

UNNATURAL CAUSES...is inequality making us sick?

A four-hour series airing on PBS and a national public impact campaign

EDITED INTERVIEW TRANSCRIPT

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I. HEALTH AND HOPE IN LATINO COMMUNITIES

The data shows us that new immigrant Latinos have the best health of any population group in our county. And substantially better. They have better health not just than other poor people, but than the wealthiest segments of our society. That's profound. They're doing something right.

When you start to break the data down a little bit, you start to understand why that might be. The biggest killers (we're talking about the things that put you in the hospital or put you in a funeral home) are heart disease, cancer, stroke, chronic lung disease (largely related to smoking), and injuries. That's two-thirds of all deaths. All those major killers have significant behavioral components. Heart is about diet and exercise and stress. Cancer is about diet and exercise and stress. Stroke, clearly about high blood pressure, diet, exercise stress. Chronic respiratory disease, about smoking primarily.

First of all, immigrants come to a country with hope. They're looking to improve their economic situation. They're trying to make a better world for themselves and their children, so that they protect themselves. They don't engage in risky behaviors. They tend to smoke less, they tend to eat better, they work, they don't engage in risky sexual practices, because they're trying to set themselves up and their families for a better future. And that spirit has health benefits.

But it's got to be more than that. So we started looking at patterns of social networking, how immigrant communities really do help each other. And they practice a way of living that is much more communal and supportive, and basically incorporates a spirit of community hopefulness that leads to better health outcomes.

And what immigrant communities do (because they are hopeful; obviously, it's the most hopeful thing you can do to leave your country to come somewhere else to try to improve your life) is that they form communities that support one another. They look out for each other. If there's a job that opens up, they'll call their friend or their cousin or their brother and say, "There's a job that's opening up. Come get it. I'll help you. I'll teach you what you need to know." And they essentially infect their friends and families with this sense of possibility. It's that belief that they can make their lives better, that leads to them essentially developing healthy behaviors.

As immigrants acculturate, they start to acquire American patterns of behavior, American views of their potential and their future, and a sort of a cynicism, if you will, about what the future will hold. And so we're trying to figure out how you capture that spirit of being a new immigrant, and transfer it to communities that have become Americanized. We see in the immigrant communities that as they acculturate (as they learn language, as they become second generation,

as they move out of their communities), their health actually deteriorates across the board. So there's something about Americanization that leads to people losing that spirit.

In other communities that have been in America a much longer time, you see that hope is lost. There's a real sense of futurelessness, a sense of, you know, tomorrow isn't going to be any better than today, so I'm going to get mine today. And what we're trying to do is take advantage of what we see in immigrant populations, that clearly confers some sort of health-protective benefit, and build that in other communities where that hope seems to have been extinguished.

It's clear that America is not good for your health, particularly if you are poor. As you become more American, the relationship between wealth and health becomes tighter and tighter and tighter. When you're an immigrant, that relationship is relatively loose. And we have an opportunity to preserve that shield of protection that leads to better health outcomes, by preserving these enduring behaviors that immigrants bring with them.

II. COMMUNITY ORGANIZING

The Latino community is a very old community in this country, and there are various segments of that community that have more or less experience with being in America. Some of these communities have been here for hundreds of years.

Immigrant communities are actually fairly organized. By organized, I mean that they work collectively to achieve important outcomes: more resources, more access to society, better jobs, better education, more traction in their new society. In communities that have been here for a longer time, lack of organization leads to simple inefficiency. The community doesn't advocate as well for what it needs with respect to jobs, with respect to education, with respect to the policies at the local level that impact people's health prospects.

New immigrant communities organize themselves at the family level, in a way that's very health-protective. Over time, that family level organization starts to break down as they become more American. They become more nuclear families that break up, and people are more on their own to contend with the noxious influences of the environment more as individuals rather than as families that support each other.

