

## **Title V, Social Security Act:**

### **Honoring Our Past, Celebrating Our Future**

**October 20, 2010, Washington Hilton Hotel, Washington, D.C.**

#### **Opening Remarks**

### **Moving from Theory to Practice: Life Course, Social Determinants and Health Equity Framework in Maternal and Child Health**

LAURA KAVANAGH: Thank you very much. As you've heard, a theme is today. We're sharing together the unfolding story of Title V. During each session, we'll celebrate our history and reflect on our present and begin to chart the course for the future. For some of us, this is a shared history. We've lived some of the events that will be recounted today but for others, our partners, maternal child and health, we hope that sharing our history will help us all better understand how we got to where we are today, and how we can plan to move together in the future. Anniversaries also provide an opportunities to pause, to remember and to thank those who came before us who shaped the fields, mentored each of us with young professionals and renewed the commitment for the next generation of leaders. I hope you take the opportunity to reach out to someone and make a connection in today's meeting. Look around you. Today we celebrate you, this vibrant community of MCH professionals, public health leaders, policy makers, researchers, teachers, youth, students and advocates from across the U.S. and jurisdictions of many different ages and experiences. All committed to a singular purpose, improving the health of the nation's adolescents, children, mothers and families. In some American Indian cultures, the elders advice taking into account seven generations when making decisions. The decisions of the current generation should be informed by the wisdom learned from the past three generations or about 75 years. And the legacy of the coming through generations. I think that this lesson is particularly appropriate for us today as we share the lessons from the past, opportunity for today and the promise of tomorrow. I'm going to share just a few announce -- announcements with you and then I have the pleasure of releasing the 75th anniversary video for you today. First to the announcement. In your packets, Cathy mentioned several items that are in there, including a reprint of the 1935 infant care. At one point in time, this was the best selling U.S.

publication. It was pre-what to expect you're interesting and the first year and those sorts of things. Also there's a history paper from Jeffrey Brosco who will be presenting and also analysis of vital statistics data from 1935 to the present in infant mortality, child mortality, youth, maternal and maternal mortality, obesity and newborn screening. There also has been a publication that compares the bright futures guidelines to infant care. For those of you interested in the slides from this presentation, we're recording the sessions as well as streaming live. Those will be available on the MCH com.com site after this meeting and we've launched social media efforts in association with this meeting, moving to the future. There are posts on the Facebook site. Thank you for so many of you that have submitted videos. They're now on YouTube and available to the world. There's a blog. Mostly it's been trainees who have posted so far but I encourage any of you who have not blogged before to blog with us. They're all available on the 75th anniversary website. In support of the Title V meeting, we also challenged ourselves and all of you to participate in 75 for Title V. The idea behind this activity was to engage in 75 minutes of volunteer service in your respective communities. We have received some wonderful ideas and stories and several of the slides that you'll see between sessions later on today will describe these contributions. They're also all available on the website. Many thanks to so many of you who have made such a difference in so many ways. There are also take one tables in the hallway that you'll see in the break. Child health U.S.A. is being released as well as women's health U.S.A. and the national survey of children's health -- of mental and emotional well-being of children publication and some MCH program brochures. Now on to the fun. As we planned this commemoration of the 75th anniversary, the bureau wanted to convey through a video the history, achievements and spirits that have characterized the Title V program. Working with our contractor, several approaches were considered for how to best depict Title V, the past activities, current efforts, future directions and the partnerships that have been instrumental in making it the program it is today. We decided to tell the story through families who have been served by the family. You'll find the names of the families who participated in making the video. We extend a sincere thank you to those families for sharing their stories and helping us to tell the Title V story. I also want to take this opportunity to express the bureau's anticipation to all of the Title V families whose leaderships and involvement helped to guide and continuously advance the programs over these many years. We couldn't have made the journey without you. Thank you. It's my pleasure to share with you the 75th anniversary video. It will also be showing throughout the day in an area in the -- outside of the ballroom. There will -- you'll get it in a minute but there will be a photo booth there as well and you'll be able to see the video there. Enjoy the video. [Applause]

>> I was pregnant and needed a lot of support and help from, you know, someone other than myself.

>> My wife and I, we knew at 24 weeks in the pregnancy that she had a neuro tube defect. We did not know what kind of outcome we would have as parents.

>> Celebration at first because I wanted a son and then finding out that they have special needs, at first it was just move on. We need to move on.

>> Michael was born in the mid 1960s with spine -- spina bifida and we adopted him when he was about five.

>> I have six kids. At first I didn't care what I should have done for my kids. I wouldn't spend time with them.

>> To have a younger brother who has special needs, he was a quiet kid and he was so well behaved, nobody picked up there was something wrong with him.

>> There's a picture of her when she was hooked up to all of these tubes. After seven hours of surgery, we just stood around there with the doctor and everybody else and said, now what?

>> We thought we were smart, energetic, young people and we didn't imagine, have any idea how challenging it would be.

>> My mom noticed he didn't talk right away. His speech was different. It was really hard, you know.

>> If I wasn't going to seek out the services, he wasn't going to get them.

>> When you need help, what are you supposed to do? I called for help and they helped me.

>> Title V we tried to target in our services all mothers and children because everybody can always stand some health improvement.

>> When you just worry about raising a kid, a child period, it's one thing. Having a child with a special health care need just adds to that.

>> I didn't have anybody to go with me so one of the workers actually went through the ultrasound with me. She was there for the delivery as well.

>> What makes sense to us is to share the information and resources that we find out about.

>> It's a social network only its networking of medical needs, a networking about public health. Why not tap into it?

>> To me it's a circle of life thing.

>> It's thinking more than the nine month intervention during the pregnancy and thinking across the life courses and across even a generation.

>> What I'm trying to do is get my life right so that they won't have to grow up and go through the same things that I did.

>> It's broader than just education. It's broader than just health care. It is beyond that. It is public health.

>> We've done a lot of good over the years. We've immunized more infants, we've done much better about taking care of babies in the newborn intensive care unit but there's still some challenges that exist. I think the strength is in partnerships.

>> They really included us in the work of Title V and really were models for how to involve families. And I think we have grown tremendously in our knowledge and understanding and families in how to work with people to make changes that are beneficial not only for our own kids but for all kids and families. ?R it's not a one size, one shoe fits all program. It allows each state to define what their communities are saying to them.

>> They kicked the door open. That's what they did.

>> The bureau really took a chance on us given the fact my son was not expected to live, the fact that my son is married, lives independently, works, these are things that would have been impossible to imagine at the time he was born.

>> My kids keep me breathing and walking and everything that I need to do for them, I'm going to try my best.

