

DataSpeak

Data-driven Change at the Community Level: Emerging Research on Urban Child Health

Maternal & Child Health Bureau

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Program Transcript

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Welcome, Overview, and Program Logistics

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Good afternoon everyone and welcome to today's DataSpeak web conference titled "Data Driven Change at the Community Level, Emerging Research on Urban Child Health." My name is Reem Ghandour and I direct the Division of Epidemiology in the Office of Epidemiology and Research at the Maternal and Child Health Bureau and we sponsor the DataSpeak Series.

A large part of our mission here at the bureau is to support and promote research that addresses the needs of underserved populations. Children living in urban areas can face unique health challenges related to their environment and it is important to collect, analyze and act on the data that reveals these challenges.

Today's DataSpeak will focus on socio-emotional and environmental health and how three different programs are using data to drive community action and change for children in urban neighborhoods. These programs are using local and national data to tell unique and important stories about neighborhoods, children childhood experiences and health outcomes.

[1:20] We are excited to have with us today three expert speakers. Our first presenter will be Dr. Renee Boynton-Jarrett. She is an Associate Professor at the Boston University School of Medicine and the Founding Director of the Vital Village Community Engagement Network. Renee will describe the development and community-focused uses of the Vital Village Data Dashboard.

Our second speaker will be Dr. Claudia Coulton, distinguished University Professor at Case Western Reserve University and Founder and Co-Director of the Center on Urban Poverty and Community Development. She will present on the child's longitudinal data system and how it has been used to explore the links between housing equality, the foreclosure crisis and elevated blood lead levels.

Finally, our third speaker will be Dr. Lisa Sontag-Padilla, a Behavioral and Social Scientist at the RAND Corporation. Lisa will discuss the development of a Data Book of Child Socio-Emotional Health using data on families in Memphis and Shelby County.

I will now turn the program over to our moderator, Sarah Lifsey.

Sarah Lifsey, MPP – DataSpeak Moderator

[2:23] So, first, I'd like to call your attention to the DataSpeak website, we hope you'll give it a visit after today's program. On the website you'll find archives of the DataSpeak Programs going back to 2000 and the slide on your screen shows some of the more recent programs that are available and the address you can use to access them.

So, now I would like to turn to our first speaker, Dr. Renee Boynton-Jarrett.

Overview of Boston's Vital Village Community Engagement Network (slides 6 – 45)

Dr. Renee D. Boynton-Jarrett, MD, ScD – Associate Professor of Pediatrics, Boston University School of Medicine, Founding Director, Vital Village Community Engagement Network

[2:49] Good afternoon and thank you for having me today. I'm excited to talk about some of the work we've done locally in Boston with the Vital Village Community Engagement Network. My objectives for the talk today is really to talk about our process and trajectory working towards leveraging existing data for child well-being and engaging community members in as many steps of that process and making it a more useful tool for them and for improving child well-being at the local community level.

[3:25] To tell you a bit of background about Boston Medical Center, it's the largest SafetyNet Hospital in the New England area with eight affiliated Federally Qualified Health Centers and a very large electronic health record that began in 1999 and over time data was extracted from that health record to form the Massachusetts Health Disparities Repository.

[3:49] So, one of our first places that we began was really thinking about how that health disparities repository could be used to track child well-being over time in the Boston area. So we thought about establishing a platform for tracking benchmarks of child well-being that included the electronic medical record data but also a variety of additional data as well so thinking about crime data, school data, data from social services, how could it be centralized and web accessible so that community members and community-based organizations could also utilize this to cultivate and support cross sector collaborations that help to improve child well-being outcomes.

[4:39] So we began with a very simple partnership actually, between Boston Medical Center, Vital Village Network and the Boston Promise Initiative, which was based in the Dudley Square Community of the Boston area in Roxbury.

[4:53] We first outlined some shared indicators of child well-being. We integrated some crime data, school data, data the Boston Promise Initiative had collected and utilized a tool called the Child Opportunity Index that was based out of work done in the Care One Institute in Ohio and made public for the Boston Metro Region by the diversitydatakids.org group at the Heller School at Brandeis University.

[5:24] Then we worked together to think about other ways that this data could become more dynamic and useful for community-based organizations and community members. So if you look at the Child Opportunity Index for the Boston area here, the Boston Metro area, you'll see that the lightest areas is where lowest opportunities exist for children. The darkest areas are where higher opportunities exist and the proportion of children in neighborhoods that have the proportion of Black and Hispanic children in Boston are in the center. Those are also the areas where we have the very low opportunity level. So we saw inequitable metro areas in the city where 6 in 10 Hispanic children and over 50% of African-American children lived in very low opportunity areas.

