

Three Predictable Crises in the Health System and What to Do About Them

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Almost 15 years of uninterrupted prosperity (in most parts of the U.S.) have dulled our collective memory of the cyclical nature of economic change, and the stresses that devolve onto our health financing system in recessions. Fifty years of steadily escalating discovery of the causes and cures of human illness have helped create an illusion of health system omni-competence and numbed us to the power and adaptability of disease.

Complacency is a deadly affliction for people and organizations, and healthcare organizations are not immune. That the threats discussed below are not "new" should not discourage us from the needed contingency planning for them. Like the year 2000 (Y2K) problem, these are easily foreseen, but difficult to focus on until there is no time to do anything about them.

Antibiotic drug resistance and hospital-based infection

One of the great success stories in medicine in this century has been the triumph of antibiotics over a broad spectrum of bacterial infectious diseases. Bacterial infections were the principal cause of death at the beginning of the century. Beginning with the sulfa drugs in the 1930s, followed directly by penicillin and its cousins, the health system was able to banish whole clusters of clinical risk from the healthcare landscape.

Most Americans do not understand how ephemeral these gains may seem in a few short years. The spread of HIV and hepatitis has sensitized Americans to the continuing threat of viral infection. However, the more recent emergence of killer bacteria (*E. coli* and *Salmonella*) in poorly washed or prepared food has awakened Americans to the transitory and incomplete nature of our victory over bacteria.

The emergence of drug-resistant strains of tuberculosis, staphylococcus, and other potential killers caught the attention of medical researchers in the mid-1980s. A combination of indiscriminate use of antibiotics, poor patient compliance with antibiotic therapy, a failure of drug companies to renew the antibiotic armamentarium and the relentless process of genetic selection among bacteria has conspired to create the real potential of an epidemic of drug-resistant bacterial infections.

Unless serious attention is paid to the problem of infection control, the hospitals Americans have looked upon as temples of high technology medicine will be transformed, in a few short years, into dangerous places that concentrate the sickest Americans and breed bacteria that nothing can kill.

The warning flags have already begun to fly. A recent Centers for Disease Control Report revealed a 36 percent increase in the nosocomial infection rate in hospitals from 1977 to 1991, and criticized tax hospital infection control procedures, among other things, for permitting this increase.

The stakes are high. As stories of hospital deaths from drug-resistant bacteria appear in the popular press, patients and families will pressure their physicians not to admit them to hospitals. After a decade when health plans were the principal source of pressure to reduce hospital

admissions, consumer pressure to avoid hospital admissions will intensify and markedly reduce hospital volumes (and revenues).

Managed care plans are already examining how unnecessary hospital stays produced by nosocomial infection can be reduced, because reducing them will minimize their cost exposure. They will pressure hospitals to minimize hospital admissions for problems that can be managed in nonhospital settings, not only for the cut-rent economic reasons but to avoid infection-driven care episodes and their associated costs. Health plans will also find it expedient to publish their data on comparative infection rates at participating hospitals to help their subscribers find the least risky venues for resolving their clinical problems. Consumer will come to view low hospitalization rates as a favorable indicator of health plan quality. Suddenly, infection control will become a differentiator of health systems.

It's not going to be easy to get health managers and clinicians to focus on improving infection control. Several personal experiences with family members have underscored this difficulty. Several years ago, a member of my family underwent an ambulatory surgical procedure to repair a genetically inherited hearing defect. The surgery was performed in a large suburban community hospital with a strong reputation.

The procedure successfully replaced an increasingly recalcitrant combination of small bones in the inner ear with a mechanical prosthesis, and the family member was discharged after 24 hours recovery in a converted hospital inpatient unit. However, within days, the hearing gains eroded, the ear filled with fluid and a painful infection ensued. A visit to our primary care physician and subsequent lab test revealed an infection of *Haemophilus influenzae*, a deadly precursor to spinal meningitis.

Though the infection flowered in the community, it originated in the hospital. The surgical team was long gone by the time the infection surfaced, and the attending surgeon's attitude was, essentially: "It's not my department." The primary care physician prescribed a powerful antibiotic, which killed the bug, but the effectiveness of the prosthesis was compromised by the infection.

