Per Ostmo: Now it is my pleasure to introduce our presenters and we have two, Dr. Callaghan is an associate professor in the Department of Health Law Policy and Management at the Boston University School of Public Health. He has conducted extensive research on how politics influences health access for vulnerable populations, individual health, attitudes and behaviors and rural health. Dr. Callaghan served as the director of evaluation for the Southwest Rural Health Research Center from 2018 to 2022, and he was awarded the 2022 Journal of Rural Health Article of the Year Award for his work on COVID-19 in rural areas.

We also have Dr. Alva Ferdinand joining us. She is the chair of the Department of Health Policy and Management at the Texas A&M School of Public Health. Dr. Ferdinand is the director of the nationally recognized Southwest Rural Health Research Center. The center focuses on policy relevant research on meeting the needs of rural populations, minority populations, and health disparities including border health. Her groundbreaking research has influenced life-saving policies, particularly a texting while driving ban in the state of Texas. Dr. Ferdinand, I believe you are first today, so I'll go ahead and hand things over to you.

Alva Ferdinand: Thank you so much Per, and howdy everybody. I can't see you all, but I feel you all and I am delighted that you have taken time today to just listen to our presentation on some of the work that we've been doing at the Southwest Rural Health Research Center at Texas A&M, in conjunction with Dr. Timothy Callaghan. And we will jump right into it, because we have quite a bit to cover. But just to kind of give you a sense of how this work was funded, we were funded initially by the Federal Office of Rural Health Policy to conduct the survey that informs the work that you'll hear about today, and we are very grateful to that office for their support. We were then funded by the Texas A&M Health Science Center to produce the volume that we'll talk a bit more about as we progress through this presentation.

And the information, conclusions, opinions that you hear today should be attributed to myself and Dr. Callaghan and are no way an endorsement of the Federal Office of Rural Health Policy or HRSA, or the US Department of Health and Human Services or the Texas A&M Health Science Center. And neither of us have any conflicts of interest to disclose.

So if you're listening to this talk, you probably have a sense of what Healthy People is. You've probably been in this space for a while. But if you're new to a public health or initiatives that are conducted by HHS, the US Department of Health and Human Services, I'll just give a brief rundown of it. So Healthy People is an initiative that was put in place by Health and Human Services to kind of serve as guideposts for us as a country, sort of thinking about what are some of the health benchmarks that we'd like to reach in the next decade? And so since 1980 Healthy People has set these measurable objectives to try to improve the overall health and well-being of residents of the United States.

And the basic idea has been to have experts in various fields set goals for improvement over a given decade and to help us then track progress. So this is something that we talk about quite a bit in our schools of public health across the country and within our various departments of health and so on. So it kind of gives us as a country some goals to strive toward. And we often hope that striving toward these goals and making incremental improvements will then lead to us seeing improvements in health. So we are now in the Healthy People 2030 iteration of this initiative and it was launched in 2020 and is meant to serve as a guide, like I said, for us to think about what are some of the achievements that we'd like to hit by 2030.

In kind of thinking about Rural Healthy People, this is something that we at Texas A&M have been working on for quite some time and we're proud of that because if you are familiar with Texas A&M, it is a university that is really big into traditions, and so we like to think of this as one of our traditions at the School of Public Health. So we were originally commissioned by the Office of Rural Health Policy, which is now the Federal Office of Rural Health Policy in 2002 to put together Rural Healthy People. And the thinking behind this was that Healthy People, while fantastic for the country as a whole, really might not have been capturing some of the nuances that are tied to rural populations. And so what we put forth was Rural Healthy People 2010, that was the first iteration, and it was sort of thought of as a companion to Healthy People. And it was the first ever Rural Health Companion to this Healthy People initiative.

So the goal for Rural Healthy People 2010, was to ask rural stakeholders, what are the goals that are most critical to seeing improvements in population health in rural America? And this initiative really helped to identify rural priorities within Healthy People to serve as a guide for those really working in the rural health space.

So at the time we were looking at some top priorities and we have, as you can see, 15 but lots of ties on the screen. So we're giving you this bit of context so that you could better appreciate how far we've come or how priorities have evolved. So in Rural Healthy People 2010, our top priorities included access to quality healthcare, heart disease, and stroke, diabetes was tied for number two, mental health and mental disorders was also on the list. And you can see others including cancer, public health infrastructure, maternal child health, immunization, and infectious disease, which is something that my co-presenter, Dr. Callaghan works quite a bit on, injury and violence prevention, et cetera. And the priority rankings were based on average percentages. And the way that this was done initially was to really gather... At the time our center leader was Dr. Larry Gamm, who was a huge qualitative researcher and political scientist. And so these four focus groups really helped to tease out these priorities and there were lots of ties as you can see, at that time.

