

**NWX-HRSA ORHP**

**Moderator: Jennifer Burges**  
**January 23, 2020**  
**12:00 pm CT**

Coordinator: Welcome and thank you for standing by. At this time, I'd like to inform all participants that today's call is being recorded. If you have any objections you may disconnect at this time. All participants will remain on a listen only mode for the duration of the call until the question and answer session. At that time if you would like to ask a question, you'll do so by pressing star then 1. I would now like to turn the call over to your host, Shawnda Schroeder. You may begin.

Shawnda Schroeder: Thank you so much. Good morning, good afternoon everybody. My name is Shawnda Schroeder. I am the principal investigator of the Rural Health Research Gateway also just referred to as Gateway. Today the Rural Health Research Gateway is hosting a webinar entitled Rural Disparities in Health and healthcare by Race and Ethnicity. For those of you who aren't familiar with Gateway, we are a Web site that provides easy and timely access to research and all the findings of the Federal Office of Rural Health Policy Funded Rural Health Research Centers.

The Web site includes information and research dating back to 1997. Our goal really is just to help move new research findings of our rural health research

centers to various end users quickly and efficiently. Our Web site can be used to find abstracts of current and completed research projects, publications that have resulted from those research projects, and even information about the research centers and the individuals conducting the research.

Following today's webinar, we will be posting the archive on the Rural Health Research Gateway Web site. You can find Gateway at [RuralHealthResearch.org](http://RuralHealthResearch.org). You can even join our alerts so that you get periodic email updates whenever we have a new publication that's available or when the archive of today's webinar is available. We have a Twitter page and we have Facebook and we encourage you to follow both of those social media platforms to get daily notifications about different rural health research projects.

As mentioned, we did all the lines but I'm going to encourage you all to use the Q&A chat box at the bottom of your screen, to take any questions you have throughout the presentation today. And at the end of the call we will have the HRSA operator open the meeting for any questions on the line. I will read those written in the chat box. And if we get to the end of the call today and there are still questions remaining in the chat box, both Dr. Carrie Henning-Smith and Ashley, have agreed to respond to those questions. And then we will send them out with the archive of the webinar. So, if you have questions remaining please enter them into the chat box.

So, thank you again for joining us. I'm going to introduce our presenters now and we will get started. Dr. Carrie Henning-Smith is an assistant professor in the Division of Health Policy and Management at the University of Minnesota School of Public Health and is the deputy director of the University of Minnesota Rural Health Research Center. Dr. Henning Smith's research focuses on health equity with an emphasis on rural residents, older adults, and

historically marginalized populations.

She's a past fellow of the National Rural Health Association and serves on the editorial boards of the Journal of Rural Health and Journal of Applied Gerontology. Dr. Henning-Smith holds a B.A. in international relations from Claremont McKenna College, master's degrees in public health and social work, along with a certificate in gerontology from the University of Michigan and a PhD in Health Services Research with a minor in demography from the University of Minnesota.

Ashley Hernandez is a PhD candidate at the University of Minnesota School of Public Health in the Division of Environmental Health Sciences. While Ashley's dissertation focuses on occupational and environmental epidemiology, she has worked on issues related to rural health as a graduate research assistant at the University of Minnesota's Rural Health Research Center since 2018. Her work at the Rural Health Research Center has focused on projects related to access to care, satisfaction with care, and health disparities within rural communities. She holds a B.A. in English and Spanish as well as a B.S. in biology from Texas Tech University and an M.S. MPH in epidemiology from the University of Texas. Thank you both so much for joining us today. And I will now turn it over to you to present.

Dr. Carrie Henning-Smith: Thank you Shawnda. We're honored to be here today and to share this work. And just to second Shawnda's plug around the Gateway, if you aren't already on the Gateway, I encourage you to sign up for any of the email alerts there. We are big fans here at the University of Minnesota Rural Health Research Center. So, I imagine that you all know what you're joining here but we'll be talking about rural disparities in health and healthcare by race and ethnicity. And in this webinar, we're going to be looking at this from a couple of angles. We'll be looking at county level aggregate statistics and we'll be

looking at individual micro data to see whether and how we have disparities within rural populations play out across the country.

Before going on we want to thank our collaborators here at the Rural Health Research Center and at the University of Minnesota School of Public Health, who has been involved with this work and supporting us and doing it. And we also definitely want to thank the Federal Office of Rural Health Policy. They provided financial support for this project and the webinar that you're viewing today.

