

A Healthcare Model for the 21st Century

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It is an honor to be invited here today. The City Club Forum has always been an outstanding platform for the discussion of important issues.

In the Fifth Century BC, Heraclitus observed that nothing is permanent but change. Healthcare is changing. I'd like briefly to outline these changes, and discuss the effect on patients, diseases, treatments, delivery systems, caregivers and, finally, costs.

Healthcare and the economy are in the midst of historic realignments. Cleveland Clinic needs to innovate and evolve if we are to continue to serve our patients and remain an economic engine for the region. Let me begin with a look at the changes in our own community.

The city of Cleveland has shrunk dramatically over the past sixty years. The population has fallen – from nine hundred thousand to less than four hundred thousand. Cuyahoga County has seen similar but less dramatic change. The population has dropped from 1.7 million to less than 1.3 million.

We are treating a different mix of diseases today than in the past. Infant mortality has decreased by ninety-five percent. Devastating infectious diseases like tuberculosis and polio have been virtually eliminated. Life expectancy has gone up to seventy-eight years.

We're seeing more patients who are sixty-five and older. This number is set to explode to more than fifty million people over the next ten years. As life expectancy goes up, the causes of disease and death are changing. Chronic diseases of aging were only three of the six major causes of death in 1960. Today, they are six of the seven major causes of death. Alzheimer's disease is now more common than diabetes. There are five million cases today. That number will nearly triple by 2050.

The epidemic of obesity that began in the 1980s continues to sweep across our nation. Only twenty years ago, no state had more than fifteen percent obesity. Today, no state has less than fifteen percent obesity. Thirty percent of the United States is not simply overweight but obese. Ohio is the fifteenth most obese state in the nation. Obesity

increases the incidence of diabetes, heart disease, high blood pressure, and joint problems. It is ironic that obesity could wipe out recent longevity gains. Our children may not live as long as we do.

We have seen radical changes in medical technology. The new treatments are staggeringly sophisticated and remarkably successful. Even those of us in the medical profession are startled by this new technology, which is increasingly aimed at older patients and those with chronic diseases.

Joint replacement used to be rare and risky. Today, it's safe and common, and done almost 1.6 million times a year. Organ transplantation was unknown in 1960. Today, it's a daily, and a nightly, occurrence. More than seventy-two thousand Americans had tissue transplants in 2009.

We're exploring the frontiers of neurosurgery. Deep brain stimulation is being used to treat neurodegenerative diseases like Parkinson's and behavioral disorders like depression and drug addiction.

Thirty percent of premature deaths are related to genetics. On the horizon is genomic medicine with vast potential for prediction and prevention.

Cleveland Clinic serves the community through nine regional hospitals. These hospitals include some of the oldest medical facilities in Cleveland. They are profoundly affected by changes in population and technology.

Many of our regional hospitals are aging out of their usefulness. Some operating rooms are too small for modern surgical equipment and need to be modernized to current standards.

Hospitals have historically moved to follow the population. The founders of Cleveland Clinic moved their medical offices from downtown to East 93rd and Euclid Avenue in 1921. Glenville Hospital moved to become Euclid Hospital in

1952, and Doctors Hospital moved to become Hillcrest Hospital in 1968.

The changing demographics have caused fifty Cleveland Catholic churches to close. Sixty-six Cleveland Metropolitan School District facilities have closed. Hospitals have responded in a similar fashion. Since 1970, fourteen hospitals have closed or merged.

But hospitals have seen more drastic changes than churches and schools. The average hospital stay has been reduced by three days. New techniques have transformed surgery. The majority of all surgeries are now ambulatory. More patients are being treated at home. Over the past decade, Medicare homecare costs have doubled to eighteen billion dollars.

Doctors' offices have seen a revolution in the past quarter century. Outpatient visits have grown by two hundred percent.

The center of gravity is shifting away from the hospital. Outpatient care has replaced hospital care, and outpatient care is being replaced by homecare. Patients want treatment and recovery in a normal environment.

This is a permanent national trend. Two hundred thousand hospital beds have been eliminated in the United States over the past twenty-five years.

Cuyahoga County lags the nation in this regard. We have more hospital beds per person than almost any city in the country. We have added beds, even though hospital admissions are flat. This affects hospital occupancy.

Hospitals work most efficiently at about eighty-five percent occupancy. Local occupancy fell over the last four years from seventy-four percent to sixty-eight percent this year. New beds will be added in 2011 that will drop occupancy to sixty-six percent.

Healthcare has moved from an individual practice to a team sport, and the solo practitioner is becoming a historic figure.

Cleveland Clinic started with small teams. Our Department of Thoracic and Cardiovascular Surgery had two surgeons in 1956 and a handful of nurses and technicians. Today, the cardiac team includes hundreds of physicians and support personnel.

As procedures and care become more complicated, teams require more specialties.

