) (a leading case on the transition to a national standard of care).
67. See *Clinical Practice Guidelines in the Courts*, *AGENCY FOR HEALTH RESEARCH AND QUALITY*, http://www.ahrq.gov/clinic/jhpll/rosoflf2.htm (last visited Dec. 10,
In addition, most specialties have written their own guidelines, often with the interests of their members in mind. Once written, these and all guidelines remain as standards for treatment until deleted or replaced. If, as it is asserted, doctors typically practice as they are accustomed to practice, whether learned from a mentor in school or residency, from the representative of a manufacturer of drugs or devices, or from exposure to a useful guideline, patients might receive less personal observation and consideration once treatment is set in motion.

**STATEMENTS OF MEDICAL RISK**

Descriptions of risk associated with preventive measures, statistical and otherwise, are often presented with flaws that mislead even the most careful decision maker. For procedures such as colonoscopy, for example, the discomfort, personal indignity and risk of harm from the test might be weighed against the chance of developing the cancer. That chance is 1 in 0.0005 or 5 in 10000. One should consider the additional question of whether the risk involves the coming year or the rest of the person’s lifetime. The chances will vary with age and family medical history. The burden of testing and retesting will vary with the individual’s disposition to develop benign growths. A similar pattern, perhaps more familiar because affected patients are often younger women, is a disposition to develop benign breast lumps. The timing and aggressiveness of follow-up might well be moderated if the cause has been shown to be non-threatening.

Another misstatement of risk is the search for “better” test results. A patient might, for example, be told that his overall

68. See Furrow et al., supra note 6, at 349-51.
69. See supra note 6 and accompanying text (obstetrical society guideline favoring fetal monitors deleted when newborns experienced harm, and were only eventually replaced).
70. Woloshin et al., supra note 42, at 13.
71. Id. at 18.
cholesterol is high, but only the "good" cholesterol is elevated. This is a different result than high harmful cholesterol, which indicates cardiovascular disease.\textsuperscript{72} In this reading of the test result, the overall result being tested and mentioned first is presented in an alarming manner. Better test results do not necessarily indicate better health.

Yet another error is a poor choice of baseline for health for the patients tested. Bone density scans, widely recommended for women beginning in their fifties, use as a benchmark the bone density of a woman at age thirty.\textsuperscript{73} By this measure, most patients have thinning bones, or osteopenia, and are prescribed calcium supplements to slow the rate of thinning and prevent the condition from developing into osteoporosis. The outcome to be prevented, however, is avoiding fractures, not a better scan result, which may or may not be related.\textsuperscript{74} Most older people have some thinning of bones, not only women, and not all are at significantly greater risk of fracture unless, obviously, they are at greater risk of falling. Of still greater concern at the moment are 2010 study results that show that calcium supplements are linked to the development of heart attacks.\textsuperscript{75}

One more misperception frequently encountered is a politicized alarm that promotes statistical misstatements in response to anomalous events. In health care, this is not uncommon because a story often combines the hot buttons of crime (or at least malpractice) and vulnerable people who are

\textsuperscript{73} See Bone Mass Measurement: What the Numbers Mean, NIH OSTEOPOROSIS & RELATED BONE DISEASES NAT'1. RES. CTR. (May 2009), http://www.niams.nih.gov/Health_Info/Bone/BoneHealth/bonemass_measure.asp.
\textsuperscript{74} Woloshin et al., supra note 42, at 57.
potentially "everyman." For example, the state of Florida issued a temporary moratorium on widespread office plastic surgeries after a New England Journal of Medicine report of five deaths in New York City of patients undergoing office-based liposuction and reports of similar deaths in Florida.\(^7\)

The confusion of information involved lack of baseline knowledge of how many such office-based procedures took place within the seven years of Florida data.\(^7\) It included objections by anesthesiologists who are not used in office plastic surgeries, and counter objections by dermatologists who considered themselves careful practitioners. When the data was analyzed more closely, it appeared that given the likely number of surgeries in offices as compared with those in plastic surgery clinics, far more deaths and complications took place for plastic surgeons with more intensive supports.\(^7\)