[6:12] When you think about what the index captures there are really three primary domains: educational opportunity, health and environmental opportunity, and social and economic opportunities. So looking at those three domains really helps us to understand everything that this index is helping to capture that would contribute to a child's well-being at the neighborhood level.

[6:37] We also then took crime data from the Boston Police Department based on 2009 crime data, violent incidents, robbery, assault and murders, aggregated at the census tract level and explored as crime incidents per square mile.

[6:57] When we mapped those high violent crime rates we saw a spatial overlap with the areas of lowest and very low opportunity on the Child Opportunity Index. When we looked at the spatial clustering hotspot areas of violent crime we also saw tremendous overlap with the very low opportunity areas on the Child Opportunity Index.

[7:22] When we used our electronic medical record data on childhood obesity we found that childhood obesity rates also tended to correlate with very low opportunity areas according to the Child Opportunity Index and when we explored this, in our Poisson model, we found that while violent crime rate was associated with higher obesity risk for children between the ages of 3 and 18 years old the Child Opportunity Index dampened these associations so there was a protective buffering effect when you lived in neighborhoods of higher child opportunity on the impact of violent crime on obesity rate.

[8:07] We also looked at these effects for childhood hypertension, which is a much more rare outcome than obesity but we still found an alarmingly similar pattern in that hypertension was correlated with low opportunity rates as well as high crime rates. Crime was significantly associated with hypertension. We did not see the same statistically significant effect of the Child Opportunity Index in our multi-varied model.

[8:33] Taken on the whole when we did a spatial analysis we see a spatial clustering of violent crime rate, childhood obesity rate and childhood hypertension rate in the city.

[8:47] We began to think about adjacent possibilities. What other forms of data could we integrate to help explain not just what was happening but why it was happening?

[8:57] So working with the Boston Promise Initiative and their data with children in schools, their school survey data, and Boston Public School data, we saw that safety to school for two schools they were working with, one in a low opportunity area and one in a very low opportunity area, we saw some differences. Safety and traveling to school was worse for the school in the lower opportunity area. Feeling safe at school was also worse for children in the area that had the lower Child Opportunity Index, engagement in physical activity and thoughts about future success also were correlated in a negative way.

[9:39] And so we found that integrating this student report data we saw even more meaning being made. Integrating interviews and qualitative work with students they kind of explained what was happening. The more people around me that get hurt the closer it comes to home not literally but emotionally. So, very clear explanation of how the social environment and opportunities within that environment and crime rates within that environment influence the health and well-being of young people.

[10:11] Interesting opportunities that emerge with the Child Opportunity Index is the ability to explore bright spots, to look at positive deviants, to look at adjacent geographic regions. Also, the opportunity to have a comprehensive set of metrics for looking at equitability of opportunities for children across the city so this blended several important advantages to the type of work we wanted to do to build community capacity and particularly understanding pathways to improving child health equity.

[10:45] So as we've already discussed there were direct implications of this data, this crime data, and low opportunity area data, low opportunity areas being strongly associated with a poorer school climate as well, poor educational climate for young people. And so how might policymakers then utilize this information to consider the population health benefits of crime reduction and the population health benefits, as well as the educational benefit, of building community assets. So those were the conversations that we began to have as a result of this collaborative partnership between community-based agencies, the police department, the medical center, and schools.

[11:32] So we took this a step further. How do we further engage community members, not just in engaging with the data, but helping us identify what questions to ask with the data as well? So our work with Vital Village that's based at Boston Medical Center is really thinking about how do we partner with community residents and community-based agencies to maximize child well-being, and while these slides will be made available so I won't go into detail about every aspect of our work, but we strongly focus on building community capacity as well as cross sector alignment and our theory of change really sees community engagement as equally important to community capacity building and strategies to enhance civic engagement and participation at all levels and one of the ways we wanted to do that was thinking about how we could engage people with data, not just in hearing data but also helping us determine what questions to ask and how to best utilize that data.

[12:33] So our participatory model was really not just about sharing findings with community members but having them help us determine the indicators, determining the appropriate benchmarks, formulating action plans as well as highlighting community assets and resources that may help us explain these bright spot areas and help more communities thrive.

