

## **MCHB/DHSPS November, 2008 Webcast**

### **Infant Mortality Reduction: Interconception Care in Michigan**

November 19, 2008

JOHANNIE ESCARNE: Good afternoon, my name is Johannie Escarne from HRSA's Division of Healthy Start in the Maternal and Child Health Bureau. I would like to welcome our presenter and the audience to this webcast titled "Infant Mortality Reduction: Interconception Care In Michigan".

Before I introduce our presenter today, I would like to make some technical comments. Slides will appear in the central window and should advance automatically. The slide changes are synchronized with the speaker's presentations. You don't need to do anything to advance the slides. You may need to adjust the timing of the slide changes to match the audio by using the slide delay control at the top of the messaging window.

We encourage you to ask speakers questions at any time during the presentation. Simply type your question in the white message window on the right of the interface, select question for speaker from the dropdown menu and hit send. Please include your state or organization in your message so that we know where you are participating from. In order to allow ample time for the presentation we'll defer questions to the question and answer session following the presentation. If we don't have the opportunity to respond to your question during the broadcast, we will email you

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At the end of the broadcast the interface will close automatically and you will have the opportunity to fill out an online evaluation. Please take a couple of minutes to do so. Your responses will help us plan future broadcasts in this series and improve our technical support.

Now I would like to welcome our presenter, Cheryl Lauber. She is a Perinatal Consultant. It will outline how to develop this project and provide preliminary data on how well the project met the goals in Michigan.

Again, in order to allow ample time for the presentation we'll defer questions to the question and answer session following the presentation. However, we encourage you to submit questions via email at any time during the presentation.

Without further delay, we would like to again welcome our presenter and the audience and begin the presentation.

SHERYL LAUBER: Good afternoon, everybody. I'm Sheryl Lauber and I'm the author of the Interconception Care Project in Michigan. Thank you so much for allowing us this time to talk a little bit about our project. I will describe how the project developed, what is happening now and share what we've learned so far.

Slide 2. Let's start with a little description of our state. This is a snapshot of Michigan's population in 2005. Though the state covers about 57,000 square miles, the total population of over 10 million is highly concentrated in southeast Michigan in the urban areas around the City of Detroit. As a matter of fact, the number of people living in a square mile of land varies from 14 to over 10,000. A great disparity in itself. The racial percentages shown here represent the whole state. They don't show the increased African-American populations in the cities, however. The City of Detroit, for instance, is over 84% black. The Native American percentages are much higher in the rural areas of our upper peninsula where 90% of the land is forested. Obviously the strategies for working with women living in Detroit are very different from working with Native American women living in the upper peninsula. The number of births annually have been declining in recent years. I'm not sure why but it may relate to an aging population or to less fertility in the childbearing age.

Next slide. Here is a familiar slide showing the trend for infant mortality by race in Michigan compared to the United States. We only show the disparity between black and white rates here because the numbers of Native American deaths is too small to do an annual comparison. The first thing to note is that black infant mortality rates are higher than white rates for both Michigan and the U.S. See the red and the light blue lines. Next we notice that Michigan's black rates are even higher than the U.S. rates and have been for all the years pictured here. Finally, if you look at the trend, you notice that it's been generally level since 1996 except for the last dip in the black rate in 2006. Despite all the programs and spending to improve infant mortality rates for decades now, there has been no reduction in the disparity between African-American and white rates. I am waiting to see if the one-year decline in the African-American rate in 2006 will continue. That would be wonderful.

