HEALTH CARE HISTORY & POLICY

IN GREATER CLEVELAND

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It took healthcare a mere 35 years to transform itself from a benevolent healer in a gritty blue-collar metropolis to Greater Cleveland's economic and political powerhouse. In 1972, healthcare made up less than 6 percent of the work force. Meanwhile, manufacturing employed 30 percent of all workers, according to the U.S. Department of Labor. But by 2007—thanks to national changes in health insurance, a global shift in manufacturing and the serendipitous innovation of generations of Cleveland physicians—the worm turned. Manufacturing employed 13.44 percent of the work force. Healthcare: 13.55 per cent.

For quite some time, Cleveland's healthcare industry had clout through numbers: the ability to rally thousands of voters for personal objectives. Often, the majority of the local industry's focus—an industry dominated by hospitals as opposed to medical device companies or big pharmaceutical firms—was on federal initiatives, where health systems could tap into lucrative federal dollars to spur research and growth. But in the last decade, the region has hitched its economic future to the concept that creating a true medical industry of biotech companies, medical device startups, health IT businesses and similar companies—supported largely by healthcare giants like Cleveland Clinic—will replace manufacturing as the region's economic provider. To create this new industry, the region is relying heavily on state dollars through programs that funnel public money into promising research, institutions and private businesses. What's more, state aid and tax credits subsidize private investors who ostensibly will take some of their own money to invest in promising medical businesses.

This new strategy is far from a sure bet. The realities of the economic evolution have changed as dramatically as the Cleveland economy from 1972 until today. Companies are significantly less likely to go public—a real economic breakthrough—as they are to be acquired by larger businesses, taking the companies, talent and jobs with them. And in an era of outsourcing and virtual companies, the number of jobs private medical companies can create is limited. Meanwhile, the big-bucket opportunities—such as nursing and health policy—are developing alongside these initiatives, albeit less well-funded and hampered by state legislation.

EARLY BEGINNINGS & CLEVELAND CLINIC

Early policy influences from Cleveland's medical community came largely in the public health sphere. For example, the establishment of what is now University Hospitals' MacDonald Women's Center in the early 1890s helped make Cleveland's infant mortality rate the lowest among the nation's 10 largest cities. A series of charity hospitals primarily assisted the indigent. Two of these hospitals, Sisters of Charity St. Vincent Medical Center and the publicly funded MetroHealth System, still exist today.

The crucial moment for the region's medical fortunes occurred in 1921, when Cleveland physicians returned from World War I to create Cleveland Clinic. The doctors—George Crile, Frank Bunts, John Phillips and William Lower—modeled the practice after the concept of collaboration between physicians, known as a "group medicine" approach, commonly found in the military. The Clinic's growth was consistently fast, save a 1929 fire that almost shuttered the facility.

As the Clinic grew, it coupled its patient care with innovative practices—particularly in the field of cardiovascular medicine. It linked causes of high blood pressure with diet, and in 1958 performed the first heart catheterization—in which a narrow tube is placed within the heart to improve blood flow. Nine years later, the Clinic performed the first heart bypass surgery using a leg vein. Other doctors have made advances in the design and use of artificial organs, organ transplants, and the treatment of kidney disease. In June 2010, Clinic doctors announced the potential breakthrough of a vaccine that could prevent breast cancer in adult women.

Cleveland Clinic isn't alone in the region's prosperity, particularly in the area of employment and innovation. University Hospitals in Cleveland has over 150 offices and is adding 500 new jobs in Cleveland in 2010. Case Western Reserve University collects more than $12 million annually in revenue related to licensing commercialized technology. The university is among the top research institutions nationally in licensing revenues and new inventions, according to the Association of University Technology Managers.

Northeast Ohio also has 34 percent of the state's bioscience jobs—from agricultural biotechnology companies to testing laboratories—and nearly 39 percent of the state's bioscience businesses, according to research by BioOhio, the state's bioscience industry developer, and Cleveland State University. Bioscience jobs in the state grew 18 percent from 2000 through 2008, compared to a 4.2 percent drop in total state employment overall.

But Cleveland Clinic has evolved well beyond an employment engine and into a commercialization hub. The health system is considered among the most influential healthcare venturing divisions, has spun off more than 25 companies through Cleveland Clinic Innovations, and recently opened, with the help of state funding, the Global Cardiovascular Innovation Center to attract and incubate new businesses. Its breast cancer vaccine, if successful, could generate millions upon millions of dollars of licensing fees for the health system.

