Healthcare: Then & Now

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The burdensome high cost of healthcare is the basic driving force behind healthcare reform. In 1954, healthcare expenditures consumed 5.4 percent of GDP; today it consumes 17 to18 percent, almost twice that in other developed nations. All economists agree that the high cost of healthcare within our employer-based healthcare system compromises our competitive position in the global economy. Furthermore, the Obama Healthcare Reform Bill is short on the specifics as to how these unsustainable increases in healthcare costs can be contained.

America's healthcare system is extremely fragmented. Political action committees and lobbyists abound who fiercely fight for a share of the healthcare dollar for their respective organizations. Major players with competing agendas include—doctors and organized medicine (AMA); hospitals (AHA); academic medical centers; drug companies; managed care organizations (MCOs); insurance companies; laboratories and testing facilities; Information Technology companies; ambulatory care providers; nonprofit service providers; the National Institutes of Health; trial lawyers; unions; and all levels of government. To accommodate these special interests would challenge even the wizardry of a magician like Merlin.

Outside of government, the healthcare sector has been the only robust growth engine for the U.S. economy. Without the job growth within healthcare, the unemployment rate would be much higher and the economic downturn more pernicious. The current reform remedy for the healthcare mess will introduce significant unknowns and unintended consequences that, in all probabilities, will initially stimulate more over-utilization and exacerbate the fragmentation within the system.

Healthcare is one sector of the economy that is remarkably price inelastic and immune to capitalistic market-forces. Increasing supply produces increasing demand. Metaphorically, if a small town has one lawyer, the lawyer is probably not very busy.

However, if a second lawyer arrives, there is a need for an additional lawyer to meet the legal needs of the community. The medical marketplace operates in a similar fashion.

If you were politically empowered to ignore all special interest and politics, it would be easy to design a private healthcare plan that eliminated twenty-to-thirty percent of healthcare costs while maintaining quality and improving access. Here is how.

First, reform Medical Malpractice**.** Litigation expense and awards consumes only one percent of healthcare costs, but cause physicians to practice defensive medicine that probably adds four-to-five percent to healthcare costs.

Second, competitive bid prescription drugs. The profit margins and marketing budgets of drug companies are unjustifiably high. Objectively, Americans should receive prescription medications as cheaply as Canadians do.

Third, streamline the system and make it safer through modern information systems, and eliminate non-value-added intermediaries such as health insurance companies. In the U.S. in 2005, the combined healthcare administrative expense per citizen was over $1,800 dollars.

Fourth, focus the end of life care on quality of life and death with dignity. About 18 percent of the lifetime costs for healthcare are consumed in the final year of life; often on futile heroics that augment suffering and inflate hospital bills.

Fifth, reign in the excess supply of providers and medical services. The medical marketplace conforms to Parkinson's Law, which states "nature abhors a vacuum." Excess supply drives demand. For instance, if you have empty hospital beds, more patients tend to be admitted through the Emergency Department. Needs assessment should drive the construction of healthcare facilities and size of training programs.

These five initiatives would be a start toward providing greater access, quality and affordability to our current system.

How it was Then

The delivery of healthcare has changed dramatically during the 50 years of my medical experience. To add perspective into how the medical marketplace has changed, I would like to contrast the practice of medicine from during my medical training and entry into Urologic practice with medical practice today.

The Office

In 1966, the processes and practices of managing a medical practice were relatively simple and straightforward. Medical practices were like small "cottage" businesses. One or a few physicians, with limited training in running a commercial enterprise, were the independent bosses that were in charge. Few practices had an office manager or, if there was one so designated, it usually was a doctor's wife or family member. In most instances, employees were high school graduates with no specialized training who learned their office duties through on-job-training and received between $55 and $65 per week. Record keeping systems were primitive. In our Urologic practice, the transcriptionist typed the information from patient encounters on four-by-eight inch cards and stapled hospital reports and referral letters on the back. There were no copying machines or faxes. The telephone was the instrument to keep in touch with colleagues and your answering service. Many offices did not make scheduled appointments, but ran on a first-come-first-served basis. Medicine was a "privilege," and, remarkably, most patients were accustomed to long waits and did so without complaint.