In our iteration of Rural Healthy People 2020, which was our second iteration of this work, we conducted a national survey of rural stakeholders. So we didn't quite go the qualitative route, but said, "Let's try to identify stakeholders that

we can send a survey to." And what we did back then was identify and catalog what worked, what had promise from evidence from the prior decade. And we were able to disseminate this work to local, state and federal policymakers as well as various advocacy groups around the country. And we really worked with these agencies and other stakeholders to really continue some of those discussions that were started for the Rural Healthy People 2010 work. So we sort of focused on what should we measure, how should we measure it, and just various strategies for improving population health in rural America.

So for 2020, we originally fielded the survey in December of 2010, we got 755 respondents. And at the time Dr. Jane Bolin, who was the director, wasn't quite happy with that response rate, so we fielded it again in the spring of 2012 and in doing so put a webinar together that was sponsored by NOSORH and we included some letters to various state health officers asking for some more participation in the survey, and at the end of the day we had over 1,200 respondents.

So just taking a quick look at the priorities for 2020 that were discussed among rural stakeholders and respondents to that survey, you see again access to quality healthcare being number one. So I want you to remember that. And then nutrition and weight status, if you were around the public health space in that previous decade, you know that childhood obesity was one of the hot topics, something that just about every jurisdiction was working on, diabetes, also top of the list. And then you can see mental health and mental disorders coming in at number four, substance abuse at number five. So I really want you to remember the left-hand side of this slide in particular, but the other priority areas that were identified by rural stakeholders for the 2020 work are listed here for you as well.

Okay. So we published from that work two volumes, which are still available on our website. And these were published in May of 2015, so the first 10 priorities were discussed and written about in Volume One. Volume Two contained our 11 to 20 priorities, and that was posted in November of 2015. And thinking about Healthy People 2030, we were really excited that we were able to get support to continue this work. Like I said, we're big into traditions. And so the Healthy People 2030 initiative was launched in August of 2020, encompassing the fifth iteration of Healthy People, which again focused on national objectives to address public health priorities. And in this version of Healthy People, we saw a focus on fewer objectives and higher data standards, which as researchers makes us very excited.

And so some of the biggest differences between Healthy People 2020 and Healthy People 2030, we saw the number of Healthy People objectives being reduced, but the number of overall objectives, which was the focus of Rural Healthy People actually increased. So there are now 62 priority areas to guide health promotion and disease prevention efforts in the US, and we saw for the first time that our objectives were grouped into five big topics and they're listed here for us. So, health conditions, health behaviors, populations, settings and

systems, and then social determinants of health. And I believe this is where I will hand things off to my colleague Dr. Tim Callaghan.

Timothy Callagh...: All right. Thank you, Alva. So as Alva mentioned, this has been a priority area for the Southwest Rural Health Research Center for the past few decades as seen through Rural Healthy People 2010 and Rural Healthy People 2020. And a natural question to ask would be, do we continue to need to explore Healthy People priorities as it relates to rural America? And this is something that the Southwest Rural Health Research Center was focused on in the years leading up to Rural Healthy People 2030. We published a paper in Health Affairs alongside colleagues within the federal government, and we also produced a chartbook on behalf of the Federal Office of Rural Health Policy and combined, the answer that both of these provided was a resounding yes. Next slide, Alva.

Across the work that we did in the lead up to Rural Healthy People 2030, what we found consistently again and again was a trend in which when you looked at the Healthy People 2020 goals, urban communities were achieving those goals and rural communities were not. Here's an example of a figure demonstrating that, this is overall age-adjusted diabetes deaths from 2007, which was the reference here for Healthy People 2020 through 2017. And what we can see here is that while large central metropolitan areas and large fringe metropolitan areas achieved that reduction in diabetes mortality goal, non-core areas and metropolitan areas, which is to say rural communities, made no progress towards that diabetes goal over the course of that decade of analysis. Next slide.

And it wasn't just diabetes, where we found this trend, even on issues where we saw more consistent improvement across levels of virality, for example, looking at heart disease mortality, we once again see this clear bifurcation between urban and rural America. Urban America succeeded in achieving the Healthy People 2020 target and rural America failed to achieve that target. Next slide.

And even in issue areas where we saw different trends and results, for example, in suicide, we saw a traumatic increase in suicide over the period of analysis, across levels of virality. And even in cases where that's true, large central metropolitan areas and large fringe metropolitan areas saw the slowest and smallest increases as compared to non-core rural communities, which are far worse than any other level of virality. Next slide.

Alva Ferdinand: So Tim, I think... Okay, so maybe one more slide and then I think we were going to pause for questions at the halfway point.

Timothy Callagh...: Yeah. Okay, yeah, we can do that, yeah. And for the audience, yeah, we had mentioned doing that and then I just kind of rolled into it, so that's on me. So the last point in terms of background is cancer-related deaths, which is one of the leading causes of death in the United States, we're once again seeing that same exact pattern of results. We're seeing non-core and metropolitan areas with improvement, but not nearly the same improvement we're seeing in large

metropolitan areas. So at this point, Alva and and I did want to pause for a moment to see if anyone had any questions on the background before we dive into Rural Healthy People 2030.

