Health System Transformation Lecture
The Healthiest Nation
Dr. Julie Gerberding

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Good afternoon and thank you so much for hosting this event. This is really exciting and a—and a big honor and privilege to have the chance to be part of it, but it's also really important. And because it's so important, I have to tell you that I'm in a state of mind that I don't get into as much now as I used to, and that is I'm actually quite nervous because I'm not used to talking about something that's this big and this important to people who are as erudite and as thoughtful and knowledgeable as you are.

But I do have an important challenge today. I'm here—I'm going to just kind of flip this over here—I'll just use this—I need some audiovisual help here.

This is a part of the force field that surrounds me, so, like, if you want something Xeroxed, don't send me to the Xerox machine. If you want the cell phone to work, don't put me anywhere near it.

Just aim it right at the screen. Aim it at the screen. OK. What we're going to try to cover in this first introductory period is not the solution to health system transformation, but to some extent, the rationale, and I hope the inspiration, for the subsequent lectures that you will be hearing throughout this ongoing series.

I wanted to start with something that was in the *New England Journal* just this week. This represents a polling survey done by Harvard University on how Americans are viewing healthcare as early as last fall. I've separated the data the way the article did by people likely to vote Democratic and people likely to vote Republican, but the point is, regardless of what your orientation is, we're not exactly satisfying the majority of our customers.

More than half of Americans think our current system is fair or poor, more than half—more than three-quarters think that it requires fundamental change, few are satisfied with the cost, few are satisfied with the quality, and they're worried. People are really worried about their health security and about their ability to have to pay more, to lose their insurance, or a deterioration in the quality of our system. But I think people are also at risk for concerns about their genuine health status. This is just a sample of data from the National Health Report Card that shows representative data over time for three states—Connecticut in the blue, which is the healthiest state in the country; Mississippi in the – can I get some purple - Mississippi in the blue, which is the least healthy state; and then Georgia in the yellow, which is somewhere in between, although Georgia actually ranks forty-fifth in the nation in terms of health status by these metrics.

And this shows you that over time, there's certainly not been much improvement and, if anything, in some of the areas of measurement, there's been a deterioration. So, people do not

see themselves as being healthy and more than 40 percent of people in some environments see themselves as being in a state of poor health.

So, I'm going to ask three questions in my time with you. The first question is, "Why is it, since we spend the most money, that we are not the healthiest nation?" We're forth-seventh by some measures, twenty-sixth by some measures, but we're not in the top ten on any measure. The second question is, "What can we do to keep our children from having shorter life spans than we have?" Because in fact, as our National Center of Health Statistics has shown, that if we don't change our ways and deal with the problems of our chronic disease risk factors in children, our children will have shorter lives. And then finally, my third question is, "What national achievement could we celebrate on March 31 in the year 2016?"

So, let me take on these questions with a little more detail. First of all, "Why aren't we the healthiest nation?" Well, this chart book provides all kinds of documentation about our failure to really emerge as the healthiest nation, but it also documents the trajectory in our spending on health, on the fact that we spend exactly $1.2 trillion on health, at least in 2005; I'm sure we spent more than that last year. The majority of these expenses come from somebody else's pocket in the first order, but ultimately, of course, come from taxpayers' pocket at some place in time. And the growing proportion of out-of-pocket expenses is alarming to Dr. Mom and households around America that are trying to figure out how they will be able to afford chipping in for their share of healthcare expenses.

Our insurance coverage rates are declining. This line doesn't look like it's declining precipitously, but in terms of millions of people, we're gaining about a million people every year who are uninsured, and that's not counting the people who are under-insured. And because of these problems, of course, many people are not getting needed health services. Just draw your attention to the top three bars—the proportion of people at various age strata who are not receiving at least one or more of required indicated evidence-based medical procedures or diagnostic services. And what was shocking to me was the disproportionate representation of younger people, in part because Medicare does provide most of the coverage needed for the older senior citizens.

We also have a huge proportion of our population members who have undiagnosed and easily treated risk factors for the number-one killer in America, cardiovascular disease. Of course, if you're uninsured, there's a greater chance, but even among insured people, there's still plenty of undiagnosed risk that goes without detection and treatment.

And we have other problems. This map shows the distribution of physicians by county in the United States. And the dark brown boxes here, red boxes on your screen, are counties that have no doctors whatsoever. Now, this is overall just any kind of physician, but check out this box in terms of obstetricians and gynecologists. The red boxes here are counties that have no OB/GYN provider in the county. So, it's not surprising to me that we're struggling with our infant mortality statistics.

