NEW DIRECTIONS IN AMERICAN HEALTH CARE

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I. INTRODUCTION

Despite all the questions that continue to surface about the future effectiveness of health reform, U.S. physicians can do more now to help patients than at any other time in our history. Yet, a dichotomy remains within health care that makes this reality anything but an undisputed success story.

The American health care system has pockets of extraordinary excellence that often sit in a sea of mediocrity and wastefully high costs. At its best, the American health care system is an international destination for those who want to learn from and be treated by us. At its worst, that same system is a target of ridicule and scorn—a prototype for waste and inefficiency run amok. It is hardly a surprise then that health care reform needs to focus not on our pockets of excellence and the things we do well, but on the efficient functioning of the entire system. That is our mandate for change.

American health care is ripe for an overhaul. Yet, there are many who do not want to alter our current system. The reason is not solely

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because change is hard. As was evident during last year’s marathon debates over health reform, many do not want to change the system because it either works for them or they personally profit from it. Current care models that appear wasteful to some provide significant income to others. And while many people can get exactly what they want out of the health care system, there are even more who cannot, including the uninsured, under-insured, minority groups, and residents of rural America.

II. DRIVERS

Cost is one of the main drivers of change in health care. While health care expenditures rose at a slower rate in 2008 than recent years, they still grew by 4.4%, outpacing inflation and the growth in national income. In terms of the overall economy, the United States spent $2.3 trillion on health care in 2008, which translates to $7681 per person, or 16.2% of the gross domestic product (“GDP”). In 2009, it was expected to be 17.6% of the GDP.

With advances in technology, we can cure disease and treat illness so people will live longer, but the price tag for those advances will continue to climb. In the not-too-distant future, molecular and genetic medicine will make it possible to create specific drugs for individuals with a range of different medical conditions. For example, gene sequencing will make it possible to develop customized drugs to cure a select number of people with specific cancers—at a cost of millions of dollars per life saved. As much promise as technology holds to cure

3. Id.
6. See Kimbuende et al., supra note 2.
7. See Office of Sci., U.S. Dep’t of Energy, Pharmacogenomics, HUMAN GENOME PROJECT INFO., http://www.ornl.gov/sci/techresources/Human_Genome/medicine/pharma.shtml (last visited Dec. 11, 2010) (stating that the ability of pharmaceutical companies to design targeted drugs is a potential benefit of pharmacogenomics); see also Susmita Patowary, Pharmacogenomics—Therapeutic and Ethical Issues, 4 KATHMANDU U. MED. J. 428, 429 (2010), http://kumj.com.np/ftp/issue/12/428-430.pdf (stating that an issue raised by pharmacogenomics is the initially high cost of the technology, which would restrict access to those who are rich enough to afford the genetic tests
diseases inflicting countless individuals, the cost would overwhelm the nation to the point where the vast majority of our GDP would be spent on health care, with far too little money left for other essentials like the military, education, and our transportation infrastructure. Of course, the moral dilemmas are: Who gets treated and who does not? How are those decisions made? And who gets to make them?

A. Overutilization

Spiraling technology costs can also be attributed to inefficiencies stemming from overutilization of health care services. One of the best examples is the growing reliance on computed tomography (“CT”) scans to assess pain. For instance, studies show that a CT scan does not improve the accuracy of diagnosing appendicitis in young patients. In the overwhelming majority of cases, physicians can rely on patient history to correctly diagnose it. Yet, an audit of emergency medicine physicians at two major hospitals in the North Shore-LIJ Health System found that most physicians ordered CT scans for the overwhelming majority of the appendicitis patients they examined in that age group. Those types of decisions by physicians increase costs significantly without improving care. While this is admittedly a small sample taken from only two hospitals, it illustrates the point. If you extrapolate the numbers across disciplines and across the vastness of the American

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8. See Chelsey Ledue, Wellpoint: Advances in Medical Technology Are Primary Driver of Increased Costs, HEALTHCARE FIN. NEWS, May 27, 2009, http://www.healthcarefinancenews.com/news/wellpoint-advances-medical-technology-are-primary-driver-increased-costs (“[A]dvances in medical technology may be the primary driver of increased costs.”); HENRY J. KAISER FAMILY FOUND., supra note 5 (“Spending on healthcare . . . has consistently grown faster than the economy overall since 1960s.”).