**THE COMPARTMENTS OF SPECIALIZATION**

Reliance on specialists is a trend that has proven to be very difficult to constrain in U.S. health care. In part, higher reimbursements for specialized services guide choices by medical students, although federal payments were adjusted beginning in the mid-1990s to encourage more to choose primary care. Professional values are at least as powerful, assigning greater respect to those who have concentrated knowledge in a particular field. In consumer marketing and some research results, this is presented as a great positive in that physicians who perform similar technical procedures repeatedly are reported to have better statistical results.\(^7\)

A complication inevitable with reliance on specialists is that

76. FELDMAN, supra note 17 at 105.
77. Id. at 107.
78. Id. at 106-08. The controversy involves the competition of specialty and exclusion. See id. at 110.
the patient’s problem is assessed through the lens of the specialty.80 This creates a gap in knowledge that has been referred to lately as “unknown unknowns,” or things that are overlooked because the decision maker does not know that she does not know.81 Such specialization may create a “compartment” which precludes the possibility of correct diagnosis and referral for effective care.82 An example is psoriasis, a disease of the skin, for which a patient might search out a dermatologist who pursues the remedies offered by the specialty.83 However, a form of disease called psoriatic arthritis calls for the specialized knowledge of a rheumatologist to be sure problems in the joints are adequately addressed.84 The dermatologist describes being aware that most psoriasis patients have some joint pain that is partly addressed by treatments for the disease’s skin lesions, but treatment is at best incomplete.

Some compartments and attendant miscommunications appear because patient behavior is misunderstood, a more systemic problem of technically oriented, evidence-rather-than-patient-observation medicine. An example is overuse of artificial tanning (and perhaps, excessive sunbathing). The widespread assumption is that people tan because a darker complexion than normal is associated with such enjoyments as good health, outdoor activities, good looks and, curiously, affluence.85 What was and still is widely overlooked is that for some people tanning exposure creates addictive endorphins.86 Potential medical response to skin-damaging tanning, therefore, would involve not a “sin tax”87 but services to enable a patient through

80. See generally FELDMAN, supra note 17.
81. Id. at 19-20 (referring to Donald Rumsfeld’s humorously-received quote).
82. See id.
83. Id. at 36 (an example by author Feldman, who is a dermatologist).
84. Id.
85. Id. at 22 (so-called appearance motivation).
86. Id. at 26.
withdrawal.

Similar mischaracterizations abound in the confusing world of doctors and patients described. For example, if a patient continues to use a medication when it does not have the intended effect, is that a “compliant” (i.e., good) patient, or is the patient engaging in addictive behavior (i.e., bad). 88

EVERYBODY'S LIFETIME PRIVACY

In the 1990s, payers began to emphasize computerized medical records, beginning with the federal government, which by means of Medicare and Medicaid is the largest single health care payer in the U.S. It is particularly advantageous for an industry of payers who are interested in coding and payment. The advantage to researchers consists, however, of more extensive information that can be searched for data incidentally gathered, sharing of which provides no direct advantage to the patient whose particulars are shared. The privacy regulations resulting from the mandate in the Health Insurance Portability and Accountability Act of 1996 institutionalized some constraints on the type of patient data that might be shared, but allowed that information to be shared throughout the industry. 89 The health care reform bill of 2010 provides for mandatory computerized records by 2015. 90

A desire to make available a certain amount of information that might be urgently needed is well know, and quite different. Dog tags and medical alert jewelry are examples of information the patient wishes to make available to all concerned. More recently, medical records websites offer to store a patron’s medical information for display to someone, presumably a health care provider, who is authorized to view it. All of these are essentially individual-centered activities, in which the

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88. Feldman, supra note 17, at 18.
benefit is clear or is elected.