Here's where we will go with the webinar. We're going to provide just a little bit of background, then as I said we'll talk about county level differences in mortality in aggregate. We will talk about individual differences in self-rated health. We'll talk about differences in access to care. And then we'll wrap up by sharing some implications. This is a topic that we could spend years and years talking about and still have more to say. And so, my hunch is that what we cover today will be unsatisfactory at best. And I hope that we leave you wanting to find out more. We will share resources along the way of things that we have published in this area.

There are certainly other people doing really good work in this area. And we hope that this inspires you to learn more or to share your own work in this area. Just some background here - I am guessing that I'm preaching to the choir on a lot of this, but just to get us all on the same page, we know that there are rural and urban disparities in health and in access to care. And across almost every measure that we look at, be it measures of health and chronic conditions and mortality, or measures of access to care and types of care available, rural residents tend to fare worse, tend to face a disadvantage compared with urban residents.

Likewise, there is an enormous body of literature showing that there are disparities in health and healthcare access by race and ethnicity across the country, for both rural and urban populations. Many groups fare worse than non-Hispanic White individuals again depending on the measure. But in general, we see enormous disparities by race and ethnicity.

I also want to make sure that we're all on the same page about this point. And if you leave with nothing else today let it be that rural areas have always been racially and ethnically diverse and are increasingly so in recent years with changes in immigration pattern and birth in rural areas. Rural areas, I think, are too often portrayed as being monolithically white. Certainly, there are a lot of white folks living in rural areas but if we only tell that story we're missing a big part of the rural experience.

Today one in five or 20% of rural residents identifies as a person of color or as indigenous. Despite all of this, most research on health disparities and disparities in access to care, focus either on rural urban differences or on racial and ethnic differences without a specific focus on within rural differences by race and ethnicity. There are some exceptions to this rule but by and large that tends to be true. And we did this project as a means of trying to address that gap in the literature.

I'm going to be talking with you about the county level differences in mortality and then I will pass it over to Ashley to talk about the individual level differences in health and healthcare access. For county level differences in mortality here are a couple of things that we have published in case you would like to read up more or see more about this. One is a policy brief that we published in March of 2019. You can find this on the Gateway.

The other is an article that came out in the rural health edition of Health

Affairs back in December. And they share similar stories. And I will give you just a teaser of those stories here. The question that we're trying to answer is among rural counties, so only looking at those counties in the country that are rural, that's most counties in the country, how does mortality vary by racial and ethnic composition? Or by which group is in the majority in the county?

To do this we use data from the 2017 County Health Rankings which is a compilation of data from a variety of sources and we compared rural counties by their majority racial or ethnic group. Here's a really - I love this map. I think it's a beautiful map. Kudos to Ashley for being behind putting this map together. This map shows us among rural counties in the US, what is the racial or ethnic majority group. And I'll walk you through this. The gray counties here are urban counties. We're not looking at them in this analysis. The light blue or teal color, those are non-Hispanic White majority counties. You can see that those are most rural counties, but they don't tell the whole story.

Those counties that are shaded in red are majority non-Hispanic Black rural counties. You can see that they are concentrated in the south and southeast. That's not by accident. There are deep historical reasons for why non-Hispanic rural Black majority counties are concentrated there, dating back to slavery, before our country was even founded. Those counties in orange or yellow probably depends on how it's showing up on your screen, are majority Hispanic rural counties. Again, it's not random where these counties are distributed. You will see a lot of these in Texas and the southwest near the Mexican border, but you'll also see a few of these farther north in the country.

And this has a lot to do with occupation and industry in those counties and who's filling jobs where. The darker blue are counties that are majority American Indian or Alaska Native. These are a little bit more scattered across the country. You see quite a few of them in Alaska, some in the Great Plains

states out west. These are again, not by accident. There are deep historical roots and reasons for why people live where they live. In many places these are the homelands of these folks. In other places this is where groups were moved to when they were removed from their own lands.

And those counties that are in green, and you see they show up in a few places across the country, are counties with no majority groups. These are counties where they might have a third non-Hispanic Whites, a third Hispanic and a third American Indian or some combination where there is no group that holds the majority. This is the fastest growing group of all the counties. And I expect that if we did this again in ten years, we would see more counties show up as green.

So, these counties differ not only in where they're located across the country, but they differ in what they look like and what access to resources people have within them. This is just a few characteristics that we can look at by county. There's a lot more that we can look at and we did if you want to see that Health Affairs paper. But I can show you on here that when we look at median household income it's highest in those rural counties with most non-Hispanic Whites and it's significantly lower in those counties with a majority non-Hispanic Black and a majority American Indian and Alaska Natives.