Lingering questions about the use of the inpatient OR for the procedure, and about the use of converted inpatient units for recovery, as well as the vigilance of the nursing and support staff against infection remain in our minds.

A second exposure raised additional questions. About a decade ago, a member of my family was diagnosed with leukemia, and entered a renowned university teaching hospital with a superb regional cancer center for treatment. After chemotherapy destroyed the white cells in his body, he entered the uncertain period of renewal of his white blood cells when any infection could threaten his life. Midway through this recovery process, evidence was detected of a possible gastric leak requiring emergency exploratory surgery. Escaped gastric bacteria can flower in the body cavity of immune-compromised patients, and kill them within hours.

After the surgical procedure, the family member was transferred to a surgical oncology floor and placed in a private room posted prominently with infection control warnings alerting nursing staff to the immune-compromised state of the patient. Nevertheless, lax infection control procedures reigned on this nursing unit, requiring literally 24-hour posting of family members to

prevent nursing and support staff from entering the room unless they wore masks, gowns, and gloves – part of the prescribed infection control procedure.

These efforts were not enough. Our family member developed a high fever, entered intensive care and died within two days. Unfortunately, we will never know whether his death was an unavoidable consequence of his brutal therapy, or caused by a breakdown in vigilance on the part of the care team.

There are many things that can be done about this predictable breaching of hospital immune defenses that awaits us in the near future. Per the CDC's suggestions, such low-tech solutions as increased vigilance in hand-washing can make a major contribution to reducing infection risk. Systemic examination of the weak links in the infection control program (sterilization procedure, gathering and disposal of "red bag" waste, decontamination of operating suites and intensive care units, maintenance of air handling systems and administration and management of intravenous therapy) and improved surveillance and reporting procedures all can play a role.

However, logistical issues are raised by the bacterial infection risk. Many hospitals have developed ambulatory surgical and imaging programs that can, in theory at least, be used to separate well patients from the sick and dying. However, shortcuts in the design process may have compromised these efforts by streaming ambulatory patients through inpatient operating and imaging suites used by sicker inpatients. Rigorous physical separation of well patients from sick patients through the entire therapeutic process can help assure the families of the "well" patients that their risk of becoming sick while being cared for is minimized.

Hospital systems that develop networks of offsite (nonhospital) ambulatory facilities or postoperative homecare programs will be much better positioned to avoid intermingling well and sick patients, by keeping the well patient off the hospital campus altogether. These systems will probably have lower infection rates, as well as improved patient satisfaction.

The uninsured patient and the next recession

One of the most ominous trends in the American health economy has been the steady growth in the number of uninsured people. Despite the addition of more than 20 million new jobs during the 1990s economic expansion, the number of uninsured people has grown by between 5 and 7 million to almost 44 million people. What is even more disturbing is that this, number would have been far larger if Congress had not mandated expansion of Medicaid coverage to children during the late 1980s. These mandates added some 9 million people to Medicaid rolls who probably would have lacked health insurance.

While this problem will be mitigated to some extent by the Children's Health Insurance Plan (CHIP) enacted by Congress in 1996, the prospect for further growth in the number of adult uninsured people may offset any gains in coverage produced by CHIP.

Conventional economic theory would have predicted that tightening labor markets experienced during the current economic boom would have encouraged firms to cover their workers to retain them, and to compete for the best qualified new workers.

This may be happening in some parts of the service economy, but it has been offset by other factors, including the conversion of full-time employees to consultants, and the growth of

outsourcing to small firms that do not offer health insurance to their workers. Large numbers of people are employed part time, or are self-employed, and cannot routinely access employer-paid-health insurance.

The issue of why people become or remain uninsured is complex. Obviously, millions of American families cannot afford to purchase coverage for themselves. However, there is clearly a discretionary component to being uninsured. It has been estimated that 40 percent of the 12 million uninsured children in the U.S. are eligible for Medicaid but have not been enrolled. Further, an estimated 30 percent of those without health insurance live in homes with household incomes above \$30 thousand a year, and may view paying insurance premiums as less important than other items in their household budgets. An estimated 6 million workers who are offered health coverage by their employers, elect to decline the coverage, either because of the cost or competing economic priorities.