Computerized records, health and otherwise, have become a paradigm of thinking, meaning one should be able to find a record of most transactions. The result is a tendency to see patients as generalizations in a way not previously imagined. The reduction of the patient and her treatment to a simplified record has even been decried as a reason why medical students generally became far less competent at taking a medical history. The illusion, perhaps, is that what is important about the patient, and to the patient, is available because such a record is “searchable” rather than being a vast pile of notes and referral letters accumulated in the course of years of care. However, the aggregation of information reinforces the shift away from the patient’s concerns, to the research physician and to research itself and generalizations as the goal.

PERPETUAL RECORDS

The recent development of possibly ineradicable records has not been cut off by mandatory deletion of information, as is applied in bankruptcy. There is no end of any implications to be drawn from the records. The threat of a computer search of a lifelong record is that details unwelcome to the patient, perhaps long left behind, might loom large to a diagnostician. While this might be brilliant, one should think it generally is not.

Given continued, or negotiated, faith in collecting and

91. See generally Claude E. Forkner, Record of Medical History: A Device to Promote Better Medical Records, 106 ARCHIVES OF INTERNAL MED. 22 (1960).
92. Tanner, supra note 21, at 6A (overtreatment is facilitated by the use of computer records that simplify the ordering of tests to the click of a computer mouse rather than the more time consuming filling out of forms).
93. Jeffrey Rosen, The End of Forgetting, N.Y.TIMES MAG., July 25, 2010 at 30 (regarding the impossibility of erasing one’s past because of the ubiquity and non-perishability of digital records, with keyboard graphics including “reset reputation” and “control identity”).
94. See HOUSE M.D., supra note 33 (for the premise that patients lie and perhaps have their own reasons for doing so).
95. Rosen, supra note 93, at 36 (citing Jorge Luis Borges’ Funes, the Memorious about a young man who can forget nothing and so is unable to transcend details and assign meaning to anything).
storing patient information, it appears that centralized
government health care coverage, whatever its form, is suspect.\textsuperscript{96} Technology that could be employed to redact records has existed
for over a decade, but is largely unused despite the HIPAA
requirement that only essential patient information be
disclosed.\textsuperscript{97}

An unanticipated aspect of informed consent plays out by
asking the patient to consent to the use of personal information,
possibly beyond what is necessary for treatment, payment, and
health care operations (TPO).\textsuperscript{98} A significant problem arises as
neither government nor industry is very interested, while
interests in individual privacy are inchoate. Individual privacy
interests even have no political stripe that might cause them to
come into controversial focus. They are a concern of both the left
and the right.

This author has suggested some control by use of rituals of
alert of risk found in financial transactions, though it is hardly a
perfect fit for patient disclosure.\textsuperscript{99} One recent commentator
suggests an anthromorphic icon to provide “visceral notice” of
privacy concerns.\textsuperscript{100}

A few years have elapsed since individuals and families
concealed information about physical and mental illness,
sometimes even within the family itself.\textsuperscript{101} With the endless
searchability of personal health care records, strangers can know
whatever is there. It is a peculiarly American option to reinvent
oneself by reeducation even late in life, by travel from state to

\textsuperscript{96} See Michael K. McChrystal & Alison Barnes, The Ritual of Consent to Disclose
Personal Data, The Tension Between Comprehensive Information Systems and Consent,
(published in the proceedings and on file with the author).

\textsuperscript{97} Id.

\textsuperscript{98} See 45 C.F.R. §164.506 (2010).

\textsuperscript{99} See McChrystal & Barnes, supra note 96.

\textsuperscript{100} See Rosen, supra note 93, at 37 (suggesting an idea originated at the
consumer-privacy project at Stanford Law School for individuals using a Web site).