By the 1990s, the Cleveland Clinic Foundation was the second largest employer in Cleveland second only to the government.

Cleveland-area employment changes *(by percentage)*

	1972	1977	1982	1987	1992	1997	2002	2007
Health Care	5.86	7.22	9.18	10.14	11.03	11.02	12.75	13.55
Manufacturing	30.67	28.64	25.32	20.83	19.55	18.2	14.92	13.44

*Covers Cleveland-Elyria-Mentor area | Source: Department of Labor, *Wall Street Journal*

NATIONAL CHANGES, LOCAL BATTLES

Today, healthcare makes up 16 percent of the Gross National Product. Any look at the future of Cleveland's healthcare system has to include an understanding of national healthcare shifts. Spending on healthcare increased as health insurance flourished. The earliest experiments started in the late 1800s, but the first health insurance policies began in the 1910s. By the mid- to late-1900s, private insurance companies covered costs of some procedures and subsidized others. Meanwhile, Blue Cross organizations in the mid-1920s began subsidizing payments for hospital procedures.

The success of "The Blues," which also included Blue Shield groups, triggered interest from private insurers, who initially considered medicine an unpromising market, to enter the field. Employee healthcare benefits expanded in the 1940s and unions bargained for better benefit packages as they maneuvered around a wartime wage freeze.

> As health-insurance costs rose during the 1970s and 1980s—driven both by improving medical technology and by the growing inefficiencies of the healthcare system—health maintenance organizations, which had been around since the beginning, began to proliferate, along with other managed-care schemes. Like the Blues, HMOs became victims of their own success. Initially they were mainly nonprofit, but once again businesses spotted an opportunity and for-profit HMOs displaced nonprofit HMOs. According to Jonathan Cohn, a senior editor at the New Republic, 12 percent of the market was served by for-profits in 1981. By 1997, it was almost 65 percent. (Noah, Timothy. "A Short History of Health Care," *Slate*, March 13, 2007.)

The influence of insurers as well as price pressures and competition triggered some of Cleveland's modern-day political battles. The Ohio "Blues" in the 1980s battled with the rapidly expanding University Hospitals System by excluding it from important insurance products, and later suggested that UH's beloved Rainbow Babies and Children's Hospital should join Cleveland Clinic. During the same period, University Hospitals officials thought that Blue Cross helped Cleveland Clinic acquire a local hospital. Due in part to that hostile relationship, University Hospitals formed QualChoice in 1991 to insure University Hospitals and Case Western Reserve University employees. This era, coupled with a history of discord between University Hospitals and Cleveland Clinic and a massive and aggressive expansion by the two institutions in the 1990s, intensified a bitter competition and contributed to the closure of several hospitals including Mount Sinai Medical Center, Deaconess Hospital and St. Michael Hospital.

But consumers and the medical industry found federal help as well. In 1994, Blue Cross Blue Shield of Ohio—now known as Medical Mutual of Ohio—filed suit to enjoin the federal government from barring "Most Favored Nation" clauses under the Sherman

Antitrust Act. Most Favored Nation, or MFN, clauses typically require healthcare providers to give an insurance company the lowest rates compared to any other payor. In some instances, Medical Mutual would receive as much as a 15 percent difference in its rates, providing a significant advantage over its competitors. At the time, Blue Cross Blue Shield of Ohio provided more than one-third of the insurance coverage in the Cleveland area.

Blue Cross Blue Shield of Ohio lost its case, and the federal government in 1999 went on to bar MFN clauses from Blue Cross insurance contracts, and also kept Medical Mutual from requiring hospitals to reveal rates or charges levied by other insurance companies and payors.

CHASING FEDERAL DOLLARS

Critical to the clout of Cleveland healthcare institutions is their lobbying power—particularly at the federal level, where institutions can gather lucrative federal grants and contracts to fuel research projects and keep a competitive edge. Many hospital systems and other medical institutions contribute to and rely on their national association such as the American Medical Association and American Hospital Association to lobby on topics such as Medicare reimbursements or federal tort reform. But individual hospitals use their own lobbyists to capture federal dollars for their institutions.

"Health is the new defense," Michael Heaney, an assistant professor of political science at the University of Florida, said in January 2009. "All the margin in lobbying was in defense, and lobbying was about trying to get your new weapon system picked up by the Pentagon. What's really happened in the last 10 years is that defense is being displaced by health."