The unemployment rate, similarly, is significantly higher in those counties with a majority non-Hispanic Black or a majority American Indian/Alaska Natives and limited food access. This is defined in rural counties as living ten miles or more away from a grocery store. For folks who are non-Hispanic Black or living in majority non-Hispanic Black rural counties they have higher rates of limited food access as do folks who live in majority Hispanic rural counties and those rural counties with no majority groups. But I want to draw your attention to the difference for folks who live in majority American

Indian or Alaska Native counties. They have more than three times the rate of limited food access compared with counties with most non-Hispanic White folks.

And so why does this matter? It matters because we see all those differences in access to resources and in socioeconomic status and in structural racism playing out in health and mortality. In this chart you can see in the lighter blue bars the unadjusted difference in premature death. For those of you not familiar with premature death, it's a widely used measure in public health but can be a little bit clunky to wrap your brain around. Essentially this is the years of potential life lost for folks under the age of 75.

So, if someone dies before the age of 75 which is roughly what we expect people to live to, then we add up the number of years that we lost for that one life. And this is a population aggregated measure where it's per 100,000 people. And so you can see in the unadjusted measures, this is before we take into account any differences in socioeconomic and demographic characteristics, the rural counties with the majority of non-Hispanic Black and rural counties with a majority of American Indian or Alaska Native folks, have significantly higher rates of mortality compared with rural counties with a majority of non-Hispanic White folks.

After we adjust for socioeconomic characteristics and other demographic characteristics at the county level that difference goes away for those counties with most non-Hispanic Black folks. But it remains for those counties with majority American Indian and Alaska Native folks. We'll return to some implications later in the presentation, but I just wanted to leave you with a couple of thoughts about this. This tells us that we need to do more to address economic and resource disparities across rural counties. But doing so is not enough to erase all the disparities and all the harm caused by structural racism.



We need even more to repair the harms that have been done.

And on that note, I'm going to pass it off to Ashley Hernandez, who is going to talk about individual differences in self-rated health. And you'll hear my voice again when we talk about some implications at the end of the webinar today.

Ashley Hernandez: Hello everyone. So, whereas the research that we were just talking about was at the county level and aggregated, the data that I'll be talking about moving forward is all at the individual level. And all the analyses that we will talk about were done using the National Health Interview Survey. And we looked at the National Health Interview Survey which I'll refer to as an NHIS data, from 2011 to 2017. And we only looked at adults, so those individuals who are 18 years and older and then also rural respondents.

So - and it's important to note that this data is not publicly available. So, we use the Census Bureau's Federal Statistical Research Data Center at the Minnesota RDC to access this data. And that's because access to geographical features like the differences between rural and urban, aren't generally provided. So, we had to receive special access to look at those variables and to be able to isolate rural respondents for this data.

So, I'll be talking about findings that we looked at in self-rated health and then also disparities in access to care. And for the disparities in access to care I'll be talking about preventative care services and then also reasons for delaying or foregoing care. And to start off, we started with self-rated health and we asked the question whether there are differences in self-rated health among rural residents by race and ethnicity.

And to answer that question we compare differences in self-rated health

measures, and we use survey weighted analysis. The self-rated health measure that's in NIHS data is on a Likert Scale from very good, good, fair and poor. And we dichotomize that measure to look at - so we lumped very good and good together and then fair and poor together. So, when we talk about the - when I talk about the regression that I do later, that's using logistic regression for that dichotomized measure.

So, when we looked at fair or poor self-rated health, this is the percent of different groups that indicated they had fair or poor self-rated health. And across all groups fair or poor self-rated health is above about 12% for all groups. But we see the highest percentage of self-rated health being like fair or poor self-rated in non-Hispanic Black folks. And the differences between these groups are significant.

When we adjust - when we include this measure in a logistic regression model using survey weighted analysis and we adjust for year, sex, US born, marital status, and a number of other covariates, with our reference population being non-Hispanic White we still see an elevation in the odds of self-rated fair or poor health among non-Hispanic Black groups. And this is all among rural residents.

And then moving forward - and we'll talk about implications of that a little bit later as Carrie mentioned before. When we talk about disparities and access to care, again we're using NIHS data from 2011 to 2012. And again, we're using only adults 18 years and older and just rural respondents. And we do have a policy brief if you would like to check this out, about preventive care services. As I mentioned before I'll start with preventive care services and then talk about reasons for delaying or foregoing care.

But for preventive healthcare services we looked at a few different measures.

One was vaccines. So, whether someone received a flu shot or a pneumonia shot. And then we also looked at different screening measures. So, whether someone received a breast exam or a mammogram and whether someone received a colon screening or a PSA test.