The medical industry was a point of service, cash over-the-counter business. Few patients had Blue Cross/Blue Shield health insurance, and, if they did have insurance, they usually paid the physician first and then independently submitted the claims to the insurance company. Physicians set the fees for their services at levels generally agreed upon by their specialty societies as "usual customary fees." Physicians rarely shared their fee schedules with other physicians.

Surgical interventions commanded high fees, and the charge for a Transurethral Resection of the Prostate for Benign Prostatic Hypertrophy was $400, a huge amount in today's dollars. There was no coding system for medical services and interventions, and when Medicare came on the scene in 1965, it paid the "usually and customary" fee set by the physician providers.

Physicians did not advertise because it was considered unprofessional and unethical by organized medicine. A small notice in the local newspaper announced the opening of a new practice or the arrival of a new physician joining an established practice. Due to a genuine shortage of doctors, a new practitioner in primary care could literally "hang out a shingle," and be busy from the start. There were no mandatory continuing medical education requirements beyond medical school. The MD degree was

an absolute barrier to entry for competitors and a ticket to guaranteed lifelong employment. In the clinical setting, most physicians took the history and physical exam, made the diagnosis, counseled and wrote the prescription. Little patient care or patient instruction was delegated to subordinates.

The University of Cincinnati Medical School was small and consisted of one building on Eden Avenue. There were approximately 40 full-time academic faculty members doing research and coordinating the freshman and sophomore student's preclinical training years. Virtually all clinical departments, such as surgery, medicine, and obstetrics had directors and faculty who practiced medicine in the community and volunteered their time to train residents and interns, and teach the medical students during their 3rd and 4th clinical years of medical school.

Essentially all surgical subspecialties were a part of the General Surgery Department at the Cincinnati General Hospital. Prominent figures in the surgical department were Bill Altemeier, the Chairman of the Department, Hoppy Siler, Paul Hoxworth and Gene Stevenson. These colorful and unique characters had "high society" practices and operated at the prestigious Holmes Hospital. They charged exorbitant surgical fees and many of their patients had around-the-clock private duty nurses.

As a rotating intern, the most outstanding clinician was Dr. Richard Vilter, the Chairman of the Department of Medicine and a long time member of the Literary Club. He was legendary in his astute ability to hear subtle heart murmurs, feel migratory abdominal masses and offer many differential diagnoses that no one else had considered. Dr. Herb Flessa, also a member of the Literary Club, was the best teaching faculty member when making ward rounds. Another dedicated professional was Dr. Harvey Knowles, a Professor of Endocrinology and the Father of our Emerson Knowles.

The Cincinnati General Hospital provided care to a population of around 25,000 residents, most of whom could not afford private medical care and lived in the center city. The General, as it was called, was about the last hospital in the United States to be built on a pavilion style model in which male and female surgery, male and female medicine, psychiatry, contagious disease, pediatrics, obstetrics and other specialties each had a separate building. These pavilions were interconnected by a cavernous system of dingy tunnels.

Each floor of a medical and surgical service had a large open ward with 20-25 patient beds that were separated from each other by retractable curtains. There were three or four semiprivate rooms for the critically ill or those with serious infections. During the day, the staff lined the center of the ward with responsive patients sitting in rocking chairs. Many had indwelling Foley catheters in their urinary bladders that drained into open bottles. The nurse's station was at the front of the ward, and two or three RNs had the responsibility to manage the nursing care for all patients. The ratio of nurses to patients was about one to fifteen. The residents and interns drew the blood for laboratory testing each morning before rounds with reusable 20 gage needles. The interns or medical students performed emergency blood counts in a small laboratory on the patient floor.

Each medical school class at U.C. had about 85 students. In the medical school class of 1961, there were five women. Just two of these completed their MD degrees and went into practice; one in pediatrics and the other in psychiatry. During the 1960s, a female resident in surgery was a rarity and most were hassled by their male counterparts.

For interns and residents in training, there were no restrictions on the work schedule or number of hours on call. For the month, when I was a first year surgical resident on Emergency Surgery and the Fracture Service, I averaged 90 hours per week and was fortunate to get one or two hours of sleep, when on call every other night. I can never remember a time when I was so exhausted.