Next slide. For quite a few years now Michigan has been using the perinatal periods of risk calculation to further describe the infant mortality problem. Typically there are two periods of risk that have the greatest rates of mortality. This slide shows the maternal health and prematurity period, the blue bars, and the infant health period, the bright green bars for African-American babies. We have only included ten counties plus the City of Detroit. This area is responsible for over 90% of the African-American births and for over 95% of the African-American infant deaths. These two periods account for most of the racial disparity in fetal and infant deaths when you compare these rates with the reference group, which is white mothers with the least at-risk characteristics in those same counties. The maternal health period reflects the birth weight that are most

often associated with pre-term delivery. Such high rates of death due to very low birth weight suggests that maternal health of African-American mothers must be the target for improving these outcomes. Now, this diagram also shows that two counties have slightly higher infant deaths in the post neonatal period, which suggests a very different etiology. Babies who die in this time frame are usually near normal birth weight and live to more than one month of age. We associate post neonatal death with issues of infant health often from safety issues, sleep position, the consequences of birth defects, infections in infancy and possibly poor parenting practices. The fact that not all counties have the same problems to deal with highlights the fact that the solution to racial disparities in infant mortality continues to be multi-faceted and demands more investigation. It seems to me that the best approach at this point in time was to find a group that was easily defined, had the most risks and could be worked with for a defined period of time. For these reasons, we chose to work with women who had already had a poor birth outcome. We could identify them easily and we knew from the literature that they are most at risk of another poor birth outcome. And we could work with them between pregnancies and study the effect on the next pregnancy. That is, in a nutshell, why we chose to do an INTERCONCEPTION Care Project.

Next slide. In Michigan, as in many states, a significant predictor of poor birth outcomes is an unintended pregnancy. Our latest data from the pregnancy risk assessment monitoring system survey shows that over 40% of all pregnancies are unintended. Fortunately, most of these are not unwanted pregnancies, but simply mistimed. This fact, however, rises in importance because of the characteristics of the

women with the highest prevalence of unintended pregnancies. These characteristics indicate that the population that conceives without planning is very similar to the target population for reducing infant mortality, that is black women, particularly without a high school education, unmarried, with no insurance and low income.

Next slide. We also learned that these women are less likely to receive prenatal care, experience more life stressors during their pregnancies, are more likely to smoke, and more likely to deliver a low birth weight baby.

Next slide. Early on in the planning for interconception care, the department funded a series of focus groups to learn a little more about the cultural significance of pregnancy. What is it about pregnancy that is so different for African-American women than for White women? The objectives of the study were to evaluate women's understanding of the concept of planned pregnancies and to interpret findings through the experiences of African-American women at risk for poor pregnancy outcomes. The findings have been published in an article entitled "preconception care and pregnancy planning, voices of African-American women (music) In the March edition of the MCM journal. The focus groups were held in 2005 in 10 of the 11 communities that I identified before. The groups were led by African-American women facilitators and tape recorded for later analysis.

Next slide. If women's health prior to pregnancy is the key to improving birth outcomes, we need to know more about how the concept of preconception care will be accepted

in the target group. In brief, the women were asked the following questions. Would you describe your last pregnancy as a planned pregnancy, what steps did you take to prepare for your pregnancy? And please describe a time when you think your race or ethnicity, your financial situation affected your ability to get the healthcare information or services you needed before becoming pregnant. Planning a pregnancy became a kind of proxy for preconception care.

Next slide. There were 19 focus groups in total and 168 women participated. Most of the women were African-American and ranged in age from teens to grandparents. Very inclusive of the population. Some were pregnant at the time and most had other children. These are the demographics for each site.

Next slide. A doctor on the faculty of the University of Michigan at the time. She found there were six identifiable themes. Preconception care is an unfamiliar concept. The idea of seeing a healthcare provider before a pregnancy was foreign to most women in this study. They associated going to a provider with having a health problem. And they didn't perceive they had any problems. One woman said the pregnancy caught me off guard. There was concern for preparing your body for pregnancy, but that didn't mean going to a provider. The need to eat right, change drinking habits, smoking and drug use during pregnancy was part of readiness for pregnancy but not necessarily planning. Another theme was the continuum of responses around planning for pregnancy. One woman said we plan to get married, we plan to have children, I knew I was ready to be a mother but we didn't sit down and decide okay, now we're going to