>> It was exciting for me to finally have some support that was, you know, keeping me. I'm the only person for my kids. I need to be there for them.

>> My brother has really come a long ways. I'm so thankful to them because they helped my brother in so many ways and learning that has helped me be a better mom. Travis became an advocate himself in telling people about services and sharing with his group about what is available and he's, you know, talked about Title V services now that he's older.

>> Hope came home and didn't know if she would ever walk. One of the things that I'm most thankful for is those people early on in hope's life that said we could. You know, it takes her longer to get to a classroom but the fact that she gets there. She's a spirited kid.

>> I've kept this card over the years and when I get discouraged, I read this card. I wanted to tell you how much you've changed my life and Jenny's. For good luck, for another lucky girl, I'm returning the baby shoes you gave to us and thank you and the other people in the clinic. I'm happy.

>> We really are so appreciative of all that Title V has done and it's obviously working because it's been in service for 75 years. I want to thank everybody and healthy start that helped me with my family every day.

>> Thank Title V for providing these services to us. I don't think we would be where we are right now.

>> And hopeful promise of continued service for the next 75.

>> Thank you, Title V.

>> Thank you, Title V.

>> Thank you, Title V.

>> happy birthday. [Applause]

MAXINE HAYES: I had to take a moment and just pause looking out into this audience and tell you how much of a pleasure it is to be back with the maternal child health family and friends. This is an incredible time of celebration. The good book says there is a time and there is a place for everything under the sun. Today is a time for celebration. It is a time for Thanksgiving, gratitude, reflection and hope. As I look across this audience and recognize that you represent the power brokers for maternal and child health in the United States of America . You carry one of the most important missions that anyone could carry. And I think it's time to say thank you to you. 75 years from now, someone will be celebrating another birthday. And because you are making the history, you won't know what they will say. But I want to guarantee you that this incredible legislation in the context of social security, the oldest public health program and yet it is not in public health law. It is in social security. And it is so overwhelming when we recognize that we are 10 years into the 21st century and we learn so much about the importance of context, social and environmental con tech the -- context for our work. That has not changed. So I am very pleased to be a part of this celebration and to introduce an incredible panel that will do basically three things. This panel will look back, take stock and look forward. Look back again at

the history and the contributions of the Title V program, take stock and actually look at some of the new framework of thinking in terms of how do we put into practice all that we now know. And hope looking for a future and planning for it and then be left with an example of what the future could indeed look like. An example of what it looks like in the 21st century. And I guarantee that at the end of this panel, all of us will have a renewed commitment to the incredible work that is going to be required for the 21st century. I am going to introduce our panelists at once so we will be very efficient with the time we've been given. And the first presenter, Dr. Jeffrey Brosco, is a pediatrician and a historian. He is professor of clinical pediatricians at the university of Miami and the associate director for the lend program. Dr. Kotelchuck, he is senior scientist in maternal and child health Massachusetts general hospital and he is the 2010 Martha May Elliott awardee. [Applause] Dr. Peter van Dyck and I want to pause here with the doctor because I think all of us owe him a tremendous amount of gratitude for the leadership. I've known Dr. Peter van Dyck prior to his many years as leading the nation for maternal and child health and I want to just pause and just have you thank him for the incredible leadership he's shown over many, many years. [Applause] and last but certainly not least, I am so pleased that Tonya Lewis Lee rejoins us. She is an author and producer and the spokesperson for a healthy baby begins with you from the office of minority health. Many of you will remember miss Lee in addressing the meeting two years ago. I had the pleasure of meeting her and she is really going to give us hope, hope that we can move the many things, the many frameworks from theory and taught to practice and show us what hope looks like for the 21st century. When I think about Title V and all of this represents and all that we now know about social determinants, taking the life course view, addressing health disparities and when I think about the context that this program so powerful, 75 years old took in the context of social security, this is basically what we came back to today to face the 21st century challenges. As a health officer, I know that many of our communities are hurting and we're trying to build healthier communities. Many states are looking at policy. But this one statement is true. You cannot build a healthy community without the foundation of healthy mothers and children. That provides the corner stone for healthy families, healthy communities, healthy states, healthy nations. So I now present to you our first presenter. [Applause]

JEFFREY P. BROSCO: Thank you so much. It's a true honor and privilege to be here today and I would like to tell you a story that my good friend Paul Newman told me. It's two men in a hot air balloon and floating across the desert and get lost. They see a solo, one guy down below and they shout down to him, where are we? And he looks back up and he shouts to them, you're in a balloon. One guy in the balloon says to the other, great. Here we are lost in the middle of the desert and he's a historian.

How do know that?

He told us something that's not true and didn't help us at all. I'm going to try to disprove that today. The thing that gentleman could have done, if he really were a historian in the desert, he might have pointed out where they were coming from and what the prevailing winds were. That might have helped them figure out where they were headed. The title of my talk today is locating the future from the past. There we go. So I would like to talk to you about a couple of prevailing winds in maternal child health. It's sort of the pre-history of Title V. The winds continue today. I can't tell you what's going to happen in the next two weeks but if I do my job well, it will tell you what will happen in the long-term future. The prevail wind is something you all know with. It's about one Doctor, one patient. I am going to point out some roots that lie in the social determinants of health. Second prevailing wind is the history of the maternal child health programs particularly in the federal government and explain where the programs came from and in some sense where they're still headed and last couple of slides will be about the Title V leaders and how they used scientific advantages and paying attention to political forces to understand what to do. First thing you have to know is first prevailing wind is the extraordinary transformation of medical practice. It was taking place just as Title V was coming into being. If you can imagine medical practice in the 1850's, medical every physician was a general practitioner. Some had a year or two of medical school, some had nothing. Few went to college. Most graduated high school. Most were rural. They were isolated from what was going on elsewhere. Some states had licenses to practice medicine, most did not and this was before the germ theory, before we had the sense there was a particular bacteria causing a particular disease. Everyone had their own sense of what would make a difference. In the 1930s, medicine has completely transformed and looks modern. Specialization is a big part of American medicine. Everyone has standardized training, muf gone to four years of medical school and done some post graduate training. Many physicians are urban and connected to each other. They talk to each other. There's reasonable income and prestige of being a doctor. In the 1800s if you said you're going to be a Doctor, your parents would have said are you sure you want to be a doctor? Do you want to be a farmer? The idea of the scientist as hero had really taken root and sign was going to lead us into the future and was the key to solving our problems. So if you imagine a doctor's office in the 1800s, what do you notice here? First thing you see is a little skeleton in the closet, right? That's probably where the phrase comes from. It's there because physicians understood that science was going to be important, although it wasn't clear how. I'm not sure how having a skeleton in a closet helped him with a patient but he knew that science was important. He has a book in his hands and book was the key way that knowledge was being passed on. You get the sense of the picture. There's wooden materials, it's kind of old, looks a little dusty. Now fast forward just to 1910 and look at the difference. This is an operating suite in 1910. It's clean, it's pristine, porcelain, metal. They're going to fix the problem. Look at the contrast between the late 1800s and early 1900s and how extraordinary the transformation was in modern day medicine. In

