[Please stand by for real time captions]

Hello to all of our participants. This is Nanette Relave with the
National I&R Support Center. The webinar will begin at 3:00 p.m. Eastern
time. For those who have joined early, please note, we will begin in 10
minutes. Thank you.

[Captioner remains on stand by]

Hello, again, and I want to welcome all of our participants for joining
us today. Thank you for your patience as we got ready to get started. We
needed to get the recording started. My name is Nanette Relave and I
manage the Information and Referral Support Center here at NASUAD. I want
to welcome everyone to the February webinar today from the I&R support
center. We often get questions about the slides and the audio recording
from our webinar so I want to make sure to let attendees know that the
slides and the audio recording, and transcript, from today's webinar will
be posted to the NASUAD website. We will try to get those up within the
next week. You can visit the I&R Center's Web page. We have a Web page
on monthly calls where we have an archive of all of our recent webinars.
My colleague has also posted a link to that Web page in the chat box. If
you go to the chat box available on your screen, you will see a link to
our monthly call page. That's where you will be able to find the material
from today's webinar. I have a couple of housekeeping items before we get
started. All of our listeners are on mute today to help reduce background
noise. But we welcome your questions and comments through the Q&A
function, which is available to you on your screen. Please feel free to
submit your questions at any time during today's presentation, and we
will address questions following the slide presentation. We also have
real-time captioning for today's webinar. We usually try to have the
captioning available to you on the media viewer but we are having a bit
of technical difficulty today. However, the real-time captioning is
working. There is a link in the chat box. For those of you who would like
to access the real-time captioning, simply click on the link that has
been provided in the chat box and that will take you to the captioning. I
am really pleased today to have colleagues from Minnesota who are joining
us. Krista Boston, who is Director of Consumer Assistance Programs with
the Minnesota Board on Aging has joined us for webinars previously. And
Bethany Hawley, who supervises data management at the Metropolitan Area
Agency on Aging. Krista and Bethany explored the topic of data management
and consumer access to resource information at our home and community-
based services last year. It's great for them to be joining us today so
that we can continue to explore these issues. As you will see from their
presentation, Minnesota has a lot of experience in this area. Because
they have a lot of experience, that also translates into a lot of lessons
learned that can be really valuable for other agencies and I&R/A
programs. Krista and Bethany have a robust presentation today. I do not
want to take any further time. I am going to go ahead and turn it over
to them. Krista, if you're going to start first I will turn it over to
you.

 Thank you. I appreciate it. We are glad to talk about this topic today.
MinnesotaHelp.info has been one of those, I guess you would call it, I

forget what the cliché is but maybe it's a love and a hate contract. I have been working on this since the beginning of my career in aging. We started it literally in 1999 when we knew our area agencies on agencies, as -- Area Agencies on Aging, when they tried to grow their linkage lines they had to have good resources at their fingertips. At that time they were all working off of Rolodex's. I am sure many of you on the line can remember those days too. Life has really changed now. We all have to have better data at our fingertips. Frankly, some people are probably still working off of Rolodex's. The thing is to find the best data and solutions for people, we have to start looking at all of these things in a more automated fashion and therein lies the crux. How do you get to the right place where you can get the right resource to show up at the right time and the right website for the person for what they need. It's not easy. Bethany and I are putting ourselves out there today, as we did last August at the NASUAD conference at the I&R day. We will tell you some of the challenges we faced and how we approached this. We will also bear our souls and be honest with you about things that don't work, things that we think there were, and we would love the to hear feedback and questions about the issues as well. I do think this is one of the things we are all-in this together. It seems the banking industry makes all of this look so easy, or even Google, but it's not easy. It's really challenging. Today you will hear 16 years of learnings on this. We will proceed now. Minnesota.-- MinnesotaHelp started in 2000. It was a concept in 2000. That was back in the day some of you are probably to young to remember but I am old enough to remember. It's been an interesting election year in 2016 but back then in Minnesota it was interesting because we had Governor Jesse Ventura get elected. -- he was a third-party candidate and it was interesting for us. It through everybody in. One of the things he did at the suggestion of State staff tried a partisan task force looking at the aging population and the fact we would be one in 4 over age 65 by year 2030. We went out and talked to people. Of course, as happens in focus groups all of the time, the very first thing they wanted was information. People need information to make good decisions. That seems to be the number one thing on the list. They said it in these focus groups so we proceeded to say, okay, we will do a website. That seems reasonable. We know that we need to move are staff off of Rolodex and on to something more automated. So, we will take care of that bird with one stone and get that website up. Little did we know that that process was probably going to take a good 17 years. I feel we are finally almost at where we can look at the site and say, I think we are there. What you are looking at on the screen is the 2001 version of MinnesotaHelp. We did a RFP and we hired a company named [Indiscernible] software Inc. To this day, they remain our vendor for the service and have won several bids. You can see even in the bottom right-hand side, everybody remember, Bobby approved? I don't even know what happened to that. We had our Section 508 [Indiscernible] approved. That was a big deal back then that you could pass the accessibility screens of the [Indiscernible] tool online. At the time we were working with 211 using their data, migrating it over and then went live. We learned things right away. We learned that year that you have to really think about a statewide standardization strategy because all of a sudden we brought all of this data in from all of these call centers around the State. I am sure some of you are still facing with that after talking with people at the NASUAD HCBS conference. Where you have area agencies individually