> There are reasons why corporations and institutions lobby go beyond mere education, however. Simply put, it pays off. A study by University of Kansas researchers showed that a single tax break in 2004 earned companies $220 for every dollar they spent lobbying on the issue.

Invacare, a suburban Cleveland company that makes power wheelchairs, oxygen delivery devices, and other medical equipment, was the top spender among Ohio health companies at $1.2 million in 2009. Most of its sales are through government programs, particularly Medicare, so any proposal to cut reimbursement rates on hospitals or other customers has a big impact on the company.

In 2009, Cleveland Clinic spent $740,000 on lobbying and in 2008 spent $1.15 million to lobby its interests in Washington, D.C. Lobbying on the Clinic's behalf to the Defense Department helped secure $10 million of a $42 million research grant to find ways to treat severe battlefield injuries. It also led to a Clinic-Army Reserve program that gives reservists priority for jobs at the Clinic, as well as millions in research grant dollars dealing with traumatic brain injuries.

But the competition between institutions spills over into federal lobbying efforts. University Hospitals long sought a federal Medicare exemption that would have bolstered payments to the cancer center at its hospital. The amendment would have provided a coveted Medicare exemption for UH and three other hospitals across the country by

removing limits on Medicare reimbursements. That could have meant several million dollars annually for the new free-standing Ireland Cancer Center, which is set to open in 2011. But intense efforts by Cleveland Clinic, as well as other Ohio institutions, have kept lawmakers from including the clause.

THIRD FRONTIER & INCREASED STATE AID

As Northeast Ohio continued to look at sustaining industries to substitute for manufacturing, interests in the Cleveland medical industry began planning ways to capitalize on marketable innovations coming from its academic and medical research institutions. The strategy was mostly to leverage state funding to create more opportunities for investments. On one hand, private investment firms would be lured to open an office in the region with the promise of state money for their funds, and these investors would in turn put some of those investment dollars into Cleveland companies. In addition, for smaller local investors, the state would provide a tax credit that would deliver a 25 percent to 35 percent credit based on the amount of money invested by an individual into a startup company.

More significantly, the state started to campaign in 2003 for Third Frontier, a state-backed bond issue that would invest money into private businesses and fund research at various institutions.

> Created in 2002, the Ohio Third Frontier is an unprecedented commitment to create new technology-based products, companies, industries and jobs. In May, the Ohio Third Frontier was extended through 2015, indicating a widely held understanding by the populace that technology and innovation will lead to economic prosperity both today and for future generations.
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> Today, the Ohio Third Frontier is all about innovation creating opportunity. The $2.3 billion initiative supports applied research and commercialization, entrepreneurial assistance, early-stage capital formation, and expansion of a skilled talent pool to support technology-based economic growth. The Ohio Third Frontier's strategic intent is to create an "innovation ecosystem" that supports the efficient and seamless transition of great ideas from the laboratory to the marketplace.
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> The Ohio Third Frontier is successfully building an innovation economy as evidenced by the major contributions in the following areas:
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> - Dramatically increasing the availability of early-stage equity investment capital;
> - Improving the entrepreneurial environment for technology-based companies;
> - Improving research and development collaborations between Ohio's research universities and institutions and for-profit companies;
> - Driving employment growth in Ohio's technology sector;
> - Contributing to the diversity and competitiveness of Ohio's existing manufacturers; and
> - Attracting non-Ohio companies into the state.

These processes were a dramatic expansion of the way a state invests public dollars into private interests. And judging from the past eight years, they worked—to a point.

Since its 2002 inception, the Ohio Third Frontier program has created nearly 55,000 jobs and helped create, attract or capitalize more than 600 businesses (this is without the 2010 renewal that added another $750 million in state investment—for a total of $2.3 billion). In addition, it attracted nearly $4.8 billion in investments to Ohio by making $548 million in grants—a 9-to-1 ratio.

In Greater Cleveland, medical trade groups have used state money and new investor interest through state incentives since 2002 to create or recruit 90 companies, locate $925 million in new funding for the businesses and generate $135 million in revenue. In addition, there are 45 venture, angel and seed funds operating in Northeast Ohio—all of which have a focus on the medical industry. These groups have combined to provide $835 million in equity investments. In addition, Third Frontier funding has helped create stem cell research centers and the Cleveland Clinic-based Global Cardiovascular Innovation Center.