So, in terms of vaccinations, this is the distribution of the different groups to receive a flu shot in the past 12 months and then also ever received a pneumonia shot. And among these groups non-Hispanic Whites tend to have the greatest percentage except for the flu shot. American Indian/Alaska Natives tend to have a high percentage of receiving a flu shot in the past 12 months. And that could be due to efforts to improve vaccination uptake within those communities.

But when we look at the lowest percentages of vaccine use, we see that Hispanics are among the groups that are the lowest in terms of receiving these vaccinations. Then when we turn over to screenings, again and general, non-Hispanic Whites tend to have the highest percentage of receiving these screenings. And again, for many of these screenings or at least three of them, for colorectal exam, a mammogram and a PSA test, Hispanics are still lower in terms of receiving these screenings. And we'll talk about that again later. And among all these races was significant.

The other measure that we looked at was - in terms of access to care, was reasons for foregoing or delaying care. And a lot of these are related to cost. So, it's medical - whether you delayed care, medical care due to cost or whether you didn't get medications that you needed because it was too expensive. And another measure that we looked at was also transportation. So, when we just looked at race after - so this is again a logistic regression model using survey weights.

When we looked at race, we saw that this wasn't quite what we were expecting. So rather than having a higher odd of delayed care due to cost compared to non-white Hispanic - or non-Hispanic White groups, we found that these groups were kind of lower. However, whenever we looked at poverty, we found that poverty was the main factor that was affecting odds of care - odds of delayed care due to cost.

So, although race certainly plays a role in some of the other measures that we'll be looking at too, poverty is really a main factor that's influencing this. And looking at poverty you'll notice that it's 100% of FPL, less than 100%, and then 100% to 199% and then 200% to 399%. And the comparison group, the reference to population is 400% of an FPL and an FPL is the federal poverty level.

And it's basically a measure, an income measure that the government uses to determine eligibility for Medicaid and CHIP. So, if your FPL is closer - so individuals who have less than 100% of FPL their income is much lower than someone who has 400% of the FPL. So, this - on the - along the X axis, it's basically indicating that income is increasing as the FPL - percentage of the FPL increases.

And for another measure which is needed medical care but didn't get it due to cost, again we see that poverty is a large determining factor in whether you receive medical care due to - but didn't receive it due to cost. And although I did add the table for race as well, and still even though we adjusted for costs several other factors, African Americans and American Indian/Alaska Natives are - still have an elevated adjusted odds ratio for this measure.

And for needed medication but didn't get it due to cost, again the income level and poverty plays a really large role in whether this occurs. And as we saw in

the initial one when we were looking at medical care, it seemed like race doesn't play as strong of a role as poverty does. And now turn it back over to Carrie.

Dr. Carrie Henning-Smith: Okay. Thank you, Ashley. And I just want to note that I've seen - we're both seeing lots of good questions pop up in the chat box. We plan to have plenty of time to talk through some of those. And I think Shawnda is providing some answers in real time also. So, I look forward to the discussion together. But first I want to bring us back together to talk about some key takeaway points from all this research. We've just threw a whole bunch at you, but I want to pull it together a little bit.

Across the board, whether we're talking about aggregate county level measures or individual micro data, we find that there are disparities among both rural counties and rural residents by race and ethnicity in general, with non-Hispanic Black, Hispanic and indigenous rural residents tending to fare the worst. It really depends on what measure we're looking at though. It's not universally true for every measure. But in general, those are the key findings here. For some of the disparities that we explore they are mediated by differences in socioeconomic status. Again, true for some but not all, and true for some populations but not all.

So, what does this mean and what do we do with this information? First and foremost - because we see that some of these differences are explained by differences in socioeconomic status, it's important to think about how we can invest in rural communities financially and via employment opportunities in order to improve access to both healthcare and access to good health.

I believe that economic development programs are health programs and

certainly programs to keep healthcare in rural communities are both important for economics and for the health of those communities. And so, thinking about ways in which we're investing in rural communities so that we can reach some equity as it relates to race and ethnicity. However, additional work is also needed to address lasting impacts of structural racism. It's not enough just to address the differences in socioeconomic status or access to resources that we find here.

That doesn't explain all the differences that we uncovered. Instead we need to address the lasting impacts of structural racism in order to improve the health of all rural residents and communities. It's a tall ask, but one that I think we need to prioritize and we're happy to talk more about that in our discussion. So, in conclusion, research that we do, and this - here I'm talking to myself but also to any other researchers on the webinar. Research should look beyond just the disparities in health and healthcare by rural urban location and by race and ethnicity and trying to understand the intersection between race and ethnicity and geography.

There are certainly other disparities and intersections there, by geography, that are important if we think about gender or age or sexual orientation there's a lot more that we can unpack to look at within rural differences and how rural residents are doing. But the intersection of morality and race and ethnicity is especially important to address for all of the reasons that we showed here and for all of the reasons that we know that structural racism continues to impact the health and wellbeing of far too many people across the country.