This is almost another paradox in a paradox. Because the extended family units are organized, there's less of a perceived need to organize on a community level, because the larger issues around access to important social goods like education, fair wages, work protection, isn't immediately recognized by some of these families. It really is a challenge to try to make sure that before the inevitable breakdown of these close family units occurs, that the communities are organized in ways to essentially keep that shield alive, keep that sort of protective insulating shield alive. It's a real challenge.

The new immigrant Latinos, new immigrant Asians, don't have a tradition of civil rights, of advocating for their own needs as a community. And that's one of the lessons of America that could be very beneficial to these communities, that your family isn't enough ultimately to protect you against some of the influences of America, because that family structure is going to become more individuated; it's going to break down over time. So you're going to need essentially to

develop a new culture that supports that family culture of organizing, of advocating, of demanding your fair share of social goods.

Institutions become complacent if they don't have a constant threat, if you will, of massive organizing outside their door. Just by virtue of the human enterprise, they're more accountable to organized communities than they are to disorganized communities. Disorganized communities are much easier to divide and conquer. You can basically put off having to contend with them. But when people are organized, there's a community meeting where people are talking, the institutional actors are going to want to be there because they're afraid that they will be held as unaccountable if they're not participating in this organized process.

So one of the first things that we do is, we organize. We look for the natural leaders, the people at every corner who know what's going on. And we support their leadership. We give them tools, skills about how to run a meeting, how to organize a gathering, how to essentially motivate people to follow up on a project. And by doing that, we build sort of this indigenous leadership that replicates what we see in immigrant communities. We've seen that that has a powerful effect on communities. It means that politicians are taking notice of an organized community. School boards, the superintendent, the principals take notice of an organized community. We have seen, for instance, school PTA meetings go from 6-7 people to 30-40-50 people, just around this notion that they have a sense of the potential as an organized body.

So we've seen major changes. We've seen new immigrant, Latino, non-English-speaking people actually take up leaders on their promises of an open door policy or access. We've seen organized communities demand from the police force to form a community police: "We want you here. We want you on foot. We want to know the officers and lieutenants in our district. We want to be able to call you and have you respond quickly. We want to know if somebody's stealing a car, or doing a property climb, that you'll take it seriously. And certainly if there's violence or physical harm happening to somebody, that you will respond quickly. We want to know that when we tell you something, it's not going to get back to the people who perpetrated that crime so that they will retaliate against us." So that kind of relationship between an organized community and a police force can only occur if the community is organized. Otherwise the police force says, "Well, I don't know who to talk to. I don't know that when I talk to this one person, it's going to translate into an interesting in the community."

People in communities are constantly telling us that they're surprised at how quickly institutions will respond to them when they get organized. We've seen parks built and the Public Works Agency responding much more aggressively to potholes, to repairs, to cleaning up parks, to making sure the garbage cans are empty and available, to unlocking the bathrooms in the park so people can actually use them with their kids. That kind of responsiveness is only guaranteed if the institution feels that it can be held accountable by the community.

So organizing people, bringing them together and allowing them to develop their own agenda, to develop their own speaking voice, has immediate implications for how institutions respond.

Now, the challenge for us is systematic deprivation in certain communities of access to all of the resources that are necessary for good health. So we need to organize those communities, but we also need to have policies and a way to interface at the policy level, change those policies that create the conditions on the ground. There are some things that at the local level you're just not

going to be able to manage, because they have larger, statewide or national implications. And there we think we really need to have a movement of bridging these communities, bridging these organized communities, to try to actually get a place at the table and have a say in how goods are distributed and resources are distributed across society.

Ultimately politics is the struggle over the allocation of scarce social goods. And if you're not at the table to demand your share of those critical social goods, you're not going to get a fair allocation. And that's what we've seen throughout communities in the United States.

III. WHY HEALTH IS NOT A ZERO-SUM GAME

The notion that by engaging a broader spectrum of population in the economic resources of our society, it's somehow going to deprive others of access to those resources, the notion that this is a zero sum game, is fallacious.

An economist will tell you it's inefficient to have people who could otherwise be contributing during their productive years to the overall benefit of society caught up in hospitals, in disease states that create a net dependence on society, so they're drawing resources now from society rather than producing resources that benefit society as a whole.

