Federal/State Partnership Meeting

MCH Obesity Over the Life Course

October 25-27, 2009

LAURA KAVANAUGH: Good afternoon. We're going to go ahead and get started.

My name is Laura Kavanaugh, and I am the director of the Division of Research, Training and Education at the Maternal and Child Health Bureau. So for those of you new to Maternal and Child Health, we oversee the programs in applied research, including research networks, training programs across the country focusing on interdisciplinary leadership training in a variety of different areas and the Healthy Tomorrows Partnership For Children program, and we have very excited to be sponsoring this session this afternoon.

Just to make sure you're -- orient you to place and time, this is the MCH obesity over the life course, and our session will be going until 5:00 o'clock this evening.

A little bit about background before I introduce our wonderful speakers this afternoon.

Obesity has been a topical area near and dear to our hearts within the division. Many of our programs, particularly those in schools of public health and our nutrition training programs, have focused on obesity and overweight prevention and treatment issues as well for many, many years, so it's an important target area for us.

From a cost standpoint, obesity costs between 147,000 billion and 200 billion dollars per year and is growing. The average American is 23 pounds overweight, and studies show that the prevalence of childhood obesity in the U.S. has nearly tripled over the past 30 years with nearly one third of children now considered either overweight or obese. The U.S. currently has the highest percentage of overweight youth in its history.

Today's panel is going to focus in three different areas. Two areas that were recently released reports from the Institute of Medicine focusing on maternal weight gain and pediatric obesity. Both of these reports and the work of the institute focus on not only policy but government and community responsibility, clinical guidelines, prevention, assessment, and treatment of obesity.

And then Nan Streeter from the state of Utah will be highlighting their efforts to promote appropriate weight gain during pregnancy, normal weight prior to pregnancy, and the prevention of overweight and obesity in children.

We're going to leave questions at the very end of the session, so I'll introduce each of the three speakers, they'll come up and present and then if you wouldn't mind holding your questions until the end. Okay?

All right. First of all, it is my pleasure to introduce Ann Yaktine. Dr. Yaktine is a senior program officer and study director at the Food and Nutrition Board in the Institute of

Medicine at the National Academies. Prior to joining the Food and Nutrition Board she was an instructor at the University of Nebraska, Lincoln, and Virginia Polytechnic Institute and State University.

Since joining the IOM in 2001 she's directed studies on dioxins and dioxin-like compounds in the food supply, safety of genetically engineered foods, integrating employee health nutrient relationships in seafood, nutrition standards for foods and schools, and pregnancy weight guidelines, which she's going to talk about today.

She received her doctorate in biochemistry and molecular biology from the Eppley Institute For Research and Cancer and Live Diseases at the University of Nebraska Medical Center.

Please join us in welcoming her.

[Applause]

ANN YAKTINE: Well, thank you very much. And I appreciate very much your inviting me to come and speak with you today and share the outcome of this very long awaited and interesting study on weight gain during pregnancy.

This project originated as a joint effort from the National Academies between the Institute of Medicine Food and Nutrition Board and the National Research Council Institute of Medicine Board on Children, Youth and Families.

This study was undertaken with a specific set of objectives, and these objectives laid the groundwork for the committee's task. And so because they form an important part of the background of the study, I want to share those and just review them briefly with you.

The committee was asked to review existing evidence on the relationship between weight gain patterns before, during, and after pregnancy and maternal and child health outcomes. They were also asked to consider within a life stage framework factors in relation to weight gain during pregnancy that are associated with both maternal and infant health outcomes.

They were also asked to recommend revisions, where needed, to the existing guidelines previously released in 1990, and where necessary, including the need for specific pregnancy weight guidelines for underweight, normal weight, overweight, and obese women and adolescents and women carrying multiple orders of pregnancy.

They also were asked to consider a range of approaches to promote appropriate weight gain and, of course, to identify gaps in knowledge and recommend research priorities.

This study differed in some important ways from the last study, again, that was released in 1990. In this study the committee, similar to the 1990 report, structured its report around a conceptual framework. However, this conceptual framework emphasized the importance broader context of the lives of the women concerned and the events that occur across the life stage. Important public health models, as I'm sure you know.

They also did new science in this study. They did analyses on existing data sources, and these analyses allowed them to look at tradeoffs between both the mother and infant. This differed from the 1990 report in which the focus was largely on infants.

They also did a quantitative risk analysis that gave them a deeper perspective from quality adjusted life years, and this allowed them, again, to make informed decisions when they were evaluating the tradeoffs between mother and infant health outcomes for specific ranges of weight gain.

This study also looked at implementation, but they did so in a rather broad scope. So rather than give specific guidelines on how their new recommendations would be implemented, they provided guidelines and a broader perspective so that they could be interpreted and, over time, adjusted to the needs of those who would be implementing the guidelines.