terms of thinking about how you practice medicine, for the 2,000 years, the social determinants were actually critical. Illness was understood as an imbalance answer. You've all heard about yellow vial and red vial and -- but the key is that they needed to understand what the person's health habits were like. For most of history, that's the way we thought about Emerson health. It was also no clear distinction between public and personal health. Physicians were the ones, health care providers thought about epidemics and quarantine and making sure it was a healthy requirement. By the 1930s, our metaphor changed. Illness was a disruption of the body by an invading organism and physicians were treating individual patients. Public health professionals became the people worried about epidemics, the environment, making sure that the environment worked appropriately. So what came of this investment in science? You'll hear more about infant mortality today but it's important to remember when 1915 when the mortality rate was something like 100, 1,000, child more mortality at that point was probably close to 100 as well, maybe 200. One out of four, one out of five babies or children died. Just think about that for a minute. Every single family experienced death either in their family or in their neighbor's family. To imagine the extraordinary change to now we're talking about, you know, the rates. By 1950 it was down from maybe one in 1,000 to one in 10,000. You'll hear more about the mortality with the big changes when we were getting started with Title V. And it's sort of the idea that the investment in science was the right call. It was probably brought home by the polio vaccine. You've already heard there was an explicit decision that the way we're going to get rid of the poll -- polio problem is by getting rid of the science. Polio disappears from our community. Historians describe this in different ways. We talked about inward vision, outward glance. That's the idea that the best way to improve health of a population is to provide technically sophisticated intervention to people in the office, in the hospital, using antibiotics, medicines, surgery and so on. You can imagine for that 26-week premium, 25-week premium, he was lucky enough to be born near an expensive expensive care unit. Folks in the unit are doing incredible work. What happens if you look outside the window from that unit? What do you usually see? Most critical care units, you'll often see a community with high mortality rates. You'll see kids who are not graduating school. Kids who have admission for asthma that could have been prevented. It's characterized medicine the last 100 years. To make the transition public health, I have a pop quiz for you. This is mortality from measles. I could have put up here any of the infectious diseases. It could be -- tuberculosis in children. Pop quiz. In what year did we have an effective measles vaccine? 1963. Here's the question. How does a vaccine in 1963, the flat part of the curve, affect all that mortality from 1910 to 1950? If I put here bacterial pneumonia, I would show you the antibiotics came in the 1940s and just for about all the other vaccines are from 1960s or later. How could these investments in science have accounted for that mortality transition? It can't. It can't go back in time and do that so it had to be public health, social determinants for health. It had more to do with personal habits, making sure nutrition was a key part of

this and there's a lot of debate. But it was a good transition to maternal child health programs and where they came from. We've known since the early 1800s pretty rudimentary statistics. In Paris, in the early 1800s, he did a series of interesting studies. One of them was looking at boarding houses and looking at rates of cholera. He was able to correlate mortality rates in different districts in Paris. It's continued through the 1800s. It's pretty clear that poverty and infant mortality and adult mortality ranks are high. We've known for generations that what happens to pregnant moms, to babies, to children affects their lives later on. One sort of funny example is if you read about the arguments against educating women in the 1800s and 1880's and 1890's. One argument was that if women spent too much time in higher education, went to college and used their energy on that, they would shrivel up and have weakling babies. It's true. You can read these articles. They were quite effective as you can imagine. More importantly for us here today was the sense that -- ready for this? War is good for babies. Why is that? 1880'S and 1890's in particular, many nags -- nations realize that we don't have enough people. And off of that came, particularly in England and France, Italy and Germany as well, the sense that we needed to make sure that every single baby born was well taken care of. We needed that. You have to fight in battles and be in our factories. It was a key political theme across the spectrum in the late 1800s. United States, it was in some ways the backdrop for founding the shepherd's bureau. You've heard a little bit about those. I'm going to focus on the social causes of infant and child illness. The counteract in 1921 was passed in the wake of World War I. We discovered that one third of the recruits were unhealthy, unfit for battle. There's a sense of national crisis. What are we going to do if we don't have enough healthy bodies? The other key thing in passing the shepherd act which was the importance of amendment 19 and 19 is the right of women to vote which was passed in 1920. Let's just reflect on that for a second. Think of who the leaders were in the early 1920s. Women were leading us and still weren't able to vote. Pretty incredible. In 1920 many senators and Congress people were concerned that women were going to vote about maternal child health issues as well. The act was important. Women would vote us out of office if we didn't pay attention to child and maternal health. Bad news is coming. And what the shepherd act did, it was federal grants to state. It should sound familiar. It's the basis for Title V. This is a truly remarkable political achievement. The federal government was tiny. He was a very small part of American life in these days and to say that we as a collective federal government was somehow responsible for children and mothers was really an extraordinary step. Here's a picture of Josephine baker. She was in the first department of health to have a child hygiene section. She was the first director and many of her ideas became shepherd town act and became Title V. She's driving a car. Now, yeah, cars were a big part of 1910. Sort of when cars became important. But more importantly, it's a woman driving a car. To read a little bit about Dr. Baker's experience is incredible. When she was appointed director of child hygiene, the physician reporting to her immediately resigned. Men would not work for a women's position. She