Per Ostmo: It looks like we're clear sailing so far. If anyone would like to raise their hand, I can unmute you momentarily or you can use the Q&A function to submit questions. Our first question here, how is non-core defined in your book?

Timothy Callagh...: So I can start and then Alva can build. We're relying on the six-level classification from NCHS. And in that context, I don't have the exact definition in front of me, but I believe it's something along the lines of, it's either fewer than 10,000 or fewer than 50,000 individuals living in a clearly defined area. But I don't have the specific one in front of me, but it is the NCHS six-level designation.

Per Ostmo: Our next question, so the trends are clear, any indication of the factors that drove the lagging trends in rural areas?

Timothy Callagh...: Alva, do you want to take that?

Alva Ferdinand: Sure. Yeah, so I think there's several things we saw in the previous decades, access to care, really floating to the top for rural stakeholders. And I think that probably has quite a bit to do with it, access to not only primary care but specialty care. So what we've seen in the literature, broadly speaking, is that rural residents... Oh, someone says my audio is muted. Can you all hear me?

Timothy Callagh...: [inaudible 00:17:25].

Alva Ferdinand: Okay. What we've seen generally in the literature is that rural residents sometimes tend to present at more advanced stages of disease. And so whereas if we were to put an urban and rural resident side by side, the urban resident may have diseases caught at earlier time points in which conditions can be controlled a bit better. We're seeing in terms of the mortality data, rural residents not quite meeting that benchmark, which was the dashed line in those graphs that Tim just shared. So there's access to care, there is the extent to which folks have access to transportation, which is something we talk about in Rural Healthy People 2030 the book, you'll see a whole chapter on that. There are also things tied to nutrition and physical activity, some of the health behaviors that Healthy People really highlights. So there's not one answer as to what contributes to those higher rates, but a mixed bowl of factors.

Per Ostmo: Thank you, Alva. Our next question, do you have a sense of how lower access to care may contribute to higher rates of cancer and heart disease deaths?

Timothy Callagh...: Do you want me to take this one, Alva?

Alva Ferdinand: Sure.

Timothy Callagh...: Yeah, so when we're thinking about access to care, if you have less access to care, it's likely that you're less likely to seek out treatment for cancer early on in the progression disease. So you might, for example, have your cancer discovered at a later stage of disease, and that could certainly contribute to the likelihood of mortality.

In terms of heart disease, similar things apply. If you're getting diagnosed with heart disease at a later stage of disease, you might be further along in disease progression. You might've done certain damage to arteries or things that might make things more difficult for you. And I see that the next question is tied to data on Alzheimer's and related dementia trends. That wasn't one of the focuses of the chartbook that we did or the paper we did for Health Affairs, those were focusing on leading causes of death at the time, particularly focusing on chronic diseases. So he didn't have those trends, but those would certainly be interesting to explore as well.

Per Ostmo: Thanks, Tim. Our next question, do you have any information regarding access to quality foods, for example fresh produce and associated costs?

Alva Ferdinand: We do not have specific information on that. Again, just to echo Tim's earlier point, some of the charts that you saw earlier were really focused on mortality and disease burden. We do have though, in Rural Healthy People 2030 a chapter on nutrition. And I would say that the authors of that chapter, which you'll see listed if you download or request a hard copy, they probably have a better sense of the extent to which that data is available, but we do not have included in this work, that type of information.

Per Ostmo: Thanks, Alva. And if you could go back a slide to one of those charts, one of the line charts there. Could you indicate which ones are rural here? It might be kind of hard for people to see what the color difference is.

Alva Ferdinand: Sure. So the red and the mustard colors are indicators of our rural trend lines, so those are the top two trend lines. Does that help? I know colors can look different on various screens.

Per Ostmo: Yeah, I think so. And remember, we will have a link to access the chartbook into the chat, and we will be able to request hard copies here, Tim and Alva will talk more about that later on. I think we're going to take two more questions quickly and then we'll move on. Are the trends in urban versus rural consistent among all age categories, the same for pediatrics versus adults?

Timothy Callagh...: I can take this one. So if you go into the chartbook that was produced for the Federal Rural Health Policy, which I think Per may have mentioned and also shared, we broke the data down along a number of different dimensions. We broke it down by race, for example, I believe we did not break it down, pediatrics versus adult, in some cases because the mortality rates in some levels of virality would've been too low for certain pediatric populations, especially for

certain causes of death. But we did break it down by gender, we broke it down by race and ethnicity and a number of other different dimensions in that chartbook for many of the leading causes of death. So if you have an interest in specific categories, that chartbook would be a great place to look.

Per Ostmo: Thanks, Tim. And we're going to do one last question here and then move on. Is there any information about maternal and infant mortality in Rural Healthy People 2030?