Whatever the causes, providers of last resort, such as public hospitals, have noticed a steady increase in uninsured patient volume during this economic boom.

It is worth thinking about what happens to the number of uninsured when the economy turns downward. Absent major public policy initiatives, the number of uninsured patients will probably increase sharply in the next economic downturn. Health policy analyst Emily Friedman, who follows this issue closely, believes that as many as 60 million people will be uninsured at some point during the next recession. In addition to people losing jobs that currently offer health insurance, large numbers of "independent contractors" and other self-employed people who currently purchase health insurance for themselves will find themselves unable to do so when their incomes fall or disappear.

A further reason the number of uninsured may increase sharply in the next recession has to do with welfare reform. Though Congress has progressively decoupled Medicaid eligibility from receipt of public assistance (welfare checks), the core of eligibility for traditional acute medical coverage under Medicaid remains those who are on welfare rolls. Because of reforms enacted during 1996 as well as economic changes, the number of people on welfare has fallen dramatically, and may not rise during the next recession. Time limits and work requirements imposed on welfare eligibility will limit eligibility for Medicaid as well, and limit the usual increase in Medicaid enrollment that 40 percent of the downturn.

How can providers cope with the likely increase in economic pressure from uncompensated care during the next recession? Obviously, providers and the newly uninsured have a common political interest in reviving discussion of health reform.

In the meantime, however, many hospitals and integrated systems have built ambulatory capacity that could be reprogrammed to provide primary health coverage for those who lack health insurance. In anticipation of the success of the Clinton reforms, many health systems built large, closed-panel, primary care physician systems as part of an "integrated delivery system." As health insurance moved away from the closed-panel approach and toward broad-panel, open network arrangements, health systems have been left subsidizing large cadres of underemployed primary care physicians. Some estimates have placed the magnitude of these subsidies in the billions of dollars annually.

Many system executives have not yet made the link between unmet health needs in their communities and the "surplus" of primary care capacity in their own systems. Safety net providers do not need to be "capitated" by some mythical payer for care to the uninsured. They are already 100 percent at risk for the cost of their care. Rather than dismantling hospital-sponsored primary care groups, an obvious alternative is to redeploy underemployed primary care physicians to provide primary care to community residents who lack health coverage.

Many uninsured people use the hospital's emergency room for primary care, and can thus be identified as repeat users. A definable percentage of those visits result in hospital admissions for which the hospital will not be paid by public or private insurance, and which could have been avoided if problems had been detected and treated earlier. Some public hospital systems, such as Parkland Hospital in Dallas, have had success creating community-based primary care systems that, as an important collateral benefit, have reduced emergency room admissions from the targeted communities. Hospital systems under pressure to demonstrate community benefit that relates in some meaningful way to their tax exemption can point to providing primary care coverage to the uninsured as a creative reuse of an important system resource.

One can anticipate the obvious objections to redeployment. There may be a geographic mismatch between where a system's primary care physicians are located and where the uninsured live. Creating practice sites and moving physicians to those sites is complex and disruptive. Adding these additional costs to already unsustainable losses may not be achievable for systems under financial pressure.

Salaried physicians may not wish to work much harder than they are working now, though the prospect of making tangible improvements in the lives of community residents may offset some of those concerns.

For all of the above reasons, the strategy should be justified based on core values and mission, rather than presumed economic payoffs. There are significant public relations and public health benefits to rededicating what seems, in a narrow accounting sense, "surplus" human capital to meeting a substantial unmet need. If the strategy also alleviates emergency room volumes and uncompensated hospital admissions, the savings can be viewed as an important collateral benefit to the sponsoring system.

Genetic information and the viability of insurance

One of the most significant byproducts of the revolutions taking place in human genetics and immunology will be the availability of large amounts of predictive information on individual disease risk. As the Human Genome Project moves toward its conclusion, scientific knowledge of genetic sources of disease risk has exploded. Specific therapeutic opportunities to address genetically linked diseases will emerge gradually from this body of basic knowledge; meanwhile, the range and power of genetic testing is being markedly extended.