We call it "years of life lost," or "years of potential life lost." And in some communities, we're talking on the order of 15-20 years of productive life. And that has obvious costs not just to the individual and to the local communities, but to the society as a whole.

Years of potential life lost are not just a clear measure of the cost to all of us of these policies that are essentially unjust and inefficient, but it's also a clear measure of how much work we have to do to try to create the kinds of public health systems that lead to a more productive society in general.

You only have to look at new immigrant communities to recognize that. There's a richness and an economic efficiency in the way that people interact, in the way that communities are set up, that leads to a better output, that improves the living standards for everybody.

The amount of resources that I (as a public health official) and others in education, economic development, housing, other domains, pour in to remediate conditions in some of these communities—not to build on the natural power of those communities but to remediate (in other words, to band-aid) these problems—is enormous, and inefficient.

Basic principles of economic inefficiency suggest that the more people that are engaged in the larger economy in a way that's efficient and are sharing their skills, is good for all of us.

You only have to look at the data. If you are in health and you're seeing what the future is going to look like just by looking at the trends in the present time, in terms of chronic disease, diabetes, obesity, the data suggest that we need some solutions that are inexpensive and that work.

Across the board, immigrants are healthier than native born Americans at the same socioeconomic status. Overwhelmingly that's true. People who have been struggling to deal with the entrenched issues of poverty and the implications on health are struggling to make sense of

the immigrant health paradox, develop the interventions that will allow us to take the best of the immigrant lessons and spread them to the larger community.

IV. RISKY BEHAVIORS AND LOSS OF HOPE

One of the things that we know that immigrant parents do, is that they work. And they work a lot. And so as a consequence, their children have less time with them, less exposure not only to them physically but to those cultural aspects of family and community that parents inculcate in their children. So the American way of life pulls those parents away from the family, so the children are left in front of the television, and they're much more influenced by the dominant society, which is violent and largely devoid of those traditional ways of inculcating in children a sense of community.

We also see that these kids are exposed to many other local cues that remind them that society doesn't really care about them, such as, they walk into a school and there's metal detectors, and the bathrooms are dilapidated, and the teachers have very low expectations of them, basically saying to them, "You know what? You don't really have much place in the society. At least you don't have much place in this school system that's going to lead to good outcomes for you." And they see their prospects being very limited. They're not going to be able to achieve the kinds of things that they see wealthier other Americans being able to achieve relatively easily. That leads to stress and frustration. So fully half of these kids drop out of school between 9th and 12th grade.

Violence is really a manifestation of frustrations and a short-term perspective. People who have a long-term perspective, who are hopeful, who are thinking about the future, generally can manage conflict in a way that allows for violence not to occur. But people who don't have a long-term perspective, who are more frustrated, in whom stress has built up to a higher level, tend to react more aggressively to conflict.

One of the things that we saw right off was that kids in particular, in families that didn't see a future for themselves, were much, much more likely to engage in violence. As the stress levels accumulate and they start to lose that connection to their parents' hopefulness, they become more American, they acquire American habits, diet, sensibilities, and they lose that hopefulness—which is sort of counterintuitive when you think about it. They're gaining traction in the American way of life, but they're losing that hopefulness that their immigrant parents brought with them. Just as they start to acquire it, the American dream, their hopefulness starts to drop, and they become much more frustrated in this whole cycle of self-destructive behavior.

That's the challenge for us in public health, particularly around violence. It's analogous to what we see in chronic disease, in communicable disease, in other aspects of public health outcomes; how people choose to live their lives, the kinds of risks that they engage in, the kind of behaviors that they practice. The context in which that behavior is set is important, because it's heavily influenced by the environment in which you live.

So it's this constellation of cues that are consistent. You live in a dilapidated building with mice or rats or what have you. The parks you go to play in have needles or crack paraphernalia lying around. You don't have good public transportation. You're always having to walk places. You can't even physically get out of your community. You can't go shopping somewhere that has

healthy food. You go and it's alcohol and cigarettes and billboards. So those cues are cumulative, and they're telling these kids that they don't matter, they're not valued. And they internalize that. And that leads to frustration and acting out and a sense of hopelessness.