doing updates. We started to realize there is a lot of error in that strategy. For us, we needed to start removing error. We moved towards a statewide solution. Our relationship with 211 was ending for other reasons. We went back out for bid and hired a group to do our data maintenance. It was one single RFP. We hired a group called housing link. For the next five years we worked with housing link and went to the next version of MinnesotaHelp. I think these tools, you really do have to look at upgrading them maybe every five years. We are behind the eight ball on the version we launched in 2015 which I will show you next. This is the 2006 version. You can see the differences from the first version. It look like a software application on the desktop. This version tries to get more Web oriented. It had a lot of text on it because we found the Jaws tool had to be used by people. They had to be able to read the screen. During 2006, there was not so much programming in the back-end taking care of that. Jaws was was a smaller company at the time and you had to have a lot of text on the screen and why you see a lot of text. We plugged along and did a lot of projects which we will go through related to data. What then happened was in 2015, due to several projects we had, we launched our next version. You can see we tried to reduce the text on the page. It's more picture oriented. That's getting more common out there. We were really trying to organize it in a way that was more like Google where you enter a keyword and you can see location services there. That was in 2015. We ran into challenges with that. We were not quite liking what we had done exactly. It wasn't quite there yet. We went and did focus groups. In about two weeks we will launch this version. This is the latest version of MinnesotaHelp. I think we are getting there. One of the things that we have done with this version of MinnesotaHelp is you can see that we really streamlined the interface. There is very little text. On the bottom as you scroll across, you can see some of our news. We are going to have in the upper top right-hand corner, the Google languages. There will be 90 possible languages the site can translate into. The other thing is we are going to be using a list of about 900 plus pre- done keywords that when people start typing in the box that says, what are you looking for, we will have a number of suggested keywords coming up. We're going to have a notice that comes up that says, use one of these keywords to get the best results. We have literally done searches around every one of the keywords. As Bethany will cover briefly, they are organizing the data around all of those keywords. When it comes to finding data, there is kind of three ways you can do it. You can do it by the Taxonomy code if that's one way you want to organize you data. We do that, we code to the taxonomy. You can then use keywords which is a second method where people type in keywords. Then the data descriptions have to have the keywords in the. I will give you an example -- example. Last week we ran into a situation where a woman who is blind in northern Minnesota was looking for us to help her get a laptop. We know there are services in MinnesotaHelp that will help people find Free Computers or Free Laptops. But what we found was when the call Specialist typed in Free Laptops because that's what the person was looking for, the service never popped up. The reason was that we did not have the word free anywhere. We had the word donation, and we did not have the word laptop anywhere. We had the word computer. In order to get the right service, the call Specialist would have had to type in donated computer. No one is going to put that in. Those are the subtle little issues that we face with data every day

