

Rural Insights from the National Center for Health Statistics on Teen Births and Infant Mortality – 6/26/18

Kristine Sande: Good afternoon everyone. I'm Kristine Sande and I'm the program director of the Rural Health Information Hub. I'd like to welcome you to today's webinar Rural Insights from the National Center for Health Statistics on Teen Births and Infant Mortality.

I'd like to quickly run through some housekeeping items before we begin. We do hope to have time for your questions at the end of today's webinar. If you have questions for our presenters, please submit them at the end of the webinar using the Q&A section that will appear on the lower right hand corner of the screen following the presentation.

We've provided a PDF copy of the presentation on the RHHub website, which is accessible through the URL on your screen. For technical issues during the webinar, please call WebEx support at 866-229-3239.

At this time I will turn it over to Sarah Heppner who is with the Federal Office of Rural Health Policy, and she will introduce our speakers today.

Sarah Heppner: Thank you and welcome everyone. My name is Sarah Heppner and I'm the director of the Policy Research Division in the Federal Office of Rural Health Policy. I want to thank everyone for joining us for the first in an ongoing series of webinars with the CDC's National Center for Health Statistics. Today we will hear from three of our colleagues, Dr. Amy Branum, Dr. Brady Hamilton, and Dr. Danielle Ely, all from NCHS. They will discuss key rural findings on teen child bearing and infant mortality, which are two important indicators of maternal and child health.

Dr. Amy Branum is the Deputy Associate Director for Science at the National Center for Health Statistics, where she has worked for the last 18 years. In this role, Dr. Branum reviews and approves scientific products produced by the Center, designs content for scientific staff training, and is involved with various scientific programs, including coordination of rural health efforts within NCHS.

Dr. Branum's analytic expertise is in maternal child health and nutrition. She received a Doctor of Philosophy in Human Nutrition from the Bloomberg School of Public Health at Johns Hopkins University, and a Master of Science in Public Health in Epidemiology and Biostatistics from the University of South Carolina.

Dr. Brady Hamilton is a statistician/demographer in the Division of Vital Statistics, Reproductive Statistics Branch at NCHS. He joined NCHS in 2000. As a member of the Birth Team in the Reproductive Statistics Branch, his responsibilities include the preparation of the provisional birth file and release of the provisional report, and production and release of the final birth file and report, the preparation and release of the Bridged-Race Population Estimates, and assessment of the birth and fertility rates and birth data by race and Hispanic origin.

Dr. Hamilton has authored or co-authored a number of reports and journal articles focusing on topics including teen birth and teen birth rates, mean age of mother at first birth, childlessness, sex ratio at birth, fertility and reproduction rates, and the intrinsic rate of population growth.

Dr. Danielle Ely is a health statistician in the Division of Vital Statistics, Reproductive Statistics Branch, Birth Team at NCHS. She joined NCHS in January 2017, after receiving a dual title PhD in Rural Sociology and Demography from Penn State University. Dr. Ely mainly works on the Linked

Birth and Infant Death File, with several recent projects examining rural-urban differences in infant outcomes.

Now, before I turn things over to Dr. Branum, I want to take a moment to thank our speakers and their colleagues at NCHS for making it a priority more recently to report data on geography, including rural areas whenever possible. Having this information publicly available is so important for our stakeholders and communities because it allows them to look at the unique strengths and opportunities in rural, and use that information to improve the health of rural Americans.

Without further ado, let me turn things over to Dr. Branum.

Amy Branum:

Hi. Thank you so much Sarah. And I would like to say thank you very much to Tom Morris and Amy Chanlongbutra, and others, Steve Hirsch at HRSA, for inviting us to participate in this webinar series. We're very excited to have this collaboration between NCHS and HRSA's Federal Office of Rural Health Promotion, and we hope it's one of the first one of many.

Today, my role here is just to give the listeners an overview of NCHS, especially for those of you who are not familiar with us, and hear a little bit more about some of our specific data products and research related to rural-urban health.

What is the National Center for Health Statistics? Or I should say who are we? We are your health statistics agency. We were an independent agency until the late 1980s, and then incorporated as part of the Centers for Disease Control, where we remain today. We are home to major household based population surveys, healthcare surveys, and of course vital statistics for the entire United States. Our staff produces dozens upon dozens of statistical reports, journal articles, data files, and technical information each year.