With rural populations becoming increasingly diverse, this will only become more urgent. That said, I want to say once again that rural places have always been racially and ethnically diverse. It's not as though this is a new phenomenon. But they're increasingly so as we see the population of rural

areas change. And this is only going to become more urgent to maintain the wellbeing and the health of all rural residents.

So, I want to thank you for bearing with us with this wealth of information today. Feel free to reach out to either one of us. You have our contact information here and our Web site. The publications that I mentioned today are available through our Web site but also through the Gateway and I encourage you to go there. This is the Web site for the Rural Health Research Gateway that Shawnda introduced at the beginning of the webinar. As I said, if you're not already signed up for alerts now is the right time to get signed up for those alerts to learn about research like this and lots of other good research from the rural health research centers across the country.

So that is the end of our content for the webinar. And we have plenty of time for Q&A. I'm happy to engage in that and I know Ashley is too.

Coordinator: We will now begin our question and answer session. If you would like to ask a question please press star 1 from your phone, unmute your line and record your first and last name clearly when prompted. If you would like to withdraw your question you could press star 2. Just a moment as we wait for questions to queue.

Shawnda Schroeder: And Carrie and Ashley, this is Shawnda. Thank you again for your presentation. As we wait for the first individual to call in with a question, would you mind answering some of the questions that were in the chat box? So, in order, I think the very first question is really related to your very early slides when you were talking about how you defined rural. I did provide a little context from your policy brief, but I would love if the two of you could speak to how you did define rural and rurality.

Dr. Carrie Henning-Smith: Absolutely. We would be happy to. For both analyses, both those you see in county health rankings at the county level and the analyses using the National Health Interview Survey, we use county to define rurality. There are pros and cons to every way that you can define rurality. Certainly, we do a lot of county-based work in the work that we do because for one thing those are sometimes the data that we have access to. But for another, counties provide meaningful jurisdictional and municipal boundaries that really matter for public health.

But the measures or the scheme that we use was slightly different between the two. For the county health rankings work we used urban influence codes and for National Health Interview Survey we used the National Center for Health Statistics Measures of Rurality. That's because that's who produces those data. In both cases we included rural non-core counties. Those in general, are counties that don't have a population center of 10,000 people or more. In many cases they have many fewer people than 10,000. And we included micropolitan counties. Those are population - counties with a population center or a small town of 10,000 people but fewer than 50,000 people.

You can see more details in all the publications that we mentioned here. But in general, that's how we used rurality and that's consistent with the Federal Office of Rural Health Policy's approach to looking at all non-metropolitan counties as being rural. And so, I think that that gets to our first question. Can I keep going down here Shawnda? Let's see if there - are there any questions on the line that are waiting?

Coordinator: There are no questions in queue currently.

Shawnda Schroeder: Perfect. Then yes,



Dr. Carrie Henning-Smith: Okay. Then let me keep going then. Let's see. Were other characteristics - education, religion, etc. that could differentiate the poverty level groups evaluated to better understand delayed access? We do include education in the regression results. We don't - I don't...

Ashley Hernandez: I don't think we have anything that actual get back religion. I don't think there's a variable in the data that we have that would do that. But I know that we include education. And I think that's...

Dr. Carrie Henning-Smith: Yes. We include education and marital status, several other factors. And you can see I'm in tiny type on our slide, but I saw another question here - will we share our slides? The answer is yes. And the Gateway will send an alert out when those are ready to share. But Shawnda will those also be available on the Web site right after the webinar?

Shawnda Schroeder: Yes. They are online right now. And I just shared that in the chat box as well, the URL. I'm going to give you the direct link. It should be on the left-hand screen and the slides are available now. But the archive and recording will be available later.

Dr. Carrie Henning-Smith: Excellent. Thank you. We have a comment here saying that it would be interesting to have analyses comparing rural to urban residents. I assume that's by race and ethnicity also. Absolutely. I agree. On the county level measures we - I you two publications. One was the policy brief and one was the Health Affairs article. But I think I neglected to mention that the policy brief we'll share - does share, past tense, shares results by rural and urban and within rural. So, looking at urban counties also by the majority of racial and ethnic group.

For the National Health Interview Survey measures where we looked at self-

rated health and also access to care, we only included rural residents and that was a deliberate decision on our part because there is a lot of really good work comparing rural and urban residents and differences in access to care and also really good work sharing ethnic and racial differences in health and access to care.