with are MinnesotaHelp.info website. The third way you can possibly sort services and look for them then is by location. Location presents a whole different problem. You can choose to code the data by location. You can choose to use location services in Google which automatically sorts it based on the address. But then the challenges we have is, do we use the address of the corporate Agency? To use the address of the location where the service is being delivered? That's a whole different set of issues. Data, data, data is a challenge. That's what I have to say about that. How did we develop all of these versions of MinnesotaHelp along the way? We engage with a lot of stakeholders. Most recently, we were working with a vendor who is amazing at running focus groups. He will literally go out and source people from all different walks of life if we need it. For example, I'm going to talk about the fact we are getting ready to roll out a PCA Registry in this tool. We had to find PCA providers. We have PCA's. We had to find people who use PCA. We had to find them from all different walks of life, different sizes, shapes and colors, as it were. We had to find people from rural Minnesota. We had to find people from urban areas, [Indiscernible] areas, all of those different types of people who want to have input. If we do not engage them, there will be issues and we will miss stuff. He is amazing at it. We work with a lot of people to get their ideas about what the site should look like. We work a lot with the area agencies on aging those -- Area Agencies on Aging and linkage line, [Indiscernible] step, Managed Care staff and providers. There is a picture of our provider, Patty Cohen, the woman that leads one of our primary nursing home industry associations. She is a great Partner and works closely with us. She comes to our business process modeling and stakeholder sessions. I know a lot of you have challenge with industry providers. We have gotten very lucky because they are working with us closely as partners but we then bring them to the table and they have a lot of input into what we do. That's our stakeholder good. Data maintenance, we have a pretty large data maintenance budget. I will be honest with you, I am sure some people are looking at this going, my gosh, how did you get this. The answer -- the answer is, I have to say it, we never say no. We never say no to anybody. If somebody wants us to work on a project we say, okay, let's do it. We try to figure out how to resource and staff it. I have never run into a problem with getting more resources. One reason is because we have been successful so more resources come along. You can see that our initial budget was about $200,000. That was when we worked with Minnesota 211. We brought their dataset over. We spent a lot of time cleaning up the data. We learned things about that. One of the things about 211 is they do information and referral for a very large population across all populations, whereas at the time, we needed to focus on Aging and Disabilities. That did not tend to be their focus at the time. What happened was we had to not only cleanup their data but we had to get more data they did not have. That surprised us a little bit. That was an interesting challenge. We launched MinnesotaHelp in 2003. In 2004, you can see we start getting more grants. The ADRC grants come in. We start working on technology development. That was one of the things we also did in Minnesota was, when the ADRC grants came in, we used them for technology, rather than buildings or staffing because we already had that. We didn't need that. We needed to automate, automate, automate and develop our technology. That is how we used the ADRC resources. Honestly, looking back, I have no regrets. I think it is the best thing

we could have done because we really improved our data such that we can give you amazing dashboards. We can report on probably close to 500 metrics on our service at any given point in time. Every day we are pulling data and running information, giving it to our Senior Management Team about a variety of things. Really, getting our data shored up was great. I did notice on our Minnesota.gov website, which is our main State of Minnesota website that we got named number one by [Indiscernible] or one of the top five states that are data-driven. I think that's accurate to say about the aging and disability -- Aging and Disability Resource Center is we are a data-driven set of services. We get a lot of positives off of that, not only by more funding but we have a lot of credibility. We can tell people what we do and that we are very transparent. We had Special Projects coming in 2014. We took over preadmission screening. In 2015 we were asked to do a report card for home and community-based services. We got more funding for that. In 2017 we got more funding, actually, in 2016 to roll out in 2017, a new personal care attendant registry called direct support connect. The data, where it started and where it is now, we organized the data by agencies and at them by site and services. Points of Service are the locations that deliver those services. Bethany can do a better job of describing what that is. You can see the differences between 2004 -- 2004 and this last January with the immense amount of growth. A lot of that has come from data sources from other State departments. Here is a list of the new data sources we have brought in over the years. You can see in 2001 we had the Basic I&R type database, services, addresses, nothing crazy. Just basic stuff. What we found over time is that's not really what the public needs or wants when looking for services. We did some focus groups and for those who have seen me present before, you probably have heard this story. This remains accurate today, when you ask somebody the kind of information they want if they are going to move, that they are not going to tell you that they want to know what ZIP Code the houses are in. That might be their first strategy. They might say, I know I want to live in note that, Minnesota. But from there they're going to want to know real specific things. For example, if they are going to move they will want to know, is this on a bus line? They well know, will they take my pet or is there a playground nearby for my grandchildren? Is there a school nearby? Those kind of things. Those we ended up describing and calling features. They are much like Travelocity.com which has features being a 2 Queens or 2 queen-size beds and a small bathroom. Same for us. Features are 24-hour onsite nursing. It might be meals delivered to the room. It might be meals delivered to home by a volunteer. Those are all features of the service. We started adding all of those in 2003, and I think, Bethany, we are about up to 2000 as I recall. A couple of thousand features now because of scope of the nature of the services Minnesota has, it's large of the different kind of a group -- different categories that we have a lot of features. Then in 2005, as part D is rolling out for those who do SHIP work, you know what I'm talking about. Those were crazy times. We put the Medicare Advantage plans, Part D plans, [Indiscernible], and we're seeing in Minnesota interested in quality of report card. Minnesota starts a report card. We started putting in direct links to the State report card so that people cannot only look up the nurse ago but look at the quality information with that. In 2010, we started putting registered housing with services, which is what Minnesota would call Assisted Living. This