[12:57] So one of the ways we began with data sharing, as many of you can relate, you're often inundated with tons of data and you don't know where to begin and how to even begin having conversations, is we broke the ice by just simplifying it. Rather than making 30, 40, 50 page data reports we made data postcards with many bits of different types of information and used that as conversation starters, asked community members how they related to the information, asked them what other questions they would like to know and this really helped us break the ice on moving and backing away from a more traditional academic model to more of a discussion focus.

[13:39] We actually used these data postcards in a variety of ways to help us improve our ability to communicate and have meaningful conversations around data. So we used the iterative process where we continually improved upon how we were delivering and sharing information based on feedback we had from community members. And this is just an example of a simple paper sheet we used to help us actually be transparent in tracking our process.

[14:09] So then we moved to developing a community publicly accessible data dashboard that you can find on our website "vitalvillage.org" and really thinking about the way in which a shared data platform could further empower communities.

[14:27] So some of our goals were to make this platform a resource for community residents to obtain local information, to provide a transparent tool for tracking benchmarks for child well-being, evaluating our progress across community-wide initiatives and programs meant to improve child well-being outcomes, but also allowing community residents to engage, ask new questions to challenge and probe the data system so there would be a more cyclical flow of information.

[14:58] Here is an example of a story that is available, a data story that's available on our dashboard, it was sparked by some of the questions of residents around the quality of child care, early childhood

education programs. We utilized the Child Opportunity Index as a base map, again, to explore some of the neighborhood capacity factors as well. So, here we're beginning to integrate different forms of data, being more responsive to the interests and needs of parents and caregivers.

[15:35] We go further to explore the difference between Boston City and the Boston Metro area in terms of the average ratio of children participating in early childhood education, which is lower in Boston City than it is in the Boston Metro Region.

[15:52] We go further to explore block groups that have higher participation rates, often have higher Child Opportunity Index scores as well. So, again, we're able to make more of a case of the importance and the need for more comprehensive, robust opportunity structures in neighborhoods but at the block group level as well for child well-being. This is how it looks laid out on the website which you can go and explore a little bit more about.

[16:24] We have written up some of this work in an attempt to talk more about academic community partnerships and the multiple levels of data sharing and integration. When we think about scale and sustainability we often talk about mobilizing community engagement but that's often a one way, one direction of engaging the community in data you've come to. We are really working hard on learning a lot about how we can have that as more of a dialogue and ongoing discussion where community members are very much involved in shaping the data that's used to monitor outcomes.

[17:03] I want to acknowledge our team. It takes a lot of people to put this together. Futu Chen, our Data Outcomes Coordinator and Analyst has done a lot of the work of our data platform as well as the team listed here who have contributed greatly to the analyses I've presented around crime and child well-being and if you have additional questions feel free to contact us. Thank you.

Sarah Lifsey

[17:27] All right, thank you so much. Just as a quick reminder to our audience, if you have a question for our speakers you can submit it online at any time using the questions form on your screen and we will read them out at the end of all the presentations. So I would like to turn to our next speaker, Dr. Claudia Coulton.

Overview of The Child Longitudinal Data System, Housing Quality, and Child Health (slides 46 – 59)

Dr. Claudia J. Coulton, PhD – Distinguished University Professor and the Lillian F. Harris Professor of Urban Social Research, Jack, Joseph and Morton Mandel School of Applied Social Sciences, Case Western Reserve University, Founder and Co-Director of the Center on Urban Poverty and Community Development

[17:49] Good afternoon. I'm very happy to be here to have a chance to share with you some of our research and our databases that we've developed to work with the community. I'm going to be pulling from a report that is published in a journal, Children and Youth Services Review, and I encourage you to get further details about the methodology from that report. As importantly, I want to demonstrate the use of an integrated data system at the community level to address issues of inequality and health risk for children in our city, and I'm in Cleveland, Ohio.

[18:31] Cleveland has gone through a housing crisis, one of the most severe in the nation, but we really didn't know precisely the effects on children, but we already knew we had a disproportionate number of children that tested positive for lead and were also well behind the statewide average on the kindergarten readiness test when they entered kindergarten. So this raised the conversation in the community as to how were housing problems affecting children and unfortunately, at the start, there was lots of concern but not a concerted effort among all sectors to really know how to address the problem.

[19:18] This particular study, as I mentioned, relied on our integrated data system so we were able to study all children who entered kindergarten in Cleveland in a four-year period. So we had over almost 14,000 children in the study. And most importantly, from a data point-of-view, we were able to accumulate a monthly address history from birth to kindergarten for all of those children, again using our integrated data system, which I'll tell more about in a moment, and also a lot of data sources on housing.