10. See Antonia E. Stephen et al., The Diagnosis of Acute Appendicitis in a Pediatric Population: To CT or Not to CT, 38 J. PEDIATRIC SURGERY 367, 369 (2003) (“In this study, there was no significant difference in diagnosis with the use of CT scan compared with the group diagnosed by history, physical examination, and laboratory testing alone (95.6% with CT, 94.1% without CT.”).

11. See Donald D. Trunkey, Health Care Reform: What Went Wrong, 252 ANNALS SURGERY 417, 421 (2010) (“The diagnosis of appendicitis can be made 90% of the time by history and physical in males, and 80% of the time in females.”).

12. This was a confidential North Shore-LIJ Health System audit, utilizing billing data for patients admitted through the emergency room, looking at the number of head CT scans ordered by physicians for an eight month period in 2009. The results of this audit are confidential.
health care system, it is easy to see why health care costs in the United States are out of control.

The bottom line is that health care costs will not be contained until physicians stop practicing defensive medicine. A 2003 U.S. Department of Health and Human Services report estimated that defensive medicine costs between $70 and $126 billion per year, but does not improve patient safety or quality of care. A recent study of 900 physicians showed that 83% reported practicing defensive medicine and that an average of 18% to 28% of tests, procedures, referrals and consultations, and 13% of hospitalizations were ordered for defensive reasons. This not only costs the health care system (and consumers) money, but also exposes patients to risk of over-medication, unnecessary radiation, and possible infections during a hospital stay.

B. Health Care Access

Lack of health care access also increases costs. Health insurance often limits a person’s access to care, compelling countless individuals—including millions of elderly and lower-income patients—to seek care in an emergency room because no doctors in their area accept Medicare or Medicaid. Even well-insured individuals find their doctor’s office closed in the evening, night and weekend hours. The emergency room option is far costlier, less effective, and less efficient. In addition, these patients typically do not receive preventative care, which means they are usually sicker and more expensive to care for when they do enter the health care system.

15. Id.
16. Id.
17. Id.
18. See, e.g., Richard Martin, More Medicaid Patients Go to Emergency Rooms for Care, St. PETERSBURG TIMES, Aug. 27, 2010, http://www.tampabay.com/news/health/more-medicaid-patients-go-to-emergency-rooms-for-care/1117932 (explaining how decreased Medicaid reimbursements have forced doctors to cut back on taking Medicaid patients, which has in turn forced many to put off care and instead seek treatment in emergency rooms).
C. Primary Care in Short Supply

Inconsistent access to health care is also a driver in the need for change. There is a shortage of primary care physicians across the country, but especially in rural areas and minority communities. 20 There are currently about 67,000 students in medical school. 21 The Association of American Medical Colleges has called for a 30% annual increase in medical school enrollment—about 5000 more doctors a year. 22 Despite the push to accept more students and increase the number of medical schools, most new physicians still will not go into primary care. Many see primary care as having too much paper work, excessively long hours, low professional prestige, and less stimulation than specialty care. 23

Not surprisingly, money is another major factor: 26.1% of medical students stated that the size of their student loans and the lower incomes earned by primary care physicians were among the largest factors that pushed them away from primary care. 24 Today, the difference in incomes between a primary care physician entering into practice and a new procedural specialist is can be as high as 280%. 25 The differences between these two groups at the peak of their earning years can be as high as 223%. 26 With the limited numbers of physicians going into primary care, the continuing aging of the population, and the fact that more people are living longer with chronic disease, the primary care shortage could become even worse.