is a place that has services with Assisted Living [Indiscernible] which means it markets itself as Assisted Living. They started creating Uniform Consumer Information Guide's. They are little guides someone has to get when you go and visit the Assisted Living. We now display them in MinnesotaHelp so that you can have them pop open. If you are going and looking at Sunrise Assisted Living, you can find the uniform consumer guide about it. In 2012, we put in all HCBS enrolled providers as part of a CMS Negotiated Waiver reform effort. Again, we got more funding related to that. Then in 2014, we did an API, which I knew what API stood for and now I forget. It's basically a piece of programming in a website that grabs data bringing it into another database. We have preadmission screening we do. In order for the hospital discharge planners to complete their PAS form, they have to pick the nursing home the person is going to and say what hospital they are from. If we had them typing in all of that, it would be an error prone ever ridden disaster to try to pull that information. Instead, they go and click on a button. It populates the hospital's. They select which one they are from. Same thing with PAF. All of this is getting fed from MinnesotaHelp.info. We are all being given the same information to the database. We are now working on the report on the report card. We have done three services so far - independent living services, Assisted Living and supported employment. For this year, we are now working on caregiver support, assistive technology, and Adult Foster Care. Those are the three services we are working on for quality information. As I said, next year we are doing the PCA Registry and vacancy tracking which I did not mention. We're going to be tracking vacancy. And also initially in Adult Foster Care. This 15 represents the number of staff that they have at the data maintenance partnership, the DMP. Bethany and I are going to talk about that. We will say DMP a lot. The DMP is the group that won the bid to manage the data in MinnesotaHelp. That is who Bethany works for. They currently have 15 staff that include the Director and 2 supervisors. I am going to click on here. This is our regular report we receive from them. You can see that it's very detailed. You can download it and look at it later if you would like to. This is the information they give us. Here we can see the status on their projects. We can see some of their priorities and what they are working on. Here you can see some of the batch data updates they did, et cetera. I'm not going to spend too much time on that. Maybe we can come back to it. That's the regular monthly January report we get from them on what they have completed for the month. The other thing is the contact for data maintenance is between the State unit on Aging and the Area Agency on Aging, the metropolitan area agency on aging. They are the DMP, data maintenance partnership for MinnesotaHelp.info. They have a grant contract. They won that on bid. They have a workplan that they maintain and we discuss with them on a weekly basis. We check with them on how they were doing. Their work plan is very robust. It's broad, deep and wide. There is a lot of projects and moving pieces going on at any point in time they have to deal with. There is us storing ad hoc requests with them such as last week when I encountered the free laptop problem. I shot them a message and say, all of the donated free computer programs had to have free and laptop put in them or people will never find them. They went and fixed all of them. Those are ad hoc requests they get from us probably daily. We have weekly conference calls with them to discuss all of the projects that are in-process in the work plan. We discuss all

kinds of policy issues from challenges we are having with home and community-based services that data being transferred to one we were discussing this last week where with got a back-and-forth going on about Traumatic Brain Injury. And the use of the Taxonomy code, the target code of acquired brain injury because we have a brain injury Council here that wants us to have Traumatic Brain Injury and acquired brain injury as keywords. It turns out acquired brain injury is a target code in the Taxonomy. It's not a Taxonomy call. It's a category of people. That throws us for a loop because we now have to figure out how to make the data show up correctly when we got these different categories of Taxonomy code and different keywords. Meanwhile, the public doesn't care. Very few members of the public care about acquired brain injury or Traumatic Brain Injury. But if you do. Whose needs do you meet? Do you does have brain injury? Do you have Traumatic Brain Injury? And it just goes round and round. We are challenged constantly with the policy issues. If all of you are having the discussions two, we are empathetic. I hope you are empathetic with us. In terms of quality assurance, we do targeted outreach with regards to certain types of providers that need to maybe get their features updated in MinnesotaHelp. One of them that we have been working on now is Assisted Living in trying to get them to update their features about their services. That's been quite the challenge. I am Bethany can talk about that. Then ongoing integrity problems with the agencies. Annually we try to get area agencies to make sure all of their Title III providers are in the tool and are accurately reflected, that services they are no longer the -- no longer provided our removed. That's quite a challenge and that's a small part of what we do. You can understand the volume of the work that we have to do with all of the data integrity work that would do. Of course, I talked about the monthly status reports. Also we have a joint style guide that we have between us that is placed on our secure extranet which is a password-protected site that the Board on Aging, the State Unit uses to communicate policies out to the Area Agencies on Aging. There is a place on the extranet for data maintenance, and there is a manual and a style guide there that they use. We constantly update it between us. We changed the guidelines. We recently changed the inclusion/exclusion criteria for the data. That was a significant rewrite. We had not looked at it since 2006. There were a number changes made to that. We also have complaints along the way. They come in here and they go in there. We, between us, problem solve the complaints as they come in. At this point, I will turn it over to Bethany. She is going to talk about the various data sources in MinnesotaHelp and how they update them.

