# JOHN LUCAS

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Dr. Fitzhugh Mullan,
interviewer

**Mullan:** I am in Dr. Lucas' office at the Lovelace Health Systems, of which Dr. Lucas is CEO. The date is the 22nd of February, 1996. We are joined by Dr. Martin Hickey. Dr. Hickey will intervene as appropriate. This is an interview principally of Dr. Lucas, an oral history.

I want to go back to the beginning. Of particular interest to me is your background as a Canadian, having migrated to this country and this health care system. So if you could give me a background of where you came from and how you got interested in medicine and how you got to medical school.

**Lucas:** I came from a working-class family, wanted to become a country general practitioner in the province of Alberta. In fact, the majority of my classmates became general practitioners. This was before there were family practice residencies. I graduated in 1970, did a year's rotating internship.

**Mullan:** When were you born?

**Lucas:** I was born in 1946. Upon completion of the internship, I was recruited by the Canadian International Development Agency and spent three years in Cameroon, West Africa, which shaped all of my future professional interests profoundly. Following a

three-year stint as a combined county health officer, public health physician, running a small cottage hospital in the county health system, catering to the needs of several hundred thousand people, I was awarded a World Health Fellowship and did a master's in public health at Harvard University.

I was interested in practicing both administrative and clinical medicine. At that time the only way you could utilize an MPH in any way other than being a health officer was to get involved in health maintenance organizations (HMO). I set up the first health maintenance organization in Nebraska.

**Mullan:** This was following your MPH period at Harvard?

**Lucas:** Yes. I worked for two years as an international health consultant following my MPH, and then I moved to Lincoln, Nebraska, when I started a family. Our small HMO, grew from zero to 12,000 members in a couple of years. We recruited a base of eight family practitioners to provide primary care. We were the biggest family practice group in the city, and we utilized community specialists for referrals. The medical community was very hostile.

**Mullan:** To the HMO or the family physician, or to both?

**Lucas:** Primarily to the HMO.

**Mullan:** And this was the only, or the first?

**Lucas:** This was the first and only one. We were very much regarded as outcasts for not practicing mainstream medicine .

**Mullan:** And you came on the idea of the HMO as an intellectual decision or simply an opportunity that came along?

**Lucas:** It was primarily the emphasis on prevention that attracted me to the concept. I thought that it rewarded physicians for focusing on the preventive dimension of health care. At that time, HMOs were a cause, they weren't businesses. They were seen as the fringe of medical care.

**Mullan:** Was this federally supported then?

**Lucas:** We went through the feasibility development grant cycle and received about $4 million in federal funding at the time, and worked closely with HEW's Office of HMO. The sponsor was a community-based nonprofit organization. After five years, it was sold.

**Mullan:** That was which year?

**Lucas:** We started it in 1978, and in 1983, the unit was sold to Health America. A gentleman named Phil Bredesen had discovered there might be some profits to be made by taking all of these marginally profitable community organizations, introducing business discipline to them. He accumulated a number of them.

When the for-profit people entered on the scene, I felt an immediate incompatibility. I found there was a different focus, so I left the organization and moved to Denver, became the medical director of the Denver Clinic, a fifty-doctor multi-specialty group, and introduced primary care and HMOs to them.

**Mullan:** The prepaid concept, or the HMO concept, you still felt comfortable with. It was more the commercialized management that you were uncomfortable with.

**Lucas:** Exactly. The Denver Clinic was a physician-owned and operated organization. They wanted to move out of a specialty mode, to grow a primary care base, and to begin to participate in prepaid contracts, and they saw in me a means for accomplishing that. I worked there for seven years altogether.

In my fifth year there, we established what I believe to be the first MSO in the country, joining forces with one of the hospitals and Blue Cross, and created a management organization which contracted with the doctors.

**Mullan:** MSO?

**Lucas:** It means a Management Services Organization, in other words a physician practice management company.

I then wanted to learn more about quality management. I had contacts within the Henry Ford medical group. The Ford Motor Company, which participates in the governance of the Henry Ford

Health System, had introduced TQM, to the health system. Also, I wanted to learn about larger-scale organizations, the hospital business, and, in addition, learn about total quality management. I took a position with the Henry Ford Health System as the Chief Operating Officer of Metro Medical Group.

It was an extremely enriching experience. In late 1991, I was called by my predecessor here, Derrick Pasternak who was recruiting a CMO for CHS. He also told me he wanted to retire within two years. CHS is remarkably similar to Henry Ford. I wanted to go back to the Rocky Mountains, so I came here as the CMO with a view to becoming the CEO. Derrick was true to his word, he retired, and I became the CEO in early 1994.

**Mullan:** Let me ask you a couple of questions before we focus in on the Lovelace years. You continued to practice to some extent in Lincoln and Denver and Detroit?

**Lucas:** I always practiced until two years ago.

**Mullan:** How much, and how was that?

**Lucas:** Well, it was diminishing with the broadening scope of the administrative responsibility. During the two years I was CMO here, I worked in urgent care. I couldn't do any continuous care; it wasn't possible. When I was in Denver, I did continuous care, but in Detroit and here I did urgent care because of the

inability to provide care continuity in a part-time primary care position.

**Mullan:** Give me a few reflections on what, between the mid-seventies and 1990, you observed both in your own experiences and around the country about the evolution of family medicine and primary care as a concept. Was it a coming concept or not? How did it play itself out?

**Lucas:** Communities differ in their emphasis on specialists versus primary care. In some communities, primary care is stronger. Sometimes the model varies with pediatricians and internists and no family practice. In the Midwest, and the Rockies, you find family practitioners have a considerable presence. In many communities, there's no an enlarged role for primary care doctors, particularly FPs, who are more and more relegated to out-patient practice. I feel that the evolution of internal medicine has become a lot narrower as there's been a burgeoning number of medical subspecialties. The scope of practice of generalists internists and family practitioners really doesn't differ too much. Similarly with pediatrics. I tend to view the primary care market as generalist physicians whether FP internal medicine or peds.

**Mullan:** It's got different flavors, but the product is serving a similar need?

**Lucas:** Twenty years ago, the primary care doctors did not have as much market power as they developed these past years. Most of the market power today is derived from the notion of gate-keeping, which I do not view as a particularly enlightened concept, but there's a great deal of money to be made in arbitrating health funds. If the primary care doctor can serve as effective medical controllers, they can earn up to 50 to 100 percent of their base being the keeper of health plan funds. This can be accomplished if they're in capitated arrangements and their groups subcontract with hospitals and other specialists and the utilization is aggressively managed.

**Mullan:** Let me ask the flip side of that, your observations of the specialist community, the specialist culture, during that same fifteen-year period. Obviously the numbers are growing.