That said, I agree that there is a lot more that can and should be done in that space. And I hope others on the webinar are working on this sort of thing too. I would love to hear about it. Let's see. The next question - was transportation looked at, such as public transport or lack of public transport in rural areas for access to care or several providers available?

Ashley Hernandez: Hi. I'll speak to that one. So, to the best of my knowledge there isn't a variable in the NHIS data that specifically addresses public transport in the way you might think it does in terms of a question just asking whether public transport is available. There is a question that asks how do you get to the doctor's office or to the clinic? And in that case, it might be - some of the potential responses might be someone drives me; I take public transportation; I walk there. So, there are different responses under that variable.

But I haven't explored anything in that area yet. It might be an area that we could maybe look at later. But I think for the purpose of this, whether there is public transportation might be interesting to include. But we were just looking at whether lack of transportation created an issue when receiving care in general.

Dr. Carrie Henning-Smith: Yes. Absolutely. And I - again I know that I'm preaching to the choir in this group, but transportation is a perennial issue in rural health work and it's hard to do this work well without thinking and talking about transportation. I think this is a big, big area that can and should still be

explored; thinking about how transportation intersects with race and ethnicity among rural residents. And so perhaps inspiration for future work or hopefully some of you on the webinar are working on similar things today.

We have another good question. Is structural racism the same as institutional racism? They're often used interchangeably. They get to the same idea, the same gist. But I tend to use structural racism when I talk about this because it's broader. When we talk about institutional racism, we're often talking about the way racism is perpetuated within our organizations and our institutions and our governing bodies. Structural racism includes all of that but also goes beyond that to think about what are the structures and systems and policies and institutions that perpetuate, knowingly or not, that perpetuate racist systems and racist outcomes.

Let's see. A question about the slides - share them? Yes. They are available on the Gateway. How do these disparities play out an HIV infection? We didn't specifically look at this in this work. I know there are other folks who have done some work on HIV infection among rural residents and I believe that they include some work on race and ethnicity. Shawnda, do you - I think some of that work is on the Gateway. I'm wondering if you happen to know off the top of your head if there is anything people should look at there.

Shawnda Schroeder: I think you're correct. There are resources on very similar topics. My best recommendation would be to visit the Web site and click on the topics page and find that topic within our Web site and then you'll find all of the research that's being done by our other research centers, other than Minnesota, and in addition to Minnesota, and you can find their work as well.

Dr. Carrie Henning-Smith: It's just a great resource. We're big fans. Let's see. What are some of the best practices that address structural racism? This is a giant question.

We could spend hours talking about it. And I will share a few ideas. But I'm sure those of you on the webinar might have some thoughts and ideas on this too that I hope you'll share with us or with one another.

For one thing I think it's important to deliberately name it. And when we see inequities in health and healthcare by race and ethnicity there's no commonsense reason why those should exist beyond structural racism, beyond there being racist policies that have perpetuated over generations. And so, naming it is important. I think bringing it into our dialogue is important but it's certainly not enough. It's incredibly important that we think about whose voices are heard and who is represented in leadership, in government. Are we - do we have representation from the groups who are most impacted?

Part of that gets to voting rights. Are people able to vote and make their voices heard? Part of that gets to who has access to power and privilege and resources in the political process, in education, in business, in all other sectors of us of our society together. There are also some really, useful tools out there to think about how to listen to and give voice to people in the community that's most impacted.

One of them we discussed at some length in the Health Affairs article, but it's about power mapping and asking people within those communities to think for themselves about the assets, the power, the resources, the tools that they already have at their disposal and how to build on those two to advocate and to have their voices heard. And I think it's powerful to combine forces.

And when we're thinking about rural health, I think there's a strong rural health body, rural health advocacy that happens, rural health research. I think there's a great body of rural health folks. Similarly, there's a great body of folks working in the issues of race and ethnicity and equity. And I would love

to see those two groups combine forces a little bit more to share information and best practices.

That's probably an unsatisfactory answer to a big question, but those are some ideas. Let's see. For the API clusters on the map do you have information on which ethnic group, broad diversity in the API demographic? I don't know if API is referring to Asian-Pacific Islander here. I'm going to assume that it is. If it's not please, please corrected me. But interesting to note that there are no counties, rural or urban, in the entire United States that are majority Asian and Pacific Islander. And so, we don't see those populations show up.

It's why when I introduced this webinar, I said this is going to be probably a very unsatisfactory overview of these issues. There's so much more that can and should be done on this. And with the county level analyses we're just looking at the counties by their majority group. Plenty of those counties have sizable Asian and Pacific Islander populations and we're not seeing them when we're only looking at the majority group.