have a baby. This reveals one end of the continuum. Consciousness of their actions but not strategic planning. The other end of the continuum was no planning at all. They said the pregnancy was a mistake, it was just stupidity or wanting to respond to a special celebration. Many were ambivalent about the whole thing. The third theme was characterized as the psychology of conception. The attitudes, beliefs and behaviors associated with pregnancy. Fatalism and resignation often characterized the beliefs. A recurring belief that has been seen before is, I just thought I couldn't get pregnant. Often that thought came from experiences of unprotected sex in the past where they didn't conceive. Several women said at the time I found out I was pregnant, I needed something to love, so I chose to keep the child. It takes two to plan a pregnancy was also a theme. The women underscored the importance of their male partners and how planning is defined and their reaction to the pregnancy. Birth control was only seen as a means to an end and not as a way to plan for a specific outcome. Birth control methods have side effects that affected the way they were used. Often the side effects were seen as a reason not to use them. For instance, the risk of cancer was much more important than an unexpected pregnancy. Finally, the context of pre-conception care was discussed. Many felt that planning is a middle class or Euro centric way of thinking. They preferred to follow what they learned from cousins or grandmothers.

Next slide. So in summary, preconception health and planning pregnancy are not well understood by women in our target population. There is still much to be learned about the experiences of African-American women before real change can occur.

Next slide. Other themes suggest change in health is related to behavioral needs and attitudes. That we need to include men and that the cultural commitment of professionals needs to be improved. We've shared these findings with the home visitors in our project, with the coalition participants and the project managers in the hopes of providing a more culturally competent intervention. We will bring up these themes again as we evaluate more of the experiences of the families enrolled in the project.

Next slide. The life course health development model has become an underlying principle of our thinking of infant mortality reduction. This diagram shows the disparity between the White birth outcome trajectory, the solid red line, and the small dotted blue line for African-American birth outcomes. With the right interventions shown by the yellow areas, the trajectory can be improved. Traditionally we've started with pregnant women and worked on providing earlier and more intense prenatal care. Because that time frame is so short, it has become apparent that starting interventions before pregnancy and even early in infancy offers a much better approach to promoting health. The early antecedents of disease and disability are a common finding in the literature today and trying to learn how to use that knowledge in dealing with women and infant health.

Next slide. The recent CDC preconception care recommendations have supported our new awareness of the need to work on improving women's health prior to pregnancy. Currently the access to care before pregnancy is limited because Medicaid doesn't

cover most low income women without insurance. Racial disparity is also an important force for improving the resources for infant mortality reduction.

Next slide. We took a systematic approach to dealing with the reality of needing to change the service delivery system. We began sharing the data that I've shared with you across the state, especially with our local health officers. In particular, we talked with those 11 communities mentioned before that represent over 90% of the African-American infant births and deaths and we convinced the legislature that this was worthy of state funding through the healthy Michigan fund.

Next slide. In 2004, we funded each community to develop local infant mortality reduction coalitions. Public health awareness works best when key stakeholders get together to share resources and get buy-in on a local community approach. Funding allowed each community to have some dedicated staff to do targeted needs assessment and begin developing a strategic plan. The coalition coordinators began meeting regularly with myself and other department staff to share what had been learned from their local process, and to begin looking at promising strategies for preconception care.

Next slide. At the state level, the women's and infant health unit found they needed input from many others in order to create a meaningful response to the local needs. So over the next year and a half, various meetings and information sharing went on. These are just a few of the partners that had valuable input. The literature I reviewed

produced a number of possible strategies to incorporate. We decided to replicate the Interconception Health Promotion Initiative, a joint project of the University of Colorado and Denver Health System. This is a nurse case management model that identifies women with a poor birth outcome and works intensely with them for up to two years to reduce their risk of a subsequent poor pregnancy outcome. The intervention includes risk assessment, grief support, facilitating use of contraception to achieve at least 18 months between pregnancies, and facilitating access to healthcare. Management of chronic health problems is a major benefit of this kind of intensive support. We hope to learn more about obesity, substance use and mental health from this project as well.