[20:00] The underlying data system for our work, the first one is called the child system. It's a longitudinal integrated data system that covers all children who've been in the region since 1992 and tracks them forward. Some are now 26 years old, and we continuously extract from more than 35 agencies records that then flow into a data warehouse but it's not just a data warehouse because we build the linkage sort of on-the-fly so that rather quickly we can view data for children across many systems. This is a highly secure data system. We don't share individually identified information with anyone. Our partners have data use agreements with us that are very strict and we're overseen by the Institutional Review Board at Case Western Reserve University Board Compliance with all these requirements.

[21:13] Our second big data system is called NEO CANDO. This is a system that continuously integrates records on properties. It's also updated continuously and it's been going on since 1997. So this is where we were able to get all the information on the children's houses and link them to the children's experiences.

[21:41] The findings of the study are less important and not possible to go over in this webinar but I want to point out that 39% of the children in the study tested positive for lead and most of them, or over half of them, experienced very significant housing problems such as living in a house that had been foreclosed or one that had spent a period in vacancy, or one that was rated in poor condition or of low value. And generally speaking our kindergartners had below average scores on the kindergarten readiness test.

[22:26] Our study, I think, arguably proves the link between cumulative exposure to bad housing and market distress leading to elevated lead levels and undermining kindergarten readiness. We also track other paths between bad housing and kindergarten readiness, which included excessive residential mobility and instances of child maltreatment as also contributing to lower kindergarten readiness, and we found that children who lived in the better housing and neighborhoods had a much lower likelihood of experiencing lead poisoning than children who lived in the worst housing neighborhoods.

[23:23] So our conclusions were that lead exposure is a major contributor to low kindergarten readiness scores and that the state of repair of families' housing has direct effects on kindergarten readiness and indirect effects through elevated lead levels.

[23:45] We also were able to pinpoint housing market forces such as foreclosure and selling of homes to speculators that then remain empty for a long enough time to deteriorate and then children move into

them with their families, and these market forces really are a part of the picture as to why we have such a high lead exposure and diminishing of kindergarten readiness scores.

[24:17] Now the problem, and the task, and what we're working on collectively is to work on interventions that can reduce the chance of children living in or near problematic housing so that we can prevent their lead exposure and also their housing instability, and also their risk of child maltreatment, all of which undermine kindergarten readiness.

[24:45] We're working to focus our prevention efforts on chronically hard-hit areas of the city and to mobilize our community partners to work together to address what is a big picture kind of problem, and cannot be handled by any particular part of the system such as hoping that the healthcare system can solve this alone or hoping that the education system can make up for what's been happening in the neighborhoods.

[25:23] I do want to acknowledge though, we're part of a consortium of partners in the community who are collectively trying to address this problem, including Environmental Health watch, which is an activist organization to improve environmental conditions in badly affected communities, two of our major hospitals that take care of children, Rainbow Babies and Children, and Metro Health, a community-based organizing group called Neighborhood Connections, and partners from the City of Cleveland including the Health Department and the Building Department, along with the County Health Department.

[26:15] So as we begin to figure out where to focus our initial action, as the earlier presenter, we find maps to be very helpful in focusing community attention, and this is a picture of where children are testing positive for lead and the darker the blue the higher the concentrations of children testing positive for lead.

[26:42] Here's a map that showed where the devastation from the foreclosure crisis happened in our community. The areas in darkest red were most highly targeted by subprime lenders who peddled dangerous products to unsuspecting buyers and borrowers in these communities, often taking people who already had equity in their home and urging them to refinance into products that were much more adverse in terms of balloon payments and excessive fees, and so forth.

[27:24] So, what we experienced between 2004 and 2008 was a tsunami of loans that foreclosed very rapidly and that's what you see in this picture. Within three years of origination they foreclosed, but the peak foreclosure period was 14 months, which is why we labeled them toxic loan purchases.

[27:49] And I want to point out in the next map that the areas that you saw in blue for lead poisoning and now in red for toxic lending we can trace back historically to as far back as to the 30s when these areas were the areas that were redlined and where all kinds of government policies began to disadvantage these neighborhoods in terms of their ability to gain insurance and mortgages, and other funding to keep up their homes, and of course these were the African-American areas of our communities.