To set the stage for this study, the committee had to consider how since 1990 the population has changed. American women now are more diverse, there are a greater

number of twin, triplet and multiple pregnancy, and women tend to be older when they get pregnant. And all of these things have had an impact on how the new guidelines were established.

As I'm sure you're very well aware, for several decades we've experienced a trend in increasing prevalence of both overweight and obesity, and especially since 1990 when the last guidelines were issued, you can see a rather dramatic rise for both overweight and obese women of child-bearing age.

When we looked at -- when the committee looked at the most recent data on overweight and obesity, at first glance it appeared as though the prevalence may be stabilizing. But then looking deeper, you see that amongst women who are in the highest obesity categories represented by the red dots on the slide, you can see there's an increase in incidence. So this suggested that rather than a leveling off of prevalence, there's really a shift amongst the overweight and obese to the higher categories. And so this, of course, was a concern in thinking about how weight gain recommendations should be restructured and revised.

In addition to that, the committee looked at where women were gaining their weight within BMI categories. This data comes from the 2002 and 2003 Pregnancy Risk Assessment Monitoring, or PRAMS, survey, which you may be familiar with.

What the committee found in this initial glance was that amongst all weight gain or all BMI categories, 50 percent or more of all women in all categories were gaining outside the 1990 recommendations, and if you look at the bars representing the underweight and normal weight women, half or more women are gaining outside the guidelines. Amongst underweight women, the greater number are gaining below the guidelines, represented in the light bar, but amongst normal weight women, more were gaining above the 1990 guidelines.

However, when you get to the overweight and obese categories, these women, 70 percent and above were gaining outside the guidelines, and you can see from the dark gray bars that by far the greatest percentage were gaining above those 1990 guidelines.

And so that told the committee that here was a risk factor not only for the health outcomes of women who were becoming pregnant but also women who might become pregnant again who would not have been losing weight would carry over and be at a higher BMI category for the next pregnancy. And that in itself was a concern.

The committee looked at many different determinants that affected gestational weight gain. Some are mentioned here. For example, in the sociodemographic determinants, again, women in adolescent ages, there weren't more of them getting pregnant, but there was a trend toward pregnancy at earlier and earlier ages.

On the opposite side of the spectrum, there is a greater number of women who are becoming pregnant at an older age. And so two different issues arise from this.

Amongst adolescents, the concern is that these are young women who are probably in many cases still growing themselves. And so meeting their nutritional needs along with meeting the needs for the developing fetus are an issue that the committee had to consider.

Amongst older women, many of them, especially if they're in the overweight or observe categories, are bringing along possible chronic conditions, such as diabetes, that, again, affect the health outcome.

As mentioned earlier, this is a more diverse population. Amongst various racial and ethnic groups, the committee found that African-American women tend to gain lower in the weight gain range and have smaller babies than other racial ethnic groups. Socioeconomic status was another concern. An increasing number of women who are in lower economic categories that may affect their ability to access and select appropriate foods for weight gain. And then various medical, psychological, and behavioral determinants were considered as well.

Amongst neighborhood and communities factors, the committee had to consider access to healthy food as an important factor. And not just whether or not food was available but the quality of food that's available. So if you think about women in underserved or

urban areas and whether or not they have access to the variety of foods that may be available to women who live in, say, a suburban area or a population that has access to a wider variety of food.

Another issue that's recently gained more consideration as a determinant of gestational weight gain is physical activity and whether or not the opportunity, you know, based on the built environment, whether or not there's an opportunity to engage in physical activity and achieve a healthy weight before as well as having a good weight gain during pregnancy.

Other determinants of weight gain are in terms of diet,
selecting -- even if foods are available, selecting the right foods, making healthy choices in your diet. Women who are not eating for two adults but eating for an adult and a growing fetus. So making selections that meet but not exceed caloric recommendations while still accessing all the nutrients that are needed.

In terms of physical activity, there's now greater awareness of the role of physical activity in maintaining a healthy weight both before and during pregnancy. And ACOG is recommending to women during pregnancy as often as possible daily if possible
30 minutes of moderate exercise, and they also recommend a wide range of types of exercise that are considered safe for women during pregnancy.

Another source of information that was made available to the committee is a recently conducted review of the evidence base, a systemic review of the literature done by the Agency for Health Resources and Quality. This study considered both maternal and infant outcomes; it reviewed the evidence available since 1990 and up to the time that the study was completed in 2008 that gave evidence for an association between a range of weight gain and a specific health outcome. And from all of the factors considered, a few things came out as stronger in terms of evidence for an association, mode of delivery being one. And so there's stronger evidence that women who gain above the guidelines have a greater risk for unplanned Cesarean delivery.

Also greater evidence, although not as strong, for short, intermediate, and long-term weight retention postpartum weight retention, in other words, as a result of weight gain.

In terms of infant outcomes, the most -- the strongest evidence for an association with maternal weight gain was for preterm birth for, of course, low weight gain, macrosomia, large for gestational age and small for gestational age. Again, associated with weight gain.