So we see frequently in one generation a change from some of the healthiest behaviors, the most hopeful behaviors in the parents of these children, to more of the American phenomenon of poverty, which is that you don't matter.

So the goal is to try to preserve those aspects of culture, of tradition, of tight family social networks and community social networks that immigrants bring this country, that essentially form a shield around them and allow them to withstand the deleterious, the negative impacts of American culture when you're poor. The longer that they're here, the weaker that that shield becomes. Now, some can make it in the traditional immigrant success story, but many can't. And they end up in the same cycle of linking poverty and poor health tightly, because they don't have those protective cultural mechanisms that break that.

What we're trying to do is preserve those mechanisms, to decouple poverty from poor health. And that's the lesson that immigrants teach us in public health. We have to understand what it is, and try to spread that benefit to a larger segment of society.

V. BUILDING TRUST WITH COMMUNITIES

One of the things you have to accept when you're doing this work in public health with communities is that you cannot enter into a dialogue with an agenda. You have to keep your agenda at the door. The goal, when you're working with community, is to instill trust. They need to believe that you are a partner and that you are going to lend your resources to their needs, not that your needs are going to drive the relationship. And that's very difficult for institutions to do. It's a very different mindset.

So one of the first things that public health departments and other people who are interested in trying to work on the things that drive hospitalizations and death – what we call the social determinants of health – is they have to first build trust in communities. And you do that by essentially handing over your resources to the community, and letting the community develop its agenda as to how those resources are going to be applied. That builds trust.

Too often we go into a community and we say, “Well, you know, there's garbage. The parks are bad or the housing is dilapidated. We're going to fix these things. We're going to work on the physical environment. That's our goal. We're going to shape this place up, make it look more like the suburbs or the communities in which we grew up.” While well intentioned, it's ultimately self-defeating, because if you work on the things and not the people, those things will start to take that look again. It's the people whose hopes and whose vision you have to try to build. And you're not doing that by saying, “You should be more hopeful.” You're doing that by allowing them to recognize that these institutions really are their partners; that they can trust these institutions; that when they organize collaboratively, they have much more power over their lives and over their environment. And it's that recognition that you need to establish in people in order to be successful.

VI. THE SOCIAL GRADIENT AND THE MIDDLE CLASS

If you look at very poor people, in general, they have very poor health. They die earlier, they're in the hospital more often, and they report feeling less healthy. You look at very wealthy people, and in general, they live longer, they're in the hospital less frequently, and they report feeling healthier. But it's when you look at the middle, for each step along that wealth gradient, you have a corresponding step of health. So we call it the social gradient.

One of the issues that is missed by many is that the middle class, the people who are not the CEOs, who are not in the ultra strata of society, have worse health than people at the highest end of the spectrum. And substantially worse health.

Most people don't recognize that. They think that that is essentially the fate of the poor. But in fact, it's all relative. So it's not like you're poor and you have bad health, and then you're not poor and you have good health. And those in the middle class are substantially more likely to suffer a shorter, unhealthier life than their wealthier counterparts.

Part of this is related to middle-class families having to work two jobs, not being able to spend time with their kids, not being able to afford to take the time to do the kinds of things that protect their health. And so those levels of stress in the middle class are substantially higher than those in the wealthiest segment of society. And consequently, middle class have much higher rates of heart disease, stroke, cancer, chronic lung disease, and injuries, than the wealthiest segment of society.

In America, virtually it's the strongest relationship you'll find anywhere, that wealth pretty much equals health. And that's true for me as it is true for the poorest person in the "inner city," and people living in the suburbs, and people living in very wealthy communities.