NCHS is also one of 13 designated Federal Statistical Agencies in the United States. Federal Statistical Agencies have a responsibility to produce unbiased, policy neutral, transparent information for policy makers, researchers, and the general public. Here at NCHS, we meet this mission by operating under certain principles to ensure that the information we provide is accurate and unbiased.

I want to touch very briefly on some of our main data products. This is not an exhaustive list of all the products that we produce here in terms of data files, but I just want to highlight a few examples. This includes, of course, our three large household based surveys, the National Health Interview Survey, the National Health and Nutrition Examination Survey, and the National Survey of Family Growth. These surveys capture all kinds of information about population health and wellbeing, from measured height and weight, to information on family formation and reproductive factors, to smoking. Anything that you could possibly want, we probably have.

We also have a suite of healthcare surveys. And again, this is not an exhaustive list, but these surveys include the National Ambulatory Care Survey, the National Hospital Ambulatory Care Survey, and the National Hospital Care Survey. And many, many more. And of course, vital statistics. Here at NCHS, we produce vital statistics for the nation's birth, death, fetal death, and a special linked infant birth and death file each year.

In terms of measurement of geography within our data files, pretty much all data systems include at least some level of geography. Now, this level may vary, but most include information at least down to the county level. So for most of our data files, we have information usually at least down to county level.

It's important to point out, though, that geography is not available on most of our publicly available data files. And those are the data files that are freely downloadable from our website. This is obviously because we have to really make sure that we protect respondents' and participants' confidentiality, and make sure there's no risk of disclosure. Now, there are a few exceptions for some of our public use files, which may include geography at the level of MSA, or Metropolitan Statistical Area, and non-MSA. But most of our public use files don't go beyond this level of geography, again, for purposes of avoidance of risk disclosure.

Lower levels of geography, however, are available via restricted use data files. These data files have to be obtained or accessed under controlled procedures. I'll provide a link at the end of my presentation where participants can find out more about them.

I also wanted to talk very generally about some of the methodology that we have taken here at NCHS to come up with our own urban-rural scheme. I think Danielle and Brady are both going to touch on this scheme in part of their presentations, so I'm going to keep this very general. But NCHS has created our own scheme towards classification that's really useful in measuring health statistics in particular. The scheme is based on ONB's delineation of MSA and micropolitan areas based on the 2012 standard, which are available at this link.

One of the key features of this scheme is separation of large metro areas into large central areas and large fringe areas. This is because it's important to make the distinction within urban areas, since health outcomes often will vary according to whether a participant or a person lives in a central area, which is more of like an inner city area, versus a fringe area, or more suburban.

This slide just shows the county based map using the six level NCHS urban-rural scheme. You can find out more information about the scheme. This is the 2013 scheme. There was also one done in 2006. You can find out all kinds of information about this at this website.

Now I just want to talk really quickly about some of the urban-rural research that our staff have undertaken in recent years here at NCHS. I'm really proud and happy to say that there has been an increased focus on urban-rural health status in many of our reports. Since 2015, NCHS has published at least six data briefs on topics that are either solely focused on urban-rural difference, or that incorporate at least one figure showing urban-rural differences for a given health topic. Also, very recently, just in the last week I believe, there were two articles published in JAMA on differences in obesity between urban and rural areas.

Lastly, I want to mention that both MSA and non-MSA is a characteristic now incorporated in the National Health Interview Survey's Key Estimates, which are now provided via a data visualization. I'm going to talk a little bit more about each of these products on the following slide.

Here are two recent examples of our products known as data briefs. Our data briefs are intended to succinctly and clearly describe some public health issue. They do this by conveying data through four to five figures, and somewhat brief and somewhat simple text. These are just two examples. One you're going to, of course, hear more about shortly from Danielle. But the other one, as you can see, is a data brief that's focused on urban-rural differences on a specific topic, in this case, on fertility related behavior.

More information about our data brief, including all of our published briefs to date, which now numbers over 300, are available at this link on the slide.

As I mentioned, we also have a new tool, a data visualization tool for our selected estimates that we put out on a regular basis from the National Health Interview Survey. This tool replaces what

was previously a static report by now using this interactive tool where users can look at the different estimates by year, by different characteristics, trends, et cetera. We're pleased to report that this now incorporates information for each of the key estimates or key statistics by MSA, large MSA, small MSA, not in an MSA status.

This example on this slide is showing the prevalence of current cigarette smoking among adults age 18 and over by metropolitan statistical area. Again, the link for this product on this slide. I hope you can check it out and play around with it.