**Lucas:** Their market power is declining.

**Mullan:** Of late?

**Lucas:** Over the last five years. Again, it varies by community. The further west you go, the more market power primary care has. In the East, it has yet to come into its full flowering, if you like.

**Mullan:** And the HMO concept or the varieties of managed care, thinking that they emerge from the simpler HMO concept of earlier

years, over that fifteen-year period, how do you see them playing into the market? Clearly, in early years it was largely a federally subsidized, stimulated effort to plant or seed the concept was not a major market take. What happened?

**Lucas:** There was just explosive growth, explosive annual growth. From 1990 to 1995, it's become mainstream in terms of health insurance. There are new variants of managed care now with flexible products, with choice, broader networks which further feeds growth. There's been a full-cycle phenomenon. We are back to offering broad choices. I think the lock-in HMOs with exclusive relationships with small physician networks did very well from perhaps 1980 to 1982, '83.

**Mullan:** This is the Kaiser type?

**Lucas:** Kaiser-type models. They were stopped dead in their tracks about three years ago.

**Mullan:** 1980 to 1993?

**Lucas:** Yes. In the mid 80's you saw any number of 50 to 100 group practice staff models grow, and they primarily did this because they were so much cheaper. Again, they leveraged, or arbitraged, the funds to feel growth.

**Mullan:** Lovelace being among those?

**Lucas:** Yes. The growth stopped when the rest of the medical community began to master Medicare tools. Private practitioner models, IPAs, that can offer a higher level of service and more choice, are now able to manage the funds as effectively as staff models, and as a result they now have market power over the staff models. Staff model growth stopped three years ago. In fact, the models such as ourselves, Harvard Community Health, Group Health Puget Sound, the so-called Blue Chip staff models, are encased in the inefficient structures of the early 80's. They have a lot of fixed costs and are now called upon to perform rather draconian efficiency measures to get back to a performance level where they can compete effectively against IPAs, which have no fixed cost.

**Mullan:** Of the variety of things that have been suggested, in your judgment and experience, what triggered the market in the early nineties? My sense is that there was a slow growth of the HMO concept in general, particularly the staff models, through the eighties, with a little federal stimulation and whatever, but it was really the nineties when the managed care concept took off. Why?

**Lucas:** I think it took off when the IPAs entered into the field. If you look at most of the growth over the last five years, it's IPAs and flexible products, dual options, [unclear], types of products, so that indemnity lock-in HMO blend is really what's growing on the market. The broader choice networks are growing.

The lock-in exclusive-type arrangements with narrow choice stopped growing five years ago.

**Mullan:** That's on the product side. I was curious on the purchaser side. Did the cost of health care either nationally or locally hit some trigger point, or was there something in our national politics or our national thinking that suddenly began to drive the HMO concept?

**Lucas:** Well, double-digit health inflation occurred in '86, '87, '88, '89 causing an employer backlash.

**Mullan:** In health care.

**Lucas:** And then it started slowing down. It appeared that it was the election of Bill Clinton that seemed to exert a massive restraint factor in both the insurance industry and in the provider industry. What we call it is the Hillary Factor. The Hillary Factor was first felt in '92. Medical cost inflation has been in the 1 or 2 percent range sine '92. Providers, purchasers and payers wanted to avoid government health care.

**Mullan:** That's an interesting thought. What you're suggesting is that the service or the phenomenon that the Clintons performed in raising the question of our medical care system, and particularly its costs, triggered or set off a variety of seismic

set of phenomena in the market in anticipation of the legislated reform that they were going to introduce.

**Lucas:** Yes.

**Mullan:** That never happened, and yet the market, triggered as it had been by the Hillary Factor, continued on. Is that the thesis you're suggesting?

**Lucas:** I think if there's any logic to it, it appears that major sectors in the health care marketplace all adopted policies to restrain costs and to get lower pricing. I think that was coupled with purchaser power and government purchasing power. Again, it varies by market.

**Mullan:** Government as in Medicare?

**Lucas:** Medicare and Medicaid.

**Dr. Hickey:** You and I were once, I think, on a panel way back at the end of my career in Albuquerque, put together by an employer coalition, and we were talking about health care costs. I was stunned, sitting on that panel, at the lack of recognition that the market had, that the purchasers, the employers had, if they would only get together much as they did in Minneapolis and force a detriment in price, and I think probably commensurate with the education that came out of Hillary and so on, they began to

understand their own power in the marketplace and began to push that back. I think we've seen that here in this marketplace, that along with brokers like Mercer and so on, helping them to understand their power in the marketplace, that they're--

**Mullan:** Employee benefits and so on.

**Dr. Hickey:** Employee benefits consultant who helped particularly larger employers to understand their power and being able to get a lower price and not having to follow just what the health plans offered, being able to go in and say, "This is what I'm going to pay and this is what I want. Either you deliver it or I move on to your competitor." But it was a recognition that they had that power that somehow they had just been giving away for such a long period of time.

**Mullan:** So the combination of the growing consciousness of the large purchasers and the growing concern they had about their pocketbooks, as well as the Hillary Factor in terms of the change in policy perceptions really undergirded a lot of the oncoming changes.

**Mullan:** And I believe competitive forces being unleashed between providers. It seemed like there was a nexus of things coming together, so you had purchasing power and government variables and competitive forces being unleashed.

**Mullan:** All right. Well, let's go back and pick up your story. You came to Lovelace in 1992?

**Lucas:** Exactly four years ago.

**Mullan:** Why did you come?

**Lucas:** Because I had an opportunity to become the CEO of the organization.

**Mullan:** And your vision? What did you see, with your own personal circumstances, the market circumstances? What was it you wanted to do?

**Lucas:** I wanted to manage one of the premier integrated delivery systems in the country. We have a good reputation. Culturally I was very engaged in the Ford system. There are a number of models--Oschner, Lovelace, Ford, Lahey, Hitchcock, all similar. They are venerable group practices that have been in existence for decades. For example, this organization is seventy-five years old. They're steeped in tradition. They have a legacy. I always found staff models that had been built by insurance companies lacked a soul, and these places perhaps never had the business disciplines that some of these instant group practices might have had, but they're steeped in tradition and have been closely associated with teaching and research activities.