24. Id.


26. See id. (listing the mean overall salaries for family medicine—the lowest paying primary-care position—as $185,740 and for orthopedic surgery—the highest paying procedural specialty—as $436,481).
While the number of primary care physicians is limited, the number of uninsured has continued to grow—as of 2008, 46.3 million Americans have no health insurance. Most people without health care coverage are not uninsured by choice; in most cases, it is because they simply cannot afford it. Making health insurance more affordable and increasing access to care were the primary drivers in the push for health reform. Opting out of affordable health insurance coverage leaves both the patient and the health care system at risk, which is why lawmakers included a provision to penalize individuals who choose not to get health insurance. The new health reform law only scratches the surface of this enormous problem, expanding insurance coverage without changing our ineffective models of payment and care.

D. Strengths and Weaknesses

When it comes to technology, the availability of pharmaceutical drugs and other resources, the quality of medicine in the United States is unparalleled. The United States offers more effective, cutting-edge drugs, high-tech equipment, and procedures than any other country. With all of the treatments available to us, why is our care not the most effective? Despite its great medical resources, the United States lags behind other nations in key areas of health and wellness. For example, the United States has a lower average lifespan than Canada, Spain,


28. See id. at 21 (stating that those who make less than $25,000 comprise 24.5% of those who are uninsured, whereas those making more than $75,000 comprise only 8.2%); Barack Obama and Joe Biden’s Plan to Lower Health Care Costs and Ensure Affordable, Accessible Health Coverage for All, http://www.barackobama.com/pdf/issues/HealthCareFullPlan.pdf [hereinafter Obama and Biden’s Plan] (“It is simply too expensive for individuals and families to buy insurance on the open market and impossible for many with pre-existing conditions.”).

29. See Obama and Biden’s Plan, supra note 28 (“Barack Obama and Joe Biden will guarantee affordable, accessible health care coverage for all Americans.”).

30. See Patient Protection and Affordable Care Act, Pub. L. No. 111-148, § 5000A(b)(1), 124 Stat. 119, 244 (2010) (providing for a penalty against those who fail to maintain a minimal level of essential coverage); 156 Cong. Rec. H1891, H1898 (daily ed. Mar. 21, 2010) (statement of Rep. Linda T. Sanchez) (arguing that because the insured, in effect, subsidize the uninsured, it makes sense to require everyone to have insurance, thereby eliminating the “hidden tax on the insured”).


Japan, France, and Singapore. Infant mortality is consistently too high. And nearly one third of United States’ adults over age twenty are obese. Those are just a few of the areas where the United States lags behind other countries. The World Health Organization ranked the United States thirty-seventh overall in rankings of national health care systems, putting us between Costa Rica and Slovenia.

A full-court press to improve quality began with the U.S. Institute of Medicine’s landmark 1999 report, To Err Is Human: Building a Safer Health System. According to the report, about 100,000 preventable deaths occur annually as a result of poor communication, systems failures, and ineffective teamwork. And those statistics only measure lives lost; “[b]etween 2005 and 2007 there were 913,215 patient safety errors among Medicare beneficiaries” in the United States. “A National Patient Safety Foundation study conducted in 1997 shows that 42 percent of the American public has had personal experience with a medical error . . . ”

Poor coordination of care is a resounding negative theme in health care. Ask patients who their primary physician is and many will not know. Patients see many specialists, who order tests, prescribe medications, and deliver care in their office and hospital, but what is missing is a single responsible physician coordinating this information, putting together the clinical picture, and overseeing the totality of a person’s care.

34. See U.S. Ranks Just 42nd in Life Expectancy, supra note 32.
35. Id.
37. See INST. OF MED., TO ERR IS HUMAN: BUILDING A SAFER HEALTH SYSTEM 17 (Linda T. Kohn et al. eds., 2000) (“This report proposes a comprehensive approach for reducing medical errors and improving patient safety.”).
38. See id. at 26-28.
39. See id. at 26.
III. NEW DIRECTIONS IN HEALTH CARE

New directions in health care are needed to make the necessary changes to care for the U.S. population. As health care providers, we need to decide how we want our health care system to change and function. The onus is on those who work in health care, including both providers and payers, to assess the current state of health care and decide what changes should be made. Those on the inside can best decide how to control costs, increase access, and provide the best quality of care. If physicians are to lead the needed reform, society must trust their motivation. Unfortunately, there is a credibility problem. Many in society are split as to whether physicians are white knights who should be trusted and given autonomy, or knaves who should be tightly regulated and watched.42