Next slide. An extensive evaluation plan is in place to learn as much as we can from this experience. So far, we found that proceeding from a logical progression from data to organization to planning to action has been successful. It was important to use a strategy that is already proven successful. However, we did find some foot dragging when it came to the life course approach and trying to work with a new way of thinking. We also failed to outline the whole protocol for home visiting before we began. We should have done more training up front. Time has not been in our favor. But I don't think you ever have enough time to do all the planning that you should. Also, funding has not been guaranteed. Each year we need to provide data updates to the legislature and compete with everything else that's looking for funding.

Next slide. The project management evolved into a group of five to six people that meet monthly now to review what is happening. To provide a continuous quality

improvement process and to set the agenda for quarterly network meetings. The network is made up of representatives from each of the 11 communities. We use these meetings for training and sharing. The initial expense of meeting monthly with the network representatives got very costly and we attempted to do it by conference calling. That was not accepted very well so we went back to face-to-face meetings but scaled them back to quarterly and didn't provide food. I've been keeping a database that tracks individual client variables so we can track success both individually as well as by the group.

Next slide. The process evaluation has focused on quarterly reports from each local agency. We provided the report format and required the reporting as part of their contract. We've done site visits with the local agencies to review their methods for recruitment, their staff and training needs and other issues.

Next slide. The outcomes listed here, these are the outcomes that will be evaluated to determine the success of this intervention. Obviously this requires contact with the client through a subsequent pregnancy. This will not be possible in some cases but we hope to access birth certificates to gain some of this information.

Next slide. I have some preliminary data to share with you. So far, we have been successful in recruiting African-American women from each jurisdiction who have experienced either a preterm birth or low birth weight baby, a fetal death or a neonatal

death. Of the 104 women recruited most was from the preterm low birth weight, there were a number of deaths and we also had 14 miscarriages.

Next slide. Of the index pregnancy outcomes, most have been preterm and low birth weight. And after initially refusing to accept miscarriages, we relented so we could see if the factors that are common to the other outcomes are also common to those with miscarriages. The women have been representative of the population. Most are African-American, many do not have a high school education, are unmarried, and most are low income.

Next slide. The mean birth weight is less than 4 pounds. The mean gestation less than 28 weeks. This is for the index child. Most were admitted to the neonatal intensive care unit. The number of prenatal care visits less than five probably reflects the gestation age. The low percentage beginning care in the first trimester is not uncommon for low income women. Women are being recruited from a number of programs and facilities, as you can see.

Next slide. Several things have gone right so far. The partnership with other Maternal and Child Health and child health programs has improved the recruitment opportunities, as well as offered resources for women in the program. The local coalitions have had numerous awareness-raising events and fostered other agencies beginning to get the concept of preconception care. It's -- that are helping us learn how best to think about a statewide approach as our next step.

Next slide. Not everything went right, however. Local health departments are autonomous in Michigan so the startup of this project took convincing local authorities of the importance of interconception care and particularly that we would be willing to fight for the funding. Also health departments are no longer as involved in direct service as they once were. So that also posed a problem in finding the right mechanism to do home visiting. At the state level, we had difficulty hiring new state employees to manage the project. So we've had some startup issues there as well.

Next slide. The next steps involve not only getting the current data analyzed and making recommendations for what to sustain and what to change, but how and when to move the project to a broader context. Currently the projects are mandated to work with 25 women as a pilot test of the feasibility of the methods and outcome. Once the evaluation demonstrates what works, recommendations will be made to either begin another program or find ways to incorporate the interconception methods in existing programs. Training is so important to making a difference. So opportunities will be sought for engaging local Maternal and Child Health staff as well as state consultants and administrators. Policy change is needed in order to make program changes and to support additional resources. Thank you so much. That completes my presentation.

>> Thank you, Cheryl. We don't have any questions right now. But if you have anything else you would like to expand upon, have you gotten anything else on your

future directions or partnership with other states, maybe this project would be replicated in other states or anything like that?