In 1961, the cost for a semester in medical school at University of Cincinnati was $995 or less than $2000 dollars per year. In 2010, tuition is $49,000 per year. Medical textbooks averaged about $40 per book versus $250-$500 today. Interns at the Cincinnati General Hospital received $150 per month and, when they became residents in surgery or medicine, this dropped to $100 per month. Fortunately, during rotations to the VA Hospital, you were paid about $300 per month. These low stipends were part of the sacrifice that went along with guaranteed lifelong employment and future high incomes. At the time, however, it created considerable hardship for those married residents with a family.

At the Cincinnati General Hospital, the Chief Residents were delegated the ultimate responsibility for the care of all patients on their service. At mortality conferences and grand rounds, the faculty held the Chief Resident's feet to the fire, if

errors were made. Although the Chief Resident conferred with Staff, it was at his discretion to ask them to be present during an operation or making the final decision about treatment. For residents, the training progressed along the lines of "see a procedure, do a procedure and then teach a procedure." With this level of responsibility, residents learned quickly through the experience of being master-of-the-ship.

Responsibility arrived early in ones training. For instance, inexperienced senior medical students were assigned to the "suture room" in the ER at the General during the night shift. During my suture room duty, I sewed up several large facial lacerations with 3-0 black silk sutures; injuries that today would be taken to the operating room for meticulous plastic surgical closure. Senior medical students also did circumcisions on the newborn infants. As an intern on Obstetrics, I did two forceps deliveries, more than most OB-Gyn residents perform during their training today. On my first day as a surgical resident, Dr. Wes Bryant, the Chief Surgical Resident, told me I was going to do a hernia repair the next day. I told him I had never seen one; he encouraged me to read about it. Although straining Dr. Bryant's patience, the hernia repair was completed with his assistance, after four grueling hours the next day.

Operative permits at the Cincinnati General Hospital consisted of a 4"x 8" pink slip which, when signed, even with an X, was a generic "blanket" authorization for testing and treatment. In general, patients were poorly informed and often did not fully appreciate the risks of surgery. Few patients or their family members questioned the judgment of the house staff, and were remarkably appreciative of the care they received at the General Hospital. As an aside, unlike today, most of the indigent population treated at the Cincinnati General Hospital seemed to have cohesive families that showed real concern for their loved ones.

In the 1960s, medical malpractice litigation was a rarity. Medical mistakes and poor outcomes were "unavoidable" and the conscientious physician always did his best to help the patient. The malpractice premium in my last year as chief resident in Urology, for $100,000-$200,000 coverage, was forty-nine dollars.

The Community Setting

In 1961, when I graduated from medical school, after a doctor received his MD degree and passed the Ohio State board examination, his certification stated that he was

licensed to practice medicine and surgery in Ohio. Indeed, many primary care doctors performed minor operations, and it was common for family docs to give anesthesia for their patients. At the Children's Hospital, family practitioners often administered open-drop ether anesthesia for tonsillectomies.

Aside from two small hospitals, Mariemont Mercy Hospital and St. Mary's Hospital in Over-the-Rhine, the community hospitals were all clustered on "pill hill" in Clifton. Few specialists had suburban offices or multiple offices, and almost a third of the 1300 practicing physicians in Cincinnati had downtown offices, commonly located in the Carew Tower, Central Trust Tower or Doctor's Building.

For the practicing physician, when not in the office, the hospital or hospitals were the center of the medical universe. The doctor's lounge was a beehive of activity, and primary care physicians usually wrote the admissions orders and made rounds daily on their patients. Lengths of stay averaged seven-to-ten days. Following a simple hernia repair, patients remained in the hospital for seven days. It was common for a busy surgeon or internist to have 20 to 30 patients on his service.

Because of a chronic shortage of hospital beds and time on the operating schedule, hospital staff membership and admitting privileges for a new specialist were difficult to come by and never automatic. In fact, political and territorial infighting often infected medical staffs, and, in many cases, this delayed, or even prevented, qualified newcomers from even courtesy appointments to the medical staff. In many hospitals, a small clique of physicians ran the show and dictated who was promoted and received preferential treatment.

To build a referral practice, a young physician specialist had to work at it. Often a group of doctors congregated each day in the doctor's lounge to drink coffee, exchange gossip and provide curbstone consults. This venue plus social entertainment and golf were avenues for young doctors to meet their colleagues and generate referrals. Being successful in the referral game was based on the three A's of medical practice, Availability, Affability and lastly, Ability, in that order.