Thank you. As Krista was saying in some of the previous slides, we have a lot of different data sources in MinnesotaHelp. There are 4 prime area -- primary areas we get the data from. They're primarily coming from the organizations themselves working under the theory of that they know the services they offer the best. They can update the information through a provider Portal. That is an internal program. We review all of those changes that come through. If a provider does not make edits to their information, because we try to have it reviewed at a minimum once a year. Should they not update information, we have safety nets in place where our data management Specialist, DMS, will do reviews. We review against their website. We get on the phone, whatever it takes to make

sure that we get the information up to date Besides the providers themselves, we also received information from trade associations. The AAA Staff members are also great service that -- sources. State and federal agencies are a big part of how we can integrate a lot of information and have such a robust database. We will dive into some of those examples shortly. Starting with the AAA on the ADRC, Linkage Line staff have an important role. They are regularly communicating service gaps to us. Our team can make sure that we had the information that they need when they are helping the callers, and all of their specific needs. They also contribute on regular data integrity projects, where we have specific areas that we know that they may be the best information source knowing who the really good providers are out there, who do they refer. Are they in MinnesotaHelp already? If not, can they provide the information to us. We do that at least twice a year and make very specific goals on what those data integrity projects are. And on a regular basis, pretty much daily, we ask them to report data problems. If they have a phone number they discovered is disconnected, someone is out a business, they have regular communication with us to make sure that we get the information up-to-date.

State and federal sources are a really big source for us for a lot of our information. We have formed a lot of partnerships to the Minnesota Board on Aging with these different government programs to make sure that we have kind of a one-stop shop to have this information in MinnesotaHelp. This is just a sampling of some of the different government offices and agencies we work with. I'm going to navigate to the next slide where we can see some of the services that we get from these groups. From the Minnesota Department of Health, we get the home care, both comprehensive and basic license information. Hospitals, Hospice, Assisted Living, nursing homes. Department of Human Services we have Adult Day Services, adult foster services. We get waiver provided services for respite, [Indiscernible]. HUD allows us [Indiscernible] in housing both in urban and rural areas as well as house -- Housing Counseling. Our Department of Transportation every year produces an annual report of their different transit programs. We make sure all of the resources are on MinnesotaHelp. Medication Disposal, where you can get rid of your prescription drugs for free. We review that on a quarterly basis with the Minnesota Pollution Control Agency. Again, these are samplings of the many, many different type of services we include. How do we then integrate this information? We have several mechanisms to help us because this is a lot of workload. The big part is the Standardized Services. This is something that contains standard text to describe what a service is. Licensed Assisted Living is going to have to meet the same criteria of what they can or cannot offer under statute in Minnesota. We can standardize that specific text, as well as standardized taxonomy codes and features and integrate additional features through our data sources. By having that standardized, we can then pull that information in a nice systematic manner and review it systematically in a variety of cycles. Data management tools we use to review our resources in MinnesotaHelp, we use a data acquisition and integration tool. We also use data manager which is a basic editor. And also Issue Tracking which allows us to interpret the many complex policies that we have to make sure only the licensed Assisted Living providers are listed. Only those who are licensed. Doesn't agree with the data source we get from Minnesota