**Mullan:** The insurance company-built ones, what are examples of those? You're not talking about Kaiser?

**Lucas:** Perhaps Kaiser.

**Mullan:** You consider those built by insurance companies.

**Lucas:** Kaiser has evolved over fifty years.

**Mullan:** [unclear], Puget Sound?

**Lucas:** To a degree. There was never any physician ownership.

**Mullan:** HIP in New York, you're talking about?

**Lucas:** Yes.

**Mullan:** Group Health in Washington. So you're distinguishing between that and the Lovelace, Hitchcock, Oschner. Oschner is--

**Lucas:** In New Orleans. Scripps is another one. Sharpness, steely. There's twenty or thirty large health specialty groups. I think that although they're more specialty-dominated, they have a history of education and research, and are able to attract a much higher caliber of doctor by being able enliven and enrich the professional lives of participating physicians as compared to your more service oriented HMO staff model would normally have.

Kaiser and Group Health, Harvard Community Health, also do a lot of teaching and research as part of their activities and enjoy many similarities.

I saw coming to CHS it as an opportunity to get a leadership post in a premier organization. My agenda was to develop a population health model, which I think I've convinced my colleagues is a good model for group practice. When I was in Africa, I learned all about categorical health programs because the country I was in was an ex-French colony, and had the imprimatur of the French colonial health care system. The French organized health care in developing countries around a concept that they called *les grandes endemies*, which is "the great epidemics," and they felt that if you focused on the top five or ten diseases and let everything else go, you'd still dramatically improve public health. So if you are trained in tropical medicine by the French Army, you learn all about the great epidemics.

**Mullan:** How did that translate into your--

**Lucas:** In Africa, the great epidemics are all infectious diseases. The way we organized our health interventions was along these categorical lines so that you had a malaria program, a tuberculosis program, a cholera program, leprosy, and so on. Auxiliary workers were all trained to focus only on that disease. You could actually employ people with the most rudimentary

education and teach them about a specific disease, and it would be effective, and it was at low cost.

I saw that integrated systems didn't perform well in terms of indicators to monitor economic and clinical outcomes particularly in common chronic diseases.

**Mullan:** As opposed to the categorical sort of vertical disease focused public health approach.

**Lucas:** Exactly. But what I saw in Ford and, to a degree, Lovelace, were these high-quality--imputed high-quality--organizations that had very high costs, and this occurred at a time when the growth of these types of organizations stalled out, because the rest of the marketplace got smarter. So the issue for us was how could we maintain our quality and pull out 20 percent of the cost structure to continue to be competitive.

I had a groundingly categorical disease that management had been bobbling around for twenty years. I believe that if we focus on

the ten top chronic diseases, we don't have much in the way of infectious diseases, we could attack 80 percent of our cost structure. If you create these disease silos, you improve quality, satisfaction, and patient adherence. We called the concept episodes of care. Episodes of care were developed at Kaiser by Hornbrook and Hortado in the mid-eighties, but we found no evidence that anyone exploited the concept.

**Mullan:** Tell me a word on the concept. It's new to me.

**Lucas:** Hornbrook and Hortado were two Kaiser Foundation researchers. Their notion was that the patient brings a provider an episode of illness and the provider responds with an episode of care, and encompassed in the Episode of Care, there is a discrete start and finish. You can have a brief episode, a hospital admission for a surgical procedure. More broadly, you could say birth is an episode from conception to delivery. You might even include infertility therapy at the front end and six weeks postpartum care as a more comprehensive episode. Typically in chronic disease it is useful to define an episode as a year of care.

So we refined the concept by coming up with an operant definition of it. All of the care provided to a patient with chronic illness for one year across the care continuum we had learned in our quality-improvement activities, that if you fix a process at only one level, then it gets pushed out at another level, so that you never really control the cost, you just optimize each subprocess within the episode. You cannot improve an integrated system unless the process of care is improved across all components that interface in a continuum.

Once you define the episode, then you can identify which component of the episode is present in each part of the continuum. What's the primary care component? What's the specialty care component? What happens in the hospital? What happens in after-care? Once these are defined, we identify

indicators for each component as to what the performance level should be. You can define the point of handoff between the components. For large scale episodes you could appoint an episode manager and you could get a multidisciplinary team that represents workers from each part of that continuum, and the team works together to reduce cost, improve satisfaction, get better clinical results. In '93, we began implementing, and that's what these books you see on my shelf represent.

**Mullan:** And they're built around certain common illnesses or common syndrome?

**Lucas:** Yes. We came up with thirty episodes of care. The first ten we came up with, addressed high cost, high volume, episodes. Physicians are organized into departments, and most of the work output to departments actually is limited to one or two disease states. For example, has mental health, half to 60 percent of their visits is depression, related. If you selected depression in terms of improving it, but you've got most of your departmental visits and cost drivers improved. With these methods you can create multiple improvements throughout your system by focusing on the most prevalent disease state that is managed by each department.

Also, we started out with where physicians were. Physicians often have an innate aversion to "quality assurance." It's not that they don't believe in quality; they view quality as a means of coercion and external control, and it's always unfair and the

data is never right. It's always busy work that's imposed on them. The way TQM has been taught is very bureaucratic and administrative, and has not focused on, "How do I get a better result for my patient?"

The Episode of Care we relabel quality improvement as clinical practice improvement and used the Episode of Care methodology. Every doctor, we believe, wants to do better for the patients, so that if you truly could demonstrate there's a set of tools that helps you get better results, that you can easily engage that doctor and, if necessary, you could even link compensation to it or other forms of reward. So we initiated the project where the most receptive doctors were.

**Mullan:** Which was?

**Lucas:** Birth was the first one. There are probably fifty to a hundred variables for each episode, but you pick two or three, and birth, when we picked, there were two things: reduce the prenatal delivery rate and reduce the C-section rate. So those were the two optimal outcomes.

**Mullan:** Premature delivery.

**Lucas:** Premature delivery. Then we had diabetes. Diabetes is very prevalent here, and it's probably 15 percent of our total cost structure, very common in the Indian and Hispanic population. Pediatric asthma. This model works beautifully on

asthma. Then we did hip and knee joint improvement with the orthopedists, low back pain, coronary revascularization, depression and breast cancer. Those were the initial ones. Am I missing one?

**Dr. Hickey:** Those are the six or seven.

**Lucas:** During 1995 we added a few more. We've got Alzheimer's, attention deficit disorder.

**Dr. Hickey:** Stroke.

**Lucas:** Stroke was in the first group. Now we've got hypertension, we're working on. Epilepsy is another one.

**Mullan:** With the Episode of Care concept and your vision of a population health model, how do those two ideas intersect?

**Lucas:** We hit on Episode of Care first. Then we knew there had to be more, so our whole theory of population health management is that disease management is one of three components. In public health work, we always had an idealism about improving health as a goal. No one could ever make a living at it the way the reimbursement structure existed. Under capitation all your business success is tied up in how healthy you can keep the population, so there's a direct financial incentive to improve

health. Although there is skepticism, we feel that investments in health improvement ultimately lead to further cost.