said to them -- she said stay with me for a month and at the end of the month, then you can decide. It's a tribute to how extraordinary a leader she was. So what did the shepherd act do? Here's a good example. What do you notice when you look at this? Where do you think this is happening? Looks like a church basement, doesn't it? Maybe a YMCA kind of room and it's really informal and there's a bunch of people lined up and a couple of people are dressed as nurses behind a table, public health nurses but it's a pretty informal environment. I don't know how they got that sit to sort of pose and why nobody is hanging on to the baby. You notice it was an important part. What the volunteers did was screen for illness. Any of the public health nurses who ran the clinics found anything wrong, they would refer the child to a private physician for treatment. This they wills us something about the limits of the Title V. First, even though in theory was for all children, you would be ended up being limited to families living in poverty. In general, families should be paying a private physician for medical care and that government clinics were only for those who could not afford the dollar that was required to pay for physicians. Second language is that it was just limited to health care. It was repealed in 1929 because this was socialism. You hear that today, too. This was socialism. Allowing government folks to look at the -- you know, voluntarily. The AMA was dead against shepherd. We're making sure it's okay. The women's vote ended up being pretty tricky and women did not vote necessarily from the maternal child health program. The Title V was based on Shepherd Tower. It was part of promise to a great act. Social security is for every citizen over 65. Rich, poor, doesn't matter. Unemployment insurance is a huge program designed as a safety net across the board. If you lose your job, it doesn't matter. If you lost a big job or small job, it's still going to cost you. Compare it to what happened in Europe. Every child a liened. Every child mattered. In England and France, there was a sense that every single baby needed help. Every single family needed help. We had a collective responsibility to take care of every child. This is not true in the U.S. Not true. Why would this limited, relatively limited act happen? Many historians spent a lot of time talking about why we didn't do what other nations did. I want to point out at least one accident fact. Remember I told you that European problem was insufficient healthy bodies. You didn't have enough people to be in the factories and play in the wars. Problem in those days was immigration. We had way too many of those southern Europeans and eastern Europeans and they were -- ruining our country. Before that it was the Irish who were ruining the country and before that, it was the Germans who were ruining the country. And it becomes our country and then they complain about the next group coming in. It was particularly important because it meant that we as a nation didn't feel the same necessity from investing in earth child. If you look at the accomplishments of title 5, they're extraordinary. In the 1930s there was a lot about orthopedic impairments. Rickets and polio. You need to have social worker, wrap around services. Pretty impressive. Paying attention to cardiac surgery was figuring out how to fix a heart that they couldn't fix before. For decades, they worked on the scientific advancement. Here's an example of when

parents led the way. It was really parents and families and support groups that said, pay attention to my child. The children's bureau listened. And then in the 1980s and 1990s is an example of how we're trying to lead in a new direction. We'll talk about children health care needs. That was a very conscious effort to learn about child's health. Title V leaders over the generations have done a great job of gathering and disseminating information, integrating new approaches to health care and they figured out all sorts of administrative ways to do this. My last slide, if it will come up, these prevailing winds. So to sum up, focus on intervention and keep to your medicine. It's clearly one of the prevailing winds in American medicine. And so getting us to refocus on population health is going to be an uphill battle. Federal maternal child health care programs are fairly limited. The last thing I have there is look at today's list of speakers and look at the people in the audience. When you spent the rest of date talking about how we're going to respond to the prevailing winds and look at the present and the future and with that, Dr. Milton Kotelchuck.

MILTON KOTELCHUCK: Well, I'm honored and thrilled to be here. It's such a great organization. Title V has been in my whole life and I'm a proud and happy to be here. I've lived my whole life with Title V and I'm hoping I will continue into the future with Title V. Figure out how this works. Okay. In a way, I'm the present. I'm the take your stock. I'm the person who is going to kind of interpret and popularize life course a little bit. Think about where we're headed and what I would like to do today is really just think a little bit to the introduce, include the life course paradigm, say something about its theory, give you some examples of practice. I've stolen every idea I have here from my various ideas so that gets my out of plagiarism. I never give a talk without starting with a slide from Hillary and myself being one of the great heroes of child v. It says that to meek a difference, you need a political will to make a difference. We have new concepts that the past hasn't worked as effectively as it could. The fact that so many people are here suggested that we have some growing political will, changes in Washington and others of allowing us to do things we haven't done and our challenge is really to figure out how to revert theory into programs and actions. There we go. I want to note that MCH bureau itself has a life course that we can build upon that's quite impressive. I thought that Jeffrey Brosco described it well. I think about how to rely -- recollaborate those I think is a tremendously transformant moment. MCH life course reflects new and renewed ideas about how to move us forward and reduce disparities. Let me read you a quote. MCH does not raise children. It raises adults. All of tomorrow's productive, mature citizens are located some place along the MCH continuum. They're either being conceived or born or nurtured for years to come. All population, everybody of every age were all at one time children and they bring to their maturity and old age the scars of an entire lifetime. Now, an MCH official was in the bureau for many years. I don't know when she gave this but I would like to think it was the 25th anniversary

because that's exactly 50 years ago she wrote this quote. So how did I get into this activity? Quickly to remind you, in the late 20th century, we're increasing to care. There's a great testament to the way that governments and private citizens work and rally to work to make a change about access to prenatal care. It really made a difference. Prenatal rates occurred, disparities between groups declined in prenatal care but unfortunately, more birth outcomes continued to increase. Something new was needed. We've been focusing on medical care, kind of enhance the medical care at a single point in a life span. Along comes my league, Michael Lou and Neal houseman and said let's look at this program in a broader context, this was a really revolutionary thing. We were so Title V in our approach to this, all the wonderful things we would accomplish but they said step back. Let's look at reproductive outcome. Let's look at what we're actually doing. This is a grant they did and from that draft -- I wouldn't do this and my son wasn't able to help me out. This is my quick variation of the same thing. You can see the began between the black and white communities and we were focusing on pregnancy, prenatal care during pregnancy. The differences between blacks and whites condition and they were also there before the pregnancy. This is the way we started to think about things. What do we think? You can't cure a lifetime of ills in nine months of a pregnancy. This was a profound realization. Looking obvious today but when you focus narrowly, you don't think about this. In some sense, the efforts really didn't work and this led us to new searches for knowledge, using some new scientific information. Many of us in this room worked around women's around women's health. We were stretching prenatal care a little bit but if you stretch it far enough, you come to the MCH life course. And this is the graph that I think most of you are very familiar with. We want to note that this graph suggests that there are gaps between the black and white company, that there are risk factors and protective factors that we're all aware of, important, access to care that make groups have differences in their likely outcomes and what they bring to the pregnancy. This grant started actually before birth and continues on. While this is for reproductive health, it could have been for any field that we chose to look at. One of the things that changed in this period -- so that was the life course model. Two other paralleled models that developed in the same period that people have caulked about are social determinants. Social determinants of health are those factors which are outside of the individual. They're beyond individual endowment and beyond individual behaviors. They are the context in which individual behaviors a raise. For individual resources, whether you're born in poverty or education, has order, toxic exposures, opportunity exposures to help yourself in life. Health equity is the other model that arose during this period. I'm going to just quote you from the world health organization. Systematic differences in health are judged to be avoidable by reasonable actions. Putting right to these inequities, remedial differences and help between and within countries is a matter of social justice. So here are two other things. Let's go back now to our life course model and you might notice in the life course model actually the life course model captures both of these things. What are the arrows going up and down?