Department of Health saying these are the specific providers licensed to do this? Issue Tracking also allows us to track correspondence with providers so that when we get updates from them, we can document when we've had conversations, the context are with the organization with -- which helps with provider involvement. By having a specific person allows for responsibility. It also allows for quicker turnaround on any questions we may have. Another big part is Review Cycles. We review are standers, of which we have 293 F, a variety of cycles. It could be annually, semiannually, all the way to monthly. We're looking to be reviewing several for the DSW registry on a daily cycle. This can translate to a lot of work. Approximately 290,000 records we're processed the last 2 years through our data acquisition and integration tools. Again, that's what allows us to stay up-to-date on all of this information. Special Projects, we are going to dive deep into one of the processes of adding information in MinnesotaHelp. It's, again, this is a great quote, you have to be careful what you ask for because you might just get it. We do have a great Data Source that allowed us to start integrating the home and community-based waiver service providers. This is something that began back in 2010. Discussions and conversations of how to get this information, who needed to be involved in the conversation, and implementation started in 2014 with the first generation of data. This allows us to list Minnesota healthcare enrolled providers in Minnesota healthcare. So that all providing waiver payments [Indiscernible]. This allows us to offer uniform display to enroll providers and consumers and professionals and social workers try to help someone in their local area find the resources. It's one central spot offering more user-friendly mechanisms. It is also an opportunity for providers to add more information. We have information that we get from the Department of Human Services about these enrolled providers, but organizations can go to the provider Portal program to add additional information. They can see how they are different from their competitor down the block which only gives more information to consumers to make the valuable decision of who will best serve me in my specific needs. As mentioned, there were a lot of conversations that had to happen to make this all possible. Partnerships had to happen with several DHS divisions, Department of human services. This happened between provider enrollment; licensing; Aging and Adult Services; Disability Services; and importantly, Minnesota Board on Aging which helped coordinate a lot of this. This entailed as mentioned, a lot of work. We process these records monthly. Last month we finished are 30 fifth-generation. This entailed review of 17,264 records. This is done in 2 ways programmatic and review to our Data Management Specialists. This is so much to review every month, we want to only make it as efficient as possible. Not every month guarantees changes. A lot of changes come based on licensing or billing changes for a program. Some changes happen through normal course of event. Some of those of their business office from one block or one city to another city. There might be some smaller changes such as of that. From one month to another, there may not be a lot of changes. In January, there were 50,823 records that did not have changes so we were able to do a programmatic review to identify those that did not have changes and then all of the others. The approximately 1400 records had individual human review looking at all of the changes to ensure, is that something we want to process and publish? Is that consumer facing telephone number and things like that. Where

possible, we try to let our programmatic review do some of the work but recognize that humans are definitely needed as part of the process. How does this all happened? Diving into the details a bit. This all begins when providers fill in the DHS home and community-based waiver Service Request Form. This is a 16 page document that outlines all of the home community-based services that are eligible for waiver payment compensation. There broken down by license or credentials that qualify you to provide those service. How a provider feels the document is stored at DHS provider enrollment. They then send us a file that we can grab on a monthly basis. We translate this into specialty code crosswalks. Every month we confirm with DHS if there were any changes to the crosswalk, changes to billing or policy. When that occurs, we translate that then to the Standardized Services that we list in MinnesotaHelp. They are also mapped to features and taxonomy codes to describe what that information originally appearing in the form they filled out as a PDF to resources in MinnesotaHelp. This is kind of a small section of what our raw data looks like. Some of the provider details such as the specific Agency offering the service the Adult Foster Care service here, and their address and phone number has been omitted. This is a sampling of what it looks like with one of our standardized services. From there it goes to being published on MinnesotaHelp and is then available for consumers and professionals to search for. They have the opportunity to Search by payment type, such as elderly waiver. They can Search by service type, which is home-delivered -- home-delivered meals. Or they can search by the national provider identifier, NPI number. Whichever is best for their specific search. At this point, the information we integrate from this data source impacts 2490 agencies. That's 16,730-point of service, a combination of location in-service of where that services offered up. That is a lot of information to review every month. This segues into the next section. Mentioned earlier, how do we integrate this information? We have standardized services. We also have opportunities to offer features and taxonomy codes which all play into roles and organizing information in MinnesotaHelp. Krista explained a bit about features. In many ways they are descriptors that talk about the amenities being offered. What is the type of meal offered? Is it ethnic such as [Indiscernible] or kosher meal? There are many, many different features it can describe. This charts the specific waiver payment features that we integrate to the DHS provider enrollment data source, and some of the accounts that appear in MinnesotaHelp. At this point we have 945 features used in the database. When you translate how many features could be appearing on a single Agency, you get into the thousands pretty quickly. If it's even a decent sized Agency, a couple of services. For the waiver processing, we have 161 features used for this. We're talking about a lot of feature information here. This can add some definite challenges for data maintenance. Internally, we have to be very thoughtful in what we did. We have to be thinking, what do we currently have for features? Does a pre-existing feature be used for multiple purposes? We don't want to be adding many, many more because providers have the opportunity to review all of the features. That can be a lot of work for them. With that in mind that were working on developing feature management strategy. You, may not as a provider see all features, just the relevant feature. That's a work in progress and is already helping. We are seeing success with that. Another big challenge is provider involvement. Providers, again, they know their services the

