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Mark Masselli: This is Conversations on Health Care. I'm Mark Masselli.

Margaret Flinter: And I'm Margaret Flinter.

Mark Masselli: Well Margaret the news from Charleston has been a grim reminder that there are still unresolved issues of race and what it means in this country.

Margaret Flinter: A national tragedy Mark, nine people gunned down in an iconic Church that mean so much to the people in Charleston, South Carolina. A rationally motivated crime and a reminder we have so much work to do to promote unity among the nation's people. If there is a silver lining I think it's today we're seeing a much more frank discussion of racism and its impact on society as a whole, starting with the President's words on the topic and maybe continuing on to bringing down the Confederate Flag over the Capitol.

Mark Masselli: As you know Margaret, community health centers begin in this country initially to address at least some of those disparities by providing access to health care for all, we learn from that experience that good health outcomes, well being productivity and most importantly dignity are the true pathway to equality in this country. It's something that our guest today knows quite a bit about Dr. Kenneth Bringham is Professor of Emeritus at Emory University School of Medicine. He was Director of the Emory Georgia Tech Predictive Health Institute which is focused in on identifying genetic biomarkers and other precursors of disease that can be saved off to keep people healthier no matter what their circumstance.

Margaret Flinter: And Lori Robertson, Managing Editor of FactCheck.org's stops by she's always on the hunt for misstatements spoken about health policy in the public domain.

Mark Masselli: As always you have comments you can email us at www.chcradio@chc1.com or find us on Facebook or Twitter we love hearing from you.

Margaret Flinter: We'll get to our interview with Dr. Kenneth Bringham in just a moment.

Mark Masselli: But first here is our producer Marianne O'Hare with this week's Headline News.

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Marianne O'Hare: I'm Marianne O'Hare with these Health Care Headlines. Obesity is on the rise in the U. S. in a report released by the Journal of the American Medical Association, the National Health and Nutrition Survey noted nearly 40% of men and 30% of women were overweight while nearly 35% of men and 37% of women were considered obese. The researchers concluded overweight and obesity rates in the U.

S. have increased over the past two decades, the greatest increase in the proportion of individuals with BMIs greater than 40. The highest obesity class among African-American women.

Trans fats have long been identified as having potential deleterious effects on the body. Long used as in additive and processed foods. The FDA has issued a dramatic ruling that trans fats need to be phased out of food production. Food manufacturers have been given a three year timeline to remove trans fats from their food supplies.

While women's reproductive rights are taking a hit in many states, California is making things a bit easier, the state legislature considered the measure that would allow women to go straight to a pharmacist for birth control. Under the new state law women will be able to go to the pharmacy, get a prescription for contraceptive pills, the ring patch and get it filled and walk out 15 minutes later. Studies have shown an environments where access to birth control is unfettered, unintended pregnancies go down.

And recent statistics show a rise in birth in this country by about 56,000 babies born, interesting alternative statistic teen pregnancies are down overall, except in the south where they have actually gone slightly up. I'm Marianne O'Hare with these Health Care Headlines.

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Mark Masselli: We're speaking today with Dr. Kenneth Brigham a professor of emeritus at the Emory University School of Medicine and former founder and director of the Emory Georgia Tech Predictive Health Institute an interdisciplinary model of health care that focuses on prevention and health maintenance rather than disease management. Dr. Brigham is a pulmonologist who served as an Associate Vice President of Emory University School of Medicine. Prior to joining Emory in 2002, Dr. Brigham served at Vanderbilt University School of Medicine for several decades refocusing on innovation in pulmonary care. Dr. Brigham is author or co-author of more than 200 papers and books including Gene Therapy for Disease of the Lung, and predictive health how we can reinvent medicine to extend our best years. Dr. Brigham earned his medical degree from Vanderbilt and trained in internal medicine and Jones Hopkins and pulmonary research at UC San Francisco School of Medicine. Dr. Brigham welcome to Conversations on Health Care.

Dr. Kenneth Brigham: Thank you very much I'm delight to talk with you.

Mark Masselli: Yeah, and you've been leading the way at Emory in this interdisciplinary approach to really fostering a new way to practice medicine and one founded on the premise that prevent the onset of disease we must develop models that help predict which conditions are most likely with each individual patient. And this predictive health is a model that really couldn't have existed just a few short years ago, but recent technological advances have really paved the way. Can you tell our audience about the predictive health and how it differs from the general view as preventative care and tell

us a little more about the work that you did at Emory with the Georgia Tech Predictive Health Institute.