\textsuperscript{101} See, e.g., Robert E. Gilbert, JFK and Addison's Disease, JOHN F. KENNEDY
PRESIDENTIAL LIBRARY AND MUSEUM, http://www.jfklibrary.org/Historical+
Resources/Archives/Reference+Desk/JFK++and+Addisons+Disease.htm (last visited
state or occupation to occupation or some other status change.\textsuperscript{102} A troubling observation is that institutions are not interested in individuals’ concerns about privacy, perhaps greatly preferring their own. Is one’s privacy more important than one’s health, especially in the era of the technological intervention and the quick fix?

\textit{EVERYBODY’S A STRANGER: THE BREAKDOWN OF PERSONAL HEALTH CARE RELATIONSHIPS}

The assertion that no one is interested or would misuse an individual’s health records is without basis for complacency.\textsuperscript{103} Consider for example the attempted sale of George Clooney’s medical records when he and his female co-rider were treated at an emergency room in 2007.\textsuperscript{104} One does not have to be famous to have reasons to maintain the appearance of excellent health, which is of interest to employers and insurers. These are potentially all strangers at the time the record is compiled.

Often the doctor making the record is a stranger, too. Managed care has transformed forms of practice, initially by having patients seen by any available physician with the appropriate credentials,\textsuperscript{105} then by preferring to contract with physician groups rather than individual physicians because the power of the managed care organization as contractor has the most leverage when the contractees want a significant volume of patients. Over time, employers replace contracts with new groups that might not include physicians currently providing their employees care, disrupting relationships. The time permitted, or routinely used, by physicians for any patient is

\begin{footnotesize}
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\item[103.] The popularity of so-called reality shows over a decade suggests interest in intimate details of unknown individuals’ capabilities, vulnerabilities, and “secrets.”
\item[104.] See Mike Fleeman, \textit{George Clooney, Girlfriend in Motorcycle Crash}, PEOPLE.COM (Sept. 21, 2007), http://www.people.com/people/article/0,,20058283,00.html.
\item[105.] See Ginny McPartland, \textit{A History of Total Health}, KAISER PERMANENTE (Nov. 25, 2010), http://www.kaiserpermanenetchistory.org/ (including innovations recounted by Kaiser Permanente since its founding).
\end{itemize}
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influenced by the business model of care, and it is short.

As Dr. House routinely says, patients lie.\textsuperscript{106} This paradigm is of course exaggerated on the show for the purposes of the drama/comedy, but it is not untrue and the more interesting question is why. The simplest answer is that people need privacy to develop trust and intimate relationships. The desire to conceal oneself is less available to the poor, and either more available or of less interest to the affluent or (in)famous. In the health care records context, the question raised is whether patients already avoid the recordkeeping of a “medical group” and whether and when a relationship to a medical group is satisfying to a patient. This author suggests that all such confidential relationships are between individuals, not even among individuals, so a patient might well avoid full disclosure.\textsuperscript{107}

\textbf{THE RISK OF CHOICE SHIFTED TO PATIENTS}

The doctrine of informed consent shifted some legal authority to patients, acknowledging that not all medical decisions are appropriately made according to professional expertise, but that there also are personal concerns of dignity and privacy, and concerns about the nature of risks and benefits among a growing number of treatment options. While doctors seem well aware of patient rights to consent and control their care, changes in the delivery of care evidence backlash.

\textbf{THE PATIENT AS DECISION MAKER}

As on-demand health care replaces medical authority, an uncomfortable shift of risk takes place from the importance of professional knowledge to personal choice. How such choices should be made is unclear.\textsuperscript{108}

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\item\textsuperscript{106} See, e.g., House episode “Spin,” \textit{supra} note 34.
\item\textsuperscript{107} This author considers the possibility that patients might choose an emergency room for treatment because records are less likely to be traced. 
\item\textsuperscript{108} See generally, THOMAS GOETZ, \textit{Live Smarter, Live Longer: How the Data Revolution – from Genetic Testing to iPhone Apps – will Help You make Better Health
\end{enumerate}
\end{footnotesize}
Patients, backed by state laws, seek to read their doctors' notes.109 Physicians, caught between their paradigm of authority and the sharing of authority and information required by law, may be alarmed if their notes have been written with only themselves and colleagues in mind.110 This author observes that physicians are more likely to say “I don’t know” in response to a patient’s question which clearly identifies something the patient cares about. Many physicians record less while seeing more patients. As a result, the patient is more often left on his own, even during a course of intensive treatment for the identified condition.