We want to be the first organization to demonstrate that link occurs between improving health and reducing cost. The population health model we created, will demonstrate to the managed care marketplace that it's possible to both dramatically reduce health care costs and improve profits for those who manage themselves using this model.

**Mullan:** I guess I'm not clear what the population health model is. Is the Episode--

**Lucas:** That's part of it. There's three pieces. The first piece is called health risk assessment. The second piece is called care management. The third piece is called disease management. It's primary prevention, secondary prevention, and tertiary prevention. Health risk assessment is what the health plan does. It's a way to screen people on the phone or with mailing questionnaires for determining who's got an unmanaged chronic condition and who's got high-risk behaviors.

**Dr. Hickey:** To clarify, it's not screening to keep them out; it's once they've joined, what are their illnesses and can we intervene up front rather than waiting for the breakdown to occur, then the expense.

**Mullan:** This is telephone screening? This is proactive? You call the client as opposed to when they call in?

**Lucas:** Right. It's proactive. If they join, we want to know if they have a condition in need of management.

**Mullan:** Someone calls and does an interview?

**Lucas:** We haven't gotten the tools perfected, although we started with Medicare patients. While some organizations are doing Medicare with appraisal, this type of outreach is not typically done, and when it is done, it's done in a very costly way. Most health risk assessment tools have 100 questions, and perhaps 90 of them are probably irrelevant to managed care while 10 are relevant. The key is to limit screening to ten questions or fewer for ease of administration.

**Mullan:** In the sense that there are interventions that you can do that will make a difference?

**Lucas:** Well, the intervention follows a determination of which patients have special needs. In Medicare 40 percent of patients have significant morbidities while in commercial, it's probably 15 percent. It's finding the 40 and the 15. In Medicaid, in probably 60-70 percent have chronic illness with morbidities. But the day they join, you know about it and you need to put those people at the head of the line and alert the care system

**Lucas:** Yes.

**Mullan:** Please.

**Dr. Hickey:** Congestive heart failure, quite prevalent in the population. When our group went in and looked at about 2,000 patients through fill-out claims, reporting, etc., on behalf of congestive heart failure, we began to do an audit of the charts and find out that a lot of these patients are being managed by a lot of primary care docs, with incredible variation in training and backgrounds and experiences, were probably being managed in a suboptimal way, which then puts them at risk for breaking down in hospitalization and [unclear] cost somewhere around $1,000, bringing a lot of specialty, you end up costing, that's another $2,500, and so on and so forth. You can incur significant expense because those folks will eventually likely break down because they're not getting optimal management.

So the idea then was, if that's the case, why don't we bring in all of those people, echo them, find out, one, do they really have congestive heart failure or are they on drugs that might cause some complications. Two, are they on the right drugs and are they being optimally managed? In bringing them in, they found that probably 50 percent of those that they did the ultrasound on--I don't know if you're familiar with the terms diastolic dysfunction, systolic dysfunction. For diastolic, you want to a preload reducer, and for systolic you want an after-load reducer. Well, the drugs were mixed up on most of them, so

that they really weren't getting the full benefit. That also leads to other kinds of secondary problems in the patient.

So by, so to speak, spending your resources up front, getting those people back on the right track and the right medication, the likelihood of them breaking down later on and coming into an institution, incurring lots of result, adding bed-day costs, nursing costs, what have you, is significantly minimalized. We're just starting into this, but there's a group out at Stanford who did this in depth, and they hire a community health nurse for every thirty congestive heart failure patients. You say, gee, that's a hell of an expense up front, but they have been able to prove over and over again that if you make that up-front expenditure, you save double that cost.

**Mullan:** So you're saying even with short-term contracts, should they develop that way, with certain kinds of diseases you can save money and prevent morbidity by front-ending it.

**Dr. Hickey:** Right.

**Mullan:** Let me pick up on the question of in a highly penetrated market, you're liable to have longer term patients. Of course, the arguments made many places is that with all of the royaling [phonetic] going on in the marketplace, with contracts switching annually, a plan has got incentives to kind of maximize their profits in a given year, but since they don't know if they're going to have that patient next year or, goodness knows, next

decade, there's no point in investing a lot in prevention and up-front services, because the chances are they won't have that patient.

In the general royaling and in a highly penetrated situation like this, is not the migration or the switching and swapping of plans rampant?

**Lucas:** It depends on the part of the country. You know, one of the issues for us is that we want to stay multi-payer, but if they don't come in through our health plan, they're likely to come in under somebody else's health plan. So in staff models, where you have exclusivity, you've got the patient for whenever that company was signed up for that exclusivity, but in the new marketplace where you're every payer's network, you're capitated for that same patient, whether you're on Health Plan A or B. So it behooves you to work on improving their health.

**Mullan:** But there's greater likelihood you will maintain a relationship with a patient even if the plans switch. You're more likely to be the provider than in an exclusive setting which is more the past mode than the current mode.

**Lucas:** Right. The other phenomenon is that people with morbidities don't switch plans, and more typically enrollment churning occurs in members that never use the care, typically people under thirty without health conditions.

**Mullan:** That's if they have the option, if the market is arranged in a way that there is a fair amount of choice.

**Lucas:** Right.

**Mullan:** I mean, in the Los Alamos situation I'm a little bit familiar with, there's an "all or nothing" phenomenon, right? Lovelace had the market one year and the next year didn't, and that meant a high turnover.

**Lucas:** Right, but the exclusivity model was mistakenly followed, where we followed the logic of the insurance business instead of the provider business, but those doctors up there now have those patients back under Prudential instead of Cigna. They still have all the same patients, so it's more complex, but I can tell you, in the underwriting world continuity of care concepts tend to be ignored.

**Mullan:** Dr. Lucas, side two, continued.

**Lucas:** There are some markets where employers will shift HMOs. There are other employers who keep multiple HMO players. Most of our large accounts keep multiple players, but what we find is that the people that dis-enroll are typically people that don't use, and are looking at, the financial contribution factor, if its high, they leave and the people with morbidities are with us in perpetuity since it is worth the extra payments. So that the

bonding, the people who bond with your system, are the ill people. The people who have less loyalty are the non-ill wh never or rarely come in for care.

**Mullan:** That makes sense.

**Lucas:** And this is not well understood by the insurance industry.

**Mullan:** I want to come back and talk about that and the Signa factor, but let's just nail this down so I understand. The population health model, as you characterized it, has got three elements: the health risk assessment, the care management, and the disease management. Those constitute comprehensive approaches to managing your population, your covered lives, essentially. Is that about right?