Dr. Kenneth Brigham: The way the institute came about well it's related to a campus wide effort to develop a strategic plan. And in the academic medical enterprise the question that was paramount was what could we do at Emory with all the resources and the environment including Georgia Tech and the CDC that would be innovative and would contribute to a direction for health care that would impact both the cost and the benefit of efforts in health care. And those discussions involved the whole campus, they involve not just the biomedical sciences but also psychologist, anthropologist.

What emerged was two things, one was that medicine traditionally has not define what health is. If you talk about keeping people healthy what we've known traditionally was keeping them from getting sick. And the contention was that health could be defined in a positive sense and that if we could measure a critical variables that define what health is overtime that we might be able to detect early deviations in processes that if left unattended might develop into a pathological situation.

So and that's where the predictive health institute and what we wound up calling The Center For Health Discovery and Well Being came about and that was a cohort of people who were essentially healthy that got up enormous number of test and follow them overtime. And they've been followed now for I guess about eight or nine years. The hope was that by doing that we'd be able to identify measurable variables that would be predictive on an individual basis. You know, preventive care is really a public health activity. Predictive health focuses more on individuals and trying to predict with more precision than population they then allows you to translate into -- to risk for given individual.

Margaret Flinter: Dr. Brigham I'd like to dove a little deeper into this notion that if you start with generally healthy people do a battery of diagnostic test and identify a potential health pitfalls for each individual patient. You have a fighting chance to maybe keep them from developing diseases that they were headed towards or at least delaying those diseases for as long as possible. So tell us more about this approach that you lunched at the predictive health institute, how is the experience different from what patients are accustomed to?

Dr. Kenneth Brigham: So the basic idea was the focus on health and that these were not patients because they weren't sick. So the facility that we actually designed didn't look like a doctor's office at all, it had sort of a water treatment and the -- (inaudible 8:33) colors and a lot of arts. And the people who actually were hands-on involved with these participants were a new kind of health professional that we called a health partner to emphasize that both defining and caring for your health is a partnership. And these are people who are trying and actually performed the test in the facility and maintain the relationship with them overtime. So it was a very different experience than the usual doctor's office or hospital in place with people who are sick.

So we wanted to measure everything we possibly could that address well being, emotional health, social support then we drew blood and measured a battery of our chemical measurements including banking DNA and RNA. And then put all that data together and then the collaboration of Georgia Tech is obvious early on that this kind of an effort is going to require computers to try to integrate into a model that would then be applicable to an individual and predictive for an individual. So that has been an extremely valuable collaboration and was there from the very beginning.

Mark Masselli: Speaking of collaboration you've had a great collaboration with Dr. Michael Jones and the two of you wrote Predictive Health. The book begins with the -- what you called the vortex of discovery with great advances and genomics and nanotechnology. Tell us what the biggest successes are so far and what have post the biggest challenges

Dr. Kenneth Brigham: It's no secret that we're in a vortex of discovery in biomedicine. And we can measure things we cannot measure before. And we can define individuality at a molecular level that is really spectacular and amazing. The challenge was that in my mind is that we don't get ahead of ourselves that we don't either over anticipate or over promote, you ask about what are the things on the horizon. One is imaging, I mean the ability to image not just a morphology but also function and even down to the cellular level will provide some tools that we can't even imagine to (inaudible 10:59)

Margaret Flinter: Well you're absolutely right, there are days when just managing multiple chronic illnesses in patients keeping them out of the hospital, this can feel like a great achievement even while we are fully aware of the explosion of science and technology that might give us the benefit of this predictive value in preventing illness. But incorporating it is a daunting challenge to practices and I'm really curious how do we incorporate this into the health care system that we have today

Dr. Kenneth Brigham: I think both the way we -- what we include in our education and health care professionals and educating the public are both incredibly important else we try to reorient the focus of health care to health care to health rather than disease. Now so the need for doctors who care for sick people will never go away, what we would hope over the long term if we could change the culture so that people focused more on their health while they're healthy would be that we would reduce the burden of sick people over the long haul. The other imperative for doing that is cause is that the cause of caring for people with chronic illness is enormous.