Alva Ferdinand: Yeah, so we do have a chapter on child and adolescent health, and I think there might be a couple more like the nutrition chapter for example, that really talks about child development and infant development and the extent to which nutrition plays a role in that. So we can certainly talk more about that as Tim continues with the results. But you'll also again have access to that full chapter if you want to do a deeper dive.

Per Ostmo: Thanks, Alva. And I wanted to clarify the Rural Healthy People 2030 book, is there a separate chartbook companion, or are we just talking about the singular book?

Alva Ferdinand: So I think the chartbook that was mentioned, let me see if we can go back to it, is the last bullet that you see on this particular slide. So that's the chartbook, and again, that was focused on how well we've made progress to the 2020 benchmarks. The 2030 book is another product entirely, which is based on a survey that Dr. Callaghan is going to discuss shortly. Does that help?

Per Ostmo: Yep. We'll find that and drop that into the chat. Thanks.

Alva Ferdinand: Okay. All right, perfect.

Timothy Callagh...: Wonderful. So as I was mentioning before we got into the Q&A, our work in the lead up to Rural Healthy People 2030 demonstrated that we continue to have issues with rural communities achieving the Healthy People targets, even as urban communities are doing quite well in achieving them. And that led us to choose to pursue another iteration of Rural Healthy People, in this case, Rural Healthy People 2030 to match Healthy People 2030, which the Federal Office of Rural Health Policy chose to support. This study, as with past decades of Rural Healthy People, started with a survey of rural health stakeholders. We define rural health stakeholders as individuals who work in roles designed to improve the lives and health of rural Americans. And we surveyed roughly 1,300 rural health stakeholders from July 12th of 2021 to Valentine's Day of 2022.

And as part of that survey, we asked these rural health experts, these stakeholders, what the most important priorities were from those 62 Healthy People 2030 objectives. So we gave them a list of those 62 objectives and ask them each to identify the 10 most important priorities for rural America. That's how we started the survey, there was a whole lot more in that survey that the

Southwest Rural Health Center is pursuing across other research, but the primary focus was to identify what's going to be most important for rural America over the next decade based on the perspectives of these experts. Next slide.

So how do we go about recruiting these rural health experts to participate in our survey? The first way we did this was by relying on contact information from individuals who previously participated or downloaded Rural Healthy People 2020. When individuals went to download Rural Healthy People 2020, they were asked for their contact information, including their emails. We reached out to these individuals via email, made clear who we were looking to have participate in the latest survey, and if individuals believed they were qualified, they were asked to participate in the study.

The second thing that we did was rely on what we call snowball sampling. Every individual who participated in the survey was asked to identify other individuals who they believe were rural health stakeholders and provide those individuals contact information, which we use to reach out to them and ask them to participate in the survey.

But perhaps the most important way and the largest mechanism through which we recruited individuals for this study was through partnerships we developed over the course of several months with prominent rural health organizations across the country. We built relationships with these organizations and then asked these organizations to share our survey with their membership groups. Groups we reached out to who subsequently shared our survey include the National Rural Health Association, the American Hospital Association, who shared it with rural hospitals across the country, the Federal Office of Rural Health Policy, the National Organization and State Offices of Rural Health, the rural arm of the CDC, individuals within the US Department of Agriculture, the National Association of Rural Health Clinics, private organizations like the Catholic Health Associates, the National Association of County and City Health Officials, as well as State Offices of rural health throughout the country. And to be clear, these are not the only organizations we reached out to. We reached out to a much wider swath of organizations. We wanted to give you a feel for many of the different types of organizations we reached out to. Next slide.

Now, another natural question you might have is, what kind of sample did we recruit? Now, the most important thing to make clear here is we were not creating a sample of rural Americans, so we were not aiming for a representative sample of rural Americans. We were aiming to get a sample of individuals who work as these rural stakeholders who have jobs designed to improve the lives and help of rural Americans. Perhaps unsurprisingly then, given that that's our focus, our sample is overwhelmingly educated with 64% of our sample holding at least a master's degree. Our sample is also 77% female and has a mean age of 46.2. The one thing we do have some pause on in the context of the sample that we collected for this study is the race of the sample. Our sample is 95% white, and 4.2% Spanish, Hispanic, or Latino.

Now in the context of our survey, we think two things are likely happening simultaneously. The first is, quite simply, we could have done a better job of collecting more data from individuals from racial and ethnic minority groups who consider themselves to be rural health stakeholders. Now with that said, as you saw from our last slide, we collected data from essentially every major rural health organization in the country, and we tried to collect from as many as we possibly could. So in addition to saying we want to make sure that we do better with this over the next decade, we also want to make clear that even though there's an incredible amount of diversity in rural America itself, we have some level of concern that there might not be the same level of diversity within the rural stakeholder community itself. So we think there's a lot of work to be done in this area, and especially a lot of research to be done in this area to have a better understanding of differences that might exist between the diversity we see in rural America in general, and individuals working in those roles as rural stakeholders.