Hospitals had extremely small administrative staffs and a flat organizational structure. A typical major hospital had eight-to-ten administrative personnel and four-to-five departments. Perhaps the most dramatic change in medicine has been the burgeoning

number of administrators. Between 1970 and 2004, the numbers of administrators in the U.S. has increased 2,500 percent.

Fifty years ago, intrusive oversight and accountability were new words for the medical profession. Yes, hospitals were accredited by the JCHO or Joint Commission, but these site visits rarely put a hospital on probation due to faulty practices, and were a paper exercise more than a thorough inspection. In addition, each year, only a few miscreant physicians were placed on probation or had their medical licenses revoked by the Ohio State Licensing Board. If you were not a felon or drunk, your right to practice medicine was well protected.

The average size of a medical practice consisted of just one or a few physicians. This defined medicine as a "cottage industry" with physician proprietors who were untrained in the nuances of running a competitive business. Consequently, each medical practice was unique in its business processes and organizational culture. Fortunately, the number of patients seeking treatment far exceeded the capacity of physicians to see them, and this slack prevented business failure.

Most medical practices had accountants, but few physicians had financial advisors and planners even as they became high-income earners. With some justification, physicians developed a reputation as poor businesspersons, making them prime targets for snake oil salesman and the IRS looking for tax evaders.

The American Medical Association (AMA), the Ohio State Medical Association (OSMA), the Cincinnati Academy of Medicine, and Specialty Societies were well-respected organizations that were the heart and soul of "organized medicine." Collectively, they were instrumental in shaping public policy and regulating the behaviors and ethics of medical practitioners. Most all physicians were proud to belong to the AMA and the Cincinnati Academy of Medicine. Locally, the Academy of Medicine was a hub of activity with a robust answering service, social functions, society meetings, travel groups and a raft of committees with an advisory function for the local practice of medicine.

In the 1960s, the splintering of medical and surgical specialties had just begun. As a urologist, I practices general urology. There were no pediatric urologists, fertility specialists, incontinence and sexual dysfunction clinics and urologic oncologists. Today

there are five distinct specialties in cardiology, and ten in ophthalmology just to take care of two globes that together weigh less than an ounce.

The diagnostic tools and laboratory tests employed to make and confirm diagnoses by today's standards were primitive. There were no CT, MRI or PET scanners. Physical examination of the patient played a much greater role in diagnosis and treatment. Most physicians held the belief that when a diagnostic test did not correlate with the history and physical findings, you ignored the test results.

Chemotherapy for cancer and medical oncology was just taking root with a very limited armamentarium of chemotherapeutic drugs. In 1961, the overall two-year survival rate for young patients with testicular cancer was 23 percent; today it is almost 100 percent. Dr. Edward Gall, the Chairman of the Department of Pathology at the Cincinnati General Hospital, stated emphatically that he had never seen a cure of pancreatic or gastric cancer, unless the case had been misdiagnosed.

The spectrum of disease has changed enormously during the past 50 years. In urology, tuberculosis of the kidney was one of the main reasons for removal of a kidney—now tuberculosis of the kidney is a medical disease. Unlike today, gonorrhea with chronic urethral strictures were common. Erectile dysfunction was unmentionable, not to mention untreatable, and my father, a urologist, would counsel patients that "there are only so many shots in the gun; go home and live with it." Bacterial pneumonia was deadly, even as it is routinely treated today on an ambulatory basis.

The Doctor/Patient relationship was more valued and the physician considered more trustworthy than today. This is a paradox, because modern medical practice has enabled the physician to produce infinitely better treatment outcomes. Many obvious factors explain the erosion in the doctor-patient relationship. Today's physicians receive payment for assembly-line medicine in an environment with hassle factors that tends to make doctors grumpy. A generational effect also exists. Younger physicians, half of whom are women, place a higher value on balance between family life and their profession. Greater specialization has caused many patients to have a menu of doctors, each of whom cares for a separate organ system. For convenience, in a group practice, patients may see a number of different doctors. Moreover, changes in insurance coverage and managed-care regulations often force patients to switch physicians. As frosting on

the cake, primary care physicians rarely follow their patients when they are admitted to the hospital. More and more, it seems as if medical care is being commoditized.

