

## **AMCHP Annual Conference, 2010**

### **Moving Ahead Together:**

#### **Celebrating the Legacy, Shaping the Future of Maternal and Child Health**

#### **The Changing Face of Children's Health:**

#### **Results from the National Survey of Children's Health**

March 6-10, 2010

JESSICA JONES: I'm going to be speaking on the national and state estimates and breastfeeding prevalence and using data from the 2007 National Survey on Children's Health. We're also going to be covering changes in breastfeeding initiation between 2003 and 2007 and touching very briefly on breastfeeding legislation or rather legislation that supports and promotes breastfeeding. I always like to start with this quote from the American Academy of Pediatrics especially if there is any chance that someone in the room hasn't been completely indoctrinated with the benefits of breastfeeding. There isn't enough time at this conference to talk about the specifics but as you can see by what's listed it's not simply an issue of infant nutrition. It affects mothers and societies and cities and the world at large. It's a very important public health issue and because it is a very important public health issue Healthy People 2010 Objectives on Breastfeeding, originally these objectives were simply for breastfeeding initiation and duration but were updated in 2007 to include targets for exclusivity. Breastfeeding exclusivity is defined as an infant not being fed anything other than breast milk for the first six months of life. All five of these objectives have been retained for Healthy People 2020. I have no idea what the new targets will be, no one does yet and

baseline estimates were obtained using the Ross' Mother Survey. This is problematic as the Ross' Mother Survey is a private sector data set. Healthy People Objectives typically aren't based on private sector data sets and furthermore this is data obtained from infant formula manufacturers and that points to a potential conflict of interest. As of now, the National Immunization Survey has been selected as the data source for targets in monitoring. The breastfeeding questions within the National Immunization Survey are identical to the breastfeeding questions found in the National Survey of Children's Health. Originally, two items were included in 2003 to get at breastfeeding initiation and duration. In 2007, two other items were added to allow for analysis and exclusive breastfeeding. The next question is about the first thing that the child was given other than breast milk or formula. This might have been juice, cow's milk, sugar water, baby food, anything else, even water. So, if your child was given water in the first six months of life they are not going to be counted as having been exclusively breastfed.

For breastfeeding analysis we limited all of our research to kids zero to five and for questions of exclusivity and duration we limited our analysis to those six months of age to five years in order for them to be old enough to have reached the targets. We found an actual prevalence of breastfeeding initiation, so having ever been breastfed to be 75.5% of all children and that met the national objective, which was wonderful and met it a little bit early. This is 2007 and the objective was for 2010. States that reached that 75% are shown in the dark purple. So much like Reem's presentation dark is good and light is not so good. State level estimates range from a high of 89.6% of children in Washington State to a low of 52.7% in Mississippi. Overall, 26 states met the objective.

Regional patterns in breastfeeding initiation were evident and this was not unexpected and then the western part of the country, particularly the northwest, have the highest rates of breastfeeding states and the southern part of the country, particularly the southeast, have the lowest rates.

This map represents the percentage of all children age six months to five years at the time of the survey to have been breastfed or fed breast milk for at least the first six months of their lives. Again this is all children and not just those to have initiated breastfeeding. The national estimate was found to be 45%, thus falling short of the Healthy People 2010 target. Thirteen states shown here in the darker blue met this target, while four states nearly met this target. In the case of these four states it was sometimes just where I chose to round the estimates. Those four states are Colorado, New Mexico, Nevada and Maryland. I think it's important to point that out that at 49% you've pretty much hit the target of 50%. State level estimates range from a low of 22.4% in Mississippi to a high of 65.9% in Washington state. On a positive note, even though we didn't meet the national target, breastfeeding duration until six months did rise between 2003 and 2007 from 37.5% to that 45%. So, if the purple state shows how many kids ever breastfed and the blue state shows how many kids breastfed for six months, this green map shows how many kids breastfed for six months without eating anything else. The Healthy People target was 17% and the national average was 12.4%, which is not great but again it's a new area of breastfeeding surveillance. The state level estimates ranged from 5% in Mississippi to 23.2% in Washington state.

There is a consistent theme with Washington state kind of being the leader in all things breastfeeding prevalence.

Why do states vary? Previous research has shown that the variance of state level prevalence is statistically significant even after controlling for social demographic factors. When approaching the question of state variation and exclusivity because this previous research wasn't able to look at exclusivity as the data was not yet available in 2003, when approaching this question the issue of exclusivity, I wanted to account for state differences and initiation. Obviously, if states differ by initiation they're going to differ by exclusivity but to get at this issue I limited the analysis to only those children to have ever been breastfed and we found that there was still significant statistical association. A child in Alabama was 3.6 times more likely to not be exclusively breastfed than a child in Washington state and these variations remained even after controlling for the array of socio-demographic factors and those covariates were chosen because they had a bivariate association with exclusive breastfeeding and not just because I wanted to throw everything in the kitchen sink into the model though I appreciate that it looks like that.