[28:31] So we see a continued pattern of a durable geography of racial inequality and inequity, and we're very motivated by this durable pattern to take this on as a social justice issue, not just a public health issue, or a child welfare issue, or an education issue, and I'm happy to report that the current strategy is to identify at least two of these areas initially for outreach, mobilization, investment on the part of targeted funds into these areas for reducing lead exposure, increasing access to pre-kindergarten programs that can help compensate for challenges in children being ready for kindergarten and other

collective interventions that will be going forward, including some changes in the laws regarding landlords' testing, and requiring them to have lead free certificates and other strategies around housing. So, I want to encourage you to link to a copy of the study and encourage you to ask questions later on. Thank you.

Sarah Lifsey.

[30:19] Great. Thank you so much. Again, just a reminder to our listening audience, if you have a question for any of our speakers you can submit it online anytime just use the questions box there and submit it, and we will read it out at the end of the presentations during the question and answer session. You'll also have a chance to ask a question on the phone if you wish. So I would like to turn to our final speaker, Dr. Lisa Sontag-Padilla.

Overview of Databook on Child Socioemotional Health for Memphis and Shelby Counties (slides 60 – 78)

Dr. Lisa Sontag-Padilla, PhD – Behavioral and Social Scientist, RAND Corporation

[30:51] Thank you for having me this afternoon, and thank you to the prior presentation's presenters. So I want to wrap up our discussion today around urban child health, thinking broadly about how to use data to drive these discussions and Dr. Boynton-Jarrett and Dr. Coulton have led into this very nicely.

[31:15] So, just as some background, today I want to introduce to you a little bit about...for those of you who aren't familiar with the RAND Corporation and our partner, the Urban Child Institute, share with you some of the background of our collaboration and why we tend to focus on ages of zero to three, and then I'll transition into discussing the development of our Data Book "Off to a Good Start" which focuses on children in the Memphis and Shelby County, Tennessee area.

[31:53] I'll do a little bit of highlight on one of the studies we used that I've collaborated with, the CANDLE Study, and then talk to you all about some tactics that we use that others have thought through as well, about making data accessible as well as relevant to decision-makers, sort of thinking outside of the traditional academic researcher audience and then what some of the challenges we experience in pulling this information together and potentially some of the future directions.

[32:31] So for those of you who aren't familiar, I work at the RAND Corporation. We are a non-profit institution that helps improve policy and decision-making through research and analysis. RAND has a variety of research buckets, if you will, but those of us who focus on children and families, we often cover the prenatal period up to age 18 and obviously beyond if we're focusing on maternal health for instance, and this includes focusing on the child's health, the role of the family unit, neighborhoods, community influence and child well-being, and other factors such as that.

[33:13] The Urban Child Institute is an organization based in Memphis, Tennessee that promotes the health and well-being of children ages zero to three in their community. And in pursuit of their mission, the UCI conducts research and advocates for public policy. They launch early intervention programs and prevention-based strategies and they really serve as a trusted community expert to help connect organizations, non-profit organizations, practitioners, policymakers to data to help facilitate their thinking of these sorts of issues.

[34:01] So in 2011 up through 2016 we partnered with the UCI to develop and execute a new strategic vision for their organization, really focusing on social and emotional development of young children, and as part of this collaborative RAND developed a new report on child social and emotional health using data from the CANDLE Study, which I'll talk about in a bit, and other datasets on families in Memphis and Shelby County, Tennessee, as well as regionally and national studies.

[34:36] So just a little bit of context for you all, so why focus on social emotional health and why focus on zero to three? So, you know we know children's experiences in their earliest years affect how their brains work, the way they'll respond to stress, their ability to form trusting relationships, and during these years the brain undergoes, you know, its most dramatic growth, setting the stage for social emotional development.

[35:07] So, one theory suggests that intervening with very young children at higher risk for not just social and emotional difficulties, but a variety of challenges produces the largest gains in terms of skill development over time, and that's what this figure here is illustrating to you all. So, you'll focus in on, you know, the yellow portion and you'll get the largest gains.

[35:28] Additionally, the theory suggests that this approach ends up costing communities or the larger society less money in the long run. In essence "pay now or pay more later."

[35:39] Unfortunately, a number of children struggle with at least one area of social emotional development and so these children in society may benefit from investments to set them on the best path forward. So, in order to get to this point, as academics and researchers, we need to figure out ways to help get that information into the right hands and also in a way that is understandable by either a lay audience or a non-academic audience so that they see what areas to focus on, why and how to go about doing that.