Then lastly, as I mentioned, we had two journal articles recently published, I believe they were published just on June 19th, using data from the National Health and Nutrition Examination Survey. These articles examine trends in urban-rural differences in obesity among adults and youth. One paper was focused on adults, the other was focused on children and adolescents. The references for these articles are included on this slide. I hope you are able to check those out as well.

As I mentioned, I've put together some links here for some general resources on our website that I hope you would find helpful. The first includes, of course, just the general website. The second is a website specifically to all of our surveys and data collection systems. The third is a site dedicated to all of our publication and information products. Then the last link is where you can find out more information about our restricted data, including which variables are available on a given data set, including geography, and how a researcher can go about accessing those data.

That covers my portion of the talk. I'd like to thank you all for your participation. If you would like more information and have questions, please feel free to contact me at any time. And if I don't know the answer, I will route you in the right place, hopefully. With that, I'm going to turn it over to Dr. Hamilton.

Brady Hamilton:

Thank you, Amy. I'll be talking about key birth rates by urban-rural areas. I want to acknowledge my co-authors on previous and upcoming reports, two of whom will be presenting, or one has already presented and one will be presenting at today's webinar. Most of the material that you will see in this presentation comes from these reports.

First a couple notes about the methods that the data that you'll be seeing in this presentation. All the data that you'll be seeing is vital data for the year. The race data is bridged to the 1977 standard. Both the birth and death registration process is undergoing a revision to incorporate the 1997 revised standards for race and Hispanic ethnicity. But to provide continuity, we use the bridged data because not all states [inaudible 00:15:36] revised by 2016, mortality is still in the process. Before that, you have a staggered process of implementation by states. So I have used the bridge; that allows us to look at the trends.

Amy already touched upon the classification scheme. The upcoming slides you'll be seeing basically recodes that information, those six categories down to three, and for some of the slides it only has two basic categories. The three basic categories that you'll be seeing for some of the slides are large urban counties, and then small or medium urban counties, and then rural counties. Some of the slides will have an even simpler coding dichotomy of urban and rural.

Okay, here you see the birth rates for females age 15 to 19 by urbanization level. You have rural, large urban, small and medium urban. What you see is that across the board for all three levels, there's been a decline in the rate. The urban rate has declined 48%. The large urban has declined 51%, and the small and medium has declined 59% between 2007 and 2016. I should also note, too, that we're using 2007 because that represents at the national level, the most

recent period of continued decline in the teen birth rate, which at the national level has declined 8% per year, which is quite astounding.

You'll also notice, too, that there are distinct differences in the level of these rates for these urbanization levels. The rates for the rural area are higher, and they are consistently higher through the entire period.

Looking at these rates by race and Hispanic origin, we see again that it has declined across all three levels of urbanization for each of the three selected groups shown here, non-Hispanic white, non-Hispanic black, and Hispanic. In addition to that, you'll also notice, too, that for each level of urbanization, within each of the race groups, there are differences, with the rate for the rural area being higher than that of the other two areas. Also, you'll notice comparing within a particular level of urbanization, differences in terms of the rate for the three selected groups. The largest declines between 2007 and 2016 were for the Hispanic, and the smallest declines were seen for the non-Hispanic white.

This and the next map were taken from a data brief that was published. I was the main author, and Amy and Lauren Robbins were authors on that as well. It just shows the percent change of the teen birth rate for urban counties between 2007 and 2016. It shows that there has been, again, this decline in the teen birth rate between those periods, but you see that this level of decline differs across states.

And here you have the teen birth rate for the rural counties, which again, you have this decline, but there is a marked difference in the level of decline by region of the country.

Here we have the birth rate for females age 15 to 17, the younger teens, again by urbanization level. Here we're just showing rural versus urban. And again, we see from 2007 to 2016, real decline in the rate for both areas. A 52% decline in the young teen birth rate for the rural areas, a 60% decline for the urban areas. Beyond that, you also see across the entire period that the rural rate is noticeably higher than that for the urban rate.

Again, looking at this by race and Hispanic origin, we see again this decline for the young teens, their birth rates, for each urbanization area by the race group. And again we see within a particular urbanization area, we see marked differences in the rate by race and Hispanic origin. And again, the Hispanics have the largest decline in the rates for each of the urban or rural areas, and the smallest declines were seen in the non-Hispanic whites.