So when the committee was developing their guidelines, they had to consider the outcomes for the mother and not just the infant, as was done in the previous report in 1990, and the tradeoffs between them. And so in order to do this, the committee had to commission some new analyses. These analyses were performed on already-existing

data sources, and what they did was they allowed the committee to take into consideration new evidence -- or evidence that was looked at in a new way.

For example, Dr. Knorr looked at evidence that had been gathered from the Danish Natural Birth Cohort, which I'll share with you in just a second, on various outcomes associated with different BMI categories of women who gained within specific ranges of gestational weight gain.

Dr. Herring [phonetic] and Dr. Stein looked at evidence for racial/ethnic associations with health outcomes for women in various weight gain categories. And Dr. Hammatt conducted a quantitative risk analysis giving us qualities or quality-adjusted life years for specific weight gain outcomes.

So I want to share with you one of the important outcomes from an analysis that was done by Dr. Knorr. And the way to look at these charts is, first of all, the committee looked at the four weight gain or BMI categories: Underweight, normal weight, overweight, and obese, and within each BMI category looked at low, medium, high and very high weight gains. And for each of these weight gain categories, the four previously-mentioned health outcomes, those being SGA, LGA, unplanned Cesarean delivery and postpartum weight retention.

And if you look at the different-colored bars, notice that as you move across a weight gain category from low to very high within a BMI group, the risk shown in the black bars

for SGA goes down. Most prominently for underweight and to some extent normal weight women. So the risk for SGA decreases as weight gain increases for each BMI category.

On the other hand, if you look at the blue lines, that shows us that under the same conditions as you go from low to very high weight gain for each BMI category, the risk for postpartum weight retention increases. And that's consistent amongst all four BMI categories.

And so what the committee was trying to do was to assess the tradeoffs of these health outcomes for mother and baby for each given weight-gain range, and so trying to use this data to then determine what is the best weight-gain range to recommend so that you have a most optimal outcome and diminish the risk for either any of these undesired health outcomes.

So based on these sources of information and the analyses that were done, the committee then presents their new weight gain recommendations. For underweight women the recommendation is to gain 28 to 40 pounds, and notice here that the BMI categories are different than they were in the 1990 report. So these BMI categories reflect the BMI categories set up by the World Health Organization and adopted by NHLBI, whereas the previous ones were based upon the Metropolitan Life Insurance tables.

So the weight gain range for underweight women is a bit broader for the new guidelines than it was for the previous ones. For normal weight women the recommendation is to gain 25 to 35 pounds, for overweight women, 15 to 25, and for obese women, 11 to 20.

The committee was also asked to consider weight gain recommendations for multiple fetuses during a pregnancy. They were not able to uncover enough evidence for triplet and multiple-order/higher-order pregnancies, but they had enough evidence to give at least provisional guidelines for twin pregnancies.

And so, of course, that means that more data will be needed to gather for women in these cases. But for women caring twins, the recommendation, those in normal weight BMI categories should gain 37 to 54 pounds; overweight, 31 to 50 pounds, and obese, 25 to 42 pounds.

Again, due to a lack of new evidence since the 1990 report, the committee did not make recommendations that were different for women of short stature, for adolescence, for specific racial and ethnic groups, for primiparity and for smokers they simply recommend women to stop smoking.

The rationale I'll give you for the younger age groups was the committee believed that young adolescents, when they were evaluated for their pregnancies in the doctor's office, that they would likely not be assessed by adolescent pregravid weight categories,

rather by adults. And so this would then set them up for gaining a little bit more weight, which is more desirable in that age range.

The committee then looked at where women were in terms of the weight gains that were achieved previously according to the PRAMS data that I showed you earlier in comparison with where the new recommendations were. And what stands out from this is that according to data suggesting that women were gaining in the overweight and obese categories far greater amount of weight than the new recommendations reflect.

So that's something that they wanted to bring to light, especially when implementing the new guidelines.

So the committee made several recommendations, and due to time I'll just run through these quickly and we can address them later in the Q&A. But the committee recommended that both public and private agencies should adopt and publicize the guidelines, because obviously from the previous data the message isn't out there. So there is a need to inform women of these new guidelines and to help them to comply with them.

There is a definite need for new data. The committee recommended routine state surveillance on a nationally representative sample of women. And given the increased diversity in the population, that's a very important recommendation.

They also suggested that all states adopt the revised birth certificate. This new birth certificate contains prepregnancy weight, height, weight at delivery and gestational age at the last weight. So it gives the needed data across the country if all 50 states would adopt it. And so it's a uniform data source that would be readily available.

So there are many challenges head. Notably amongst them is that women need to be informed of the need to gain -- or to concede that a normal prepregnancy BMI. This will require some preconception counseling and, for some women, weight loss before becoming pregnant. They need to be informed of the need to gain within the guidelines, and not just the women, but the care providers as well, and implementation activities to help them in terms of monitoring their weight gain, receiving guidance on diet and exercise.