Many of them are the social determinants from life and the gap between the two groups, that's health equity. That shouldn't be. We know that that gap -- there's no basis for that gap but it exists so health equity is saying here is the gap, the life course telling us to think about what we bring over time into this model. One of the great achievements of this period has been the new growth and science. The reason why I think we like it is that it provides an understanding of how the social government gets into it behind in our physical beings which man tests itself in health. It bridges our intuitive understanding that as mentioned by Jeff, the social courses of ill helps people always know malnutrition is bad for us. This focuses on the road causes of illnesses. That's why we like this. There's been a lot of different areas that actually have come to the same kind of model. I come to it from reproductive life course. Chronic people come to it. There's a growing scientific basis for this.

I won't spend a lot of time on the science but there are really three or four mechanisms by which the life course actually works. Here is the human impact model which basically talks about how stress impacts on our cellular level in a sense, how our body responds to stress, how our body responds to infectious diseases and how that can change and how the stress itself can cause us to do differently. Early programming says that the environment in which the senses and the nervous systems and others developed are embedded in a world in which we can program sort of the health of people, the way ourselves are developing. The whole new area of genetics. I thought it was yes or no, you had the gene or you didn't have the gene. Now I know it can be turned on or turned off. Turns turn genes on and off. Again, mechanisms that we can now impact on the science. One of the Seminoles works in child development captures the same kind of thing. Tonight quote from one of the early summaries because I think it's so beautifully capturing everything that is in the life course model. Early environments matter. Parents and other regular caregivers in children's lives are the active ingredients of the environmental influences of early childhood. Children's early development depends on the health and well-being of parents. It's a two generational --. It doesn't take that children are more important than parents. You meet them both. The focus of zero to three period begins too late and ends too soon. A wide range of habits develop the central nervous system. What I really like is the capacity exists to increase the odds of favorable development through planned interventions. We can do something about it. You end up having models like this to come out of their work. It looks just like the same thing I showed you in reproductive health. That particular group focused very much on looking at the biology and have thought the newest science so there's a link between our physical body and our development. The other key Seminoles work was the children's health nations. What I particularly like in that book is you have a new definition of child health. Develop the capacities that allow them, the children, to interact directly with their social environment. It's the model that fits very nicely with the life course model. It talks about our interaction.

It implies change. The life course epidemiology, it wasn't only us to work with young kids but people who work with the elderly and chronic illness came back down and said what happens when you're young, really makes a difference. When I was young, we studied the childhood origins and it impacts them in all of these different areas. What happens during your pregnancy makes a difference between your adult disease. I'll just flip these lights. If you're born in China, you're more likely to have insulin resistance program. There's the same thing starting with events. More problems in early childhood, the more likely you'll have heart disease when you're older or depression. The life course to scientific paradigm for the field, it addresses enduring health issues with new perspective especially around disparities. It launches a holistic approach and provides a framework for facilitating the agenda. A group of us, we organized a conference about two years ago trying to help figure, how do I move the MCH field forward, how to get the paradigm shifted and we had to focus on five topics, the same topics we think about today when we think about life courses. I want to focus on theory because what is the theory of MCH life course? very hard to tell where this -- okay. Let me start off by saying there is no test. There is no life course text. We've written a lot of articles, a lot of research. Yet there's a need for a unified, common understanding of a framework to help our field move forward and today most of the work about life course theory is really focused on the cause analysis. They provide us relatively limited guidance for what to do for strategic action. Recognizing that, the bureau asked me colleague and myself to put together a paper, a concept paper to really try to look at the core theory of MCH and use it to help us move forward. All of you got that document. I hope you enjoyed it. What do we see in this framework? Really we saw that everybody had really two common goals. They were to optimize the help across the life span for all people. Not the average but to be optimal, to every person no matter what level you start the world at or what happens to you. Optimize your health along every second point in time. These are clearly the life course goals that aren't so different in all the Title V historically has had. Can we write this in English? We said there were four ideas that really came out of this, that we thought. Today's experiences and exposures you're determine tomorrow's health. Health trajectories are particularly affected during critical or sensitive periods. The broader environment, environmental, physical and social strongly affect the capacity to be healthy. Not a bad sentence to crystallize but I wasn't happen personally. I thought that's still two long sentences. So we came up with two. The first one is time line. It talks about it conveys the sense of movement across time in a cumulative impact. The environment suggests to us that we have to really focus on the impact of family and community, place. That is a critical factor for influencing health. And health equity really says we have to address these issues in a more profound place. Let's go back to that graphic again. And what's interesting about this graph, this graph was written and those four were written without realizing all the things we had. All four of those concepts are in that graph. You might notice we always have the time line. That's the lines moving. We have the issue of the

biology, timing which is why those curved in, why certain periods are more than others. The environment issues and we also have the equity . I never was really go ahead at "star wars" so you can see I'm struggling with that. All four key concepts need to be addressed if we're to proceed fondly have any impact on child's life. The four ideas fit very nicely with the new sciences. Highlight the social determinant models because I want to say those health equity models are complimentary to the life course. The life course, I see life course as sort of the larger of the topics. Their perspectives offers an explanatory model of how healthy inequities develop and they talk about the biology of human development into our understanding of health. I want to acknowledge some of the concerns so let's -- this is an evolving topic. The life course goes beyond but it doesn't include medical carry. They're complementary. That's the strung he will that this life course helps us fuel, getting away from a medical battle and a social determinant model to bring them together. Life course is not deterministic only. It's transformational and interactive and that's the theme. That's why I like that theme, the new model of definition of child health and life course values every life, values life at every age equitable. That's an important element, I think. Our challenge is to transform the theory and to research and do new policies on them. There's a lot of experimentation going on. I'm going to move us quickly through the next few slides and just say there's been a really rapid revolution in the way people are thinking about how do I make this work? In 2007 I asked my colleague how to make this happen and she said, well, what's interesting about life courses and it gives her more opportunities to do things and more expanded places to do them. A time and place for everything, quote. Keeping on in that same spirit, some of us started talking about thinking about a life course and practice, tells us that we have to pay attention to continuities and discontinuities in our own work. How can we make that work have more vertical integration? Make sure we hand people off more effectively within our health care system. Better linkages with other groups, more attention to time issues, more attention to the holistic nature of us. Not to have 17 people doing home visits for the same families. I would say it's -- eye. Today, you know, we're still evolving and we're asking all of you to participate in it. And I would just say the work with Amy and myself just thought about this, knew that we wanted to think about initiatives for the mind, body and health, new faith based initiatives, new policy issue. It's a broader set of initiatives that have to address all of the four factors. We have to be thinking more broadly about the range of interventions that it's going to take from a life course perspective to really making a difference and helping to improve the lives of the infants and children. With that I'm going to get to the last slide or two. Sorry about this. This is just a pretty picture of one place that's actually doing this. I'll skip about policy. You can read these slides and just say a call to action. Transforming life course theory and research into policy \$our challenge. We need to create a life course learning community to share our knowledge and experience. We're all experiencing with this. We need to reframe our programs and policies to be more persistent

with life course theory. We need to transform our own organization into our organizations that are life support organization and we need a plan to give structure to our effort to help achieve the life course goals of optimizing health. I think I'll stop on that point. Thank you very much.