Here we're looking at the older teens, 18 to 19. And again we see, as I noted before, a decline across the time period 2007 to 2016. There was a 38% decline in the older teen birth rate for the rural areas, a 49% decline for teen birth rates in the urban areas. And again, I seem to be like a parrot repeating my phrase, you also notice a clear distinction in the trend between the older teen birth rate for rural versus urban. They both decline, but they clearly [inaudible 00:21:47] time period, the rural rate is higher than the urban rate.

Again, looking at this by race and Hispanic origin, we see, as I noted before, the decline in the rate for all three groups for the two urbanization levels in the rates between 2007 and 2016. But we also see differences. We see differences for each race group in terms of the urban versus rural rate. And within any of those particular areas, we see differences in terms of the rate by race and Hispanic origin. Hispanics have the largest decline for the urban areas, and non-Hispanic blacks have the largest decline for the rural areas, and overall, the rate for non-Hispanic white was the smallest.

The last slide I want to show you focuses on the birth rates for second and higher order births. So these are teens that are having their second, third, fourth birth, which is a real indicator for the impact of this phenomenon of having a child in your teens. Here you see a comparison of the rural versus the urban. Again, you see a decline across the time period from 2007 to 2016. There is a 49% decline in the rate in the rural area, and 50% decline in the urban area. And again, across that entire time period, you see this marked difference in the rate for the rural areas versus the urban areas, with the rate for the rural areas being higher.

Finally, we look at the second and higher order birth rates for females age 15 to 19 by urbanization, and looking at it for the selected race groups, non-Hispanic white, non-Hispanic black, and Hispanic. Again. We see a decline for each of the race and Hispanic origin groups, and urbanization areas between 2007 and 2016. We also see marked differences within each race group in terms of the rural versus the urban rate, and within any particular urban and rural area, marked differences in the rates by race and Hispanic origin. Between 2007 and 2016, the largest declines for the urban rates were for the Hispanics, the largest declines for the rural rates were for the non-Hispanic blacks.

In summary, birth rates for females age 15 to 19, 15 to 17, 18 to 19 years have declined for each urbanization area from 2007 through 2016. Teen birth rates for 15 to 19, 15 to 17, 18 to 19 declined by race and Hispanic origin across those areas between 2007 and 2016. However, of all these declines, there are still differences in teen childbearing rates by urbanization level and also by race and Hispanic origin.

Here is my contact information if you have any questions. Feel free to contact me. I'd be happy to talk with you about the research and what we're currently working on. With that, I'm going to turn it over to my colleague, Danielle.

Danielle Ely:

Thank you, Brady. And thank you everyone for joining us today. Today, I'm going to be discussing the urban-rural differences in infant mortality rates. To start, rather than discussing all of the urbanization levels again, since we've had two rundowns with that, I'm just going to point out the definition of infant mortality rate, which is the number of infant deaths, which are those aged under one year or under 365 days, per 1000 live births.

Specifically today, I'm going to speak to you about infant mortality rates, more generally, infant mortality rates by race and Hispanic origin groups, and also for the mortality rates, for the leading causes for infant deaths. All of this data comes from previously published data briefs or quick stats that we have put out, which are available through the NCHS website, information that Amy provided earlier.

The following information is from a quick stat that was put out using 2007 and 2015 data. It uses parent linked birth and infant death files. Here you can see that from 2000 to 2015, there were marked declines in infant mortality rates for each of the urbanization levels. However, if we break it down to really see the differences between rural counties and the urban counties, there are some differences. In 2007, rural counties had 5% higher infant mortality rates than small and medium urban counties. However, in 2015, although both rates went down, rural had an even higher infant mortality rate than small and medium urban counties, and it increased by a 2% difference.

The differences between large urban counties and rural counties are even larger. In 2007, rural counties had 17% higher infant mortality rates than large urban counties. And in 2015, rural counties had a 25% higher infant mortality rate than large urban counties. So over time, what we're seeing is that infant mortality rates are decreasing across each of the urbanization levels, however the differences between urbanization levels are actually getting bigger.

The next information I'm going to provide is using 2014 data. Just so everyone is aware, looking at this in more recent years' data, the same trends do occur. However, this is just showing you what has already been published by race and Hispanic origin.