And all women should be informed of the importance, of course, of the guidelines and of gaining at a good, health, preconceptional gain.

Those who provide prenatal care to women should offer them counseling. This is something new that the committee felt was not being complemented in the past, so they wanted to emphasize that in their recommendations.

This is an example of a model of a weight gain graph showing the median and range of gain for normal weight compared to obese categories of BMI. And so this shows you not

only how they differ, but this also shows a model of how an educational tool may be developed using this type of data.

The committee made recommendations for research based on dietary intake, physical activity and other factors that are known to be determinant of gestational weight gain. Research on the impact of weight gain on both maternal and child health outcomes. And as you saw, some of their recommendations could not be made because that data was lacking, and ways to assist minority and under-served populations to achieve a weight gain within the new guidelines, reaching them through programs and education, and cost-effective ways to assist women and to meet the guidelines.

So in conclusion, the guidelines themselves are not really that different from those released in the 1990. They adjusted the BMI categories and they incorporated a category for obese women. But they do take a rather radical change in terms of the care that's provided to women of child-bearing age in recommending provision of preconceptional care, improved care during pregnancy and postconceptional care so that women can enter their next pregnancy at a healthy weight.

This is a list of the committee members who worked on this committee and devised these guidelines, and I will be glad to take any questions at the Q&A. Thank you.

[Applause}

LAURA KAVANAUGH: Thank you very much, Ann.

Now it's my pleasure to introduce Dr. Linda Meyers. She's the director of the Food and Nutrition Board at the Institute of Medicine at the National Academy. She's responsible for an entire portfolio that includes nutrient requirements, obesity prevention, food safety, and international, military and specific population nutrition.
She previously was with the Office of Disease Prevention and Health Promotion within the Department of Health and Human Services, and while there, worked on dietary guidelines as well. She has a bachelor's in health and physical education, a masters in food and nutrition from Colorado State University, and a doctorate in nutritional sciences from Cornell.

Her research has focused on population indicators of nutritional status, and she's also worked in Botswana, Kenya, and Vietnam. Please join me in welcoming her.

[Applause}

LINDA MEYERS: Thank you. It's a real honor to be here to talk with you today about the institute Of Medicine and childhood obesity prevention. I'm actually here on behalf of Lynn Parker, who directs our childhood obesity suite of activities, and had to be out of town.

I'm not going to talk about the structure which all of this work done except to say that it tends to befuddle and confuse a lot of people, including some of us who work there. We consider ourselves in the Institute of Medicine the health arm of the National Academy of Sciences, which is means with are a non-profit organization working outside of government to provide independent advice. And we talk about studies. These are activities that we undertake with expert volunteer committees, they don't get paid anything beyond their travel, and who come together to make consensus recommendations.

Our work in childhood obesity really began in 2002 with work on a study on preventing childhood obesity that was to be an action plan, to be recommendations for preventing childhood obesity. And it was mandated by Congress. It has a number of government HHS sponsors, as well as the Robert Wood Johnson Foundation issued a report that basically made the point that obesity is an epidemic. It's a population-wide problem that needs to be addressed across many sectors working together. And then there were a number of recommendations for a variety of sectors.

That laid the groundwork for a number of reports in 2006 and 2007 on aspects that were related to obesity. One that you may have heard about is one on food marketing to children and youth, which had at the time, and I think it probably still is, the most comprehensive review of the literature on the affects of diet -- of marketing on diet and purchase practices, look at it from a causal model perspective.

The one study that's on this collage is progress in preventing childhood obesity, which was to look at progress that had been made since the release of the 2005 report. And it had several recommendations I just want to tell you about before I talk about the standing committee.

One was that there were a number of activities, that a lot of action was going on since 2005. Much of it was fragmented and not -- there wasn't a lot of coordination or communication, and hopefully that's changed since then.

There was also the point made that health equity was that issue that needed to be highlighted more, and that evaluation was an important component. Nothing new to you all. And it made recommendations for ways that one could evaluate within -- without having to do a massive evaluation but ones that evaluation could be built in at specific points along the process.

All of this led in 2008 to the Robert Wood Johnson Foundation asking the Institute of Medicine to establish a standing committee on childhood obesity prevention, and where the statement of task is basically up there. They wanted to keep the urgency. They wanted a focal point within the Institute of Medicine that would -- that could bring together federal and policy state-level discussions.

They also asked this committee to recommend topics for work by separate consensus committees, and they wanted to build on the previous work.

This is the standing committee. Jeffrey Koplan, former CDC director, is the chair through the end of this month, and will then rotate off and Shiriki Kumanyika has accepted the president of the Institute of Medicine and National Academy of Sciences invitation to take over the chairship of the standing committee. And you can see it's a very broad range. A number of those names I'm sure are very familiar. And some may be less so. Jim Gavin is a diabetologist; very concerned about diabetes in children. John Edward Porter is a former congressman. So it's a very diverse group.