**Lucas:** I need to dwell on the care management leg of the stool, the three-legged stool.

**Mullan:** We've talked about risk assessment. That's the up-front.

**Lucas:** Care management is what do you do with the high-risk people and what do you do with the people with chronic morbidities, and how you provide follow-up care to them over time. It means working with patients and their families. It's

supporting patients to move them through the continuum of care, in particular the institutional continuum, always finding the most satisfactory, least resource-intensive site for care. For example PGs in acute hospitals are moved to a nursing home where appropriate . If they're in a skilled nursing facility, you may substitute with health care assuming family and Satisfaction levels are maintained. The goal is to keep patients at the least resource-intensive component institutional model as possible, at the lowest end of the spectrum, which is at home.

Disease management is about redefining what doctors do. Care management is about redefining what nurses do. There is a pharmacist piece in there, too. Many of these episodes are pharmacologically driven, primarily. Congestive heart failure is certainly a pharmacologically driven disease, as is asthma. Something like low back pain isn't. There are variable approaches to care management that are disease-specific.

**Mullan:** Your Episode of Care concept is germane particular to care management?

**Lucas:** Disease management. It's really about tertiary prevention.

**Mullan:** Those were the concepts you came with and, I gather, to some extent have been able to implement?

**Lucas:** I didn't come with those concepts. In 1992, I came more with a concept that integrated systems needed to perform better to survive, and evolved these concepts over the next several years. I think it all came together for me in mid-'93 and I began working with my colleagues, convinced them that this was the way to go. I think we've created a new set of clinical tools. What later happened was the realization that to do clinical reengineering is very costly, with a context of having to manage 20 percent cost reductions in our system, stay in business and keep the patients satisfied with our services.

**Mullan:** This is to remain competitive?

**Lucas:** To remain competitive. It's brutally competitive in Albuquerque. Most of the insured population is in an HMO. In order to remove cost and improve quality, we wanted to use the Episode of Care approach, but it requires a lot of time that otherwise would be devoted to patient contact by doctors to create protocols for clinical reengineering. The professional labor costs are up to half a million dollars per episode.

**Mullan:** Designing and training and scoping out and revving up?

**Lucas:** Yes. We think guidelines without outcomes measurements are useless, we have a rule, which is: do not bother writing a guideline unless you're going to measure what it does for patients to create value. We have now found a partner,

Greenstone Health Solutions, owned by Pharmacia-Upjohn, and they have agreed to fund all thirty of our episodes in exchange for licensing them to be used as templates for disease management in other markets.

**Mullan:** So if they work, they will be able to market them?

**Lucas:** Yes, to other organizations.

**Mullan:** And for that they're underwriting the R&D and applied research?

**Lucas:** We're the alpha site. The pharmaceutical companies want to move beyond manufacturing. They want to have their specialized disease state knowledge base exploited, and they want to forward integrate into managed care niches. Some have created disease-management companies but as yet have not been able to introduce these services into the mainstream delivery system. So what I think Greenstone has accomplished is they've bought the first lab--the first customer, if you like--and they can define what it is they could provide of value to other less integrated, less evolved customers.

**Mullan:** How far along are you in that?

**Lucas:** We just signed two weeks ago.

**Mullan:** But you've been working on it?

**Lucas:** We've been working for three years and we can show you the impact this has had on our outcomes for the episodes we've been working on. We have demonstrated that we can improve quality and reduce cost.

**Mullan:** So with all thirty, you're in some state of development?

**Lucas:** Not all thirty. We're probably at about fifteen, altogether.

**Mullan:** And you've got books on six or eight?

**Lucas:** Yes. We've got eight that are pretty advanced, where we can give two years of data. We've got the others that are less than a year old that are more developed [unclear], and then we have some we haven't started yet.

**Mullan:** Let's talk a little bit about the marketplace side of things and how that's developed. You mentioned early on, before we went on tape, that Lovelace has had to diversify its insurance products, I believe is the proper term. Describe that a bit more and how that has been received.

**Lucas:** Well, we have been able to leverage our relationship with Cigna in order to offer different kinds of insurance products in addition to the HMO.

**Mullan:** You'd better go back a step and tell me a little bit about the relationship with Cigna. I gather this goes back to previous generations of relationships with insurance companies.

**Lucas:** Early on, HCA was brought in as a capital partner to Lovelace.

**Mullan:** Which had previously been standalone.

**Lucas:** As a standalone, CHS never was very economically viable as a business. We were organized as a nonprofit foundation, Lovelace Medical Foundation.

**Mullan:** When did HCA come on board?

**Lucas:** HCA came on board in 1985 and they built a new hospital for the group as part of a joint venture agreement.

**Mullan:** That's here?

**Lucas:** Yes. HCA formed a partnership with Equitable Life Insurance Company in 1986 and started a managed care organization called Equicorp. Lovelace, twenty-two years ago had started the

first health plan in New Mexico. By the mid-80s, Lovelace needed capital to expand a delivery system to grow the HMO. so Equicorp was given 80 percent ownership of Lovelace Health System as part of the joint venture.

**Mullan:** Which was at that point a closed panel group model, or staff model, HMO.

**Lucas:** Yes, and the development of primary care centers throughout the community fueled enrollment growth.

**Mullan:** That was during the eighties that the centers were developed?

**Lucas:** From '82 to '92, the HMO went from 20,000 members to 140,000. Rapid growth. Growth stopped in '92. In '89, Equicorp was purchased by Cigna, and thus Cigna acquired 80 percent ownership of LHS. Eventually the LMF sold the last 20 percent and CHS became a wholly owned subsidiary of Cigna in late 1991.

**Mullan:** The Lovelace Medical Foundation was independent with its own board of directors?

**Lucas:** Exactly.

**Mullan:** It agreed to sell the balance of its holdings in the delivery system to Cigna.

**Lucas:** Yes. The foundation received $18 million for the remaining 20 percent creating an endowment for what is now known as the Lovelace Institutes. LHS no longer has any legal or economic relationship with TLI. However, three LHS physician leaders including myself remain on the TLI Board of Directors.

**Mullan:** They do health services research?

**Lucas:** Yes. One of four institutes is dedicated to health and population research. Additionally, as part of eh sales transaction, Lovelace Clinic Foundation was created by the doctors. It's Lovelace Clinic Foundation that actually conducted this transaction with Greenstone recently. It does only health services research and collaborates closely with TLI Institute for population and health on a number of projects.

**Mullan:** So it's different from The Lovelace Institutes?

**Lucas:** Lovelace Institutes was renamed, does primarily basic medical research and it operates the Institute for Toxicological Research, which is leased from the Department of Energy, and it does research concerning potentially damaging toxicological agents in the environment.