With that said, we do have an incredible amount of participation from a variety of individuals in different healthcare sectors as well as sectors beyond healthcare. We have participation from individuals in healthcare, education, human services, media and housing, and we find that 51% of individuals worked in either a rural health clinic or rural hospital. With that said, we have individuals from over a hundred different professions participating in the survey, including healthcare administrators, nurses, educators, physicians, and even university professors. Next slide.

We also had an incredible amount of participation from different regions of the country. In the figure on the left-hand side, you can see the number of participants we had from each state across the United States. And you can see here that we had participants from every state in the country except from the state of Connecticut and Washington D.C. What you can also see here is that states that are highlighted in orange, we believe are a bit underrepresented relative to the size of the rural populations in those states. I do want to make a few things clear as I'm going through these demographics, the most important thing to make clear is that when we look at the representation of the stakeholders in this 2030 survey versus 2020 or 2010, this is hands down the best geographic distribution we've had for a survey. It is also hands down the best representation we've had across every major demographic group that we consider. But we do want to make clear to the audience and be as forthright as we can about the pluses and minuses of the sample, the benefits and the weaknesses.

What we can see here though, when we break these results down by census region is that we have really good participation in the South and the Midwest with 33 and 32% of participants respectively, and we have the lowest participation in the Northeast, which is also perhaps unsurprising since some of those states are rather small and have less rural regions than other parts of the country. Next slide.

Now, here comes the big question from the survey work that we did, what were the most important priorities for rural America? As you'll remember from Dr. Ferdinand's discussion of Rural Healthy People 2020 where healthcare access was number one, we have for the first time a shift in the priorities of rural America in Rural Healthy People 2030. Over the next decade, rural health stakeholders made the point to us that both mental health and mental disorders, as well as addiction are more important than healthcare access and quality. [inaudible 00:33:17], the way we do it is every single person participating in the survey identifies their top 10 priorities, and then we simply look at the proportion of individuals who pick each priority. So the 75.2% you see for mental health and mental disorders indicates that 75 percent of rural health stakeholders identified mental health and mental disorders as a top 10 priority.

So what we can see here very clearly is for the first time across three decades of research, healthcare access and quality is no longer number one, it is the third most often cited priority. We see addiction climbing perhaps in part to the opioid epidemic over the past decade, and we see mental health and mental disorders as the most common priority, and it is important to keep in mind that this survey was done in the midst of the COVID-19 pandemic. Overweight and obesity continues to be an important priority, nutrition, healthy eating as well. And we can see that diabetes has dropped substantially over the past 20 years. Cancer has dropped several spots as well, and for the first time ever, economic stability was included as a potential priority by the federal government, and it actually enters the top 10 of the most important priorities for rural America. One other thing worth noting on this figure, even as the survey was launched in the midst of the COVID-19 pandemic, neither infectious diseases nor vaccination was among the top 20 priorities identified for rural health over the next decade. Next slide.

We also broke this data down in a wide variety of ways to see how things might vary depending on how we cut the data. In the far left-hand column here, you see the top 20 priorities as they were listed from the overall perspective, and then in the subsequent columns, you see how those priorities ranked depending on how we cut the data. In this case, we do it based on census region. And what you see immediately and what you'll see in figure after figure is that the top two priorities do not change no matter how we cut the data. Mental health and mental disorders continues to come in at number one, regardless of which census region we're talking about, and addiction comes in at number two, regardless of which census region we're talking about.

Thereafter, you start to see some divergences. For example, healthcare access and quality is the third most important priority in the Midwest and in the West, but healthcare access and quality is the fourth most important priority in the Northeast and the South. And instead, in the Northeast, the third most important priority is drug and alcohol use. And the South, the third most important priority is being overweight or obese. As you can see, the further down the list you go, the more divergencies you start to see. For example,

diabetes is a top 10 priority in the South, but not in any other census region. And when you make it all the way down to number 20 for chronic pain, you can see the chronic pain is the 14th most important priority in the West, but all the way down to 34th in the Northeast. Next slide.

We also cut this data based on Medicaid expansion status of the state in which the respondent was from. And we can see here that the top three priorities do not change regardless of whether we're talking about a state that adopted Medicaid expansion or didn't adopt Medicaid expansion. And in fact, there are very few differences in these priorities based on Medicaid expansion status. Arguably, the only truly notable result within the top 10 priorities is for diabetes, where we see diabetes coming in as the sixth most important priority in states that have not adopted Medicaid expansion and the 11th most important priority in states that have, and this lines up quite well with the existing literature on Medicaid expansion and diabetes, where we've seen dramatic improvements in diabetes outcomes after Medicaid expansion. Next slide.