So, if you ask the question, "Why aren't we the healthiest?" despite this expense, it's in part because our care is expensive. We're very technology driven, and in many cases, the investments

we're making allow us to perform medical miracles, but those miracles come at a price. We also lack access and we have geographic barriers, and I didn't dwell on it here, but the quality of care is certainly not uniform and in many hospitals, errors and over and under utilization of services abound.

But this isn't really the whole story because if you solve these problems, we would still not be the healthiest nation because these problems do not address the root causes of health. They do not address the root causes of absence of health. Let's talk about the obvious one - tobacco use. Yes - these lines are all going in the wonderful positive direction, at least until very recently, but the fact is that about 12 percent of mothers smoke during pregnancy, about 30 percent of men smoke, and the number of high school students which was on the decline is beginning to pick up again as the tobacco monies are being deflected for other purposes. So, we're not dealing with cigarette smoking in the most effective way possible in our current healthcare delivery system.

Let's talk about alcohol. Especially among young people, alcohol-related emergency visits are obviously correlated with injuries, with suicides, with homicides, and with many other medical conditions. An important disease problem, but one that is not well addressed by our current delivery system.

And the big issue—no pun intended—overweight and obesity—notice the red line here trending upward. It's almost approaching 70 percent of the adult population of this country being overweight or obese. It's not a sustainable pathway toward health, and I think we all recognize just recently the data coming out showing that children who are obese will develop cardiovascular risk profiles that look like the cardiovascular risk profile of 70-year-olds. They can now expect to have increased appearance and incidence of heart attacks before age 50.

Well, what are we doing in our society? Well, we're certainly eating out a lot. The brown bars here show in various age groups the number of people who eat out at restaurants at least four times a week. So, our fast-food society is allowing us to have access to wonderful food choices, but they're in environments where we don't necessarily have the ability to control portion size or the caloric and nutritional content of what we're eating.

And this all adds up to be an awful lot of chronic disease and a chronic disease profile that's growing. These are bars that show by age group the people who have at least three chronic conditions stratified by income, and what you can see in the dark green lines is the poorer you are in general, the more likely it is that you are to have three or more chronic diseases, a tragic situation for the people who are least able to access themselves of the preventive treatments and the medical services necessary to manage these illnesses.

And I could go on to talk about activity limitations and many other indicators of the incredible relationship between our life styles, our environment, and our health status that really go on, largely independent of our traditional healthcare delivery system. So, if you ask the question, "Why aren't we the healthiest?" yes, we have problems with healthcare delivery per se, and we can improve those and we should and we must provide access to care and we need to just take that question off the table. But fundamentally, we are not investing in health in this country. We're investing in disease care. We're investing in services for people who already have

conditions and we're not investing in protecting our health, in promoting good health, in preventing diseases and injuries and disabilities, and preparing for new health threats. And this fundamentally is the largest opportunity to affect our population's health the fastest, but it's the area where we have the least investment. In fact, only three percent of our health dollars are invested in this last category.

So, what can we do to help our children achieve our life expectancy or an even better life expectancy in the future? I think we need to start with an appreciation of how we live in society and our relationship to our health status. It's a very simple cartoon, but it basically puts people into one of four boxes. Either you're safe and healthy, or you're vulnerable because of your behavior or your socioeconomic circumstances or your lifestyle or where you live, or you're someone who actually has developed manifestations of disease but relatively uncomplicated or maybe not diagnosed and treated, and then finally, the box that consumes the vast majority of our healthcare services, the people who have very complicated chronic medical conditions.

And unfortunately in our society, we're not very good at moving people to the left in this direction—again, no political statement intended—but I do think that we need to appreciate that our delivery system is very much weighted toward disease care, has very little emphasis on helping healthy people stay that way and very little capacity to return those who are at risk or afflicted in the direction of better health. So, this is a system that is a disease-care system by and large, and as I said, 97 percent of our investments support this model.

In the traditional healthcare model, we can perform absolute miracles, and I don't think we should forget it. As unhappy as people are with their healthcare, they still want to get their healthcare here. So, they're not so unhappy that they want to risk going someplace else. But we certainly emphasize high-tech and end-of-life care. Many people just can't afford this or can't access it. We don't really know how well our systems are performing in any kind of transparent way that has meaning to consumers or people who are paying the bills.

And our costs are very high and, likewise, not transparent. Who knows what it costs to get a colonoscopy? You could find out what's charged, you can find out what's reimbursed, but nobody really knows what it actually costs to receive a medical procedure, an episode of care. We don't reward good results in the system because we don't know who's having them and where they are. And we certainly don't provide consumers the kind of information that you would have if you were buying a new automobile or a new flat-screen television about the relationship between what you're spending and the quality of the product that you are procuring.