**Mullan:** So from '91 on, Cigna has been the essential owners of Lovelace.

**Lucas:** That is 100 percent owned by CIGNA. We have a local nine member board three elected doctors on it, three Lovelace Health Systems managers, and three Cigna representatives.

**Mullan:** And it was the collective wisdom of Cigna, as well as the on-site management, of developing a more flexible relationship to the marketplace than the staff model was essential to the state [unclear]. And how was that preceded?

**Lucas:** Well, the reason we stopped growing in '92 related to the introduction of triple option point of service products to the market. As a result, we were stripped of our State of New Mexico business. We lost 10 percent of our managed care enrollment overnight because we were unwilling to offer anything but a lock-in HMO.

**Mullan:** So a number of state workers opted elsewhere?

**Lucas:** Well, the state decided to go exclusively with Blue Cross triple option point of service in '92. The entire 48,000 member base went to the Blues including 16,000 LHP enrollees. This is an organization that had never known failure, so it absolutely was stunned that this could have happened, unexpected, unthinkable. Absolute competitive sclerosis! It sent a

shockwave through the organization, and that's what started our journey on becoming more businesslike.

Subsequent to that, Prudential came in and partnered with our competitor, Presbyterian, which operates a health plan, and they developed a triple option point of service, and every jumbo account in the state was taken by them. We kept losing more business, New Mexico Public School Teachers Insurance Authority, Los Alamos National Labs, recently Sandia, all went over to Pro's triple option point of service, so we decided we'd better get in the game. We put in a bid for State Worker's this year offering triple option point of service, and I think we'll win. Our HMO was never set up to do anything other than commercial HMO. We didn't have the business infrastructure to launch and support these more complicated indemnity high-choice broad network products. We've had to put into the field a network across the whole state.

**Mullan:** Which means both recruiting positions would be now Lovelace-associated, as opposed to Lovelace-owned.

**Lucas:** Right.

**Mullan:** And you'd have to have the insurance infrastructure to back that up in terms of who bills who.

**Lucas:** That part of our business looks like Blue Cross, so I tell people that we have multiple businesses here, that we have

the insurance business, which is Lovelace Health Plan, and then we have the owned integrated delivery system, which is the staff model group practice, and we have the network, which is the new business. What we want to do is use the integrated system as the lab to perfect the population health model, then do a technology transfer of these tools and skills to network physicians.

**Mullan:** Except your purchase on the network physicians is a lot less, presumably.

**Lucas:** Yes.

**Mullan:** That would be a challenge, I would think, to modify behavior for those who don't work for it?

**Lucas:** It is, and the plan initially resorts to the more inspection-oriented "look over the shoulder" "Mother, may I" approach to things, and then you graduate out of that physician mode. They soon realize there's a better way if they want to do a little learning here with us.

**Mullan:** How many physicians have you now enrolled in the network?

**Lucas:** I'd say we've got 600 in addition to our owned delivery system.

**Mullan:** Around the state, Albuquerque?

**Lucas:** Yes. We added another hospital in the community; St. Joseph's, just a few months back. Formerly, it was a major unthinkable to add another hospital or network physicians in Albuquerque.

**Mullan:** So St. Joseph's staff, then, or St. Joseph's Hospital? If you're a Lovelace Health Plan member, you can be hospitalized at St. Joseph's?

**Lucas:** Yes. We just started that in December, so it's another major cultural adjustment. There is fear that members may migrate to the other system.

**Mullan:** Let's move off the business side of things for a moment, although I do want to come back to it, and talk about primary care and its role in the evolving system. How is that developed? Is it moving ahead? Is it being buffeted? What means primary care in the system as you see it developing?

**Lucas:** We didn't want gate-keeping because our system was integrated. We use a more gate-keeping model in the regions. We have primary care clinics in Santa Fe and Las Cruces and Farmington.

**Mullan:** Tell me what you mean by because the system's integrated, you didn't want to or need to use gate-keeping.

**Lucas:** Well, there was no sense in having our primary care doctors, our own primary care doctors, policing our specialists. What we really need is to improve communication and define the core content of practice and have less variation concerning the handoff for medical conditions. For example, we try to define what the care should be for a diabetic or an asthmatic or a cancer patient in primary care, and define, from an improved outcomes perspective, when care should be assumed by a specialist.

There are some diseases that require an early handoff. For example, in any kind of cardiological condition, PCPs want to refer them out fast. Similarly, breast lumps are rapidly referred. For something perhaps like low back pain or hypertension, PCPs want to keep almost the entire episode in their purview. Sometimes you've got a 90 percent primary care, 10 percent specialty episode, and in other situations you've got the 90 percent specialist, 10 percent primary care kind of episode.

**Mullan:** But if you start with the staff positions and you start with a Lovelace Health Plan member, do they have an assigned primary care physician?

**Lucas:** Yes.

**Mullan:** And that is their principal point of contact?

**Lucas:** Yes, in theory only. Realistically, it's hard to maintain as a business practice. Our patients like to be able to get care at any of our primary care facilities, and so if somebody's at work, they might go to the place next to their workplace. On the weekend they go to the place next to their home. They do not like being locked into one center or one PCP.

**Mullan:** So the physician loyalty factor is not major, particularly for folks who are not ill.

**Lucas:** Yes. In our panel analysis, we found that 50 percent of the PCP visits are non-panel, and we found that probably close to 50 percent of the resource allocation decisions, decisions to refer, for example, are made by somebody other than the panel doctor. It's functionally hard to adhere to gatekeeping in an integrated model, so the factor that makes it integrated is really the information, rather than the patient/doctor relationship.

**Mullan:** Is that now on line? If someone goes to two different facilities, they can pull off the record?

**Lucas:** Yes, increasingly. If the doctors dictate, we have it. Our goal is to get everybody dictating and to have a medical profile on every patient that's available. We had to add another

VAX because the processing was so slow due to increasing demands. So we're debugging it technologically. Our goal is to get a fully automated medical record by the end of the century. Electronic medical records, are also at an evolutionary stage, and what we want is to make sure that embedded in the electronic medical record are decision, support, and outcome measurement systems, so that it's more than capable of just electronic reporting of transactions. We want to have all the episodes loaded in the EMR, so that the MD can have measurements of how he/she is doing against episode standards. It's a five-year program and a comprehensive project. We're looking for a partner to work with us to develop the IS/IT support and will soon complete a detailed strategic plan for IS services.

**Mullan:** Information Science?

**Lucas:** Information Systems, Information Technology.

**Mullan:** So the primary care physician in your system is a significant player, but at least for the health plan folks, is not a rigid gate-keeper, even though there is an identified primary care provider. With the growing network relationships, what is the requirement for primary care contact?