A. Lowering Costs

Perhaps the most hotly debated question in the health reform debate is, “How do we lower costs?” Among the most popular recurring ideas to not only reduce costs but improve care is to place a greater reliance on evidence-based medicine and electronic medical records,43 and a greater focus on disease prevention, health wellness, and promotion.44 Evidence-based medicine is often thought of as a tool for cost reduction.45 Treating a specific disease by relying on medical practices that have been proven to work reduces the risk of inappropriate interventions and lowers costs.46 Utilizing evidence-based medicine also helps eliminate unnecessary tests and procedures.47 In some parts of the country, it is twice as expensive to care for a single patient than in another similar area.48 And while there are vast differences in spending

43. See, e.g., OBAMA AND BIDEN’S PLAN, supra note 28 (emphasizing the importance of electronic medical records and an evidence-based approach to medicine).
44. See id. (emphasizing the importance of chronic disease prevention and of promoting public health).
45. See id. (claiming that requiring health plans to “utilize proven disease management programs . . . will improve quality of care and lower costs”).
46. See id. (“One of the keys to eliminating waste and missed opportunities is to increase our investment in comparative effectiveness reviews and research.”).
in various regions of the country, higher spending does not result in better quality of care.49

Integrating physician offices with electronic medical records ("EMR") offers a number of benefits—and controlling costs is one of them.50 EMRs reduce variation among physicians and redundant care, while also providing physicians with access to evidence-based medicine at the touch of a button.51

Of course, even the best EMR accomplishes nothing if no one is there to put all of the information together. Every person needs to have a personal physician to coordinate care. All patients should have a principal physician who is able to talk to them about the entire medical picture, not just one specialty area.

Another possible strategy for reducing health care costs is to sharpen the focus on preventing diseases and promoting wellness, rather than managing disease after people get sick. Prevention and health promotion may cost less in the long run, but the return on investment will take many years. The new health reform law, formally known as the Patient Protection and Affordable Care Act ("ACA"), will require all insurance plans to cover preventative services and immunizations recommended by the U.S. Preventive Services Task Force and the U.S. Centers for Disease Control and Prevention ("CDC").52 From a public policy standpoint, it is a great step forward, but it should not be viewed as a cost saver.

B. Individual Responsibility

Regardless of what changes occur across the nation’s health care system, individual responsibility remains a key to success. An individual’s willingness and ability to follow through on annual physicals, appropriate screenings, and recommended treatments are necessary to reduce health care costs and improve the nation’s overall health. Considering that 75% of our nation’s health care costs can be attributed to chronic preventable diseases affected by lifestyle choices such as smoking, poor eating habits, and physical inactivity,53 it is clear

49. See id. at 2.
51. Id.
that we need to do a better job educating consumers, particularly young people, about the hazards of an unhealthy lifestyle.

C. Bundling Payments

As costs continue to rise in a fee-for-service system, new reimbursement methods—such as so-called “bundled” payments for episodes of care—may help control costs and encourage better coordination of care. Bundling payments and moving away from a fee-for-service model of payment would encourage coordinated care over the entire illness rather than a single episode. The goal of bundled payments is to reduce readmissions to hospitals, keep patients in their homes and communities, and coordinate outpatient treatment, which is significantly cheaper and often better than inpatient care. In addition, bundling payments encourages (almost forces) better coordination of care among providers. ACA establishes a national pilot program on payment bundling by January 1, 2013 for a period of five years.

D. Expanding Health Access

Another key provision of the new health reform law is that it extends the age that dependents can remain on their parents’ insurance to twenty-six. This is important because many young people do not carry health insurance during graduate school or at the onset of their careers, when some may be working for smaller employers that may not offer health insurance.

54. See Mongan et al., supra note 50, at 1509 (“Unconstrained growth in medical spending is threatening the incomes of individual patients, the cost structures of employers, and the fiscal balance of government.”).