These successes have created one gigantic opportunity. In 2013, Cleveland will have a medically focused convention center—known as the Medical Mart—that will become the commercial hub of the medical industry. Located downtown, it hopes to host dozens of medical conventions every year and provide permanent showroom spaces to scores of medically focused businesses. Cleveland hasn't had a convention center in years, so its presence could generate millions of new dollars annually and further burnish the reputation of the healthcare industry. The mart is largely coming to Cleveland because of the opportunities around the region's major health systems: Summa, Akron Children's Hospital, University Hospitals, MetroHealth and Cleveland Clinic. Merchandise Mart Properties Inc., which is building and managing the mart, describes the project this way:

> Cleveland MMCC will house approximately 120,000 square feet of permanent showrooms for major medical manufacturers and service providers. Showrooms focused on cardiology, surgery, OBGYN, imaging, orthopedics, sterilization, healthcare furnishings, patient care, healthcare IT and medical devices will fill the Medical Mart, paving the way for the newest generation of innovation and distribution in the healthcare sector.
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> Cleveland MMCC will be designed with approximately 300,000 square feet of high-quality exhibit space, featuring high ceilings and industry-standard column spacing. Suited to the needs of medical trade shows and conventions, the facility can host simultaneous events and is ideal for events that need to be paired with conferencing capabilities.
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> Cleveland MMCC will feature approximately 100,000 square feet of high-tech, flexible meeting rooms of varying sizes to accommodate keynote sessions, seminars and panel discussions, which are the core offering of many medical conferences, meetings and conventions.

Like Third Frontier, the medical mart project will be publicly subsidized. Hundreds of millions of local tax dollars will funnel into the project through a Cuyahoga County sales tax.

The new medically focused economic environment also led the region to attempt a new initiative: a "health-tech corridor" designed to gather promising businesses together in proximity to other research institutions. The plan mimics the success of other medical

innovation hubs, like Research Triangle Park in North Carolina, which concentrated its industry around the research institutions in the Raleigh-Durham area.

Third Frontier has great appeal with its broad array of opportunities: from research at Cleveland Clinic to clean tech businesses to smaller medical startups. Nevertheless, when breaking down the numbers, it costs about $26,000 in state money to create a new job. In addition, most startup companies—which are a significant beneficiary of the state's incentives—fail. What's more, particularly in the medical industry, it's increasingly unlikely that a Third Frontier initiative will help create a company that, even if successful, remains in Ohio for a long period of time. Companies in the medical field—medical device, pharmaceuticals, health IT—largely aspire to be acquired by a larger company. For example, Cell Targeting is a promising Third Frontier-funded company that helps guide stem cells to the parts of the body they need to heal. Such a technology would cut down on the amount of stem cells needed for treatment and, therefore, cut down on the cost and increase the effectiveness of treatment—even potentially cut down on side effects. However, Cell Targeting Chief Executive Joseph Wagner said his company will grow—at most—to about 35 jobs. If the company is successful, Wagner would expect a larger company to buy the business. At that point, any jobs would most likely be moved to the location of the acquiring company. Those who would benefit from the sale would largely be the investors.

Advocates of the program admit the risk of many companies moving out or disappearing through acquisition or failure. But they point out that the leadership of successful and acquired companies will remain in the region to continue to manage new companies. While Cleveland is flush with medical innovations that can be turned into products, the region does not have a comparable amount of management talent needed to build the businesses. BioEnterprise, a state-funded medical industry trade group in Cleveland, offers an executive-in-residence program that has helped pair executives with promising companies. So even if some—or even many—of the successful companies will leave after being acquired, a more seasoned leader could remain in Cleveland to start another company. Eventually, the advocates say, by creating an ecosystem that starts new companies, seeds them with private and state dollars and connects them with skilled managers, there will be several companies that in the long term decide not to be acquired and to blossom into permanent job-creators in the region.

Quality Electrodynamics is a potential success story. The company has leveraged its Third Frontier investment to create a growing 40-employee business located in suburban Cleveland. It continues to grow and expand on its own, moving into new international markets and estimated to employ 100 workers by 2011.

There is also a different kind of trickle-down benefit to local companies. AxioMed Spine, another Cleveland area medical device company, only employs 15 people. However, it has worked with 60 different Northeast Ohio companies, including specialty-manufacturing businesses that help craft its $10,000 spine disc replacement tool.