PETER C. VAN DYCK: Good morning. I would like to take a moment and add my welcome to those who came, who welcomed you before. I thank you again for all you do for MCH programs. You are our large group of partners and I can't thank you enough for what you do. I also can't think enough of staff of the bureau and I would really like the staff of the bureau, any staff for HRSA and former staff. I met some of you this morning of the bureau or HRSA to stand and receive a round of applause. Stand tall, folks. And former staffers, once an MCH, you're always an MCH. We know that. Quite a sizable force for good. I can tell you. Honoring our past and celebrating our future, this is a 1930s story from the children's bureau. He was a nice old gentleman. They were showing him the sites of Washington and timely took him through the children's bureau. Scanning the bare, orderly office filled with reports bound in drab, gray covers, with charts and maps, at last he burst forth with amazement. But where are the children? Not here, his children's bureau guide assured him but in city slums and country cabins, in factory mines and in children's courts. Wherever children are, there the bureau goes. Wherever children are, there the bureau goes. And indeed she added with a twinkle, we haven't room for our 43 million children. Well, there are now twice that. 80 million children in the United States and MCHB touches with our partners 30 million children, 1.8 million children with special health care needs. Four million I be infants and 2 1/2 million pregnant women every year. Title V today remains the only federal program that focuses solely on improving the health of all mothers and children. Title V today is a partnership with state MCH and children with special health care needs programs, racing across economic lines to support such public function that's education, knowledge development, outreach and program linkage, technical assistance to community and provider training. Title V today makes a special effort to build community capacity, to deliver such enabling services as care coordination, case management, transportation, home visiting, nutrition counseling which complement and help ensure the success of the state Medicaid and the children's health insurance programs. Title V has gap providing natal care. There's training in neuro developmental disorders or disability and behavioral pediatrics. And Title V today supports the national Title V information system that provides evidence and formed results of the MCH practice nationwide. It provides leadership, data analysis and MCH evaluation strategies. With this structure and framework and in special partnership with state directors and maternal child and health and special health care needs, the programs touch the lives of every infant, child and family in the United States in important ways that often go unrecognized. Every newborn is screened. Toddlers are vaccinated and mothers receive breastfeeding support. Many benefit from the caregivers' health and

safety screenings. Children with special health care needs and their families have access to high quality, specialized medical care and support of services that allow children full integration spew the family life and community lives. But despite multiple successes over the years, some program with medical home, early childhood sprensive systems, training opportunities, emerging issues like autism and obesity and depression screening, there remain important problems that prove challenging. So review with me briefly, we have fallen from 31st or so or we've fallen from 12 a few years ago to 31st in the world of industrialized nations in infant mortality rate. The black line representing the ratio and you can see over the years that has increased significantly. There remains a differential between white and black and the rates have flattened in the last several years. They've proved to also talk about disparities, there are geographic disparities that will grow. The darker the color, the higher the instant mortality rate. It clearly wants to slide off the corner of the United States. Pre-term birth, another issue. Pre-term birth in the last several years has continued to rise not only as they continue to rise but there's a differential between white and black despite the fact that the black/white ratio has decreased, it's not because of improvement in the black rate. It's because of the unimprovement or less rapid improvement in the white. These remain problems. If you look at the geographic disparities, it talks about health equity. The heavy emphasis on the south eastern portion of the United States. Maternal mortality. Despite great advances that were described earlier in this session, the rate of infant -- of maternal mortality has increased in the last several years and there's represented a tremendous difference in black and white in infant mortality rate and to introduce another social determinant cloth on the slide, the red line represents counties that are higher than 15% poverty rates. The black line less than 5%. Maternal mortality you can see the differential. The high infant county mortality rate, the higher the maternal mortality rate. The higher the county poverty rate, the power the maternal mortality rate across years. Obesity. Obesity on the bottom lines has increased almost four times in the last 30 to 40 years. And overweight has increased significantly in the same time period. And to put a social determinance on it below 100% of poverty, the greatest 400% of poverty, the darker bars are 2007, lighter barred bars in --. There's definitely a poverty overlay to obesity. And the same geographic disparities are represented in obesity. Up intentional injury, something we don't often look at, at closely. We've done a good job in lowering the unintentional infant mortality among children, unintentional injury mortality rate among children but look at the differential. If you happen to come with a county with a high mortality rate. You're going to have a higher rate of infant mortality. But despite that, in thinking about this for the last several years, and in your rereading the MCH history in title v, I was created by the emphasis not on the health and mothers and children but on their welfare. Economic and social programs, on their dependency and well-being. I was impressed by the fact they realized there was an essential interrelatedness among health problems of the day. Concurrently the bureau's five-year strategic planning expired last year and the convergence of writing a new one, the

MCH problems I just described and the historical -- -- analysis made us rethink our approach. Should we explore the possibility of developing new strategic planning documents using a life course perspective as the foundation? Should we essentially consider returning to our roots? The life course perspective, if you've heard, embraces a different way of understanding health. It proposes an interrelated web of socioeconomic and physiological factors can contribute to different degrees through a person's life and across generations. I received my medical training not 1935. Actually, not 1939, either. Some may think that's possible. I received my medical training in a period where access to prenatal care, was related to the outcome. As access improved by those receives first trimester care, low birth weights did not increase. I -- access to high quality medical care will not on its own solve the public health challenges we face now and in the future. Ensuring health and well-being throughout the life span from one generation to the next and across communities and population groups will require attention and a much broader context from the building environment to economic and social factors. So for the last year and a half, the bureau has been exploring the feasibility using the life course perspective for strategic planning by reviewing the literature, commissioning papers, inviting consultants, discusses with our partners, holding staff suggestions and beginning some preliminary infrastructure building. We recently had a competition and funded the establishment of a life course research network. UCLA got the grant. The life course research network will advance public health on origins and impacts of health disparities from a life course perspective. This cooperative agreement will support the maintenance of a research network that will develop new ideas and a research agenda alive course health development, conducts studies using approaches to help promotion and risk-free strategies of the population now and over a future generation. Advance the methods of studying life course health development and four, disseminating critical information on research findings to assist professionals, policy makers and the public. Number two, we've also initiated the process of developing an Internet based repository for evidence based research on the life course and social determinant approaches to the maternal and child health. To provide users with access to original research, supporting the development and refinement of life courses and social determinant models. To show how they've been used, they've refrained and refined the children and women's health programs in the field and tools to help policy makers and health care practitioners in their tools and practice and last the links to other relevant, existing websites on life course. And social determinants, approaches to public health practice, generally and among infant and child health care specifically. The website will be a meeting place for researchers, policy makers and practitioners seeking opportunities to connect and share their experiences and developing and implementing and developing life course, social determinants, focused health activities. And we are reviewing with a group of experts all the questions on the national survey of children's health for life course and social determinants content, determining what are the questions and the future questions and