[36:17] And so, thinking about this, the UCI partnered with RAND to develop a Data Book – we call it "Off to a Good Start" – to really facilitate these kinds of discussions. It draws on national, state and local data. It highlights essential factors in the home and the child care setting as well as in the community, and really helps provide a narrative around the importance of investing in efforts that have the potential to impact social and emotional development during those first few crucial years of life. And really the book itself, and it's both available online as well as a printed version, was thought of as a vehicle to engage academics, practitioners, grant making agencies, and public policy entities all together as well as separately in this conversation.

[37:16] So, as I mentioned, we used a combination of different data sources, and this wasn't a cohesive repository as was discussed in the prior two presentations. Memphis, Tennessee does not have such a dataset and so we were left having to sort of cobble together bits of information from various sources. As you see, we used Urban Child Health Studies, public data banks, federally funded national studies and privately operated data collection efforts, spanning from local information at the city level and some up to the national level, or only available at the national level.

[38:01] What I want to do now is just highlight for you our work with the CANDLE Study, which really provided a large amount of the information for the Data Book and was unique to the community in that it provided city level, community level information, not just census track data but went beyond in collecting information on child and mother health.

[38:30] So, one of the core sources, as I said, for the Data Book was the Cognitions Affecting Neurocognitive Development and Learning in Early Childhood, or CANDLE Study. The Urban Child

Institute had developed CANDLE and provided funding to the University of Tennessee, Department of Preventive Medicine, to launch CANDLE in 2006. This partnership was leveraged to support the collection of prenatal and early childhood data on a healthy, ethnically diverse sample.

[39:09] As part of its broader relationship with the Urban Child Institute, the RAND Corporation, so myself and my team, were asked to review the data that had already been collected for CANDLE. We created a strategic plan for its use and helped prepare the data for further analysis as well as availability to a broader audience of researchers.

[39:39] So just to give you some context for CANDLE, the main goal of the CANDLE Study was to investigate both the separate and combined effects of a mother's prenatal experiences as well as a child's home environment, their early childhood experiences, exposure to potentially harmful toxins and their genetic makeup, and what impact it would have on their brain development as well as their cognitive and social emotional development from birth to three years of age.

[40:17] However, the long-term objective also thinks about the role of this data in the community, hoping that it will provide information to lead to improvements in health development and well-being of children in Shelby County, Tennessee, both through interventions but also through policy enforcement or development.

[40:46] So the CANDLE Study included roughly 1500 pregnant women who were enrolled throughout the duration of the study. Enrollment began in 2006 and continued to 2011, and their data collection began during their second trimester and then continued through the child's third birthday.

[41:07] There were eight in-person data collection points per family and nine phone-based assessments that occurred every three months. For the sake of the presentation and time for questions and answers, for detailed information about the CANDLE Study and the full report on the first year's worth of data, you can go to this website here at rand.org. There is also additional information about the study itself in terms of participants and sort of their current publication lists and so forth at candlestudy.org.

[41:50] Now what I want to focus on for the rest of my time is really thinking about how to use, how to connect the data to those people who are who making decisions about communities, and so more to facilitate the use of the data and inform and information presented in Off to a Good Start we utilized a variety of tactics that had not been used before by the Urban Child Institute, but as you saw in the prior presentation, there's some commonalities that you'll notice, so one of which was using tactics that highlighted relevant information for the audience, making it relatable and easily usable for practitioners, grant making agencies and policymakers.

[42:44] So, here are some examples, and I'll show you a variety of them, of our illustrations and graphs that we use within the Data Book itself, and so moving beyond sort of simple PowerPoint presentation style we punched it up, made it visually interesting, which I think grabs an audience's attention. We interjected conceptual models to help provide context to understand issues. So for instance, here the visual on the left focuses on maternal education. You can then look at the visual on the right where it shows you where and sort of gives you an idea that a child is nested within these multiple contacts and it's important to look at family and the childcare center in the broader neighborhood context and so forth.

[43:39] We also utilized callout boxes throughout the report so things such as "how can you help." So, if this is a practitioner picking up the book, speaking through beyond just the data points, what are some concrete steps that they can do to help foster social and emotional development in children ages zero to

three or having callout boxes “did you know” here interjecting data points on the community that relate to the conceptual issues being discussed.

[44:12] In addition, we use things such as data facts embedded into the story. All of these approaches really are just meant to make the data engaging, make it easily digestible, make it easy to pull out relevant information and help facilitate conversations around whatever issue it is that you’re focused on. For us it was social, emotional development. It could be childhood obesity, it could be safety, neighborhood violence, etcetera.