One of the first things they did was to decide that they wanted to have some workshops that would bring together people to discuss and highlight topics. And so they had a workshop in Texas to highlight state-level -- some selected state health plan level activities that were under way. They also held two workshops to seek to understand perspectives of community leaders on the barriers and challenges of implementing childhood obesity programs. And both of those reports were released in the last week and are available online free of charge for downloading.

This is related to childhood obesity. I put it up here because it was released on October the 20th, and I just wanted to call your attention to it. It is also available for download at no charge from the National Academy's website.

So that was 2009. The other activity in 2009 was separation of a report on local government actions to prevent childhood obesity. And this is what I was actually asked to talk with you a bit about.

This is the first of the topics that the standing committee recommended. And it actually came about because a committee member -- and it was actually Mary Story [phonetic], who you all know -- they were talking about what should they focus on first, and then there was a list of suggestions: Physical activity and behavior and a whole range of them. And she said, you know, I was asked by a city council member not too long ago, I want to do something about childhood obesity. You know, what are the top prevention strategies I should pursue. And she said, you know, I didn't really have a nice list to give him. And that really resonated with the committee members, and so they recommended that that be a study topic. And it was, and the report was issued not too long ago.

The focus on local governments came about because of the belief that local government is uniquely -- and this is local government used broadly -- local government is uniquely positioned to create healthy environments. They already are experienced in promoting children's health and they had jurisdiction in the aspects of daily life that are relevant to obesity prevention.

The committee also felt very strongly that health equity must be considered in identifying policies. It must be an important part of the committee's work, and that many individuals do not have the opportunities, for example, to eat more fruits and vegetables

and be more physically active. And this is of concern. And the very strong message from the committee was that local governments can change environment.

The statement of task was to look at evidence on childhood obesity prevention, summarize the range of local government efforts, and develop a set of recommended practices. And this was all supposed to be done in less than a year, and it was.

This is the committee. It was chaired by Eduardo Sanchez. It was a very broad group. It had three elected officials to bring that perspective. It had an economist, nutritionist, a built environment and a range of other health topics.

The audience was intended to be local -- individuals working in local situations: Mayors, county, city or township commissioners or other officials, local health department boards of health, city and transportation planners, and other relevant local commissions and public entities.

The methodology was a literature review that, first of all, focused on identifying actions by local governments and then, retraining those, but also looking at what was in the published literature on obesity prevention by local governments.

The committee developed a number of criteria that would then guide their selection of actions, and that help them as they were reviewing the strategies. And they're logical. That any actions recommended needed to be within the jurisdiction of local

governments, likely to affect children, targeted to changing the food or physical activity environment, and they chose to make it outside the school walls and the school day. They made this decision because they believed that there was actually quite a body of work that had been done within the school walls. So they were going to concentrate on without the school, so it could affect transportation to school. That would be part of their purview.

They wanted activities that were actionable based on real experience of local governments or knowledgeable sources that work with local governments. And they also considered tough actions where evidence was lacking or limited if there was a logical connection with healthier eating or increased physical activity.

The idea was to provide a menu of options, and they identified a range of promising practices. Their recommendations recognized that the local context is very important, and so there wouldn't be a one-size-fits-all recommendation; hence, the notion of a menu.

They made a final assessment of recommended action steps using a nominal voting procedure among the committee members. They developed action steps in the broad areas of healthy eating and physical activity and came up with 15 strategies, and within that, 58 action steps. And then they thought, you know, 58 is a lot. We need to focus a little more. And so they identified 12 that they felt were the most promising action steps -- six for healthy eating and six for physical activity -- and highlighted those.

I'm not going to go in detail over this, but I just want to give you a little flavor of the kind of goals that they were looking at.

They were looking at actions that would improve access and consumption of healthy foods, reduce access and consumption of calorie-dense nutrient-poor foods, and raise the importance of healthy eating to prevent childhood obesity. So there was a communication thrust within some of the actions.

Similarly, for physical activity, encourage physical activity, decrease sedentary behavior, raise awareness of the importance of increasing physical activity. For those of us who work in nutrition and physical activity, I'm this is sort of a no brainer, but framing it for individuals for whom the substantive area is not as familiar seemed to resonate with those on the committee who were not as versed in nutrition and physical activity.

Let me just tell you about the 12 most promising, and hopefully it will whet your appetite to want to have a look at the report.

One was to attract supermarkets and grocery stores, require menu labeling, mandate nutrition standards. Then there were also some adopting building codes that would require access to water fountains, implementing tax strategies -- so they went beyond, they were quite broad -- and developing media campaigns. And similarly, in the physical activity area, focus on building sidewalks, adopting community policy strategies, and

developing and implementing a safe routes to schools program and a number of other activities that you can see here.

As I said, they believe that community considerations were they important, that one size does not fit all, and that there are a number of factors that affect the choice of an activity. Different communities have different needs; population, geography, resources, rural, suburban, urban. And this is acknowledged in the guidelines that they put forward.