STATE POLICIES AND BIG-BUCKET JOBS

But will that be enough? Will it be enough to satisfy voters, who by 2015 will have invested $2.3 billion dollars and spent $26,000 per job in companies that in many instances will not remain in Cleveland—even if the businesses are successful? Will it be enough that skilled managers, enriched by the sale of the companies they run, will remain in Cleveland to again start new companies that rely on state money with the expressed purpose of being sold, primarily to fatten the wallets of the manager and a handful of (state-supported) investment funds? Will voters tolerate tax credits that encourage investment but are, in essence, delivering tax credits to extremely wealthy individuals?

And, most important, will these programs create enough work in Cleveland? The medical industry is the leading employer in Northeast Ohio. But employing 13 percent of the work force is a figure that is only one-third the percentage that manufacturing employed in its heyday. Many of the jobs created in the medical industry—medical device, pharmaceutical and biotechnology in particular—require significantly more education than the general population currently holds. How will these companies provide a broader array of work for a broad population across the region?

To a certain extent, they won't. Medical companies creating devices, biotechnology applications or pharmaceuticals are overwhelmingly expected to be acquired by larger companies, if only to pay back their investors. Regulatory approval processes in Europe and the United States that allows these devices to be sold and used require an increasing amount of money to complete, and require additional private investment. While companies can still bypass acquisition by going public, the market for public companies has plummeted. It is increasingly less likely that a private company will decide to trade shares on the stock market. That's bad news for regions like Northeast Ohio. Public companies are much more likely to remain in their communities, grow jobs and acquire other, smaller companies and bring those jobs and technologies to a region. Right now, that model is largely the exception rather than the rule. As the Cell Targeting CEO said: "No one wants to be the next Merck. They want to be acquired by Merck."

But Cleveland can benefit from the reinvestment of profits when promising small companies are sold. For example, in 2008, Cleveland's NDI Medical sold a medical device to Minnesota medical device titan Medtronic for $42 million. The company's CEO, Geoff Thrope, has used that money to develop new companies: Checkpoint Surgical and SPR Therapeutics. In addition, Thrope has become a member of a new early stage investment group in Cleveland called the Medical Growth Fund, which will also invest in promising startups.

However, it's likely the Cleveland medical industry's share of Third Frontier—and its popularity as an economic growth engine—could be eclipsed by another industry: clean tech or "green" technologies that develop clean-running cars, wind turbines and other devices. More manufacturing companies in Northeast Ohio are FDA certified to develop medical devices than most states. This is beneficial to the local economy as medical companies outsource their manufacturing to local companies that used to do the more throwback manufacturing of engines and other products that have since been outsourced overseas. But clean tech, in many instances, is a more lucrative opportunity. Cleveland-area manufacturing giant Timken, for example, can quickly become a global leader in

the manufacturing of pieces and parts for wind turbines. In June 2010, the Cleveland Foundation launched a $1 million initiative to help regional companies reach out to the global clean tech market and attract two to four clean tech businesses to the region. Clean tech already represents $12.5 billion—about 7.5 percent—of Northeast Ohio's economy, according to the local trade group Team NEO. Plus, clean tech is expected to grow more than 20 percent in the next five years. The medical industry strategy to draw in investors and new businesses into the region has worked. In fact, the emergence of the medical mart will create a broader array of jobs and deliver more money into the local entertainment and retail sectors. That couldn't have been done without the recent efforts to build up the local medical industry. But this same industry will still face increasing pressure to maintain the levels of funding as state legislators consider where to invest their money—using job growth as a primary driver.

A much less ballyhooed– but significantly more beneficial in terms of numbers—job growth opportunity is happening in Northeast Ohio's universities. Large-scale employment opportunities are being created in areas such as nursing and health care policy. Slowly, universities have leveraged public dollars and changed their curriculum to retain the region's work force. In short, while the relatively new medical device industry is helpful, it may be more worthwhile for the broader work force to continue to focus on job training at hospitals, Cleveland's traditional strength, in areas such as nursing and other health-care workers.

Nursing is experiencing a shortage of numbers already and a broader, more acute shortage is on the horizon. For example, there are more than 135,000 registered nurse openings nationwide. But the key to solving the nursing shortage isn't applicants, but supplying enough faculty to teach them. There are almost two open teaching positions at every nursing school, according to the American Association of Colleges of Nursing. As a result, schools turned away nearly 50,000 students in 2009, according to the association. Registered nurses can make $60,000 or more, depending on the assignment.

Universities have focused on retraining opportunities to increase the number of nurses as well as encourage nurses to enter the teaching ranks.