[44:52] And then finally, one of our last tactics that we typically use in the book were to highlight not just community deficits but really the community assets, and also to synthesize multiple sources of information in one visual. So here you can see the figure to the left maps out, on the zip code areas of Memphis and the Greater Shelby County area, how many assets are in each of the zip code areas. So those that are that sort of lighter green...oh, I may have lost connectivity so I’ll just tell you next. But those images in the lighter green, you can see are those with more dense assets, and then the figure on the right, you can see where there are more risk factors associated with poor social and emotional development.

[45:50] If you hit next, it should bring up little arrows to show you where there are overlapping, and hit next again, you can see here there are overlapping areas, so this particular zip code for instance, while it has higher levels of risk, they also have very high levels of assets. So how do we think about using that information in connecting those families to those assets, facilitating engagement in those assets, educating the broader public as to engaging in behaviors that would buffer the effects of higher risk? It looks like I’m back online.

[46:35] So for Memphis specifically, because as we see, there are other communities that have integrated data systems, there was very little information for us in doing our Data Book that was available at the local level to inform decision-making in the community. We had to pull largely from national and sometimes regional information to inform the book.

[46:59] And so in a lot of communities, particularly lower resource communities around the country, there is really still this need for a central data repository for agencies, organizations, decision-makers, to access standardized information and reliable data, as well as integrated information.

[47:19] And then finally, really there’s a need to facilitate conversations among key decision-makers and academics and researchers within the community. So, having the repository is an essential step, but if that’s not in place, or even if it is, how do we get people talking about it, how do we get people using it, and I think that’s something that still potentially lacks in a lot of communities.

[47:51] So that’s the close of my presentation. If you have any additional questions about the details of the book or the various studies feel free to reach out to me at my e-mail address. Thank you.

Questions and Answers (slides 79 – 80)

Sarah Lifsey

[48:03] Okay, great. Thank you so much, and thanks again to all of our presenters today. It’s been a really great program and we already have some questions coming in online. So as I mentioned at the beginning, we take questions both online and on the telephone. To post a question online just type it into the “questions box” and hit “enter” and we will see it and read it out. But if you’d like to ask a

question on the phone, just press star one. That will let our operator know that you have a question and the operator will let us know that there's a question on the line and indicate to you when to ask your question.

[48:37] So, while we're waiting to see if anybody wants to come up on the phone and ask questions, I will start with a few online questions that have come in and the first question I have is from Priti for Renee.

It is, as you've illustrated on the risk side, violence is correlated with poor health and neighborhood cohesion is an asset. Are there any plans to incorporate related indicators into the Childhood Opportunity Index and how do you measure indicators of community engagement and inclusion?

Renee D. Boynton-Jarrett, MD, ScD

[49:10] Great, thank you so much for this question. We don't have plans to modify the Child Opportunity Index but will continue to use it in the form that it is, particularly as a base map for us. However, we've been working really hard to work with the local community that we're engaging with around the definitions of social cohesion that make the most sense to them, and I'll give you a particular example from our data postcard.

[49:38] One of the questions we were asking originally was how many of your neighbors can you rely on for childcare, and we thought that that would be a great metric of social cohesion as well as instrumental social support. But in talking and having conversations with community members we learned that actually some people just didn't think asking for help with childcare was an appropriate ask of a neighbor or would never really feel comfortable or culturally felt like they would prefer to ask a family member or a trusted friend for help with childcare. So we would definitely like to expand in this way but we want to do so in a way where we're really doing it in the most meaningful way possible. So these conversations are helping us understand these concepts a little bit better and the definition of them.

Sarah Lifsey

[50:34] Okay, thank you. Claudia or Lisa, do you have any input on measuring community engagement and inclusion in these types of data indexes?

Claudia J. Coulton, PhD

[50:52] This is Claudia. I think that that's a very important aspect to pay attention to because we have tried to be efficient and do most of our data work using available data or big data that are collected for other purposes, and we try to convert them into socially useful information. We have not tackled that one because we can't exactly think of a way to use big data for it. So we are currently working on the possibility of more direct data collection with people in communities, which is expensive, it's often hard to do it reliably, you know, to be sure you get sufficient numbers of people involved in surveys from every neighborhood. But it seems like to get to that level of perceptual information and direct experience of people as self-reported you have to really launch that kind of data collection effort.