The recent face transplant at Cleveland Clinic is an outstanding example of teamwork. There were eleven specialties involved, including bioethics and psychiatry.

Teamwork is changing the face of physician employment. Solo practitioners are challenged by the explosion of medical knowledge and the complexity of running a business. Last year for the first time, more physicians were employed by hospitals than worked for themselves.

The recent healthcare debate has highlighted the skyrocketing cost of healthcare in the United States. Healthcare costs were more than seventeen percent of the GDP in 2010 and will shoot up to eighteen percent next year.

Average individual spending grew remarkably to eight thousand dollars per person in 2009. This has sent the cost of employee insurance premiums through the roof. The average family is paying four thousand dollars per year. Clearly, this growth rate is unsustainable.

We are facing new challenges. The old solutions won't work. Michael Porter, professor at Harvard Business School, wrote: "Innovation is the only true long term solution to high quality, affordable healthcare."

Cleveland Clinic was founded by innovators and medical pioneers. In 1921 at the dedication of Cleveland Clinic, its founder George Crile stated that "our institution is designed to meet what we believe to be a public need in a more flexible organization."

Cleveland Clinic has an innovative structure. It is a not-for-profit group practice with physician leadership. All physicians are on salary. There are no bonuses or financial incentives. All physicians are subject to annual performance reviews and are on a one-year contract. To date, I personally have had thirty-five one-year contracts.

The motto of this group practice is "to act as a unit." Its success can be measured by our growth. We now have two thousand seven hundred salaried physicians and scientists – the second largest group practice in the world.

We continue to innovate our delivery system. Three years ago, we changed our organizational structure from the typical profession-oriented organization designed around physician competencies, such as surgery, to a patient needs-oriented approach such as the Heart and Vascular Institute. We are the only hospital to be completely organized around patient needs.

Each institute is based around a single organ system or disease. Medical and surgical services are combined under single leadership in a common location. Our Heart & Vascular Institute includes cardiac surgeons, cardiologists, and vascular surgeons, all co-located in the Sydell and Arnold Miller Family Pavilion.

Institutes put "patients first." They promote innovation and the efficient use of resources. They represent teamwork at its best to solve complicated problems.

The demand for doctors is growing nationwide as people are getting older. More people will have coverage through healthcare reform. It's estimated that America will need eight hundred sixty thousand doctors to meet its medical needs by 2025. But projections show we won't have anywhere near that number. The supply will fall one hundred twenty-five thousand short.

We'll need to rely on mid-level providers – nurse practitioners, physician assistants, and certified registered nurse anesthetists. Cleveland Clinic has a forty-year tradition of using mid-level providers. We have eighty mid-level providers supplementing physician care in cardiac surgery alone.

We're experimenting with other ways to extend physician services. Shared appointments are an innovative way to fill the gap. These visits begin with the patient seeing the doctor alone, followed by a group session with patients who have the same condition. Shared visits are an excellent resource for patients with diabetes and other chronic conditions.

There is a worldwide shortage of nurses. The US nursing deficit is expected to be one million by 2020. We are relying more and more on technicians to take up the slack. This has been very successful. At Cleveland Clinic, technicians now perform forty percent of nursing labor in the operating room.

One of the biggest operational challenges in healthcare is to align locations with patient needs. This means having the right facility at the right time for the right care. Cleveland Clinic's answer to this challenge is our integrated delivery system. This system provides the full spectrum of care, utilizing one hundred fifteen locations.

The simplest unit of the system is the Minute Clinic. We have nine Minute Clinics at local pharmacies, supported by Cleveland Clinic personnel. They offer basic care for minor ailments.

The system has multiple tiers. Each tier is a step up in complexity and acuity.

The next level is our sixteen Family Health and Surgery Centers. They offer primary and specialty care, and same-day surgeries across the region. We are in the process of building two new facilities to serve Avon and Twinsburg.

We're particularly proud of the Huron Community Health Center we're building in East Cleveland. This concept was developed with community leaders, and it represents the leading edge of chronic disease care. It's planned to meet the special needs of this urban community and reduce the need for hospitalization.

Our nine Cleveland Clinic regional hospitals provide routine hospital care for their communities.

The main campus of Cleveland Clinic is the upper tier of the system. It has become a very high-tech facility to treat complicated conditions of very ill patients. Currently, its patients have the highest average case severity in the nation.

All of our facilities are virtually linked through an electronic medical records system serving six million patients. It is possible to have your medical record go electronically from a family health center to a community hospital to main campus and back. President Obama noted that, "Cleveland Clinic has one of the best health information systems in the country."

This virtual network is matched by a patient transportation network that can go anywhere in the world. We have ambulances, helicopters and fixed-wing aircraft. They transferred twelve thousand patients last year to the main campus. This included patients from thirty-five states and sixteen different nations.