**Lucas:** It's more traditional. It's more like an HMO, IPA.

**Mullan:** Which is you do have an identified primary care doctor to whom you must go?

**Lucas:** More of a lock-in, might be to a group, maybe three or four PCPs working together.

**Mullan:** And that's largely to manage the system, which is inherently less managed.

**Lucas:** Right.

**Mullan:** In terms of who you use for your primary care providers, what types of physicians, family practice, internists, etc., and what is the role of the non-physician provider, NPPA, in your system?

**Lucas:** Well, we have about fifty associates in primary care. We've got another sixty in the specialty area.

**Mullan:** What means an associate? That's the non-physician provider?

**Lucas:** Advanced practice nurses and Physicians Assistants. They work alongside the doctors. Eighty percent of the task load for primary care doctors can be done by the associates.

**Mullan:** Eighty percent in terms of volume?

**Lucas:** Tasks. Particularly patient education and care coordination.

**Mullan:** Do staffing strategies exist? That is, one non-physician provider for one physician provider, or two to one, or one to two? How do you calibrate that?

**Lucas:** It's hard. There are numbers out there, but we don't conform to the numbers. I always say we run about a 75 percent system in primary care that, for whatever reason, we can never get to what the ideal state numbers are, which are based on national statistics. So we find the throughput and productivity in primary care is less than what is regarded as optimal. And the same with the associates.

**Mullan:** Still, I'm grappling with in a rationalized, well-managed, thought-out system, is it local option in terms of your internist group, how many associates they have and how they're used, or is there some corporate or overall strategy for how the people are deployed?

**Lucas:** We have created in the past years some benchmarks for throughput, and we're linking our compensation to that.

**Mullan:** Throughput of patients?

**Lucas:** Yes, how many are seen by doctor, how many are seen by doctor-associate teams. So we're evolving that, but I think we're still somewhat tentative about what it all means in terms of adding to the value chain.

**Mullan:** So there's not a template or a fixed model.

**Lucas:** No. We're anxious to link the RVUs to the outcomes. It's tough. A lot of people just look at productivity without looking at health status of the population served. You wonder sometimes if much of visit counts translate to any real value. There is a need to redefine what is meant by productivity in physician work.

**Mullan:** In terms of the compensation of associates, one argument that's been advanced, or one speculation that's been advanced nationally, as the nurse practitioner salary increases, her worth diminishes in a sense, in that they look more like if their productivity is less, the per-unit cost resembles the physician.

**Lucas:** Yes.

**Mullan:** Are you finding that? What is your sense of the long-term trajectory of the associate in primary care?

**Lucas:** By conventional measurement methodology, which I view as inadequate and primitive. It appears that no one has been able

to demonstrate that in purely economic evaluations that the mid levels leverage the system in any way.

**Mullan:** Current salaries.

**Lucas:** The unit of labor cost, whether it's a doctor or nurse, is about the same, because the productivity is so much lower in the mid levels, that by the time you look at the cost of a work unit, it's the same. But again, what would be a more sophisticated view would be patient satisfaction and outcomes, adherence to medication. It's a whole new measurement system that has to be developed to really look at it, and I think that would be fodder for health services research, and no one has chosen to invest much time or energy and money in evaluating that. My own bias is that most primary care physicians do not know how to leverage themselves by working with an associate, and my intuitive assessment would be that if you taught a doctor how to work with a mid level, they can care for a bigger population more effectively and generate better outcomes.

**Mullan:** But it's got to be taught or trained in school.

**Lucas:** Taught and managed and measured appropriately, but I haven't seen anybody do it.

**Mullan:** What about the primary care specialty interface and relative weights in your system as a whole? You mentioned

earlier that you had, in downsizing last year, laid off, I believe, seventy-five specialists.

**Lucas:** Not seventy-five. It was probably closer to thirty-five.

**Mullan:** Thirty-five FTEs, essentially.

**Lucas:** My guess is the real number is closer to twenty or twenty-five.

**Mullan:** What underlies that in terms of the specialty market and the generalist market? Are you still employing generalists? What's the relative weight?

**Lucas:** There's a whole other dimension of thinking that I need to introduce here, and it's a bias I have, and it gets me into trouble all the time, but I'll share it with you. I think that if you have that population model up and running, you can load a lot of people directly into the specialty care system, and that you could probably run a highly efficient 80/20 system, and right now everybody is gravitating towards this axiom that in the multispecialty mode it should be 50/50, and that you need large primary care bases.

I think you could create market power by having systems that allow direct access to specialists, and that the problem has been in the incentives for the specialists, and my guess is we'll

never--I think we've gotten caught up into these notions of models of delivery systems which are troublesome because the manpower requirements are different from the manpower we've got. I think the manpower we've got in the country is SPC 80/PCP 20, and we've got to figure out how you run an SCP 80/PCP 20 health care system efficiently with good outcomes. Again, that argument about what's the ratio of primary care to specialists is, to me, utterly meaningless unless you can look at outcomes. I'm talking about economic outcomes as well as clinical outcomes and patient satisfaction. Episodes of Care is the methodology systems should be using as tools. Why shouldn't we be able to direct load somebody into the specialty care system if we can reduce cost or improve quality?

**Mullan:** A reason would be that they have co-morbidities. They have more than one episode going simultaneously, and someone needs to manage between those.

**Lucas:** That's true, but many of them don't. In the lifelong pattern, you probably need something broader than a categorical silo to load them into, but my guess is that you could satisfy a lot of the needs by direct loading to SCPs.

**Mullan:** How about going back and evoking your roots as a family physician? How about the cross-walking benefits of a physician who knows the spouse as well as the patient, who knows the parents as well as the child, which you wouldn't get in the silo

model? Is that simply romantic poppycock or has that got some value?

**Lucas:** I think it does for small population segments.

**Mullan:** What's a small population segment? World community, you mean?

**Lucas:** I think the family model is a segment, but there is a true segment that you could pursue that has that, but that's not 80 percent of the population. It's probably less than 20 percent.

**Mullan:** Meaning that a lot of the population are individuals living essentially a solo life, for whom the family is less a factor.

**Lucas:** Exactly. And families go through cycles. Probably if you looked at the average family, it goes through six or eight cycles in a family lifetime. You need a health care system that moves people through the eight cycles and doesn't cling to narrowly defined romantic notions of what reality is.

**Mullan:** How about multiple sequential episodes of disease in an individual? In other words, an individual, more morbidities often than the one you're dealing with in your silo at the moment, the dysfunctional heart, they also have had depression.