best. It's great when we can get them adding that information, but providers can sometimes find many challenges to add the information. We may not be their top priority. Even though this has a lot of value to many consumers and professionals, they may see other things on their to-do list. We may be more of an afterthought. We have to work very hard to get providers involved to make sure their information gets updated and very robust. Another challenge is on the user side, making sure that MinnesotaHelp is a very easier to understand website. And that it is intuitive so they can understand how to filter their results for most relevant results. Taxonomy is our structure for organizing a lot of our information. In many ways it's a backbone. We utilize the AIRS taxonomy which is something that has been developed for social and health services. It does offer it's own set of challenges. It is offering national codes, not State specific codes. In Minnesota, we are a State that offers a lot of social human services. We may have many more definitions for some of the areas that are offered nationally. Just in case management, we offer many different types of case management but there are 2 primary taxonomy case management codes. The taxonomy has many branches such as the RP branch offers counseling services, whereas RF branch offers counseling setting. We tried to be consistent in using one branch or another but they offer -- but they both offer benefits. It adds a little bit to the challenge. How do we work around this? We definitely utilize the Target codes, also known as Y Codes to describe the demographic group being served. That helps a lot. We have also created a few different types of codes on our own. We utilize trigger codes we have several different types of searches on MinnesotaHelp. We have a set of codes we use to trigger certain result to appear in those search results. For example, we have a special topic section on older adults. We want to make sure the resources that appear there are only primarily serving older adults. We will use that to trigger that. We don't want all home delivered meals but delivered meals specifically for seniors. We also use an internal system of people's codes. These codes help supplement the AIRS Taxonomy classification codes. It's more State specific codes for us. We also have noticed that it is easy to get very complex within our policies. We have developed an internal tool in Issue Tracking. We have a specific form to help review the taxonomy codes. This helps understand the context of the many different searches, specifically our topics table but also helps with keyword searching. We also specific policies with the goal of no more than five taxonomy codes per service. We also have found it's very important to be aware of the taxonomy hierarchy as coding occurs. One thing that particularly helps us is very consistent and well-developed training for new Data Management Specialists. We have at the new staff on our team. We spent quite a bit of time up front making sure that they understand the taxonomy because it can have such a big impact before they are set free to update agencies regularly. The next few slides are a few charts to look at data from other perspectives. LVD, last verification date is one of our core data results or metrics we pay attention to. Because it is so important. If you have old data, it's probably not good data. When we took over MinnesotaHelp data maintenance, it was a big effort on our part to decrease the age in our data. You can see in 2008 that is when we began our big push. In 2010, that's when we started integrating standardized services as a big part of what we do. That can be illustrated in this slide. In 2010, this is when we started increasing the number of our

standards, and it has continued to grow all the way to December 2016, which I have stats for. About 65% of our services are controlled by standard services. A lot of our data sources, State, federal, and so on, can really help us update our information in a systematic manner and stay up-to-date. This is a pie chart illustrating our different standard categories. It groups it a little bit in high level topics to Let me see what types of standardized services that we have. A lot of them have names that reflect the sources themselves. This is where I am going to pass this back onto Krista.

Very good. One of the things we wanted to cover as we wrap-up here is the process by which we have a rules engine in the back of MinnesotaHelp, as it were, that does the keyword matching. We have gone through some interesting experiences over the last couple of years in exploring that. In the past we had a basic Microsoft search engine that was in the back end of MinnesotaHelp. We were finding we weren't getting good results and could not figure out why. We delved into this. We hired a company called search engine technologies, search technology Inc., something like that. We ended up buying Apache Solr which is a rules engine for a lot of sites to provide better matches between keywords and data. One of the things we learned about is the idea of Lemmitization versus Stemming per case -- I think a lot of the Microsoft search engines use Stemming, which is they look at the basic word. If you type in the word, say, compute, it's not necessarily going to look for computer. Or maybe if you misspell compute, it's not necessarily going to look for computer. It might look for COM P you TE but you have to sit and type in what called acronyms or metadata or some sort of keyword list that you maintain. We moved over to what is called, Stemming -- not Stemming but Lemmitization which is contextual based searching. I do not want to lose anybody but bottom-line is, it looks at many different types of terms beyond just the term that you typed in. For example, if you were to type in, spoken, it will look for speak. If you type in conferences, it's going to look for conference and not just conferences with the S on the end. It might also look for meetings. It's more of a contextual based rule for search engine and we are finding we are getting better results. It places a lot of weight on distance or reduces weight on distance, depending upon what the users prefer. What we really found, we did an analysis of Medicaid data and Medicaid service usage and found that most Medicaid recipients -- they are not our only audience that a large enough audience they represent a good sample of long-term care usage. About 60% of Medicaid home and community-based services recipients use services that are within six miles of their home. The one thing we learned from that is that location is really important. Here you can see Apache [Indiscernible] running at the back end of MinnesotaHelp. This is what we have to help us play around and make the rules engine two different things. You can see that we can have the keyword. Here I have typed in computer repair. I wanted to look in the service description, service short description, provider name, we can do names, location, et cetera. We can do the taxonomy terms. We can do service keywords. We can do features. You can do a distance boost. You can do what's called the distance spread, which has to do with between services. You can do a name boost so that it's making the name more important than the distance. You then get different results. We have done distance as a major boost in all of our search results. What I