I talked a bit earlier about health equity and the importance that that was want their report.

The bottom-line messages that they wanted to send, that obesity is a serious problem, local officials can either support or undermine efforts to get kids to eat healthy and be active, local officials can make it either easy or hard, and local officials have the power to take steps to cut the rate of childhood obtain and that there is a need to act now. And the report highlights these.

That was a very broad brush through what is for the nutrition board and the Institute of Medicine a slightly different kind of report. There's more information about the report and the project, including a report brief similar to the one that Ann handed out for this study at www.iom.edu/obesitylocalgovernments or just www.iom.edu and then our new website, you should be able to search and find what you're looking for.

The Robert Wood Johnson Foundation that funded the study has also put the report itself, the first publicly released report, up on its website, and you can actually search it just through rjwf.org. The complete URL there.

We are working now to make that into a glossy -- it's a very short report -- make it into a glossy format with some color coding that will make it easier to flip and use more like a manual.

I wanted to just mention in my last minute that the next study that the standing committee has recommended will be to look at obesity prevention policies that are targeted to the age group birth to five years with attention given to the birth to two and the three to five and some comparisons between them. This is area they felt was a gap, and we are in the process right now of assembling an expert committee for that. So this time next year there should be another report looking at that young age group.

Thank you very much.

[Applause}

LAURA KAVANAUGH: Thank you.

I'd now like to introduce Nan Streeter, who is known to many of you. She's worked in clinical nursing settings, newborn intensive care units for a number of years in both San

Francisco and Salt Lake City. She started her public health career in 1989 when she started working for the Utah Department of Health, where she currently is.

She served in many leadership positions, including with the March of Dimes, Planned Parenthood, state professional organizations and advocacy organizations. She's also past president of AMCHP and she continues to remain active on many of the many of the committees, as well as the board.

Please welcome Nan Streeter.

[Applause}

NAN STREETER: Thank you. And good afternoon everybody. Are you all awake? Nap time? That's how I felt before we came to this session was I think it's time for a nap.

Okay. Let's see, we need to go -- this is a different version of a slide show. Okay. So there we go.

All right. So my job this afternoon is to talk about obesity along the life course. And so I'm going to start with the childhood obesity and talk a little bit about what we've done in Utah relative to trying to prevent childhood obesity, and then I want to end up with a discussion about the things that we've done to address maternal weight gain and postpregnancy weight retention.

As you can see that the most recent data show that in 2008, Colorado was the only state in the nation that had an obesity prevalence of less than 20 percent. So yahoo for Colorado.

Utah's rate was a little higher than that, and we ranked fifth lowest in the nation. In Utah, more than half of Utah adults are overweight or obese. And nearly one in four elementary school students, 22 percent, are overweight or obese. And then when you look at preschool children, you're talking about almost nine percent. And unfortunately the data are 2003, which were the most recent data available. So I imagine that's probably increased, unfortunately.

Some of the initial efforts that Utah embarked on was sponsoring a summit on Utah childhood obesity, tipping the scales toward healthier children. And during that summit there were approximately 100 participants that joined the department and co-sponsors, other partners, the governor and his wife, in developing or starting to develop a plan. And then in the next year, in 2006, former Governor Jon Huntsman, who now is in China, much to our loss in the state of Utah, announced a launch of tipping the scales towards a healthier population, and introduced the blueprint that was developed.

So the blueprint was released, and what it is, is it's a comprehensive statewide obesity prevention agenda that is building on the initiatives that are already under way in many

parts of Utah. We have a lot of local activities that are going on in terms of obesity prevention.

The focus of the blueprint is on policy and environmental changes to support healthier choices. And I think that's fortunate. As I was listening to the two previous speakers, you know, I was sitting there thinking about WIC and thinking about how great it is that the WIC food package has been changed and now includes fruits and vegetables and other food changes that I think will help lead both pregnant moms as well as young children to a healthier diet.

And so it's great to see some of this happening, and these were some of the things that we were concerned about in Utah.

The expected outcomes by January 31st, coming up very quickly, is to decrease the percent of Utah children who are overweight and Utah youth who report being overweight and also maintaining the percent of Utah adults who report being obese. In other words, not expecting change but to maintain the rate, not to see an increase. And it will be interesting to see when we get to that juncture whether we've been able to achieve that or not.

So the Department developed this Utah Partnership for Healthy Weight, and the vision is that healthy choice is the easy choice at home, school, work, and play in Utah. And

the goal is to build healthier families, communities, schools, et cetera, to address the increasing rates of childhood and youth overweight and adult obesity.

One of the strategies the department's used is a program that's called Gold Medal Schools. And this program was designed to get elementary schools involved in physical activity, healthy eating, reducing tobacco use or -- well, tobacco use on school properties. And this program is a nationally recognized program. It awards Olympic-type medals to schools for outstanding progress in working towards creating a healthy environment for children in the school, as well as for the teachers and the other staff.