Looking at changes in breastfeeding initiation specifically over time, we do see that there has been a statistically significant increase on the national level, which is wonderful for those of you who work in breastfeeding information. Keep it up. It's going somewhere. We noticed between 2003 the regional trends stayed the same. You see the same states have the highest prevalence and the same states have the lowest

prevalence. Ten states had statistically significant increases in breastfeeding initiation prevalence. Wednesday it had a statistically significant decrease in breastfeeding prevalence. I have no theories as to what happened in Colorado. The far right column represents the magnitude of the change. As you can see here the states in the dark red are all the states that had significant increases in breastfeeding initiation. They tend to be in the eastern and a little bit of the mid-northern part of the country. That's to be expected. The states in the western part of the country already had very high rates of initiation and it would take a lot more for them to have a significant increase as all of those states are already beating the national target. It does raise the question of what causes the difference in states and specifically what causes an increase in some states. Previous research has shown that the presence of legislation, which supports and promotes breastfeeding is positively associated with breastfeeding in that state. So, a child is more likely to be breastfed if it lives in a state that has breastfeeding legislation passed. What we see in the bottom columns here is that the column on your left represents the states with the lowest prevalence and the year in which they passed their first piece of breastfeeding legislation and on the other side you see the states with the highest prevalence and the year in which they passed their first piece of breastfeeding legislation and some interesting things emerge. At the time that (inaudible) all did their study in 2003, 15 states and the District of Columbia did not have any legislation that supported breastfeeding. As of right now, 48 states and the District of Columbia do, the only state that does not in West Virginia and you'll see that as having one of the lowest prevalence in breastfeeding initiation. So for those who know someone in West Virginia, you're the only state without anything. Most states have at least one law that protects

against indecency prosecution of women who are breastfeeding in public and then there's a whole lot of other laws that go in terms of the quality and childcare and access to breast milk at hospitals. They're not all created equal but 49 out of 51 states now have them.

It's interesting if you look at Louisiana. Louisiana and Washington State represent opposite ends of the spectrum in breastfeeding initiation and they both passed their first piece of legislation in 2001, otherwise you see a trend where the lowest states passed it in this decade and the other states passed it in the '90's. What's interesting about that is even though they passed the legislation at the same time, Washington state has passed different legislation. It's a little bit stronger in its language and Louisiana of the bottom five is the only state to show a statistically significant increase and they had the highest magnitude of increase in what we just saw of those ten states. As you can see, listed in order of the magnitude of change Louisiana is at the top and you would assume that for there to be a change between 2003 and 2007, new legislation was passed around or before the time of the subject child's birth and that would be shown in this column here and it's true for about half of the states. About half the states passed legislation within that period of time.

It is unclear if legislation itself promotes breastfeeding through legal protection or if the legislation is more symbolic of social norms, awareness and attitudes. I highlight this upper section in an attempt to illustrate the possible idea of legislation as a result of social momentum. As you can see here all three states that had the highest magnitude

of change passed legislation within that time period of interest. Two of them passed their first piece of legislation during that time and two other states have passed legislation since and that passing legislation since really indicates to me that there might be some more going on, on a societal level. The role of breastfeeding legislation we know that it influences things but we're not sure which came first the legislation or the social momentum and that's where we get to talk about, "The Office".

You know you're doing well when network television starts promoting breastfeeding. It was a really great feeling this passed week. For those who don't watch, "The Office," it is an Emmy award winning, wildly popular comedy in its sixth season. It has been signed on for a seventh season. It has an annual viewership or a weekly viewership rather of about nine million people, six million of which are in the 18 to 49-year-old demographic and it's a comedy. It's at times a bit of a crass comedy but there is a couple that is very much the protagonist of the story. They are sane and normal and who we would all want to be. They had their first child on Thursday's episode and the first half of the episode focused on the hilarity that is getting to the hospital and the second half of the episode focused on the mother's struggle to breastfeed. Her desire to do so, the criticism she faced, the doubt that she had to deal with and by the end of the episode she was able to do so and I realize it's a little bit silly to draw too much from network television but in terms of social awareness and social norms and just the general perception of breastfeeding in America, it left kind of a good taste in my mouth.

Thank you all for listening and putting up with, “The Office”, diatribe and please let me know if you have any questions.