Anywhere along that gradient, which is where most Americans live, little increases in wealth affect increases in health and longevity. So people in the middle are on this slope. And they can fall off that slope pretty easily. Even for middle-class people, their health is strongly controlled by the resources to which they have access. And in this country, resources are not freely accessible across the population. And certain critical resources, like good jobs and education, are not necessarily available even to the middle class. And those kinds of deprivations have health consequences, profound health consequences which, using data, we can predict.

It's a frightening thought, but we can predict, on aggregate, based on where somebody lives and their income, how long they'll live and when they will die. And that's a disturbing, shocking correlation. We can take high school graduation rates in a certain neighborhood, and predict the average length of life of people living in those communities. Now, we'll be wrong; obviously there'll be exceptions to that; but for the most part we'll be right. And we should not be able to do that. Your life expectancy, how long you will live, should not be dependent on the resources you have accessible to you in your neighborhood or community.

There are ways to flatten that line a little bit, so your wealth doesn't really control how long you're going live, how many years of life you're going to have, how many days you're going to spend in a hospital, and what the quality of your life is when you're aging outside of a hospital.

You can understand this like rungs of a ladder. If those rungs of that ladder are widely spaced, you create, in essence, a trap for people. They can't get to the next rung of the ladder. It's too far. Other societies have found ways to essentially bring those rungs closer together, so that there's more mobility for people along a health spectrum, and they're less trapped by their income level on a certain rung.

VII. CHANGING THE SLOPE

There's this mythology of the American dream, that anybody can move up that ladder with the right amount of gumption. And the truth is that while there're certainly anecdotal stories of that, for the most part the overwhelming majority of people don't move up that ladder.

There are a number of different studies now that have looked at distribution of wealth in countries. One of the most profound findings and implications from these studies is the correlation between the equity within countries and the health within countries. Those countries where wealth is more equitably distributed are healthier.

Most societies can change the slope of that gradient, the strength of that association, by developing policies that essentially decouple the relationship of wealth and health. And they do that with better education systems, housing support, childcare, access to recreation. They subsidize through tax policy or deliberate policies mechanisms that break that strong relationship.

And these kinds of policies don't require rocket science. They're very basic policies. They're things that allow you to achieve health without having to buy your way into a healthier lifestyle. Those things are like education, basic education. The more people that have a good education, have a shot at using that education to move up the ladder and acquire lifestyle, jobs and homes, places to live that are healthier, are freed from that tight link between wealth and health. And they're more mobile along that ladder than in this society, where once you're on a rung, you're pretty much confined to that rung.

So it's in all of our interest, because we all find ourselves somewhere along that spectrum, to try to change that relationship so that how much money I make doesn't control how long I live; that I have as good a potential at a long life as the CEO when I'm working as a middle manager in one of these companies.

VIII. PARADIGM SHIFT – NOT JUST MEDICAL CARE

The predominant American understanding of health is related to medical care. It's technology, doctors and hospitals. It's genetics. It's various diseases that can be treated and cured.

The truth is that medical care only plays a very small role, probably less than 10% overall [in] ultimate outcomes in health. So those things that are shaped at the community level play a much larger role.

One of the biggest misunderstandings in our healthcare system is that it's delivered as individual services to individuals who have certain behaviors. We call that the medical model. Essentially the doctor and patient, we sit down and we say, "Well, you need to stop smoking. You need to eat better. You need to exercise." And that's true, to some extent. But what we ignore are the environments in which those behaviors are shaped, like the physical environment. Are there parks? Are there grocery stores? Are there things in that community that allow people to essentially engage in that full spectrum of behaviors?

And then things about how people feel about their future, and the contribution of society to people's sense of value. As a society, we can build hope. And we do that by giving people access to those things that give them potential for success. That's good education; that's access to good jobs, jobs that pay a living wage, that you don't have to live 2, 3, 4 families to a unit; decent housing, housing that is not going to produce asthma or produce other kinds of influences that have obvious medical consequences.

And then, to the extent that community, the sense of belonging to a community, belonging to something larger than yourself, larger than your family, where you feel support, where you feel like there are networks that you can use to essentially get those things that you want and need, those communities have health-protective benefits. And there are things we can do as a society—and they're not complicated, they're pretty simple things—to build that, to build those supports and communities, and to prevent the medical care sector and the healthcare sector from having to slap on band-aids and remediate individuals back to a state of "health."