55. See David Mechanic, Replicating High-Quality Medical Care Organizations, 303 J. AM. MED. ASS’N 555, 555-56 (2010).


59. Id. sec. 1001, § 2714(a), 124 Stat. at 132.

60. See Kathleen Sebelius, Giving Young Adults More Peace of Mind, HEALTHREFORM.GOV (Apr. 20, 2010), http://www.healthreform.gov/forums/blog/blog_20100420.html (“Many young adults under the age of 26 traditionally had a difficult time getting access to—and affording—health coverage. In fact, young adults between 19 and 29 make up nearly one-third of the uninsured population.”).

Expanding access to appropriate health care will be instrumental in changing the health care system and the health of the population. Without sufficient access to health care providers, the care patients receive is often poor, emergent and event-specific; it is not managed by anyone, continuous, or preventative.\textsuperscript{62} Under federal health reform, all insurers must cover preventative services and immunizations recommended by the U.S. Preventive Services Task Force and the CDC.\textsuperscript{63} The new law is expected to increase the number of people who seek preventative services,\textsuperscript{64} as well as boost payments to physicians who deliver primary care services to Medicaid recipients,\textsuperscript{65} which hopefully will incentivize more primary care physicians to accept Medicaid patients into their practices.

While expanding access to care is a major goal of health reform, so is addressing the lack of primary care physicians.\textsuperscript{66} The new law is designed to increase the supply of health care workers, by making it easier to qualify for student loans,\textsuperscript{67} increasing loan amounts,\textsuperscript{68} and most importantly, establishing a loan repayment program for certain medical fields.\textsuperscript{69} These provisions may make it more attractive for medical students to enter the primary care field.

\textbf{E. New Models of Care}

A promising new model of primary care that is developing nationwide is something called the “medical home.” The medical home is a patient-centered approach to primary care, organized around the relationship between the patient, the personal clinician, and associated

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  \item \textsuperscript{62} See Andrew P. Wilper et al., Health Insurance and Mortality in US Adults, 99 \textit{AM. J. PUB. HEALTH} 2289, 2289, 2293 (2009).
  \item \textsuperscript{63} See supra note 52 and accompanying text.
  \item \textsuperscript{64} See U.S. Dep’t Health & Human Servs., Preventative Regulations, \texttt{HEALTHCARE.GOV}, http://www.healthcare.gov/center/regulations/prevention/regs.html (last visited Dec. 11, 2010) (“By expanding coverage and eliminating cost sharing for the recommended preventative services, the Departments expect access and utilization of these services to increase.”).
  \item \textsuperscript{65} See James Arvantes, Provisions in Health Care Reform Law Lay Out Role of Primary Care, Family Physicians, \textit{AAFP NEWS NOW} (July 28, 2010), http://www.aafp.org/online/en/home/publications/news/news-now/government-medicine/20100728reformoverview.html (“The health care reform law attempts to enhance the role of primary care... through higher Medicare and Medicaid payments for primary care ...”).
  \item \textsuperscript{67} See Patient Protection and Affordable Care Act, Pub. L. No. 111-148, § 5201(b), 124 Stat. 119, 607 (2010) (not requiring independent students to submit parental financial information to the secretary of state).
  \item \textsuperscript{68} See id. § 5202(a), 124 Stat. at 607 (increasing loan amounts for nursing student loans).
  \item \textsuperscript{69} Id. sec. 5203, § 775(a), 124 Stat. at 607 (requiring the Secretary to establish a “pediatric specialty loan repayment program”).
\end{itemize}
care team.70 “First championed by the American Academy of Pediatrics, the medical home is broadly defined as primary care that is ‘accessible, continuous, comprehensive, family-centered, coordinated, compassionate, and culturally effective.’”71 Patient-centered medical homes increase access to primary care physicians and involve patients in the decisions about their care.72