Overall, what we're seeing across different race and Hispanic origin groups is that rural counties tend to have higher infant mortality rates than the urban counties, which we've already discussed in the previous slides. However, looking at differences between rural and urban, the only place where rural is significantly higher is for non-Hispanic whites. And for small or medium urban counties, the differences between rural and small and medium counties for non-Hispanic blacks and for Hispanics was actually non-significant.

When we look at this for the differences between large urban counties and rural counties, there are significant differences for both non-Hispanic whites and non-Hispanic blacks. Specifically for non-Hispanic whites, rural counties had 41% higher infant mortality rates than large urban counties. For non-Hispanic blacks, this difference is 16%. So there are substantially higher infant mortality rates in rural counties for non-Hispanic whites compared to those in large urban counties.

Overall, what we're seeing is that non-Hispanic whites and non-Hispanic black infants have higher mortality rates in rural counties than urban counties. And as I mentioned, the largest differences in infant mortality rates are for non-Hispanic white infants between large urban and rural counties.

This next set of slides that I'm going to talk to you about looks at the differences between rural and urban counties and their leading causes of infant death. This uses 2013 to 2015 year data. This was done to ensure that we have robust enough numbers to look at differences.

Generally in this slide, you're seeing that there are differences between rural and urban areas, however there are places where rural does have lower rates than either of the urban counties. More specifically, if we're doing comparisons between small and medium urban counties with rural counties, there are three leading causes of death where rural counties have higher mortality rates than small or medium urban. These include congenital malformations, sudden infant death syndrome or SIDS, and unintentional injuries. In this particular case, the largest difference in a single leading cause of death is for SIDS, and rural is 35% higher than small or medium urban counties. If we look at these in terms of where rural has lower infant mortality rates, rural counties have lower infant mortality rates due to low birth weight and maternal complications compared with the infant mortality rates in small or medium urban.

Looking at the differences between large urban counties and rural counties, you can see that there's an even larger difference in places where rural counties have higher infant mortality rates, specifically for the same three as the small or medium urban, where there's congenital malformations, sudden infant death syndrome, and unintentional injuries. But where rural counties had a 35% higher infant mortality rate from SIDS, rural counties in comparison to large urban counties have a 100% higher rate for SIDS.

Additionally, the differences where rural is lower, there are actually approximately the same as the difference between small or medium urban or large urban differences. So rural counties have 10% lower mortality rates from low birth weight or maternal complications when compared to large urban counties.

Overall, what we can say about infant mortality by urbanization is that in rural counties compared with urban counties, the rural counties have higher overall infant mortality rates, so there are consistently higher infant mortality rates for all race and Hispanic origin groups.

Additionally, we can say rural counties have higher infant mortality rates for three of the five leading causes for death, which are congenital malformations, SIDS, and unintentional injuries. However, rural counties do have lower infant mortality rates for two of the five leading causes of death, which are low birth weight and maternal complications.

That is all I have to say. I want to thank everyone for joining us today. We hope that you enjoyed our presentations and the information that we have provided on rural-urban differences.

Kristine Sande: Thank you so much. That was really interesting to see all of those differences. At this time, we will open up the webinar for questions. You should've seen the Q&A box appear on your screens. Down in the lower right hand corner, that shows up. Go ahead and enter your questions now. As you enter those questions, we do ask that you select the option to send the question to all panelists so that we don't miss your question.

We'll just give folks a little bit of time to enter their questions, and in the meantime I would just mention, too, that there are some resources on the RHIhub website that might be of interest to folks on the webinar who are interested in these topics. In both the Models and Innovation section of the website and the Online Library, you can find resources under prenatal care and obstetrics, teen pregnancy, and children and youth, then narrow to mortality. That'll give you an approximation of infant mortality. Those are some resources for you.

A question for Dr. Ely. With the SIDS, the big difference in SIDS between urban and rural, has anybody looked into underlying factors that contribute to that?

Danielle Ely: Not that I am aware of. When I have spoken with individuals from states, they have mentioned to me that in some places, it may be an issue of reporting because some certifiers of the death certificate, whether it's a coroner, medical examiner, or other - a funeral director, anything of that sort, they may or may not be willing to put SIDS. They may use a different coding scheme.

Kristine Sande: Okay.

Danielle Ely: That may have something to do with it, but it is really hard for us to parse out exactly whether that's what it is or if it is actually something else going on.

Kristine Sande: Okay. All right. Another question. For any of the studies noted, did any of the findings surprise the researchers? And if so, why?

Amy Branum: Oh, that's a good one.