A healthier population really has more hope or potential, because they have access to all of those social goods that are important (education, jobs, housing, recreation, access to good food, healthier communities).

Now, our role in public health is to use data, and to essentially apply the knowledge that that data suggests, to improving health.

As doctors and other healthcare practitioners, we're pretty much in the business of managing disease. We're not in the business of curing disease, for the most part. The costs of managing disease are much more substantial when people are very sick than when they're just slightly sick. So the goal of the public health system is to deliver the medical system a healthier population, so that the medical system is not as taxed, doesn't have to do as much work, to essentially bring people back from the edge.

We want the medical system to do as little work as possible. But unfortunately, the larger perspective in the country on health is still medical. It's about pouring more money into genomics, into technology, into hospitals and end-stage treatment. But ultimately, it's a battle you can't win. All you can really hope is to delay the need for these kinds of things as long as possible, so that people can have more years of productive life.

And many other societies, communities, countries, cultures, understand this. They may understand it because they don't have the technological infrastructure that we have, so they have to intervene earlier to try to prevent illness. And as a consequence, they do a much better job of it. And they spend much less money on health care than we do, and get better outcomes.

So our goal is to transition us from an end-stage intervention focus, technologically driven healthcare system, to one that invests substantially more up front and delivers a healthier substrate to the medical system.

IX. WHY IS HEALTH CARE A PRIVILEGE, NOT A RIGHT?

It's very clear to people who haven't grown up in the United States that health care in this country is very much a privilege. People have access to health care and a variety of healthcare services based on their privilege in society, not as a matter of right. You see that structurally in hospitals. In many of the major hospitals in this country, we actually have the hospitals physically divided between what they call the private hospital and the public hospital. The patients from the public hospital, the charity side, are disproportionately people of color, people who are poor and people who are uninsured. On the private side, you have people who are disproportionately white, disproportionately wealthy, and obviously insured. They're attended by private doctors, whereas on the public side they're generally tended to by interns and residents, with supervision by what are called attending physicians. And the nature of the care differs.

Throughout the country you see this difference between private hospitals and public hospitals. I'm not suggesting that the care is different because of some lack of desire on the part of the staff in the county hospitals or public hospitals to deliver good care. It's just different because the access to resources in those public systems is much less than it is in the private. So people wait longer for certain tests, they have poor access to certain technology, they may not have access at all to certain types of interventions. And certainly the care that is provided, is by people who are learning how to practice medicine, not by people who have become professionals.

The thing that's shocking to me is not so much the division itself but the acceptance that we have as a society about that division, that this is normative, that this is the way things are, and should be. Americans for the most part don't know a different way of doing [it] because there hasn't been a lot of exposure to other approaches to health care as a right. So you walk into these institutions and people will say, "Oh, the public hospital is over there, private hospital's here," or "You can't be here, you need to go to the county hospital, which takes care of people like you."

You buy your way into the healthcare system, and the more resources you have, the better care you can afford. Particularly these days, there's been an acceleration of this phenomenon where hospitals have been closing in low-income communities and moving into wealthy, better insured communities, just for their very survival and economic success.

X. DAMAGE CONTROL

One of the best ways to understand the influences of the early childhood period and behaviors that get set early is to look at this notion of life trajectories, and the idea that there are things you can do early on in life, that help maintain a high trajectory for individuals and for populations, for a community. And if those things don't happen, the trajectory of those lives gets set lower and lower. An influence that occurs at young life has much more impact on that trajectory of that life as opposed to impacts that occur later in that trajectory.

So the things that create for children a sense of hope, a sense of promise, a sense of a good education, about what it is that really confers good health, those things help create the highest possible trajectory for individual children and communities. And we know what those things are. They're early childcare, they're good education, they're good nutrition, they're good exercise, they're good education about health behaviors. So we know what every child needs in order to have the best possible chance at having a healthy and successful life.