Above all of the other factors that come into play during the implementation of health care reform, hospitals and other health care providers must make quality the center of their universe—and ultimately the measuring stick for success. In recent years, an increasing number of hospitals have been participating in pilot projects and other broad initiatives aimed at strengthening patient safety and improving outcomes, tying reimbursement to performance.73 The U.S. Centers for Medicare and Medicaid Services’ (“CMS”) Hospital Quality Initiative allows consumers to go online to compare hospitals’ adherence to medical practices that are scientifically proven to be effective in caring for patients being treated for heart attacks, heart failure, pneumonia, hip fractures, and other conditions.74 In the wake of the Institute of Medicine’s To Err Is Human report, thousands of hospitals also signed on to the Institute for Healthcare Improvement’s “100,000 Lives” campaign,75 which focused on instituting best practices to reduce medical errors and hospital-acquired infections.76 A range of other

71. Id.
72. See id.
73. See, e.g., Press Release, Premier Inc., New Accountable Care Organizations Will Focus on Creating Healthier Communities (May 20, 2010), http://www.premierinc.com/about/news/10-may/ac052010.jsp (describing Premier’s new Accountable Care Organizations, which are designed to increase patient safety and outcomes in part by tying reimbursement to performance).
74. See Hospital Compare, HHS.GOV, http://www.hospitalcompare.hhs.gov/ (last visited Dec. 11, 2010) (enter a zip code or a city and state in the “Location” box; select “Medical Conditions”; select the desired medical condition from the drop box that appears; and click the “Find Hospitals Button”).
76. YUAN ET AL., supra note 75, at 4.
government, accreditation, and health care organizations have launched similar initiatives aimed at strengthening quality of care.77

The latest focus has been on so-called “accountable care organizations” (“ACOs”), which are seen as a health system model to manage a patient’s continuum of care across different institutional settings, including outpatient and inpatient facilities.78 The basic approach with ACOs is to “bring doctors, nurses, hospitals and other care providers together to share responsibility for keeping patients healthy.”79 The ultimate goal of ACOs is to improve total cost, quality, and patient satisfaction.80 Currently, the nation’s health care system focuses on caring for the sick and paying providers for each visit, which contributes to inefficiency, waste, and poor care coordination.81 ACOs are designed to keep patients healthy and out of intensive care settings, while basing reimbursements on top performance goals that drive improved outcomes and cost effectiveness.82

Clinical integration is another way to improve the quality of care provided to patients. According to Hospital and Health Networks, clinical integration is defined as “[h]ospitals and physicians shar[ing] responsibility for and information about patients as they move from one setting to another over the entire course of their care.”83 One of the largest benefits of clinical integration is that each patient has one medical record and all of the providers have the exact same record.84 This reduces overuse, underuse, and repeat medical care.85 In addition, it allows data to be collected with relative ease; once data is collected it can be studied and used to develop best practices.86

77. See id. at 4-5 (describing the 5 Million Lives Campaign, the D2B Alliance, and the Home Health Quality Improvement National Campaign).
80. Id.
81. Id.
82. Press Release, Premier Inc., supra note 73.
84. Id.
85. See id.
86. Id.
Finally and perhaps most importantly, one of the major shifts that needs to occur to provide better quality of care is our health care culture. In their foreword to the book *Achieving Safe and Reliable Healthcare*, CMS Administrator Donald Berwick and health policy expert Lucian Leape write:

The dazzling progress in medical technology and its accompanying complexity should have brought us logically to profound improvements in interdisciplinary teamwork. Yet the cultural change has lagged far behind the technical advances. Many doctors have clung to the nineteenth century model of status, hierarchy, autonomy, and privilege that has served them, but not always their patients, so well for so long.87

Kathleen Gallo and Lawrence Smith express a similar view:

The absence of teamwork comes from belief systems that are deeply embedded in health care culture; physician education grounded in a strong sense of autonomy . . . and a work environment that supports a hierarchy gradient so steep that it is still considered unacceptable for nurses, and other allied health professionals, to express their opinions freely to physicians.88

Most of the evidence of a need for a cultural shift is found in the research identifying factors that contribute to undesirable patient outcomes.89 Lack of teamwork and communication top the list.90 Not surprisingly, “[e]ffective team culture promotes openness, collaboration, communication, and [the ability to learn from] mistakes.”91 Evidence suggests that “where safety is a priority, highly complex, interrelated processes and tasks are best performed by teams.”92

G. Transforming Medical School Education

With all of the changes that are occurring (and will need to occur) in health care, it is imperative to change the way we educate health care providers. Society has changed drastically over the past several decades, but medical school education has not. Medical students are educated today in almost the same way they were following the release of the Flexner Report in 1910,93 which led to higher admission and graduation standards in American medical schools,94 and stricter adherence to the

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protocols of mainstream science in their teaching and research. Although excellent at the time, it is no longer an acceptable blueprint for educating physicians.