And so what they do is they -- a school volunteers for the program. It's purely voluntary. They are enrolled in the program, they institute various things such as getting rid of vending machines in the school, creating a walking routine for the children, as well as with the teachers.

So based on the achievement that the school makes based on these activities, then the school is awarded a bronze, silver, gold or a platinum medal. And in 2001 when this program first started there were only 34 schools. In 2006 we have a total of 284 elementary schools and that number continues to grow.

So now we have more than or almost 150,000 children in Utah schools that are participating in this program. These are some of the newsletters that are put out for the

Gold Medal School Program so that schools can be rewarded and acknowledged for their achievements in the program.

And you can't see this. I can't see it either, actually. But this is an outline of what has happened because of the Gold Medal Schools in different schools throughout the state, and then the healthy school award and the award criteria that I had mentioned before about the different levels of medals.

This program is funded with state dollars and also funded primarily through Intermountain. Many of you may have heard of Intermountain Healthcare. They're primarily known as a health system that places high level, high value on the improvement in their facilities. And so they were large supports of this particular effort.

And then definitions of different activities or different areas that schools would work on, such as safety, preventive services, physical activity, healthy behaviors, and, of course, nutrition.

So in terms of an evaluation, there was a study that was published in the journal of the American Dietetic Association that suggested that the Gold Metal School Program positively impacted body mass index and health behaviors among elementary students enrolled in the program. And what they found was that students enrolled in the program drank fewer soft drinks per day, and they also participated in greater physical activity, either during school hours or walking to and from school, than the non-Gold Medal

School children did. In the Gold Medal School children there was not an increase in body mass index noted, but there was an increase, a significantly increased BMI among students in the non-GMS schools.

Some of the other strategies that we've talked about and been working on are some of the typical things that you hear, such as promoting reduced time in front of the TV or computer games and getting kids out involved in more physical activity, families, you know, going on walks or bike trips. And one of the big issues for us has been the vending machines. And this is probably true for many states where the vending machines are in the schools to actually generate income to make up for the poor funding for educational services or educational supplies that schools face. And so it's a really hard battle to try to pass legislation to ban vending machines or to require vending machines have only healthy choice items in them, such as water and low-fat milk, fruit juices that are not enhanced and not have snacks that are included in the vending machines that are high calorie, high fat, et cetera.
So that's something that we've really tried working on, not too successfully.

And then, of course, looking at the content of school lunches. And I think most of us know that food that is served our young children in the country through school lunch not the most nutritious. Reminds me of going to the hospital, and you're supposed to go there to get better, but the food that's served is not very good, and how we can expect our –

NAN STREETER: -- in conjunction with MCH and the WIC program. And as I move into talking about healthy weight and women, I want to acknowledge the efforts that have taken place in the department are largely due to efforts of our reproductive health program staff, the PRAMS staff. WIC, obviously, has been involved, and also Medicaid. And you'll see the Medicaid link in a little bit.

All right. So we had looked at our PRAMS data and became very concerned when we realized that pregnancy outcomes are impacted by excessive maternal weight prior to pregnancy and certainly excessive maternal weight gain during pregnancy and the association with a number of adverse situations as has been mentioned earlier.

And what happened for us was that we noticed over time, from 2000 to 2005, that excessive weight gain during pregnancy increased 19 percent. And so we're not doing too well there. And currently we know that more than 52 percent of Utah women have gained too much weight during pregnancy.

We all know that excess pregnancy weight gain contributes to the increase in obesity mainly because of the postpartum weight or postpregnancy weight retention and the increased risk that a woman has once she gains too much weight during pregnancy and then isn't able to return to her prepregnancy weight.

In looking at our PRAMS data, there were some characteristics of women with excessive weight gain that showed up and primarily involved women with a lower

educational level, an unintended pregnancy, a woman who's not married, either first pregnancy or a grand-multiparous, a woman who's overweight or obese before pregnancy, which you would expect, and then women who are other than white.

This slide here is very interesting. As Ann and I were talking before the session started about how do we get the word out there, and these data show, interestingly enough, that healthcare providers counsel women who are underweight more than they do women who are normal, overweight or obese. And the underweight we know is very important in terms of adequate fetal growth and good nutrition for a mom to support a healthy pregnancy. But it's interesting that the lowest -- the group of women who need the counseling the most actually is the group of woman have the least amount of exposure to counseling. So obviously we've got some work to do.

Previous to the new IOM standards, there was not I guess a clear sense of weight gain for women who were obese, that the previous standards were that she needed to gain at least 15 pounds, but there was no upper limit. And that was something we were concerned about, and fortunately around the time we were looking at that IOM we found out was working on this particular issue.

So what we did was we approached healthcare providers, and we sent them a package of materials. Included in the materials was a fact sheet on pregnancy weight gain in Utah, showed the trends for providers so that they could understand, you know, the

facts. And we developed weight gain charts that are based on the new IOM guidelines so that women and providers can actually plot out weight gain during the pregnancy.