Those at some genetic risk of disease are an as-yet-unnamed category of people in our health system; indeed, that accurately describes every one of us. We are not patients but citizens. To the extent that, as individuals, we can define more precisely our own degree of health risk, there will be a growing asymmetry of information between ourselves and the firms that extend life and health insurance coverage to us—we will have more information about our health risks than they

will, It does not require Rhodes Scholar credentials to predict the effect of this growing asymmetry on the business of insurance.

It will greatly expand opportunities for people to engage in risk selection, calculating their probability of incurring health costs in the immediate future, and selecting their plan option accordingly.

Risk selection by the self-employed already inhibits insurer willingness to offer insurance coverage to individuals and small groups, and has rendered insurance unaffordable to many where it is available.

Indeed, the instability of the small-group market, and the compensating costs allocated to coverage by insurers, is one reason why large numbers of self-employed individuals elect not to purchase coverage. Risk selection can only increase as individuals acquire more definitive information about their health risks, rendering the small-group market virtually uninsurable under the current ground rules.

Life insurers are already at risk for risk-selection behavior by those who can forecast for themselves a shorter life than actuarial information would predict. To the extent that legal and political forces imbed this asymmetry of information into the law, in effect making insurance coverage more of an open-ended entitlement, the economic foundation of life and health insurance itself is compromised.

Preventing discrimination in hiring or insurance coverage based upon genetic information is a potent emerging political issue. By the same token, given the rising hostility of Americans to health insurers, it is difficult to imagine insurers being permitted to require either genetic testing or answering questions about genetic disease risk as a condition of extending coverage. New Medicare regulations forbid health insurers from discriminating against the elderly by basing coverage on genetic information. Some versions of the patient protection legislation considered by Congress in 1998 would forbid insurers to gather or use family history or genetic information in making coverage or rate decisions.

It makes sense that at some point in this increasingly unforgiving political climate, insurers will find it advantageous to cut their losses, voluntarily end the conventional insurance underwriting process and embrace community rating of health and life insurance instead.

Community rating basically assigns individuals to age- and sex-related rate categories that apply across the entire population of a community regardless of health status or family history. Community rates limit subsidies from the young to the old, and from the well to the sick. Implementing community rating averages insurance costs across age groups, sharply raising the cost of covering young and healthy people. Failure to anticipate this cost discontinuity could actually increase the number of uninsured people by pushing those at the margin of coverage affordability into deciding not to obtain coverage.

It is worth thinking creatively how to offset the increased cost of community rating on young people. The obvious policy remedy is an individual health coverage mandate, similar to that imposed by states for automobile insurance, combined with a means-tested tax credit that individuals under economic stress could use solely to purchase coverage. The individual mandate

would add millions of healthy young people to health insurance pools, lowering the average cost of coverage.

Given the large discretionary component in individuals' decisions not to seek health coverage, it is highly unlikely that the U.S. will be able to achieve universal coverage without mandating that individuals purchase health insurance for themselves and their families. The individual health insurance mandate is gaining currency as health policy-makers increasingly sour on employer-based coverage, and realistically assess the political impossibility of mandating that all employers cover their workers. The tax credit enabling individuals to purchase health insurance coverage could be funded by limiting the tax deductibility of employer-provided coverage to families above a certain income bracket.

Further economic relief could be provided to young people by capping the Medicare payroll tax rate for people younger than age 35 (reducing the massive intergenerational subsidy to current Medicare users from young people). One of the least defensible inequities in the current Medicare Financing system is that young people who do not receive health coverage from their employers are funding through their payroll deductions a standard of care to the current elderly that will not be even remotely affordable for today's young when they reach retirement age.

The Jackson Hole "managed competition" proposals foresaw the necessity of community rating, but envisioned a hellishly complex, intrusive, federally administered health insurance regulatory scheme to supervise the community rating process, as well as the structure and intimate details of the benefit itself. There are numerous reasons why this is a bad idea, which were fully aired during the Clinton health reform debate. If community rating is implemented, it should be through a voluntary industry consortium with appropriate federal oversight.

To the extent that we believe that health and life insurance should continue to play an important role in our economy, it is worth thinking creatively how to preserve it in the face of an onslaught of new risk selection opportunities for individuals and businesses that will be created by the genetic testing revolution.

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