I believe, today's physicians are just as caring and empathetic. However, the noble mission of service is clouded with so many extrinsic structural problems and intrusive oversight that many physicians have become discouraged. Money has displaced mission; sadly, many physicians do not recommend a career in medicine to their children. **Now, let us fast-forward to the present**.

Today, the processes and requirements of running a medical practice are far more complex. So complex, in fact, that office expense consumes, on average, fifty-percent of total revenues. Office practice is no longer a point-of-service cash business. Reimbursements for services are contingent upon assigned discounted fee-for-service schedules set by Medicare, Medicaid and hundreds of private health insurance companies. Many physician groups participate in several hundred or more insurance plans, each with their own formulary of covered medications, carve outs, co-pays and reimbursement schedules. If electronically submitted insurance claims have any mistakes in coding, modifiers or patient information, they are disallowed. Everything has to be documented, and the Medicare rule is that "if it is not documented, it was not done and will not be reimbursed."

Office testing labs have virtually disappeared because of regulations imposed by CLIA, a federal agency that inspects, certifies and imposes fines; if your lab does testing that does not fall within their guidelines. There are strict HIPPA privacy regulations that apply to all record keeping, and transmission and storage of patient information. The Environmental Protection Agency (EPA) also threatens office inspections and imposes many irksome regulations.

The Federal Government is aggressively pushing for the introduction of Electronic Medical Records or Computerized Patient Record keeping systems in hospitals and doctor's offices that will introduce new processes and behaviors for all healthcare personnel.

To meet the regulatory changes and requirements, office personnel are no longer minimum wage employees and often have highly specialized job descriptions. Most group practices have office managers with advanced schooling, coding specialists with

specialized training, computer savvy personnel to trouble shoot network problems, patient scheduling specialists, accountants, risk managers and trained medical assistants.

Many years ago, multiple anti-trust lawsuits caused the lifting of the ban on healthcare advertising. Since then, all providers—drug companies, doctors, hospitals, clinics, imaging and surgery centers have voraciously joined the marketing mania that followed. Cincinnati Magazine and Angie's list annually anoint the best doctors, and national periodicals identify the so-called "best" hospitals in town. Here locally, no fewer than five Greater Cincinnati hospitals have billboards and advertisements that proclaim them to be tops in the nation.

Fueled by this direct-to-the-consumer advertising, the supply of medical services and durable medical equipment has burgeoned, thus forming an oversupply bubble in healthcare. As in Parkinson's Law, excess supply drives demand and produces overutilization and unnecessary medical interventions.

The physical facilities of the University Hospital and University of Cincinnati Medical School have incredibly grown with the addition of the Medical Science Building, new Medical School and research facilities. The physical plant and operations of the University Hospital little resembles the old Cincinnati General Hospital. The University Hospital provides some charity care, but relies on Medicare, Medicaid and insurance payments for services just like community hospitals. The University of Cincinnati Medical School enrolls about 150 students per year with roughly equal numbers of men and women students. Each basic science and clinical department has a chairperson and fulltime faculty. For comparison, in the 1960s, Dr. Arthur Evans, a volunteer, ran the Department of Urology with the help of other community volunteers. Today, the Department of Urology has five fulltime faculty members to cover a residency program with about the same number of residents.

Just three hospitals in Cincinnati remain on "pill hill," and there are seven suburban hospitals. Independent surgery centers and ambulatory care centers dot the landscape and most lucrative, lower-risk outpatient procedures in ophthalmology, neurosurgery, orthopedics, GI, urology, ENT, plastic surgery and cardiology are performed in these facilities. Additionally, there are dozens of freestanding imaging

centers with expensive devices to explore every part of the human anatomy. These outpatient facilities have captured market share from the hospitals.

Hospitals, however, are actively purchasing physician practices and outpatient ambulatory-care facilities. Physicians in family practice and internal medicine are primary targets, although cardiologists, urologists, neurologists, dermatologists and other specialists are being added to produce hospital-based large multi-specialty groups. In addition, hospitals employ increasing numbers of "hospitalists" (12 at both Christ and Good Samaritan Hospitals) that care for the majority of patients after admission. A new breed of "intensivists" assists with the patients in the medical and surgical ICUs. The advent of hospitalists, the declining length of hospital stays, and low reimbursements has caused the vast majority of primary care doctors to avoid making rounds on their patients while they are in the hospital. Staying put in the office is more efficient and lucrative.