MORAL BLAME FOR FAILURE OF HEALTH

Ill health has had associations with blame on the patient, particularly in the U.S, perhaps due to American bootstrap optimism.111 Such judgment of patients may be reinforced now from high expectations about health care interventions and/or a health care business environment with incentives to minimize some costs. An anecdotal example observed by the author is the surgical patient, still with intravenous line and complications, who is urged by nurses and aides on the day after admission and surgery to “Get up! You have to walk or you’ll get weak!”

Obesity is a prime example of blame, reward, and confusion in the public sector.112 The factors range in their complexity far beyond the association between ill health and being

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Choices, in THE DECISION TREE 94 (2010).

109. Pauline W. Chen, Doctor and Patient: Should Patients Read the Doctor's Notes?, N.Y. TIMES, July 27, 2010, at D5 (elderly couple who consistently ask for their doctors' notes are viewed with suspicion that they will sue or otherwise be troublesome, characterized somewhat humorously as a perception that “the barbarians are at the gates”).

110. See id.

111. A friend of the author who grew up in Cuba observed “You Americans, you think death is an option.”

overweight.\textsuperscript{113} Indeed, even a four percent reduction in weight can diminish the risks of disease.\textsuperscript{114} Production of goods that must be adjusted for people outside mainstream size ranges are more costly.\textsuperscript{115} The association of excess weight with lack of libido and attractiveness curiously pervades society.\textsuperscript{116}

\textit{MORAL AND ECONOMIC CREDIT FOR WELLNESS}

Financial approval for avoiding certain indicators of possible future illness has been institutionalized in the form of employer programs that reduce employee premiums for health care coverage if they submit reports indicating certain good health habits.\textsuperscript{117} The reduction has been capped by law at twenty percent of premium.\textsuperscript{118} However, the future may offer a different mode of rating beneficiaries, one that might be called "prospective experience rating" which has heretofore been limited by the information insurers can consider. That information excluded genetic predisposition. Wellness programs offer a window into "habits predisposition." The PPACA health care reform allows premiums to be reduced by 30%, or income circumstances as much as 50%.\textsuperscript{119}

\textsuperscript{113} See, e.g., Ginia Bellafante, Plus-Size, N.Y. TIMES MAG., Jul. 28, 2010, at 25 ("[R]evulsion toward fat has characterized American life for more than 110 years.").

\textsuperscript{114} See Vanessa Voltolina, Normal Weight Obese: How Thin Can Still Be Fat, THATSFIT.COM (Jan. 27, 2010), http://www.thatsfit.com/2010/01/27/normal-obese-even-skinny-people-are-at-risk/?semi=1&ncid=ao!lth0017000000000&otim=1281545723&spid=35258515&kwcid=TC\%11093\%1obesity\%20studies\%151\%148038060 (a Mayo Clinic study that finds certain people of normal weight to have the clinical profile of obesity); see generally, STEVEN SHAPIN, NEVER PURE (2010) (the history of science and the body, especially Parts IV and V on advice historically given regarding diet).

\textsuperscript{115} See, e.g., Bellafante, supra note 113, at 22.


\textsuperscript{117} See generally Carrots & Sticks: Employers Prod Workers to Adopt Behaviors the Improve Health, Harvard Pub. Health Rev., Winter 2009, at 4 (regarding the "carrots" and "sticks" posed to employees, one "stick" being losing a job for testing positive for nicotine from smoking).

\textsuperscript{118} See, e.g., Sonya Stinson, Bribe Your Workers to be Healthy, CNN MONEY.COM (May 12, 2010), http://money.cnn.com/2010/05/12/smallbusiness/wellness_grants/index.htm.