Lisa Sontag-Padilla, PhD

[52:02] Yeah, I think we're...this is Lisa, I we're in the same situation where typically we rely on secondary analysis of existing large data sources. And so thinking of proxies for community engagement may be possible but often even those proxies aren't gathered in sort of your standard large data sources. So I think in our work most of the focus on community engagement has been less so about a protective factor in these areas, but more doing the engaging once we have the data information available, and trying to then facilitate those conversations within communities at risk to see how they think we should best use the data rather than simply just putting together information and putting it out there, how do they want us to tell the story, how do they think we should best connect the information to community members, and to those who make decisions about their communities.

Sarah Lifsey

[53:13] So, the next question I have is from Vicki, and it's for Lisa.

Did RAND engage the Shelby County Health Department in the development of this Data Book?

Lisa Sontag-Padilla, PhD

[53:24] So, we engaged with the health department in the sense that we reached out to them to access data that they had on families in the community, but the Urban Child Institute was funding this effort and motivating this effort and so at the time the development, the sort of conceptual development of the book was done with them and not so much with other organizations or government entities in the area.

[53:57] We also collected...so while the CANDLE Study, which was funded by UCI, was a heavy factor in the data we presented in "Off to a Good Start", we did also pull from other sources locally that focused on sort of childcare factors, childcare centers, birth rate records, birth outcomes, which would have come from the health department, and those sorts of information, although it wasn't a heavy representation because we were focused on social and emotional health, which is often not typically collected by the health department.

Sarah Lifsey

[54:44] Great. So the next question I have is for Claudia.

Have you studied specifically gentrification and its effects on children in your study area?

Claudia J. Coulton, PhD

[54:57] That's an interesting question. While Cleveland is a city that is only experiencing some very small pockets of gentrification, and in some ways it's unfortunate that the areas we see of the highest concentration of lead poisoning and housing disinvestment are not experiencing any gentrification at all, in fact they're experiencing more the opposite, which is decreasing population and abandonment of

properties, and falling housing values, which of course rips the wealth out from under the people who live there, especially the local homeowners.

[55:50] So, I think what we would say is that what we want to be aware of is, we want to keep our eyes open for too much of the public funds and other resources flowing to the areas of gentrification, and further disadvantaging these areas where the children are at high risk. So, by tracking the whole region rather than just the high-risk areas, I think we'll be able to see if disparities are growing due to the areas that are taking off economically compared to the others left behind.

Sarah Lifsey

[56:35] The next question I have is for...this could be for any of the presenters. It's from Sue, who is a researcher in the area of parental interpersonal violence and intimate partner violence, who wants to know:

...if any of these studies that you've described today include data from households, for instance to see if perhaps partner violence is associated with neighborhood violence or those sorts of correlations.

Lisa Sontag-Padilla, PhD

[57:09] So we have information from the household, this is Lisa, from the household level through the CANDLER Study for the purposes of the Data Book we looked at more descriptive information as opposed to looking at associations between factors, trying to sort of develop predictive models, but the possibility is there to look at that information and there are entities of partner violence in that study.

Sarah Lifsey

[57:43] Okay.

Renee D. Boynton-Jarrett, MD, ScD

[57:49] This is Renee. And I would agree that that would be an important question, and an important way to utilize this information. One of the things we've done is looked at family level protective factors as well as neighborhood level protective factors. So we've been looking a little bit at the other end around family strength.

Adjourn

Sarah Lifsey

[58:12] Great. Well, I appreciate everybody's questions and answers and also all of our great discussions today, but we've hit 2:00 o'clock, and I want to let everybody know that answers to the questions that were not addressed during the Q&A period will be posted in writing along with the program archive, which will be available in the next few weeks on the DataSpeak website, so you can access it on your convenience.

[58:40] If you think of any more questions you can submit those to us via e-mail through the end of the week using the e-mail address dataspeak@altarum.org and I want you to know that we will be

broadcasting more DataSpeak programs in the coming months, and you'll get announcements about future DataSpeak programs via e-mail if you registered for today's program and you can also see those on the DataSpeak website.

All right, today's program is now complete. Thank you everyone for joining us.

Thank you to all of our speakers and have a great afternoon.

About DataSpeak

The MCHB's DataSpeak webinar series is dedicated to the goal of helping MCH practitioners on the Federal, State, and local levels to improve their capacity to gather, analyze, and use data for planning and policymaking. DataSpeak is funded by the Maternal and Child Health Bureau's Office of Epidemiology and Research under the supervision of Jessica Jones, MPH.

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