By aggressively purchasing physician practices, hospitals are looking more and more like the Mayo or Cleveland Clinic Staff Models. Additionally, hospitals in the Greater Cincinnati area are spending hundreds-of-millions of dollars (partially subsidized by the federal government) on information technology to introduce a comprehensive management information system that includes a robust electronic medical record. In the near future, hospitals, with their deep pockets, large compliment of administrators, and information control, will be the dominant player in the transformation of healthcare. Within the next five years, the assimilation of medical practices with hospitals should enable hospital systems to offer insurance products that directly compete with health insurance companies. In fact, if the current healthcare reform flounders or is repealed, it is possible that hospitals will be the change agent that introduces real competition into the medical marketplace.

Today, the granting of hospital privileges at all hospitals for a qualified physician is essential automatic, and no longer subject to politics or significant procedural barriers. In fact, there has been a decline in attending staff membership, and fewer physicians are willing to take a leadership role as medical staff officers and committee members. Even lavish staff Christmas parties and sports outings are poorly attended, except by retirees.

The AMA, OSMA and Cincinnati Academy of Medicine have greatly declined in membership and importance, and, locally, the practice of medicine lacks the sense of

community that once characterized the profession. Most doctors remain members of their respective national specialty societies, because board certification, medical conventions, and continuing medical education requirements still make them important.

In the current healthcare system, physicians no longer have a genuine collective voice and, they, just like the patient consumer, have been disenfranchised as a major player in public policy decisions and the healthcare system. The physician has lost the independence and autonomy, he once enjoyed.

So, what facets of medicine have not changed.

First, it remains a noble profession with a privileged, unequaled and challenging mission to relieve pain and suffering, show empathy for the human condition and to heal the sick. As in the past, there remains an acute and chronic shortage of primary care physicians and many underserved rural areas. Even though the doctor-patient relationship has eroded, it remains at the heart of going to see the doctor. It continues to be a relationship imbued with trust, privacy and confidence in the ability of the physician. Physicians receive respect and adequate compensation for their services.

Healthcare Reform

I have attempted to understand the major provisions of *The Patient Protection and Affordable Healthcare Act of 2010*. Although the bill is very comprehensive, it remains quite ambiguous in many of its provisions. At a recent forum with the Regional Deputy Director of HMS, the audience asked a number of questions that the Director could not answer, and, at least, ten more that were answered by saying "it remains to be decided."

Without question, the bill contains many praiseworthy initiatives such as expanding healthcare coverage to all Americans, and making it more accessible and affordable for those with chronic conditions. Its emphasis on information technology should result in streamlining the processes, lowering the number of medical mistakes and enabling the development of better standards of care. Moreover, the reform measures provide monetary incentives for patients to seek preventive care, and for medical students to become primary care physicians. In addition, insurance companies will have to cut administrative costs and profits in order to apply 85 percent of premiums directly to patient care. The bill also creates many commissions and committees to study and implement healthcare reform.

Intuitively, I think the government's cost projections are too conservative and rosy. But, stay tuned, the saga of healthcare reform is just beginning.

The Technology Revolution

Throughout my medical career, new technology and innovation has always added to the cost of healthcare. However, I predict that, at some future date, technology is going to begin to decrease the costs of healthcare.

Take one scenario. Annual healthcare screening exams might become a routine that employs artificial intelligence and total automation. It might consist of:

The patient entering his or her new medical problems into a digitized permanent medical record at a computer kiosk.

Then a one-to-two minute noninvasive total body scan produces a three-dimensional anatomical picture of all major organ systems.

A drop of blood is taken for rapid automated-testing that gives a comprehensive snapshot of organ function, tissue enzymes, tumor markers, and even a genetic assessment.

The data from these studies is compiled in a report that, algorithmically, defines the differential diagnoses and offers treatment options. The patient chooses his course of action, and the computer does the scheduling and prescription writing. This raises the rhetorical question; can robots and robotics be programmed to manage patient care?

Summary

. As we can deduce from the "Then and Now" comparisons, the medical marketplace has changed dramatically, just like every other sector of the economy. The new generation of physicians probably has a larger variety of challenges to cope with than those of us that practiced in the so-called "golden age of medicine."

And, in fifty years, the delivery of healthcare will share few commonalities with the current system.