We also broke these results down based on the race of the respondent, whether they were white or non-white. Again, I would say of all of our results, we would give the most pause to these findings here because of the small size of our non-white sample, but we are once again seeing mental health and mental disorders coming in, number one, and addiction coming in, and number two in these results. Next slide.

We also broke these results down by the sector in which the individual rural health stakeholder worked, whether that be education, government or public administration, healthcare, human services, or others. And again, the pattern repeats itself again and again and again, mental health and mental disorders, number one, addiction number two, and some variation thereafter. So for example, when you look at something like older adults, older adults is the fifth most important priority for those working in education and government administration, but the ninth most important priority for individuals working in healthcare and the 13th most important for people working in human services. And those divergences continue to emerge, for people working in human services, diabetes ranks 38th, whereas it ranks seventh for individuals working in healthcare. So the sector in which the stakeholder worked really did prove to be important. And when we look at our overall results, they're really an aggregate of individuals coming at this problem from a variety of different perspectives. Next slide.

And lastly, we break this result down based on, within healthcare, amongst those specifically working in healthcare, we break it down based on whether they're working in a critical access hospital, a federally qualified health clinic, a rural health clinic, a rural hospital, or a public health agency. And again, the same basic pattern emerges, mental health and mental disorders, number one, addiction number two, and then divergences after that. Here you can see that rural public health agencies are the only ones to rank healthcare access and

quality number three, with others ranking it fourth or fifth, and everyone else ranking obesity as the third most important priority in the healthcare space. Next slide.

Now, one other way that we cut the data, both historically for past iterations of Rural Healthy People as well as contemporaneously, is by ranking the priorities. So after individuals pick their top 10 priorities, the next screen on our survey said, "Here are the top 10 priorities you identified, which is the most important, which is the second most important, and which is the third most important." And what we did was we gave every person's first choice three points, every person's second choice, two points, and every person's third choice, one point. And when we do that, when we re-rank our priorities based on the number of points they're awarded, we see, once again, healthcare access and quality come out on top like it did in the prior two decades. Mental health and mental disorders comes in at number two, and addiction comes in at number three.

And what this means for us is that even though individuals are picking mental health and mental disorders more often as a top 10 priority, if someone's picking healthcare access and quality as a top 10 priority, they're disproportionately likely to make it their top priority. So that's what we think is going on with these results. So what we would say is mental health, mental disorders and addiction have become increasingly important to public health and rural health over the past decade, but for those who still view healthcare access and quality as important, it's incredibly important to them, and they prioritize that above other priorities. Now what did we do with all of these results? We took all of these results and worked towards producing a new set of edited volumes that Alva's going to be talking about momentarily. But before we dive into that, I think we'll maybe have this one slide of takeaways from Alva and then we can answer some questions before moving on. Alva, does that sound good?

Alva Ferdinand: Yeah, sure. So for this third decade that we've been doing Rural Healthy People, we saw respondents ranking access to care as the number one public health priority for rural America, but selected priorities were not always consistent across census regions, demographics, industries, et cetera. As Tim just explains, we saw more respondents including mental health and mental disorders, as well as addiction in their list of top 10 public health priorities than access to healthcare. So that was something that we really took notice of. And I'm sure if we were all paying attention during the pandemic, there was lots of talk about the extent to which being at home and secluded from family and friends and loved ones really sort of highlighted some of the issues around addiction and mental health. And while healthcare access remains a highly concerning issue in rural areas, mental health and substance use disorders really floated to the top when we rolled out this survey and analyzed the results. So Per, I don't know if we want to pause for questions at this point, or should I just keep going? I know-

Per Ostmo: I think we should tackle some of these questions here. We're going to take a little bit of a tour through your slide deck. If you could go back several slides to the demographics of survey respondents. One of the questions was, is there an appendix of zip codes from where people were surveyed for the 2030 book?

Timothy Callagh...: So we don't have a publicly available appendix of zip codes because that is in part personally identifiable information when tied with other data. What we do have in the context of some of the papers we've published so far out of Rural Healthy People 2030, is we've broken down the data in terms of, for example, whether the zip codes are rural zip codes versus urban zip codes as the primary way we've broken up the data. So I would say there's no publicly available compendium of zip codes, but we did collect zip codes and have used it in various ways, for example, to look at the virality of those participants.

Per Ostmo: Thank you. The next question is more of a comment, but community health workers tend to have their fingers on the pulse of diverse communities. How did you engage with community health workers?

Timothy Callagh...: I can take that one too. Community health workers are actually a huge part of the work that we did. We have at Texas A&M, the National Community Health Worker Training Center located right there on the campus of Texas A&M University. So we engaged with community health workers by having the National Community Health Worker Training Center and shared the survey with individuals who had participated in trainings through their center. And then we also had that training center work collaboratively with the American Public Health Association's Community Health Worker Group and share it through that group as well to have them participate in the survey. So community health workers were pretty heavily emphasized in the collection of data.