And advances in science and technology that improve care of those people often increase the cause. So if you could decrease the burden of those kinds of people in the whole health care system that would have an impact on the cause.

Mark Masselli: We're speaking today with Dr. Kenneth Brigham professor of emeritus at the Emory University School of Medicine and former Director of the Emory Georgia Tech Predictive Health Institute. Dr. Brigham did I hear you right that you had a large ongoing longitudinal study underway, I was thinking as you are saying that about the

Framingham Heart Study started in 1948. Is it sort of based on trying to take a look at the health and well being of people over a longer period of time?

Dr. Kenneth Brigham: Yes it is and the Framingham Study obviously is the jewel of those kinds of study. And so this is on a much smaller scale, this is a couple of hundred people who are randomly selected from the Emory and Georgia Tech faculty actually who are essentially healthy and are being followed overtime with a very extensive testing. So it is a similar like the big population studies like Framingham except it's much more individually focused. We would like to be able to bring more precision to the predictive process. So it's trying to bring more precision to the goal of predicting.

Margaret Flint: Dr. Brigham in your book Predictive Health you say that to change the course of health care we have to reach the coming generations at Emory you done some of that recalibration I believe you call your approach molecules to mankind or (inaudible 14:07). And we've talked to some of the teaching hospitals in medical schools who've begun a serious transformation of their approach to health education. So how do we start teaching predictive health in medical schools?

Dr. Kenneth Brigham: My personal bias is that we really need a completely different way to look and educating health care professionals. I think that we probably need to define roles in a different ways than we have before. We probably don't need physicians as traditionally trained disease managers to do everything that you guys do now, there are probably other people in this health focus system who could be just as effect and maybe more effective because their training and focus would be much more narrow than traditionally trained physician. So I think that's one thing we need to look at roles and train people to do what we want them to do in the long run.

As I said there will always be a need for doctors to take care of sick people and so they there needs to be continued training of people who are expert in the rapidly developing science and technology of caring for disease. But even those people altogether healthy dose of health focused approaches to caring for people. So I think roles need to be defined and thought needs to given to what kinds of people we need to train to fill the roles that are going to be needed for this health focused system. But also everybody who's training for a health care profession needs to be oriented toward the idea that the real goal is to keep people healthy.

Mark Masselli: I think it's been said that knowing someone's zip code may have more to do with their health and knowing their genetic code. And you've been really focused in on issues around environment and health and, you know, certainly we're seeing a climate control however it's happening, it's happening. And certainly raising a level of health concerns in various communities, talk to us about the revolutionary change that's needed not just in the predictive health practices but in promoting environmental health as well?

Dr. Kenneth Brigham: Yeah policy makers need to be the acutely aware of how important environment is to the health of everybody. And also understanding that the

individual interactions were clear environment. And what are the characteristics of an individual that determines the environment's -- or at least biologic response to. So I think there are two pieces for that if we could understand the biology environment interaction that would be a major advance in trying to design what can be done about the environment. We know a lot of what can be done about the environment that will reduce health risk and people who are exposed to it. And that really is an educational and a public policy and a public health activity. And that's where public health has really made a huge difference in the health of mankind. I mean flush toilets or clean water actually cigarette smoking is a real triumph I think. Public health policy can change the environmental exposures that result in an unhealthy consequence for people. And I think we in the healthcare profession are ought to be activist in that regard and we ought to be doing everything we can, so throw the rascals out if I don't do the right thing and to promote policies that make the environment healthier. I think climate change is one of the major challenges for the coming generation and I don't know what the outcome of that's going to be but it's not going to make us healthier.

Margaret Flinter: Dr. Brigham just curious this is just maybe ask you to pined if you have a through about it. I was recently re-listening to a TED Talk by Dr. **Nadine Brook [PH]** and listening to her work on the effect of average childhood events on long term health and the predictive ability that she sees in the folks who did that original study that preceded her work showing that children who are exposed to these average childhood events have accumulative risk of developing diseases that we've not traditionally associated with average social childhood events, right? Where does that fit into when you think of the work you are doing in the predictive modeling arena, where do those adverse social toxicity in the personal environment, where do you think that fits in with this work?

Dr. Kenneth Brigham: Yeah incredibly important and I am trained as an internist but in fact predictive health is really a pediatric problem. And probably prenatal problems, I mean even in utero experiences probably have effects on what happens later in life and what the risk are. If we could understand those process that would be an opportunity to intervene very early the chance to impact adult health from that direction is enormous, if we could understand the processes and intervene at a childhood level. But there really should be a very intense focus on childhood experiences as well as diet and other things that are -- just in terms of determining health.