hopefully attempt to find metrics to measure points along the life course perspective, something we don't have now. With our partners' health over the next year, we are now ready to apply what we have learned and are learning to the development of a strategic planning document for the bureau based on a life course perspective. From its creation in 1935 and throughout its 75-year history, the bureau has recognized the importance of embracing a health and social determinant's approach but now there's new insights and adds a new dimension on maternal and child health planning. Even if Title V seriousness evolved to change scientific advances and the social and political context the core if you think have ensured. Throughout its history, Title V has remained a strong focus on building state and community capacity through partnerships and across service sectors. This focus will continue as Title V seeks to ensure health and well-being across the life course. We look forward to planning together with you over the next year this foundational approach to the life course theory by evolving into practice. Thanks to all who have contributed to Title V success over the last 75 years. We look forward to partnering with you and many others in the next 75 years. And I can't help but show this last slide. When we developed the Title V information system 12 or 13 years ago, one of the state's developed this slide for us. That was 12 or 13 years ago. I think it's still true today, maybe more so. Peter tried to remain focus. Still he couldn't shake a nagging thought. He was an old dog and this was a new trick. Folks, we need you and all your partnership to help us carry this on. Can we do it? Yes, we can! Thank you very much.

TONYA LEWIS LEE: Good morning.

Good morning. I am here to talk about the hope that's out there and there's a lot of hope. I'm here -- I wear many hats as a wife and mother of two teenagers, as an author, as a producer and today I'm here in my role as spokesperson of the healthy baby begins with you campaign. I came to the campaign as a celebrity spokesperson. That's funny. I don't think of myself as a celebrity at all. I just happened to be married to one. The minority of health reached out to me and said Tonya, there's a crisis out here in infant mortality and we need you to get on board to help us get the word out and raise awareness and so I'm here as a spokesperson for this campaign but believe me when I tell you it's the office of minority health and in particular Blake Crawford, Isabel, kabrira and others that get the program rolling and they are just a fire and tremendous to work with. So I know I'm speaking to an audience that knows the deal as we've just heard. All right. So as I said, in 2007. The office of minority health decided to go out and raise the awareness of the rate of infant mortality in the United States and in particular the African-American community. As you have heard the statistics, we rank 29th in the world in developed countries. And the African-American disparity, three gentlemen up here couldn't figure this out. You know I'm going to be in trouble. The African-American infant mortality rate. The national average in the U.S. is six deaths in 1,000 and for the African-American community and some communities in Memphis,

Tennessee is 17 per 1,000 or 15. And so we decided that we had to get out and raise awareness and let people know that infant mortality was an issue in this country. I like to say that I think of myself as a very well read person. I'm newsy, I read the newspapers and at the time, I really had no idea what was going on in this country as just a regular citizen and infant mortality. Once I had the information and I realize I didn't know, I realized that other people didn't know so I had to get involved and raise awareness and had the word out there. And so in the first year what we did is we traveled around the country. We went from New York, here in D.C., Detroit, letting people know, talking about what you can do to decrease your rates of infant mortality as sort of the prenatal stage. At the beginning of this, we were really talking about don't drink, don't smoke, take care of your diet, get exercise and do all of those kinds of things. So that was the first year. And I think that we were feeling pretty good about getting out there and getting the word out there and raising awareness that infant mortality in the United States is an issue. And also for African-American women, I think often people think of infant mortality as an issue simply of poverty. And what we have found is that when it comes to African-Americans, the affluent African-American woman is at higher risk as the less educated, poor white woman. We're trying to figure out what was going on. Okay. And our goals with the campaign were to increase the awareness, we wanted to target the 18 and over population, we talked about reaching out to college campuses and I'll get into that a little bit more and develop private and public partnerships. This is not about simply individual responsibility. We all need to get involved and we need as many hands on deck as possible. In the second year after we were feeling good we got the awareness out, we felt there was more we could do. We developed a peer educators program which focused on preconception health. We realize, obviously, that preconception health is one of the most significant producers of infant health and that, you know, getting to women when they're just about ready to have a baby is way too late and we needed young people to talk to young people about what they needed to do to be healthy. So why peer education? Well, we realize that when college students talk to college students, we can really get the message out. I can go and travel and talk to college kids and I can talk about my history and I talk the talk and walk the walk. I exercise and eat right and all of that and I can tell them all about that. When you have young people talking to young people, it's so much more powerful. When you have college kids going to talk to high school kids or talk to middle school kids, what an impact that is. I've had the wonderful opportunity to watch our college kid talk to high school and middle school kids and when you see the energy, when you see how these young people light up to colleges who can relate to them in terms of their music, in terms of their social networking, it's just a powerful thing that happens. It's also a way to reach younger and less educated views by going to them with their peers. We realize that talking about preconception health with young people is a way to identify and modify conditions at an early stage. We can intervene early, we can inform them about tests and screenings and things that are out there and I feel I know I'm

preaching to the choir that better health care is not sufficient to improve women's reproductive outcome. It has to come from talking to young people and getting them to not only change their behaviors but begin to advocate for their community to change the way things are in their community. The preconception peer educators program. Target the college aiming population to get college students, as I said, as peer educators on their campuses and in their communities and to disseminate all of the key preconception health and care messages. We also -- also a big part of the program is to talk about a reproductive life plan, to start thinking about how they can plan a pregnancy. As we know, planned pregnancies can reduce infant mortality and can reduce poor birth outcome. We're having young people talk to young people about creating a reproductive life plan, about going to the Doctor, taking care of yourself and planning your pregnancy. Now, our students come to -- when we first piloted the program, our students came to Washington, D.C. We had four college universities and they came to Washington, D.C. and got training about health advocacy and the issues of infant mortality. You see here they were trained by doctors about health disparities, minority health, infant mortality in general. One of the things that we find is that most people don't even know what infant mortality means. you try to plain the disparities in the African-American community, about preconception health and care, H.I.V., S.T.D.'s and also what men can do. How men can get involved. You know, we often -- we're here talking about maternal and child health but the truth of the matter is maternal and child health is largely impacted by the men in their lives and so we're making a push to get more men involved. This is not an effort directly solely at women and young women. It's directed at young men as well and I think it's important that we find a place for men to plug in. One of the things that I have found on our -- in our travel is that men often feel so ostracized. They feel left out. They have no idea where they fit in this. And they're key. We cannot reduce infant mortality without men's help or improve the women and children without the health of men. The accomplishments that we felt through our preconception peer educators program, we started on the four college campuses, we had almost 300 students so far trained as tpe's -- ppe's. We charged them with going back to their college communities and taking the materials and making it their observe in a way that would work for their communities. They were to go and recruit other students on their college campus, do a health fair on campus and/or outside of the community and what we found is that, you know, they really -- they made it so much bigger. They took the materials. Again, the campaign was a healthy baby begins with you so the college kids said we're not thinking about babies right now. We're thinking about ourselves so maybe we should change it to a healthy you. And then, you know, when I was in college, so many years ago, we used to post things up on the cork board or the student center so people would get information. Things don't work like that anymore. Our college kids used the social networking sites to get the information out there and recruit people and get them involved. And then they went beyond their schools. We were at Morgan state. Those students there reached out to the