>> We've -- we haven't had any direct contact related to other states in that kind of thing. What is happening is a more specific look at how we can incorporate some of these concepts for interconception care in our Medicaid program for prenatal support. They currently have about 60 days postpartum where women can be interacted with. Obviously that's not enough, but we're going to start there and try to incorporate this kind of assessment process and looking particularly for sources for a medical home for those women that will take effect between pregnancies. So hopefully we can use that period and then figure out how in the near future we might be able to find some other healthcare coverage, whether it's through Medicaid or whether it's through FQHCs that we have locally.

>> One question that just came in. What was the preparation or education of the home visitors as a rule?

>> We required that these home visitors be nurses and that they have some experience in home visiting through another kind of program, either a public health program already or -- typically it's been through the Medicaid support services program. So that's the kind of experience most of them have.

>> Okay. Do you have any future plans to get more buy-in from the community?

>> The buy-in that we've been looking for currently is for funding. One thing we need to do is figure out what is the practical cost of the program for locals and how might those expenses be part of an existing program? For instance, if personnel are shared with another program, that kind of thing. And the other thing right now the funding, as I said, is coming from our tobacco tax, which is certainly not a stable funding situation. So we're obviously looking for a different funding source for the program if we're going to continue it the way it is.

>> Okay. What are the methods or incentives that you use to encourage the participants to participate in the focus groups?

>> In the focus groups?

>> In the focus groups.

>> I don't remember the amount, but the women were given a monetary incentive to come to the meetings. I don't remember the amount. It was probably in the neighborhood of \$10 or \$20. And they also had food for them to eat. That's always a good one.

>> Yeah. There aren't any other questions coming in right now. Have you -- I know you said that you're in the data analysis phases. Have you gotten any preliminary things from that? That you can share? I know you may not know too much.

>> It's a little hard to share because there is a lot of missing data right now.

>> Okay.

>> So that's part of my little frustration at the moment. It's amazing how difficult it is to work with 11 different jurisdictions. So that's -- that needs to be cleared up, a lot of that kind of thing right now. But we are having good numbers for most of the sites. One of our larger counties has over 100 clients, actually, enrolled. They decided to do more than the 25 that we required. So we're hoping for quite a bit of information from that site. A number of them are using -- they're getting cases being recruited from other programs within the health department, so it's sort of this program is offering another way to continue to work with those women rather than actually a brand-new kind of program option. So that was something we hadn't quite anticipated before. But there is some interaction with the local hospital, and that was what we were hoping would happen, that we get referrals directly from the hospital so that we have an opportunity to start working with women very soon after the problem outcome that they had, whether it's a death or whether it's a preterm birth. We feel like working early with them is advantageous. If not just to help them find the local resources that they need. It

might also be a way to help them with grieving loss and that kind of thing. So that was important.

>> One question was you started with 104 participants. What is your attrition rate been so far?

>> We've had only a handful, maybe six or seven clients who have left the program. Some because they've moved and are not in the county any longer and haven't been able to be picked up by another county. I think two or three have become pregnant again so that was -- I haven't evaluated whether that was -- could be seen as a failure of the project or whether they got admitted to the project later so that there actually was quite a bit of time between pregnancies. I don't know that yet for sure.

>> Uh-huh. Okay. Well, let's see, I guess your presentation was so well done that we don't have any other questions. So I guess then unless you have any other comments before I make any closing remarks, do you have any?

>> No.

>> As we're speaking, questions are coming in. Did you enlist the assistance of neighborhood churches or schools or other neighborhood groups to identify women for the project? First I'm trying to think locally. I don't recall that schools in particular had been used because we are looking for women with, you know, an immediate --

immediately after a pregnancy so I don't recall that they were using schools. But neighborhood churches are a part of the coalitions in many of the counties. So they have always been a good source of support and information and sometimes of actual recruitment of women. One interesting program that they have used somewhat for recruitment is the local infant mortality reduction team. I mean, the fetal infant mortality review team. If they get knowledge of an infant or fetal death relatively soon the coordinator for that program can inform the home visiting program of those women. So that's been an interesting source, which we hadn't initially thought about.