And one of the things that we promoted -- and this is where Medicaid comes in -- is that one of the services that's allowable through the enhanced services for prenatal Medicaid is nutrition counseling. And so we really promoted that with providers to refer women on Medicaid to nutritional counselors, provided them with a copy of the Medicaid policy and then provided them with a list of RDs that are available to provide that counseling.

And then we developed brochures, and the brochures are I'm gaining too much weight during my pregnancy, what can I do? I'm not gaining enough. And how can I get back to my prepregnancy weight?

And so they're all tips for women, and hopefully providers can reinforce some of the ideas so that women can address weight gain appropriately.

So in terms of our efforts, we do have state performance measures on pregnancy weight gain. WIC we have worked with very closely to promote breast feeding not only for all the benefits that breast feeding has, but it also does play a role in reducing weight retention. And also our current disease prevention programs have a PANO grant, and we've been working with the diabetes program on gestational diabetes and increasing

awareness about the relationship of weight and diabetes and gestational diabetes and long-term diabetes.

We also have a public employees health program. This is our state or government employees health plan. And they have an employee wellness program that's called Healthy Utah, and it's comprehensive program that is voluntary and actually incentivizes participants for healthy behaviors, such as losing weight, exercising, you know, getting blood pressure under control, et cetera.

There's my contact information, and if you're interested in the resources that I spoke about, you can go to this particular website and find those materials.

Thank you.

[Applause]

LAURA KAVANAUGH: Thanks to our extremely efficient presenters, we have time for questions and answers. Questions from the audience?

Yes, please.

UNKNOWN SPEAKER: I have a question for Nan about the [Inaudible] I was curious, you have reports that are funded by state and by Intermountain, and what sorts of rewards do you offer? Are those just medals or are there other [Inaudible].

NAN STREETER: Right. The question is, for those of you who may not have heard, is what kind of rewards do we give the schools based on the different level of achievement.

What we do is they get a certificate, but they also get some money that they can use towards playground equipment, supplies for teachers. It's really up to the school to determine what they're going to do with the money. But they actually get moneys an a reward, as well as the recognition.

UNKNOWN SPEAKER: [Inaudible]

NAN STREETER: I don't know, I don't know that, but I think that you'd go to the Department of Health website, you can look up the Gold Medal schools, and I think it will tell you. It's not a lot, but every bit helps in schools, as we all know. Thanks.

UNKNOWN SPEAKER: This question is also for Nan. I'm sorry. Is there anything that addresses hard case children in the school? For example, I know in my town we have a free basketball group that has a [Inaudible] on it. Is there anything like that?

NAN STREETER: Not that I'm aware of. Again, our dream is to really reduce, you know, soda pop machines and make sure that what's in the vending machines is healthier than soda pop. But not that I'm aware of.

UNKNOWN SPEAKER: I had a question about the IOM report. And I really want to compliment the work that's being done [Inaudible]. I just wanted to find out [Inaudible] CDC prevention plans are very clearly descriptive about how they want obesity and [Inaudible] to be addressed and it's like some of your work goes further than what I see there, and I was just wondering what federal conversations might be going on at the time.

NAN STREETER: So the question as I heard it -- thank you very much -- was how does the work that IOM does around children in particular link with Centers For Disease Control and their activities. In particular, their grant programs criteria.

Did I get that right?

The short answer is we open they listen to -- we hope they read our reports. The longer answer is CDC was actually a sponsor, along with the Robert Wood Johnson Foundation, of the local governments, and we're hoping they will be a sponsor -- a sponsor means they contribute money -- and we're hoping they'll be a sponsor in the other one, but I don't know if they will.

But because we're totally advisory and totally independent, we can't make a link happen. They could choose to.

I will say that we were quite pleased that their recent report of actions for local governments, even though it was done completely differently than ours, was quite consistent with it.

But the on other I'll note is that Bill Dietz, as an expert in obesity prevention, does sit on the standing committee. So he can help in the project development. He's doing that as an individual, not representing CDC, but hopefully there's some exchange of information.

UNKNOWN SPEAKER: I have a question [Inaudible]. Do you have any thoughts about other model programs that we might [Inaudible].

NAN STREETER: The question is do we have any suggestions for other model programs, specifically related to child care?

UNKNOWN SPEAKER: [Inaudible]

NAN STREETER: Early childhood. The answer is no. At this point it's a whole new area for us.

Now, there may be in the local governments reports that did do some -- look at promising practices, some examples there. I just don't remember offhand if there is.

UNKNOWN SPEAKER: [Inaudible]

NAN STREETER: The goal is to have the report out a year from the committee's first meeting. And they're planning on a committee meeting in probably February. So a little more than a year.

LAURA KAVANAUGH: Any questions for the panel?

Please join me in thanking them. If you have any additional questions, please come forward.