- Nursing programs at Lorain County Community College and four campuses of Kent State University in 2009 welcomed their inaugural classes of paramedics who want to become registered nurses in a new paramedic-to-RN program. These students will end up with associate degrees in nursing and will be eligible to take the licensing exam to become registered nurses.

- Case Western Reserve University received more than $900,000 in 2009 from the federal Nurse Education Loan Repayment Program — more than double its usual amount—which tries to cut the nurse-educator shortage. Nursing students going through doctoral programs — like the research-oriented PhD program or the clinically focused Doctorate of Nursing Practice — typically receive the repayment loans. The government forgives 85 percent of the loan if recipients hold a faculty position at an American nursing school for four consecutive years. With the additional funding, CWRU will now offer the loan program to some of its master's degree students.

- Universities throughout Northeast Ohio—including Cleveland State University and Kent State University—have used private and public dollars to expand their "accelerated nursing program" that retrains college-educated workers who have left their previous field. The hope is that these students will also choose to remain and move on to teaching positions.

Nursing initiatives are only part of the educational efforts. The Association of Schools of Public Health in 2008 predicted the United States will need an additional 250,000 health educators, epidemiologists and others in the public health arena by 2020. Kent State University began offering a master's degree in public health in the fall of 2010. It is the school's third public health degree. In 2009, the university opened enrollment for bachelor's and certificate programs in public health. This program is one of only two in all of Ohio.

But Cleveland and the state will need to change its policies and culture to maximize this opportunity. Legislators and medical interest groups—largely hospitals and physicians—have, year after year, opposed expanding responsibilities for nurses. There are some exceptions: House Bill 457 introduced in 2010 would make it easier for nurses to work as faculty members while they pursue a certificate that allows them to write prescriptions. The law would allow nurses more time—up to an additional year—to complete course requirements.

However, these interest groups have largely been successful at quashing proposals that would let nurses pronounce death in certain situations, prescribe prescription drugs and play a larger role in the "medical home," an approach that focuses on preventive medicine with all patients in the hope that it will cut down on more expensive treatments later in life. A bill passed in 2010 that offered new opportunities and incentives for doctors did not include a role for nurses, despite calls from nurse educators and lobbyists to do just that. While the educational system is changing, our attitudes and willingness to share power are not.

CHALLENGES: BIG DOLLARS vs. SMART IDEAS

Building medical companies costs big dollars. Attracting the talent and investors costs big dollars. But should jobs—sustainable jobs that will raise families, educate children and purchase homes—cost $26,000 each?

What would happen to Ohio's nursing shortage—and the opportunities to attract nurse educators from throughout the country—if Ohio used $100 million in public funds annually to create well-paid, endowed positions for nurse educators in public universities? What would happen if Cleveland's Warehouse District, a mile away from the promising medical corridor, worked with educators and hospitals to create a "Nurse's Village" to provide lower-cost housing to anyone employed or pursuing degrees in nursing? These are likely the questions George Crile, Frank Bunts, John Phillips and William Lower would address if they were to create a current collaborative environment to foster health-based economic innovation, just as they did when they established the innovative and collaborative environment that gave birth to today's Cleveland Clinic.

The medical industry being created through tax credits and billions of dollars in statewide private-public initiatives is creating jobs that many can aspire to. And it is largely a program that works. But the state incentives may be leaning too far toward the private industries. What needs to happen is:

- A less-costly but similar approach to attract workers en masse to fill high-demand jobs that are guaranteed to remain in Cleveland.

- A change in thinking by hospital and physician interest groups to provide nurses with more power.

The latter is harder than the former. The private sector has moved to a certain extent to fill these jobs. A Cleveland Clinic donor has provided money to purchase cutting edge technology to help educate nursing students there. But the position of nurses—and other healthcare employees who aren't doctors—as being less worthy of medical responsibilities is a situation that only legislative change can provide. Changing that attitude will pay off by enhancing the region's clout, its job and economic fortunes and even the welfare of the patients.

> One of the important things in reforming health care is that we recognize the role of advanced practice nurses in delivering care to patients. I think giving them a greater role would lower some health costs. One of the problems with health care in the country is we don't have enough family doctors in rural areas and I think the government is missing a big opportunity if we don't take advantage of advanced practice nurses who'd be able to help out with rural patients. They could be the ones to first see a patient, do an assessment and tentative diagnosis, then consult with a doctor.