Per Ostmo: Thank you. Could you move to the slide with the health priorities? I think it was the first slide you had of all the health priorities. The first question here is, how is addiction differentiated from drug and alcohol use?

Timothy Callagh...: Alva?

Alva Ferdinand: I have some notes on that, but if you remember off the top of your head, Tim, I-

Timothy Callagh...: Yeah, I think there's two things going on simultaneously. The first is, as Healthy People 2030 expanded on their list of priorities, they created some priorities that were similar to each other, and this is one of the things we struggled with this decade. So one of the things we did in the context of the survey was we went through the Healthy People 2030 language specifically, and as individuals were participating in the survey, they could hover over each of those 62 objectives and they were provided with specific information about how Healthy People was defining those differences.

Now, I think the simplest thing to take away is the fact that addiction and drug and alcohol use both entered the top five suggests it's incredibly important. You could even make an argument that if some people are picking addiction but not drug and alcohol use, if you put those together, it might even come out as number one as opposed to number two. But I would say it's more of an artifact of how the study was designed this decade by the federal government and our need to stick with consistency with how Rural People has been done with past decades. I don't know if you have more to add, Alva?

Alva Ferdinand: Yeah, no, because I'm sharing screen, I don't want to finagle with my laptop, but I'm just looking on my phone and that's exactly right. Again, we based the survey on the infrastructure of Healthy People 2030 itself. And interestingly, if you explore the Healthy People website and you click on certain topics, you'll also find salience to another topic that is included. So for example, when we looked into workforce, as an example, what you'll see if you poke around on the website is some objectives that are also tied to public health infrastructure, for example. Or if you look into economic stability, you might see some reference to housing and homes or transportation, as an example. So it's a really, really good question. We did not come up with that differentiation ourselves, but really just went with the [inaudible 00:47:05] in which Health and Human Services constructed, the priorities, or the objectives rather.

Timothy Callagh...: Yeah, I would also point out, someone else has commented in the chat, and they're correct as well, that one of them is framed under conditions and one is framed under behaviors under the new technology set up by Healthy People, and that helps explain why both exist. But in the context of how historically Healthy People has been applied to Rural Healthy People, it does create a sense of confusion, which is why we actually put specific information from Healthy People into each of those objectives as individuals completed the survey.

Per Ostmo: So the next question is about actually answering the survey, are individuals given a list of priorities to choose from, or are they naming their own priorities? And I imagine that affects how you code your data.

Timothy Callagh...: Yeah, they're given the exact list of the 62 priorities identified by the federal government. So that's how it's been done since Rural Healthy People 2010, and that's how we've chosen to maintain it. So that's become slightly more unwieldy as the federal government adds more and more overall objectives. But with the 62 objectives this time, they were given all 62 of them, and they were allowed to click on each of them to get more information on what the federal government was referring to with each of them.

Per Ostmo: And for the priority 15 in one of those slides, it was workforce. Is that specifically related to healthcare workforce or is that the workforce in general?

Timothy Callagh...: That's a great question, let me-

Alva Ferdinand: Yeah. And again, my apologies for looking away from the screen. I'm just taking a quick look just to make sure that I'm answering correctly. And it really focuses on public health agencies and the workforce as it relates to tribal agencies and communities. So I would say that in this particular set of objectives, the workforce that is being described or really targeted is more so toward health and public health workforce as opposed to workforce overall. Is that your read, Tim?

Timothy Callagh...: Yes, I would agree with that.

Per Ostmo: All right. Are the survey data publicly available?

Timothy Callagh...: The survey data themselves are not publicly available in large part because there's several ongoing research projects in the Southwest Rural Health Research Center using that data. But elements related to Rural People have been published already across a policy brief, peer-reviewed publication, now this volume. So for those interested in aspects of this, that data is now available through those findings as opposed to the data itself. But it would be up to the leaders of the Southwest Rural Health Research Center to decide when to release the data itself based on when those other projects are done.

Per Ostmo: Okay. Alva, could you move to that first slide with the ranked priorities?

Alva Ferdinand: Was I already on it?

Timothy Callagh...: No, it's towards the end.

Alva Ferdinand: [inaudible 00:50:24]. Okay, this one

Per Ostmo: There., perfect. So older adults I believe were tied in the top 20, but then they dropped when the survey respondents were asked to rank the top 10. So you talked a little bit about how healthcare access and mental health, they sort of flip-flopped when you ranked them, could you explain a little bit why you think it might be that the priorities for older adults drop places?

Timothy Callagh...: Yeah, I can answer this. So the thing to remember with this list is it's based on people's top three. So it is certainly reasonable to think that a priority might be in someone's top 10, but when they're asked to rank their top three, they may not pick it. So you might consistently see that priority being let's say seventh, eighth, or ninth in someone's list of the top 10. But that wouldn't necessarily be reflected in this ranked priority list because individuals continue to not put it in their top three. So if you're seeing it in this figure, it's because a significant share of individuals are ranking it within their top three.