high school kids in Baltimore and brought them to Morgan state. They had a two-day symposium where they brought people who talked about infant statistics, doctors, researchers who talked about the statistics of infant mortality and at the same time, they brought a young woman who had lost her child to infant mortality because of SIDS and they had a step show which was really great. They showed the kids the life of the college campus and gave them the information, quizzed them. And the kids really got the information. I think they really got into it. I think that, you know, our youth is so incredibly powerful and the younger kids, the high school and middle school kids really, really appreciated the Morgan state students and what they had to say and they appreciated me coming there and then the college kids get so much out of it. I mean, our young people are looking for a place to plug in and we need to provide the structure for them to be able to give to their community. I've traveled this country -- I mean, as I said, from California to Flint to Detroit to southern Florida with the campaign and I've had the opportunity to see the young people out here who are really -- who really care about that, their country and their communities. They want to give back but they don't really know where to go or what to do and when you provide them the structure and then give them the leeway to make it their own, it's amazing what they can do. So, you know, right now we've got 29 colleges involved in the P.P.E. program. When they hear about it, they're excited. We've got 300 plus students already trained as PPE students and it's just -- I have to say it's gratifying to me and they inspire me tremendously. In May of 2009, we took our first crop of college students to Memphis, Tennessee and as you saw, Memphis has one of the highest rates of infant mortality in the U.S. and we brought our students there to do a college into community health outreach week. I was the one who was talking to the media. I was on TV, on the radio. Our students were literally doing -- canvassing the community, handing out information, passing into community orgs. We hooked up with the local government there. They already had their sort of infant mortality awareness program going on but we were able to come in and give them extra juice to get them fired up and ready to go. We spoke -- we connected with local churches down there. I spoke at a church but we also got other churches involved in the effort and at the end of the week, we had a big health fair that also included Memphis notables, my husband came down to talk to young men about the infant mortality issue. When we left at the end of the week, we left Memphis with their infant mortality reduction program working in place with energy, knowing that we're here and we connected to them and whatever help they needed, we would be there. We also filmed a documentary called "crisis in the crib" saving our nation's babies which chronicles what we did in Tennessee but the infant mortality issue in general. While in Memphis we took our students to the civil rights museum there and we took them there because we wanted our kids to realize that they are part of a continuum and that what they're doing is really about a movement. It's about a movement to -- for healthier -- because it should not be a privilege to be healthy in this country and we took them to that museum so they can understand that they're part of the continuum, part of a movement,

that it shouldn't be a privilege. It's a right and they need to fight for it. We're depending upon them to do that. I'm not writing us off by any means but our future is really in our youth. Some of the lessons we learned from the first pilot of the program, again, partnerships are really important. We're trying to evaluate our process in all of this. It's so new. We've only been at this for two years and while we're feeling like we're raising awareness, we're getting people excited, we're getting the messages out there, you know, you do have to try to figure out how to evaluate what progress is really being made. We're trying to figure that out. We realize we've got to make sure we recruit young -- the underclass as opposed to people who are graduating so they can pass on the information that working with existing projects and organizations, if you go on campus, if there are organizations that are already there doing health related programs, tap into them and it just makes them easier. And some of the incentives are letting kids know that maybe after your involvement in the program, you may be certified, we will help you -- link you up with a health service organization perhaps so you can continue your lifelong love of advocacy for your community. For what we learned in terms of camp us and community outreach, kids need framework. As I said, they need the structure and then they can be creative. We do need a little money. You know, you do need a little money to get things going. Middle and high school kids are really excited to get involved as well. When we were down in Memphis, our college kids went into the high schools and there were high school kids there who said I want to be trained as a peer educator. I want to educate my peers. We did that. We trained them. So the college kids in Memphis are there sort of advisers so the college kids are advising the high school kids who are educating their peers. We have to make sure that we involve the peer educator in the development and outreach of the activities that we do. As I said, they're very aware of the modern technology and how to, you know, use what's going on in our modern world to make a difference. And as I said, the program -- well continue to evaluate the program, collect information, we've got an evaluation that we're working on now to find out what's really working. But I will tell you what I do find is that -- because I did see the beginning of the evaluation, you know, it's working. We're getting the messages out there. Kids are listening. And it's valid. Do we need to make some changes and things like that? Sure. Next step for us, we want to grow the preeducators program in the coming year. We want to bring in six new states. We're currently already in the Los Angeles and I just heard today in Texas. We're looking to train 800 new students and build a skill set and tool box of current ppe's. In terms of evaluation, I will say this, too. Sometimes it's really hard for me because this is such an overwhelming issue and it feels like are we really making a difference? But I will tell you that some of our initial students have made changes in their own lives that I have seen in terms of the way they take care of themselves, their diet, their exercise, taking follow -- folic acid. They're making changes. As one told me along my travels, if you change one person, you're making a difference. I have seen and witnessed those changes. And also, I have seen some of our students go from being

preconception peer educators to turning it into a business after they've graduated out of school. Some of the students from Oregon state created a program where they now reach out to their peers who are working and they have mixers or they have events at the local farmers market where they get people to come together and talk about health issues or talk about how to advocate for their community to make sure they're getting the healthy fruits and vegetables into their community. So it's my pleasure to share with you what we've been doing. It's so funny. I say to myself, oh, I get it now. We're sort of plugging in that life course theory into practice. I hope we're really making it happen. So thank you. [Applause]

MAXINE HAYES: So now you have it. We've looked at history, new framework, we've started to see the planning and we have hope. Let's thank our panel again. [Applause]