>> Okay. Did you use a particular curriculum for your education piece?

>> We have not used a particular curriculum, no. And that's probably -- that probably was not the best thing. We should have used something that was already created. We -- as I said, we used the project from Colorado and they had a number of pieces of information that we could follow but not a specific curriculum. And so we've used whatever we can find, really. They've been -- it's been a lot of different kinds of things and part of the -- I guess the hardest piece has been looking at what are the current standards for managing chronic illness? Because I found out, and I guess I hadn't realized this before, that the consultants in our particular unit were not as aware of the chronic disease management and so we've had to work on that and have -- that has been one of the things that has been a significant need for education for our local people. And in some cases the locals knew a lot more than we did so it was kind of a learning on both ends. I had another thought and just lost it, so -- actually, another

piece that has been a need for training was on access to different local resources and in particular the Department of Human Services, all the kinds of things that are available from there and how to access them, so we've had a number of different people give us information at meetings on those things. On birth control and the different programs that are available in Michigan and how you access those. So all of that resource information has become part of a number of other things we've done for training.

>> What role, if any, did the Michigan Healthy Start programs play in this project?

>> We have, oh, I think there are six or seven local Healthy Start programs in Michigan right now and we did not include the Native American women in this project, at least to date we haven't. So all the other ones which are located in the same areas, actually, as this project, have been a source of either recruitment or of personnel so we have shared nurses with those programs in several places, we've shared management in several places with the Healthy Start projects and we've done information sharing, obviously, between the two programs. Often the interconception care that's required in the Healthy Start project was different from what we were offering, so we shared information and tried not to overlap with those services locally.

>> All right. Well, I'm giving it just a minute to see if any other questions come in. Oh, I don't see any right now. As I've reminded the audience, if we close this webcast before your question is answered, we will email you afterwards with an answer to your

question. Here is another question that just came in. I told you, this is what happens sometimes. It takes a moment. 79% of women in the study accessed prenatal care in the first trimester. What motivators helped women to access healthcare early?

>> I'm not sure I can answer that. We did not particularly look at motivation for accessing prenatal care early. I don't know if I can conjecture what that might be. The percentage that is being referenced is our state level data that was just to, you know, give a snapshot of the state as a whole. I know in the past some of the reasons that prenatal care has not been accessed was -- had to do with our healthcare systems and there was not an emphasis on early prenatal care. I think that that's an interesting question in terms of what our program will do related to making some investment in getting early prenatal care. I think what we are trying to do in the interconception project is help the women understand why planning is important and that prenatal care becomes part of what you do and what you're thinking about in terms of having a healthier pregnancy. So I know that education will be part of that process with the individual women. And it may very well be that there will need to be some interaction with providers, some that really don't -- they don't make it possible to get into care in the first trimester, which is a little disconcerting but that is about all I can say probably at this point. I'm really not sure what are some of the things that have been done to date to help women get into care early.

>> Have you given any consideration to identifying women exposed to high lead levels during the interconception period?

>> We do have a lead poisoning prevention program in the state and I believe that all of the communities that we're serving by this program are covered by that lead poisoning prevention program. So there is ready access to all of the services for prevention as well as for screening for lead levels through the health departments in each of the counties.

>> This is a question regarding whether the question and answers will be posted with the archived webcast and the question/answer portion is part of the archive. So anyone who missed this piece of the webcast will have an opportunity to listen to the question and answer portion via the archive. Well, it looks like it's quiet again as far as the questions. I think then I will go ahead and begin the closing remarks. On behalf of the Division of Healthy Start and Perinatal Services I would like to thank our presenter and the audience for participating in the webcast and thank the contractor the Center for the advancement of distance education at the University of Illinois-Chicago for making this technology work. Today's webcast will be archived and available in a few days on the website [The Community mchcom.com](http://TheCommunity.mchcom.com). We look forward to your participation in future webcasts. Thank you.