Per Ostmo: Okay. Excellent. We're going to do one more question and we're going to finish up the presentation here. There's so many good questions, and I'm going to try

and get to all of them, but how is LGBTQIA+ health represented in this data? Was it queried?

Alva Ferdinand: Yeah, so this sub-population is captured in the Healthy People Initiative. We did not see it sort of rise to the top of our top 20 priorities for rural health. So if you look on the Healthy People website, there are objectives tied to the LGBT community, and I'm looking at that site right now. So for example, one of the objectives is reduced bullying of lesbian, gay, or bisexual high school students, reduce bullying of transgender students. So again, that is captured in Healthy People, but we don't have it included in our Rural Healthy People work because it wasn't identified as a top 20 priority.

Per Ostmo: Okay, thank you. Alva, I'm going to give you some time to wrap up the end of the presentation. Tim, if you want to comb through the Q&A to prepare answers.

Timothy Callagh...: [inaudible 00:52:45]

Alva Ferdinand: Okay. So we have exciting news. You are able to download the book, the volume that we've been mentioning right at this very moment by going to the Southwest Rural Health Research Center's website, which is listed here in the first bullet. And just to kind of give you a heads up, we are, like Dr. Callaghan mentioned, really interested in better capturing the rural health stakeholders that are representative of the demographics of rural America. So what you'll see when you attempt to download the book is we just ask that you share with us a little bit about you and how you plan to use the work, because really we want this work to be used by various advocacy groups or if you're in education, if you're a health educator for example, or let's say you're a legislative staffer, really focused on rural kinds of topics, we'd just love to know a little bit about you and how you're going to use it. So just wanted to give you a heads-up on that.

And then if you're more of a hard copy person, you're a little bit old school like I am and like to actually thumb through actual pages, you can request a hard copy. We are expecting to receive our first batch of hard copies tomorrow. So if you go to our website on Thursday, you should be able to see a button that will allow you to make that request. Or you can email Natasha Johnson, I'll put more of her contact information at the end of the slide so you can see that. Tasha really is the problem solver extraordinaire of our center. She keeps me in line and all other faculty in line and helps us with our dissemination efforts as well. So please feel free to reach out to Tasha if you'd like to request a hard copy that way. You can also follow the center on the platform formerly known as Twitter. Feel free to share the link of this work on your social media platforms.

And just to give you a sense of what it took to get this book off the ground and in your hands, we have 20 total chapters and research teams that worked on each of those chapters. Each team set out to do a very extensive search of peer-reviewed and gray literature published over the last decade on the topics that

were identified as priority areas for rural America. And all in all, I think we had 66 authors on chapters representing various universities including Texas A&M, East Carolina University, the University of Central Florida, the University of South Carolina, specifically in political science. We also had someone who is now at the University of Alabama at Birmingham. So really a lot of work went into identifying subject matter experts to contribute to each of these chapters. And what we try to do was really simplify and make an accessible resource that again, can be used by a variety of folks and a variety of various industries and work settings.

We had representation from various fields as well, including public health of course, but also nursing, medicine, political science, child education and human development. And so again, we try to be as comprehensive and thoughtful as possible in putting that work together. So we hope you'll enjoy it. Always feel free to reach out to us if you have questions or if you'd like to, again, tell us a bit about how you're planning to use the work. So here's our contact information, myself and Tim, but also listed here are Dr., Jane Bolin's contact information. She's our deputy director, and importantly Natasha Johnson, as I mentioned earlier, who helps make sure that we are all on our Ps and Qs in the center. So those are the slides that we have. And I guess we have maybe a minute or so left for-

Per Ostmo: Maybe one minute here. I'd like to remind everyone the recording slide deck and transcript will be posted on the Gateway website by the end of the week. If you are subscribed to Gateway's research alerts, you'll be notified when the recording slide deck and transcript are available. Tim, I think you have time to answer one or maybe two questions if you have any picked out.

Timothy Callagh...: Yeah, I think one question worth answering is there were a few comments and questions about, it's interesting to survey rural experts, but what about rural individuals themselves? And I would say we chose to focus on rural experts in this context because that was the focus of Rural Healthy People 2010 and 2020. But I would say talking to rural individuals themselves would also be wonderful and give a very different perspective on what individuals themselves see as priorities. I think we focus on experts because we think they might have a more holistic picture, a more zoomed out view, but I think it's important to recognize that the views of individuals are equally important and certainly worth pursuing. Perhaps in future research. We've had some discussions about focusing on border health issues as well. So certainly there's some discussions of individual issues, border focused issues, and lots of opportunities for continued research in this area. We see this as very much a first step, not a last step.

Per Ostmo: Well, I want to thank Dr. Callaghan and Dr. Ferdinand for presenting here today, and I want to respect everyone's time. So thank you for being here. All of our attendees, thank you for being here, and I hope to see you all at future Gateway webinars. Bye, everyone.