Mark Masselli: We have been speaking with Dr. Kenneth Brigham a professor emeritus at Emory University School of Medicine and co-founder of the Emory Georgia Tech Predictive Health Institute. You can learn more about their work by going to predictivehealth.emory.edu/cdh or follow them on Twitter at Emory Medicine. Dr. Brigham thank you so much for joining us on Conversations on Health Care today.

Dr. Kenneth Brigham: Thank you very much I've enjoyed talking with you.

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Mark Masselli: At Conversations on Health Care, we want our audience to be truly in the know when it comes to the facts about health care reform and policy. Lori Robertson is an award-winning journalist and managing editor of FactCheck.org, a nonpartisan, nonprofit consumer advocate for voters that aim to reduce the level of deception in U.S. politics. Lori, what have you got for us this week?

Lori Robertson: Every three months we take a look at what we call Obama's numbers, a statistical record of Obama's time in office. And that now includes an update on how many have gained insurance under the Affordable Care Act. The administration says that 16 million people have gained coverage because of the (inaudible 21:06) that number is based on point by the gallop organization and includes an estimated 14.1 million adults who gain coverage from October 2013 the start of the first open enrollment period for the **AC exchanges [PH]** through the beginning of March of this year. The other 2.3 million in the administrations total are young adult age 19 through 25 who previously gain coverage after the law began requiring them insurance plan allowed children to remain on their parent's plan until age 26.

The National Center for Health Statistics meanwhile estimated that only 11.9% of all Americans lacked health insurance at the time they were interviewed last year, that's down from 14.4% in 2013. But it still leaves an estimated 37.2 million without insurance the NCHS numbers are preliminary based on interviews conducted during the first 9 months of 2014. The urban institutes health reform monitoring survey looks at the uninsured who are ages 18 to 64, in that age group an estimated 9.7 million gain coverage between September 2013 and December 2014 according to the quarterly survey. And that's my fact check for this week, I'm Lori Robertson, Managing Editor of FactCheck.org.

Margaret Flinter: Factcheck.org is committed to factual accuracy from the country's major political players and is a project of the Annenberg Public Policy Center at The University of Pennsylvania. If you have a fact that you would like to check email us at chcradio.com we will have factcheck.org Lori Robertson check it out for you here on Conversations on Healthcare.

Margaret Flinter: Each week Conversations highlights a bright idea about how to make wellness a part of our communities and everyday lives. It's a known fact that the current generation of American children is more obese than any previous generation. And out of Washington DC Community Health Center Unity Healthcare a pediatrician was in a quandary over how to tackle this growing health carriage. He began with the unique solution targeted to a team patient who is body mass index or BMI had already landed her in the obese category. What he did was write a prescription for getting off the bus once stop earlier on the way to school which made her walk the equivalent of one mile a day. Dr. Robert Zarr of Unity Community Health Center understood that without motivation to move more kids just might not do it. The patient complied with the prescription and has moved from the obese down to the overweight category certainly an improvement. He then decide to expand this program by working with DC Parks Department mapping out all the potential walks and play areas kids have within the city's park, mapping 380 of them so far.

Dr. Robert Zarr: How to get their parking is parking available if someone is going to drive bike racks?

Margaret Flinter: Dr. Zarr writes park prescriptions on a special prescription pad in English and Spanish with the words RX for outdoor activity and a schedule slot that ask when and where will you play outside this week?

Dr. Robert Zarr: I like to listen and find out what it is my patients like to do and then gage the parks I prescribed based on their interest.

Margaret Flinter: Ultimately Dr. Zarr says with some 40% of his patient population grappling with overweight or obesity, he's plan to create an app for his park's database where providers and patients alike can use it. And one day he like to able to track his patient's activities in the parks. RX for outer activity, partnering clinicians, park administrators, patients and a families to move more yielding fitter, healthier young people, now that's a bright idea.

Margaret Flinter: This is Conversations on Health Care. I am Margaret Flinter.

Mark Masselli: And I am Mark Masselli.

Conversations on Health Care, broadcast from the campus of WESU at Wesleyan University, streaming live at www.wesufm.org and brought to you by the Community Health Center.