Now, let's talk about the other side of the equation—the public health sector. Have people in the same distribution, and we have a system that is, in fact, weighted more in the direction of protecting health and helping those who are vulnerable return to a state of better health, but notice how little it is. It is a very under-invested component of our—of our society. In fact, most people don't know what public health is. And although it does put an emphasis on restoration of better health, it is not very successful in actually moving people very far back upstream.

And like the healthcare sector, the public health sector has a lot of challenges. It can perform miracles, and I see that every time I visit a local health department around our country. But we

don't know what the results are, we don't know what we're actually spending on public health, we don't really understand the relationship between the investment and the result and the health status of the community. In fact, we don't measure health. Show me one health department that has measures of health as the driver of decisions, and I will hire that person in a second because we measure disease and burden and we don't really measure the health status of the people in our communities. So, we can't reward the communities or the organizations that create the best health, and people in those communities simply do not have the information to know whether their system is working, what they need to motivate better health for their communities and their families and what their tax dollars are really purchasing and whether that's a good deal or not.

So, we have a hypothesis or a proposal, if you will, that maybe what we ought to do is take the traditional systems that we're working with, bring them together in meaningful ways so that we're linking the healthcare delivery system and the governmental public health system and the other partners in this enterprise in a more meaningful manner, but also strengthening some of the key relationships in here, including the private sector, which has a very strong economic sector, as Dr. Wagner already alluded to, in terms of the importance of the productivity, the economic viability, and the ability to internationally compete for resources.

And if we were able to then extend this to a whole lot of other parts of the system that have a bearing on health decisions and health policies, not just domestically but internationally, including community organizations, the World Health Organization, the educational sector, and so forth, we could begin to really talk about a health system. Now, in this health system, we would have to emphasize protecting health as much as we emphasize disease care. We would need to assure that it was affordable and accessible at least for the most important services for everyone. We would have to measure results. Now, that's easier said than done, but we would have to be willing to say, "This is the Health Index for the City of Atlanta," or, "This is the Health Index for the United States." And we would have to make decisions to try to affect that in ways that were transparent and meaningful, and we'd have to know what we would expect to get for any given level of improved investment in any of these areas.

We'd have to also make sure that if you did a good job, you'd get rewarded. What happens now? Well, in public health, what happens is, let's say you drive tuberculosis rates to a minimum. What will happen? Your money will go away. I don't really see that as a reward. I see that as a very perverse outcome. So, we need to assure that the systems that are performing have the support and the rewards built into them.

And most importantly of all in my view—consumers, the people that we ultimately are accountable for—Dr. Mom and her children and her spouse and her parents—that the people in the system actually have the information they need however they want it, wherever they want it, whenever they want it, in a language that they can understand. Amazingly, not that many citizens understand incidence density. You know, we've got to learn to present health information to people using language and words that they can understand.

Now, if we really want to get our money's worth out of this, we've got to do this in a systematic way, and here I'm speaking to the people who are engineering organizations not just to the consumers of the healthcare system. We need to create value in the system so that we really can

get our money's worth out of what we're spending. I don't think we would mind spending 16 percent of our GDP if we really got the health that we want and the confidence and security in our system that we know it should be able to provide to us. But we do have to make sure that we measure. We do have to make sure that we have a complete understanding of costs and the relative value of investments. We do need to make sure that we reward and motivate the best results, and of course, we need to make sure that people have the tools they need.

This last item is really exciting to me because I don't know how you struggle with this at Emory, but if you're like most healthcare environments, you're struggling with health IT and really trying to make systems work in an interoperable manner for the patient's sake across the whole system. But if I had to put my money someplace, I would not do that. I think that's important. But I would put my money on the personal health record because I want my health data on my chip wherever I am in the system so that I broker my health information. I can look at it in the same way I can look at my tax and financial information on Quicken and I can learn to make decisions. I think this is going to drive a lot innovation and a lot of new tools and a lot of new capabilities for people, but we're a long way from there yet.

Ultimately if we do this right, we'll have a balanced health system. We'll have a system that values health protection through promotion and prevention and preparedness, as much as it values the best possible care of people who have conditions that require medical treatment. It is not to diminish the importance of our healthcare delivery system, but it is to balance that with the cost-effective interventions that will help people stay healthy.

We believe that we have a very unique opportunity right now because of the context of the political season and the context of people really beginning to talk about their health system that they have versus the health system that they want. And I think the driver for this is the fact that businesses are very much on the leading edge of change—requiring change as a strategic imperative, but also increasingly, moms and dads of the country know they cannot afford their health costs. It's now increasingly out-of-pocket, and they have to put it in the family budget along with gasoline and food and anything else that they have to pay for.