So, I think a next step would be to look at all the different groups or where the counties - where we have 20% of a population what's their health outcome, that sort of thing. But it's interesting to note that that group doesn't show up when we look at them that way. Let's see. Are there specific implications for rural providers or rural county level health departments that you would identify in particular? Yes. Again, I think I think naming this; I think being aware of it yourself; I think if you haven't done any sort of implicit bias training or training for staff, that would be a really nice place to start.

I think if you don't have staff in your healthcare facility or in your health department, who are people of color or indigenous folks, or if you don't have staff who look like the population that you serve, that might be a place to start;

to ask why and to think about how to remedy that. Think about who's being hired; who has availability to access those jobs. But then I think just being mindful - reading things that are from different perspectives than your own; attending webinars like this; paying attention to the work that comes out on the Gateway that's related to this. I think there's a lot that rural providers and rural county level health departments can do.

And I think, those are you are, for those of you for whom that applies, you are the people with your finger on the pulse of this, much more than we are as researchers. And so, I think making your voices heard and making sure that we understand how this plays out in communities across the country is vitally important.

Let's see. Next question- will the recording of this presentation be posted on the same Web site? Yes. Shawnda, do you want to give any updates on that?

Shawnda Schroeder: Sure. Yes. It will be located at the same location along with the transcript. We'll also be sending out the entire package to include the questions that were asked, the transcripts, the slides and the recording, to our research alerts, so you can sign up there as well. And if you go to the webinar page, you'll see that we have another webinar scheduled for February 4th as well, which I will put into the chat box. But yes, all is available.

Dr. Carrie Henning-Smith: Thank you. And do we have any calls, or should I keep plugging away at the questions in the chat box?

Coordinator: We do have one caller over the phone. Our first question comes from (John). Your line is now open.

(John): Great thanks. Can you hear me?

Dr. Carrie Henning-Smith: Yes.

(John): All right, great. Well done Dr. Henning-Smith and Miss Hernandez. This is very important research and we're very lucky to have you share that with us and push our body of knowledge on this. I have two things that I wanted to bring up. First, the studies that you're doing are rural to rural comparisons. So, we're looking at rural residents versus rural residents and then emphasizing the disparities between race and ethnic groups within rural which is very important. And it does really point our attention to the areas of need.

But the larger issue to me is also the rural/urban comparison, which was referenced earlier, and the fact that all rural areas are experiencing disparities in access to care and healthcare. So that's one point that I wanted to share. The second point is the correlation between access to care and access to clinical professionals in rural areas, and how that would influence the outcomes and the results that you're sharing with us today. I must think that the correlation is very high. And if that assumption is correct, what kind of interventions might be appropriate to help us improve access where we're seeing shortages and health professionals?

Dr. Carrie Henning-Smith: Yes. Thank you. I think those are incredibly important points. To the within rural versus rural/urban point I do want to say I agree entirely, and I don't want to lose the plot about rural areas facing disadvantage on way too many measures when we compare them with urban areas regardless of race and ethnicity. And I certainly don't want it to feel as though we're pitting rural residents against one another.

But I do think that - we're from Minnesota and so we had Paul Wellstone as our senator here for a while, and he likes to say, we all do better when we all

do better. And I think that that applies well here. And I don't think that we can improve the health of rural residents without paying attention to who is faring the worst in rural areas. And so, I think we need both. It's a booth and situation where we need the rural urban comparisons and we need that within rural comparisons.

In terms of access to care and access to providers, yes, 100%. I think the work that Ashley shared on access to care shows us that we have a long way to go to make sure that everyone within rural areas has equitable access let alone to make sure that rural and urban residents have equitable access. We know that we have a long, long road ahead of us to remedy that. In the county level work that we did, we looked at a bunch of other measures and I didn't share those all with you today; I only shared a highlight. But one of them that we looked at was the supply of primary care physicians per capita.

And we found that that was significantly lower in counties with non-Hispanic Black majority and Hispanic majority, compared with counties with non-Hispanic White majority. You can look at a bunch of other measures and find similar issues in supply of providers in facilities, in access to care. Here at the University of Minnesota Rural Health Research Center we've also done a lot of work in access to obstetric care. Some of you may have seen that work. And in that work, we found that rural counties with more Black women of reproductive age were four times more likely to lose their OB - their hospital OB services compared with counties with a similar amount of non-Hispanic White women.

That's structural racism at its core. It has a lot to do with where those counties are located and the supports that hospitals get within those counties and within those states, to maintain hospital-based obstetrics services. And this cuts across a bunch of different service lines. The landscape for American Indian



and indigenous folks looks just a little bit different because of the Indian Health Service. Sometimes I think that might mask some of the other disparities because access doesn't always look as bad.