Danielle Ely: Coming from the infant mortality side of things, I was actually interested to see the differences in the causes of death, and that they are ... Even if we're taking into account why SIDS might be higher in rural compared to urban, even for the other four causes of death, particularly congenital malformations, there is that substantial difference that just kinda makes you go, "Huh, why might that be the case?"

Brady Hamilton: Yeah, I would echo that too. I mean, I come to this area of study as a novice, and I was surprised that in 2016, there's still this pronounced difference in any of the measures that we look at and that it has persisted for so long. And in fact, for some measures, it seems to actually be growing. So it's really quite fascinating.

Amy Branum: Yeah, I would agree with Brady. I think that persistent difference that we see, especially in teen birth is pretty remarkable in some ways. I mean the good news is that obviously the trends have

gone in the right direction for all groups, all rural-urban groups. But to see that persistent difference in the rate is pretty telling, you know? There's maybe still some work to do there.

Brady Hamilton: And such a pronounced difference as well.

Amy Branum: Right, exactly.

Kristine Sande: All right. The next question, the person asking this question says, "I'm a reporter from Arizona PBS. This research is well done and I've learned a lot, and I'm planning on writing an article about it. Why should my readers care?"

Amy Branum: Wow. Great question.

Danielle Ely: Just more generally, we do know that depending on how you define rural-urban, at least 20% of the population lives in rural counties. So that is not an insignificant number when we're talking about the general population. I think it's important to note that rural counties, we know ... suffering in a lot of ways. There are a lot of disparities. There's been a lot of research related to healthcare aspects and health outcomes in rural counties being disadvantaged in comparison to urban counties. So if we have people that are still living in urban counties that are giving birth, it's important for us to keep them in mind as well. We don't want them to be left behind.

Brady Hamilton: Yup. If you're looking at, for example, with teen birth rates, they have all these policies and programs in place, looking at this difference, it's clear that the solution that works for some areas, urban areas, may not necessarily work for rural areas. This allows you to sort of better understand how to affect change in that rate, whatever particular health outcome or indicator that you want to change, and sort of incorporate that piece of information to better tune and better direct your efforts.

Kristine Sande: All right, thank you. Another question says, "I remember seeing research about SIDS may be tied to a congenital malformation in the inner ear. Do you know of any further research that has linked those?" Then it says, "If so, it would give even more emphasis to the congenital malformations being higher in rural." Thoughts on that?

Danielle Ely: I have to be honest with you, I have not heard of that research. However, when we are discussing the leading causes of death, we are looking at the underlying cause of death. So part of that may have to do with how it is being coded on the death certificate.

Amy Branum: That's true. And I would say, none of us here are necessarily experts on SIDS, and maybe coexisting conditions, if you will, but it's certainly an interesting issue and something that we could make a note about and maybe follow up on, just in terms of our own understanding.

Kristine Sande: Great. Thanks for that. One more question here. Inquiring about if you had any data on American Indian and Native American populations in the West?

Brady Hamilton: Well, one of the advantages to the data from the birth certificate is that we have a rich amount of data for small areas and for small groups. For these particular comparisons, we just focused on the three largest groups that have representation across all the counties. American Indians tend to have quite a few counties where the populations are very small, and would make proportions difficult. We have published some information about that. We have looked into it. But in terms of any comparison for that particular group in terms of urban-rural differences, we have not.

Amy Branum:

But we do have data available for those groups. And like Brady said, sometimes our publications just can't accommodate, especially the data brief, looking at every single group. But in some of our bigger reports, especially some of the standard birth reports that come out every year, we'll often include information broken down more finely by race and Hispanic origin category. So we certainly do have that information, we just don't always incorporate it in some of our publications.

Kristine Sande:

All right. Well, thank you very much. That looks like the end of the questions, so I think this is ... Yeah, sorry, I thought another question popped up, but I guess not. At this point, we will bring the webinar to a close. On behalf of the Rural Health Information Hub, I'd really like to thank our speakers today for the great insights and information that you've shared. I'd also like to thank our participants for joining us as well.

A survey will automatically open at the end of the webinar, and we encourage you to complete the survey to provide us with feedback that we can use in hosting future webinars.

The slides used in today's webinar are currently available at www.ruralhealthinfo.org/webinars. In addition, a recording and transcript of the webinar will be made available on the RHHub website and sent to you by email in the near future so that you can listen again or share this information with your colleagues.

Thank you again, and have a great day.