We are utilizing resources more efficiently and have consolidated several services to create centers of excellence. Not all hospitals can be all things to all people. We consolidated obstetrics from six hospitals to five centers of excellence. Inpatient rehabilitation has gone from five to three hospitals. We went into partnership with MetroHealth Medical Center to develop the Northern Ohio Regional Trauma Network. This has improved trauma care across the region and enabled us to eliminate one trauma hospital.

Ultimately, healthcare systems will be judged, like most things, on the value they deliver by producing high quality care at a lower cost. We can do this.

Cleveland Clinic quality is recognized around the world. *U.S. News & World Report* ranks us fourth in the nation on its honor roll of “Best Hospitals.” At Cleveland Clinic fourteen of the sixteen specialties were ranked in the top ten nationally.

To further drive quality, it is critically important to develop, measure and report quality metrics. Five years ago each institute began publishing quality reports, which are also available on our website. This exercise promotes self analysis, transparency, and quality improvement.

The Dartmouth Atlas recently held up Cleveland Clinic as the model for delivering high quality, low cost care. The Mayo Clinic and Cleveland Clinic, which share the same model of healthcare delivery, were the two leaders in low cost chronic care.

If we are to reduce costs, not only must we further refine and coordinate our delivery system, we must also reduce the burden of disease in the US.

The major causes of premature death in the US are related to personal behavior. These include obesity, sedentary lifestyle, and smoking. Obesity alone accounts for ten percent of US healthcare costs and is expected to reach twenty-one percent by 2018.

At that time, Ohio will have the second highest spending related to obesity.

We think it is important that we move from “sick care” to “health care.”

Systematically, Cleveland Clinic has developed a model to help communities reduce the burden of disease.

We began by adopting a no smoking policy for all of our campuses. We next followed the lead of six thousand other companies in the US by not hiring smokers. In an attempt to benefit the community, we offered a free program of smoking cessation to all citizens of Cuyahoga County. These efforts contributed to a remarkable change over a five year period. During that time, smoking across the US was at twenty percent; smoking in Ohio decreased to twenty-four percent. In a five-year period, Cuyahoga County smoking incidences fell from twenty-eight percent to eighteen percent.

This demonstrates that it is possible to have a major influence on the health of the community.

Encouraged by this, we began to attack the epidemic of obesity. Forty healthy changes were made in the foods served to our patients and employees. Transfats were removed from all food and recently, sugared drinks were removed from cafeterias and vending machines.

Exercise and healthy diet were encouraged with free memberships in Curves,[™] Weight Watchers,[™] our fitness centers and yoga classes for our employees. An extensive weight management program developed for our employees, has helped them lose more than one hundred sixty thousand pounds over the last year and a half.

This effort was extended to the community in partnership with the YMCA and Curves. Response was overwhelming, and the results gratifying.



To ensure our future success as a vibrant and growing international healthcare delivery system, we will continue to put our patients first. We will hold ourselves to our founders' values. We will take risks with our ideas. We will be creative and continue to drive innovation. We will continue as an important and growing economic engine for this region and the state.



– Delos M. Cosgrove, MD

Ten thousand people participated and lost twenty-five thousand pounds in three months.

Cleveland Clinic believes in Cleveland and is dedicated to the welfare of its citizens. We are committed to a healthy environment.

To help lead the sustainability effort, all buildings recently completed or currently under construction will receive LEED certification. Solar panels have been added to the roofs of our buildings. Our energy use index has improved secondary to multiple aggressive moves. Our recycling program has now exceeded our initial goal, and we are headed toward recycling fifty percent of our waste.

Our community benefit value continues to increase. This includes clinical services, charity care, research, education, and shortfall in Medicaid payments. It reached half a billion dollars in 2009, the largest in Ohio.

On the eve of the Civil War, Abraham Lincoln addressed Congress saying that, “The occasion is piled high with difficulties and we must rise to the occasion. We must think anew and act anew.”

We must think and act anew in responding to the challenge of providing high quality, coordinated healthcare for the citizens of Northeast Ohio, at lower cost.

To ensure our future success as a vibrant and growing international healthcare delivery system, we will continue to put our patients first. We will hold ourselves to our founders' values. We will take risks with our ideas. We will be creative and continue to drive innovation. We will continue as an important and growing economic engine for this region and the state.

We have the vision to think anew and the courage to act anew.

I have described to you today the unique health-care delivery system that has been recognized as a model for the nation. Forty thousand Cleveland Clinic employees are privileged to serve the citizens of Northeast Ohio and the nation, and are appreciative of the opportunity.

Thank you for your attention.



Every life deserves world class care.

9500 Euclid Avenue, Cleveland, OH 44195

Cleveland Clinic is a nonprofit, multispecialty academic medical center. Founded in 1921, it is dedicated to providing quality specialized care and includes an outpatient clinic, a hospital with more than 1,300 staffed beds, an education institute and a research institute.

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