**Lucas:** That's what care management is for, so that a care coordinator for that kind of person becomes a nurse, not a doctor necessarily. Maybe there might be a doctor supervising.

**Mullan:** I do want to come back to a couple of business questions, but let's jump to the future. What do you then see as the future of the system, particularly in regard to the role of primary care? We're talking twenty years down the road.

**Lucas:** To me, there are a couple of core competencies in health systems. One is you need to balance the high touch, high tech, and I don't think anybody knows how to do that. Second, you need to make your money improving health status. Third, the core competency is information management. Fourth, the value producers are the ones that are going to end up with the business and there will be a shakeout in terms of the non-value-enhancing units who probably will go out of business. We'll see some physicians not have work and we'll see hospitals close. For example, commercial days will reach 100 per thousand per year as compared to in HMOs today.

**Mullan:** What are you at now?

**Lucas:** Hundred and thirty days/1000/yr.

**Mullan:** Commercial distinguished from Medicare, Medicaid?

**Lucas:** Medicare, we're looking at 700; we're at 900 now. When you look at the old fee-for-service sector, you had 3,000 to 4,000 Medicare and 400 to 600 commercial. By comparison, MCOs generate about 25 percent of the hospital utilization. If you pick a town like Albuquerque that has now 2,000 beds, when you start applying those numbers, you're looking at better than half the beds going away.

**Mullan:** So the system of the future will be less inpatient, will be more efficient in that sense. When you say there will be many doctors who will go without business or much reduced business, on the specialty side in particular, or both sides?

**Lucas:** What will happen is the market has overvalued primary care and undervalued specialty care.

**Mullan:** Overvalued primary, undervalued specialty.

**Lucas:** Right.

**Mullan:** In general or recently?

**Lucas:** In the past five to ten years. Now, the problem is one of efficiency and incentives. When you put the incentives to improve health status back into place and you reward people economically for doing that, then you involve the specialists in that, then the value will begin to shift back.

**Mullan:** Tell me again, because I'm borderline incredulous. You're saying that the specialist who already makes double to triple, on average, what the generalist makes, has been undervalued, and the generalist primary care doc has been overvalued?

**Lucas:** Talking about today's marketplace. I believe the doctors should earn the same, specialist versus primary, should earn about the same income.

**Mullan:** But today the generalist, for the sake of argument, makes $100,000 and the specialist makes $250,000.

**Lucas:** What we have is an oversupply of doctors in this country. Most conventional thinkers think there's a tremendous shortage of primary care doctors, and that's an example of the marketplace overvaluing them. I think there are enough primary care doctors. If you rationalize the system, there may even be a surplus.

**Mullan:** What about on the specialty side?

**Lucas:** There are probably at least double what there needs to be, because once you align specialist incentives, you need a lot fewer of them, but they've got to be doing it right. They've got to be managing outcomes and health status. So the tendency in the future marketplace, there would be no reward for doing more procedures, ordering more tests than are necessary, and because

it will be competitive, the unit cost per specialist labor is going to go way down. But once you've got specialists arbitraging health care budgets, they'll do a very good job and be very successful at it. That's what I mean, the marketplace hasn't valued how effective these specialists can do that. That's what I mean.

**Mullan:** Let's move back to something you said early on, which was your discomfort with a commercial enterprise moving in on your initial HMO in Lincoln, and yet now you're the CEO of a managed care operation which is commercially governed and driven. How have you evolved in your thinking, and what is the impact of Signa on what Lovelace does for the New Mexico community?

**Lucas:** You know, it's a question that I would probably respond without the recorder, if you can find that acceptable.

**Mullan:** Sure. [Tape recorder turned off.]

We're going back on tape. The big broad societal question about care, universal coverage, which means particularly care of the uncompensated or the uninsured, etc., which has been the Achilles heel of our system forever and certainly focused on in recent years, we seem to be going the other direction. The managed care world, particularly as it's commercialized, for a variety of reasons seemed less able as it prevents cost shifting and stripping some of the mechanisms above the table or below the table that existed to provide coverage. What is the long-term

prospect for that? Is that going to create an environment where we have people dying on the streets, that will create some kind of political backlash, or are we going to be able to sweep a third or a quarter or a fifth, or whatever is the population, under the rug? What will happen?

**Lucas:** What will happen is what we make happen as a population of citizens and voters and so on. What we have now is a cost-intensive health system that leaves 20 percent of people without insurance. Now, in that segment of 20 percent that are left out, most of them don't need care, so outcomes are less affected. But we need to, as citizens, work towards economically efficient models that offer access to everybody that needs it. We need to adopt models that focus heavily on prevention. The system cannot cure all social ills. What do I do for managing risk on a kid that dropped out of high school in the ninth grade, that sells dope for a living? And there are a lot of people like that. I think that's beyond anything the health system can do anything about. It goes back to having a society that values children and education, that tries to make sure that every citizen is skilled enough to have a job or some kind of work niche?

**Mullan:** But take Lovelace, which started as a community-based innovative system in which the commercial aspect was muted, may not have been terribly efficient, but as it and its brethren around the country move into a more commercialized setting, one argument I have heard made is that they will drive costs down so

that if the government or if God Almighty wanted to pay for the poor, it would be easier to pay for the poor because you'd now have systems that were less expensive. I think that's a reasonable argument. That still doesn't speak to the mind-set in the country or how you get from here to there in terms of covering the rest of the country. I worry about it, and I just wonder if captains of the ship, as you are, how you see the next decade. Is there any way that universality will be brought into this system, even as it becomes more driven by business forces for good and, in this case, perhaps for ill, as it extrudes people. Any vision about how that might come about?

**Lucas:** Well, I think the more you turn into covering everybody into a successful business and/or a successful political platform, the more likely it's going to happen. So there have to be compelling economic arguments, "This is better for the economic well being of this country, and this gets me votes." If you can satisfy those two things, you've got it won. I think it will take 100 years.

**Dr. Hickey:** But I think the key piece, John, I think what we're doing here by first-generation reducing costs, then, secondly, doing the disease management and so on, will take enough cost out of the system so like in New Mexico, the smaller employer can begin to afford insurance and pick a lot of those people back up. As John says, if you get votes to ensure Medicaid, you'll pick it up. You'll still have some left in the middle.

**Lucas:** The other phenomenon is this is a country of 100 different health care marketplaces, and some will do it better than others, so that's the other dynamic. There is no one U.S. health marketplace; there's 100 of them, and we've probably got two or three right now that satisfy the vision of universal access, Hawaii being one, Minnesota being another. It's getting closer.

**Mullan:** That's a good place to stop. Thank you.