Ashley shared results but those folks are more likely to get some vaccinations. And that's because a lot of effort has been put into improving access to preventive care for those folks. But I think we still have a long way to go, especially improving health outcomes in general. In terms of what we do about this, I think when we're thinking about what we do about rural access to care and rural providers in general, all of that work could be done with a lens toward race and ethnicity and toward which rural places are in the greatest need of access to care and providers.

And I hold a lot of hope out for some of the pipeline programs where we're talking to young people about careers in rural health. And I want to make sure that those are being done as well and as - and I hate to use aggressive, but as aggressively in those rural counties where there is most of the non-Hispanic Black or a majority American Indian or majority Hispanic young people. I want to make sure that those careers in health and rural health, seem like viable opportunities for young people regardless of their race and ethnicity.

We know that health outcomes are better if your provider understands or is from your racial, ethnic or cultural background. And so, the more we can improve representativeness of providers across rural areas the better off we will all be.

(John): I would also like to add, you know, telemedicine is certainly something that we always talk about and it represents an intervention that would be of assistance. But I think we also need to begin to advocate for community health workers and personal caregivers, to really start to find ways to get people who

live in these communities and support them, so that they can help improve the level of care that's being delivered and the access to that care through those community health workers and personal caregivers. And I would also include nurse midwives for that purpose.

Dr. Carrie Henning-Smith: Yes. Thank you. Thank you so much. I echo all those points. Yes absolutely. And I think they're really, powerful models of community health workers working in diverse communities across rural areas that are out there. The Rural Health Information Hub Web site, if some of you aren't familiar with that, has some nice examples on it. And I know the Gateway includes research on a variety of different health professionals within rural areas. That would be a good first place to look for some of that.

Let's see, do we have other questions by phone, or should I keep going down the list here?

Coordinator: There are no other questions in queue.

Dr. Carrie Henning-Smith: Okay. Let's see if we have anything else.

Ashley Hernandez: I think there is one about qualitative.

Dr. Carrie Henning-Smith: Oh yes. There was one about qualitative work and community based participatory work. I am sad to say that we have no immediate plans to be doing qualitative work in this area, partly because of the way that our research centers are structured. We do projects on a 12-month cycle. We often do some qualitative work as part of that, but we are already cycling off this project and on to the next.

I think it's a huge space for other people to be doing work and perhaps we will

have an opportunity to revisit that later too. But absolutely, in the same way that we need people's voices represented in every sector we need to hear the voices of those most impacted by the results that we shared today. And so, I think I am a strong believer in qualitative and community based participatory research, and I would love to see more of it in a variety of rural communities across the country.

Let's see. We're getting a lot of comments in the chat box which I really appreciate. I'm looking to see if there are more questions. Is there research on what conditions food insecurity, unemployment, housing issues, contribute the most to health inequities? There are a lot of people who try and tease that out; try and think about what social determinants of health are most impactful. I haven't seen anyone who is able to come up with a definitive answer to that. I think it depends on the situation. And they're all so closely intertwined that it's hard to tease those out.

But there are more qualified than we are, to answer some of those. I believe that starting to address any one of those issues, be it economics, employment, housing, food insecurity, will help and have a positive spillover effect on addressing any of the others. Let's see. We have questions about structural racism again and telehealth. I think we've talked a little bit about both of those.

I think earlier in the chat box I saw a question about who was included in the data for each of the preventive care measures and what age groups were included. I'll say for those in the National Health Interview Survey changes at sampling frame depending on the guidelines that are out in a particular year for different preventive measures. And so, there are different age groups for each measure. So, I believe we include some of that detail in the policy brief and other information on where you can find the specific age groups.

I think we covered most questions here. And again, we're happy to follow up later if others have additional questions or thoughts.

Shawnda Schroeder: Thank you. Thank you, Dr. Henning-Smith, and thank you Ashley Hernandez. We are at the end of the webinar. So, I also want to thank you for not only answering all these questions but for allowing time in your presentation to take so many great questions from everybody attending today's webinar. And I know we've said it probably more times than even necessary, but I will reiterate again you can get the slides right now on Gateway.

The recording will be available. We usually try to get that out within a week. And the transcript will be there as well. We will share all of that through our email alerts which only come out when there's a new product or a webinar. So, feel free to sign up for those as well through [RuralHealthResearch.org](http://RuralHealthResearch.org).

Thank you again for presenting and thank you for all of you that have joined us today. I have put up Dr. Henning-Smith's and Ashley Hernandez's contact information again, should you want to reach out to them directly. Thank you everyone have a good afternoon.

Coordinator: Thanks for your participation in today's conference. All parties may disconnect at this time. Leaders please stand by.

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