\textsuperscript{119} See, Implementation Timeline, KAISER FAMILY FOUNDATION http://www.kff.
The overall message seems to be that wellness is a virtue, and one should wish to return to it as soon as possible for that reason. The targets for wellness in the U.S., however, fall primarily into two categories: Cessation of disapproved habits and aggressive programs of testing for prevention in categories already discussed.

**MEDICAL CARE AS THE QUICK FIX**

Medical care is far more effective and less invasive than it was fifty years ago. Heart surgery that in the past could not be performed without cracking the chest can be done with cameras and devices using the patient’s arteries. Powerful drugs can reset the paradigm of relative health and function for many without resorting to a “rest cure,” which inevitably included time for reflection and slow recovery from systemic body damage.

**OH, THE DRUGS**

Cultural focus has shifted somewhat to prescribed drugs from illegal drugs, characterized as a border, youth, and poverty problem; although drug use and policy remain as very important issues. Prescribed drugs are widely available and powerful. They are preferred because they are considered less

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120. See HADLER supra note 29 at 19 (“A real American would want to be fixed”).

121. This is not to underestimate the widely misunderstood long-term effects on the body and brain from such operations using microsurgical techniques. See, e.g., Rick Hamlin, My Heart’s Long Surprise, N.Y. TIMES, Aug. 7, 2010, at WK 9.

122. The non-clinical term “Dorian Gray Syndrome” has been applied to personality characterized by the use of medical interventions to remain youthful looking which engaging in lifestyle choices that in the past would have caused physical and appearance deterioration, like the title character in Oscar Wilde’s story whose picture showed his dissolute life while his appearance remained unchanged. See Dorian Gray Syndrome, WIKIPEDIA, http://en.wikipedia.org/wiki/Dorian_Gray_syndrome (last visited Dec. 7, 2010).
likely to have addictive or deadly effects, and may be available without recourse to illegal sales agents. Young people gather for “pharm parties” during which they place in a bowl such prescription drugs as they have acquired at home or school, and take whatever they choose for recreational purposes.123 The preoccupation with widespread pharmaceutical use is illustrated by two well-written television shows: House, on which the main character is, and is regularly reminded and admits to being, addicted to pain medication; and Nurse Jackie, a flawed but sympathetic character who takes drugs from the hospital dispensary.124

The world’s relationship with pharmaceuticals drugs is somewhat out of control because it is relatively new and strongly controlled by profit motives.125 Antibiotics are widely misused for viral infections at the request of patients.126 Opioid painkillers, famously available in their original plant-based chemistry, are now largely synthetic and much stronger.127 The use of prescribed painkillers has increased by thirty percent over two decades.128

Extraordinarily strong drugs also are offered to individuals through their doctors to treat what for many are minor or aesthetic conditions. A longstanding example is amphetamines as “diet pills,” which found wide use beginning in the 1960s. A


126. See Mayo Clinic Staff, Antibiotics: Misuse puts you and others at risk, MAYO CLINIC (Feb. 6, 2010), http://www.mayoclinic.com/health/antibiotics/FL00075.


prime example more recently is Lamasil, which is taken over a
course of twelve weeks for the common condition toenail
fungus, experienced by twelve percent of the U.S. population.
Examples of severe fungal effects are found in medical journals
and are alarming, but the usual condition includes yellowed,
thickened toenails. Just one such nail is sufficient for diagnosis.
The cost for the branded drug is about $200 on-line, with strong
generic competition. The contraindications for this powerful
drug include liver, heart, or kidney conditions, some of which
may be undiagnosed in a patient seeking the treatment.
Common side effects include severe stomachache, headache, and
pain in the area of the liver. A patient with liver distress may
develop jaundice, liver failure and death. One might assert it is
an individual’s right to undertake such a course of treatment at
their own expense, but many such extreme risks are foreclosed.