Where we are right now is that at a point where we are investing very little in protecting health and the value that we're getting out of our system is certainly not optimized. But if we move just a little bit to improve our investment in protecting our health, we believe we would get a tremendous increase in value in healthness and in confidence that our system could provide.

So, let me turn, then, to my final question. "What national achievement could we celebrate on March 31, 2016?" Well, let's go back to a period long ago on May 25 in 1961 when our President went before Congress and asked our nation to commit itself to sending a man to the moon and returning him safely. He said that no single space project would be more impressive or more important in the long-range exploration of space, and none will be so difficult or expensive to accomplish. But we know it happened. Our nation rose to that challenge. They accepted that it was a strategic national imperative. They had some false starts. This was an example of an early model of the Apollo Mission, but they got their act together. They built the most technologically advanced space system in the world with all kinds of complex component parts that required great system complexity and interoperability. They characterized this into the finest detail, and

then they mapped out their roadmap from where they were to where they wanted to be over that period of time. They got a big appropriation to support it, which certainly enabled it. But then they just rolled up their sleeves and began to do it. They first tested the unmanned rockets that would be necessary. Then they tested the components that would propel people into space. They had some unfortunate false starts. If you remember, the first mission resulted in the death of three astronauts during a pilot testing on the launch pad. Nevertheless, they went forward, and I always say I would have hated to have been the astronauts on Apollo 10 because they went into orbit, they circled the moon, but they didn't get to land. Nevertheless, that was a really important part of the evolution of a—of a system to accomplish the mission. And then, of course, you remember what happened…

> *Twenty seconds and counting. T minus 15 seconds, guidance is internal, 12, 11, 10, 9—ignition sequence start—6, 5, 4, 3, 2, 1, 0. All engine running—liftoff. We have a liftoff—32 minutes past the hour—liftoff on Apollo 11. Tower cleared.*

And, of course, I was just a really small girl at that time. But just a few days later, just to complete the sequence, these magic moments.

> *I'm at the foot of the ladder. The footpads are only depressed in the surface about one or two inches, although the surface appears to be very, very fine-grained as you get close to it. It's almost like a powder. . . it's very fine. OK, I'm going to step off the ladder now. That's one small step for man; one giant leap for mankind.*

So, that mission was initiated on May 25 in 1961 and it was accomplished on July 24, 1969, when Apollo returned to earth—8 years and 59 days it took from the time the announcement was made until the impossible was accomplished for our nation. We've had many other comparable achievements, but I think this one stands out in the mind because it was so transformational, it was so hard to do, no one really believed we could do it, and yet we were successful. So, when we ask what can be accomplished in 8 years and 59 days by March 31, 2016, which is eight years and 59 days from today, we could win the health race. We really could be the healthiest nation if we stepped up to the plate and committed to that goal.

So, my agenda here as part of this forum is to try to inspire people to believe that such a thing is possible and to try to think how we can motivate the courage as leaders, as individuals and citizens, but also as people who have interesting platforms and sometimes powerful access to people who make decisions to really inspire and motivate our nation to move in this direction. Dreams can become a reality. It is technically possible to do what we're talking about. It's not nearly technically as challenging as going to the moon, but it does take the same kind of systems commitment and capacity and engagement.

And let's just think what it would be like if we had a national leader who said, to paraphrase the President, that we believe our nation should commit itself to the goal of becoming a healthiest nation and leading the way so that every nation on earth can share in this endeavor, that nothing will be more impressive or more important. And as he went on to say, "If we did this, we would have to use all of the resources and talents, but we have those resources and talents."

Unfortunately, we've never made the national decisions or marshaled the resources required for such leadership. We've never specified long-range goals on an urgent time schedule, and we've never managed our resources and time so as to assure their fulfillment.

We also need to anticipate the requirement for scientific and technical manpower, for materials and facilities, and we will have to divert these things from other competing priorities where they are already thinly spread. It means dedication, organization, and discipline, and that has not always characterized our R&D efforts, as a nation. But if we were successful in doing this, we would be able to live in a world where we could really talk about a President who could travel internationally and know that his country was united in commitment to freedom, security, health protection, and healthcare, as well as social justice, and ready to do its duty in the rest of the world.

We think that this vision is possible. There are a lot of aspirational values that we need to be prepared to espouse in order to achieve it. The one that means the most to me personally is the last one, that people are confident that the health system will protect them and provide effective and affordable care when they need it and that if we are successful, we really can live in a world where all people, and especially those who are at the greatest risk of health disparities can achieve their optimal health, where people can live, work, play in environments that protect and promote their health and safety, that communities will be protected from emerging health threats, and again, most importantly, healthy people will thrive in a healthy world. So, a healthier nation can win the health race. Thank you.

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