We don't do those things. Instead, we try to fix things on the end of the trajectory, when already the course has been set and that potential in life has been demonstrated. Now we're trying to repair people in the most expensive, the least successful, and the most complicated part of that trajectory. And it doesn't make any sense. You can apply that to individuals, can apply it to communities as a whole. Our goal should be to set the highest possible trajectory for the largest number of people in society. We know how to do that. We just haven't done it.

If you don't intervene early, you're largely going to be engaged in damage control. Damage control is expensive, it's inefficient, and largely outside of the resources that we have as a society to get people back to a state of health. So we have a choice. We can wait for things to happen and try to repair them in this mode of damage control, or we can invest early, try to set good trajectories for families and children and communities, with interventions that are inexpensive, that have been proven. We can do those things, or we can engage in damage control.

XI. THE UNHEALTHY FUTURE

The demographics of our society are changing. As our population ages, they're going to acquire those illnesses and conditions that aging populations get: heart disease, stroke, diabetes, and chronic lung disease. So the future is chronic disease. We know that. And that has been the trend for a long while. But what we also know is that there is strong evidence of a burgeoning tsunami in the risk factors for chronic disease, specifically obesity, diabetes, and those things that will lead to much worse chronic conditions at much earlier ages.

So if we decided to bury our heads in the sand on this issue, we would wake up to a healthcare system that was on the verge of going bankrupt, just trying to deal with the chronic disease burden that this country will face. And we're going to do it with substantially reduced resources, because as I said, our population is aging, and the people who'll actually be doing the work, paying the Social Security and the Medicare taxes that actually fuel the system, will be fewer and making much lower wages.

I think if you were just interested in the economics of the situation, the overwhelming majority of economists will tell you that we're facing much higher healthcare costs, just due to the status quo, the trends in terms of the rates of obesity, the increasing incidence or rate of diabetes, that will cause more heart attacks, more amputations, more kidney transplants and failure and dialysis, more blindness, all of the consequences of diabetes that will be upon us in quantities that our healthcare system will not be able to manage.

So it's in our interest to try to figure out a way to head this thing off at the pass. It's not depressing. It's full of promise. And it reminds us of the urgency of trying to get things right. We are constantly trying to be faithful to what we're [seeing], and that's the whole scientific

enterprise, is to observe, and to make conclusions from those observations that allow you to predict how things are related.

So the way we do that is to make the health of the population on the whole, that's entering into the medical system, better, so that the medical system has to do much less work. So American society has a very strong interest in making deeper investments in the larger health, because our medical care system will collapse under the weight of trying to manage the consequences of just obesity and diabetes.

XII. SOCIAL CONNECTEDNESS

Fundamentally, we're social animals. There's very good research that shows that social isolation and lack of connectedness actually impairs health, particularly for elderly populations. Levels of depression go up when people are socially isolated; they go down when people are socially connected.

We need, in order to feel healthy, to interact with other people. And we need to interact in a way that's comfortable for us, not in road rage on the highway, but in social settings and community settings where we feel we're part of something bigger than ourselves. That's what we need to get back to. And the trick is to understand that this is not so complicated. It's just that we've engineered a society that has essentially taken us away from what is very natural.

What's beautiful about looking at populations that have just come to this country is that they still have those things, and they work to preserve those things naturally. And we can learn from that. We can learn to essentially re-acquire that

We need to move back to that connectedness. And we can do it. We can do it through how we design communities. We can do it by how we make institutions interact with communities, so that we intentionally try to build connectedness into the kinds of things that we [do]. And we can do it by allowing ourselves to learn from the wisdom of other communities that come to America and are telling us over and over: "This is what we want. We want to be able to walk to our grocery stores that have the kinds of products that we're used to, where we come from. We want to be able to have our kids play safely on our streets."

These are messages that are simple, but they're also beneficial to health. And until we understand that, and just recognize that that old wisdom, the things that your grandmother taught you about how they lived and how they created societies, truly are some of the most important things we can do to preserve our health.