Physicians have routinely begun to prescribe over-the-
counter supplements as well. Vitamin D is presumed to be
beneficial or at least harmless.129 Taking widely prescribed
calcium supplements, on the other hand, has been linked with
increased risk of heart attacks.

THE SHALLOW FIX OF THE BUSINESS PARADIGM

Health care, historically a non-profit or charitable
undertaking, is increasingly recognized for the business it has
become. This is not solely for the opportunity to make profits,
but because of the costly infrastructure required to be licensed
by the states and attractive to consumers. The business model of
attracting customers in volume and providing quick, conclusive
responses does not fit many patients’ ongoing health care needs,
however, and an alternative business model of building a
relationship with the customer, while attempted by hospitals
and clinics, seems a poor fit when the personal caregivers one
sees changes frequently without explanation. The idea that

129. See, e.g., Jane E. Brody, What Do You Lack? Probably Vitamin D, N.Y. TIMES,
"you’re in good hands with Allstate," the relationship between a person and a business, lacks credibility when compared with prior models of charitable institutional motives and physician professionalism.

To address the immediate problem is not to address the patient’s health. Neither is identifying the cause of a presenting distress necessarily the key to recovery. One might imagine that much hospital care is becoming more like emergency care, addressing the immediate issue within the timeframe and payment allowed by the insurer, private or government. It appears we have no comfortable model for integrating into most people’s lives although those who are chronically ill may have a “medical home.”

MAD MEN: VIOLATING THE RULES OF OPTIMUM PREVENTION

Social control at the most intimate and vulnerable time of onset or worsening of illness, care inevitably delivered in part by strangers, recorded for access by many hospital staff members and available by various methods for future access indefinitely; these are under examination in this issue. The current presumption is that the patient is served when pathology is detected by a passing acquaintance with the patient’s presenting symptoms, followed by technical testing that might identify the underlying condition, and the response—drug, surgery, or a warning to mend one’s ways—might resolve in time for discharge.

Scheduled prevention has expanded physician, research and health care business agendas. Dr. House can, for dramatic purposes, illustrate some brilliant success we should all avoid as patients. House and Nurse Jackie, as characters, show that some release from the paradigm, in their cases into drugs, are growing in our educated culture. In Mad Men, the pivotal lie is that

131. WELCH, supra note 29, at 110.
132. See Patricia Cohen, In Midlife, Boomers are Happy – and Suicidal, N.Y. TIMES,
Don Draper has stolen his identity.\textsuperscript{133} In health care, the proposal for the future is that the patient cannot escape, a medical identity, which consists of reports and tests that may not represent the patient as he was or as he wishes to be in the present. Perhaps, with the addition of moral opprobrium for ill health and the potential economic sanctions in the job market, this is a strait jacket to which many will not consent.\textsuperscript{134} This might be a middle aged, middle class rebellion.\textsuperscript{135}

CONCLUSION

In many instances, ability to diagnose has and will improve over time. Discussion of newer diagnostic procedures and their effectiveness often runs ahead of the facts, and it should be recognized as a sales pitch couched in terms of scientific optimism and unproven factual certainty. We have no idea how the product works over time. It is a mighty expensive product, even for those who believe they have no other choices and must reduce their risks. One might say the problem is an excess of sanctity, imposed on others and oneself.\textsuperscript{136} It might even be stern misplaced hope.

\textsuperscript{133}Katie Roiphe, \textit{Cultural Studies: The Allure of Messy Lives}, N.Y. Times, July 30, 2010, at ST1 (noting the depiction on Mad Men of personal habits not considered unacceptably risky at that time).

\textsuperscript{134}Id. (noting the number of pregnant women who now hide or confidentially deplore their smoking and drinking).

\textsuperscript{135}Kathleen Turner's character, Sarah Leary, to her husband Macon, played by William Hurt in The Accidental Tourist: "You know what's wrong with you?" Of course, only he could say. \textit{See generally}, MASSIMO GIGLIucci, NONSENSE ON STILTS (2010) (on the reliability of science frequently as applied to health).