The book *Educating Physicians: A Call for Reform of Medical School and Residency* discusses the current structure and process of educating our physicians. The current structure of educating future physicians begins in undergraduate education, where the focus is on science. Admission to medical school is often based on grade-point average (especially science courses) and performance on Medical College Admission Tests. In most medical schools, students must take two years of science-focused classroom work. In their third year, “students rotate through a series of clerkships, typically four to eight weeks, in the core specialties of family medicine, internal medicine, neurology, obstetrics and gynecology, pediatrics, psychiatry, and surgery.” The final year of medical school is marked by elective clinical and research work, travel, and applying for residency. The last two years are often spent in a hospital with a random set of often-distracted professors. And as the professors have gotten busier, the mentoring process is being delegated with increasing frequency to medical residents. Once they graduate from medical school, physicians move onto residency and then possibly fellowship programs in the specialty of their choice. The unintended result of these further grueling years is often a group of entitled graduates, more focused on personal income and physician autonomy than altruistic patient care.

89. *See id.* (describing a variety of “external” and “internal” forces in the medical profession that have lead to “an indictment that the delivery of health care services is unreliable, costly, unsafe, inefficient, and ineffective”).

90. *See id.* (“Central to the innovation that is required today is an emphasis on improved teamwork and communication among health care professionals.”).

91. *Id.*

92. *Id.*


94. *See id.* at 13-14.


96. *See id.* at 19-23 (describing the current structure and process of medical education).

97. *Id.* at 19.

98. *Id.* at 20.

99. *Id.* at 20-21.

100. *Id.* at 21.

101. *Id.*.

102. *Id.* at 21, 83.

103. *See id.* at 83.

104. *Id.* at 21.

105. *Id.* at 22.
We need to adjust the way we educate our physicians and nurses to the contemporary way we provide care today: team-based, highly interactive, and outpatient focused. As we are doing in developing the curriculum for the Hofstra North Shore-LIJ School of Medicine, students need to be immersed in patient care from the beginning of their education. Past students were praised for their ability to memorize facts in textbooks, but in an age when so much information is readily available on handheld devices and can change in an instant, it is clear that memorization is no longer the best way to judge whether an individual has what it takes to deliver medical care to patients. Knowledge-in-action, problem solving, clinical reasoning, and effective communication are more important skills for today’s physicians. We need to focus on the diverse populations that the physicians will be treating when they are done with medical school and help ensure their effectiveness in any patient setting.

Teamwork is the key to educating today’s health care workers. The current absence of teamwork stems from belief systems that are deeply embedded in health care and physician culture. For too many years, we have rewarded physicians for their “fighter pilot” mentality that has limited the effectiveness of team-based approaches to health care. Much to the detriment of patients, today’s workforce culture is not only averse to teamwork, but often blatantly discourages it. Considering that most reports attribute the root causes of medical errors to the lack of teamwork and communication, it is clear we must change the culture of medicine so the team is more important than the individual. Effective teams must be created and maintained, with a culture that promotes openness, collaboration, communication, and the ability to learn from mistakes. In the final analysis, the team is the patient’s only safety net.

Transforming the health care system is a monumental undertaking. New skills and competencies are essential for health care professionals to practice in a complex, collaborative work environment, and those necessitate new education models. At the core of a transformed health care system will be health care professionals working as members of interdisciplinary teams, where effective teamwork and communication skills thrive in a culture of collaboration.

While the current health care system is ripe for change and reform, it will not be easy. Change never is. And while the federal government

106. See supra Part III.F.
107. See supra Part III.F.
108. See supra notes 89-90 and accompanying text.
has helped set the stage for real reform, we need to overhaul the current health care system from the inside.