wanted to, as I'm wrapping up is to have an effective website, looks our great, but results are critical. That's what is going to keep people coming back. How it looks will not keep them coming back. It will get them there in the first place but will not get them back. What a consumer wants, and these are our learnings, what a consumer wants is at times the same thing or times different than what a professional wants sometimes depends on how savvy consumer is. In terms of words, people are using different terms. I think my favorite term these days is Long-term services and supports. I asked the person at the State fair last year at our booth, does your wife have long-term care? His spouse had autism. I asked if he would -- I asked if she was getting long-term care services and he said, what do you mean. Like, are you getting meals delivered to the home? Have you gotten a ramp? He say, you mean health care. I was like wow, wow. The public -- the public does not use the term, long-term care. We have now changed it to Long-term services and supports. How do you get a term that reflects all of the things people think about from free laptop to donate a computer. Of course, none of them are using case management. Social workers are. When we say Case Management, that means health plan case management and it made something totally different. Good data equals good searches. Search are those search algorithms work off of words 1st and then algorithms about words. That's Lemmitization versus Stemming. Searchability is extremely difficult. Getting the right answers is not going to work unless you have the right data to match the searching. I already told you about that. Then I said, data maintenance ain't easy. Location, location, location. They want to know how close it is to their home. They want to know the cost and those things are difficult to figure out for the type of services that would do. Providers on the other hand want to know if there is availability and what the payer source is. Totally different than cost. We have to meet all of those needs. My last one I said was, don't kid yourself, Google and Yelp haven't figured it out yet. Google is great if you know what you want and where it is. That's MinnesotaHelp.info data maintenance. We will stop for any questions.

Great. Thank you so much. Thank you to both of you for the fantastic presentation. If you are willing to stay on a couple of minutes, we do have a couple of questions that have come in. When you present there is so much and you have to go back to think about it and then the questions come out. I laughed at the comment about Google. It's something we have been thinking here at the I&R Center and many programs as well. We are not Google but Google sets people expectations for how a search should feel and go. Between the complexity of our system and meeting people's expectations, I think you have explored a lot of the challenging middle space but we did have a couple of questions come in. Let me turn. One is asking, can you talk about how the disability linkage line integrates with MinnesotaHelp.info?

They use MinnesotaHelp. They have a chat. There are chats that go into the disability linkage life from our chat tool. They take the under 60 chats. They also use the chat tool used in MinnesotaHelp at their website that they manage for work and benefits called DD 101. We then have a disability link on MinnesotaHelp. They really utilize the data and it's a primary service for them. I don't know if that answers your question,

but not only are they receive are the questions to the website but they also use the website.

Great, thanks. We had had another question that may be for you, Bethany. When providers are adding information to their listings, is this verified before published on the site? If so, how is it verified?

Yes. We review all changes that providers make to their information. That could be just reviewing for formatting. It's amazing how many different ways you can list and address. They're must be a hundred ways. We use USPS address format. Little details like that, but also verifying if someone is saying they are an Assisted Living provider or offer home care services, we will confirm with the regulatory authority that regulates to see if they are indeed licensed. If they are not licensed, we let them know we cannot list the service at the time. It may be something where they have an active marketing department. If they Mentor, yes, we are in talks with, let's say if it's Assisted Living, the Minnesota Department of Health, and we will open up Assisted Living next month. We let them know we will set a reminder on our end to follow up on. As soon as the regular authorities site their license we will add it. That allows us to have a source of truth and keeps it something very systematic and having a clear policy making it easier for us. It's something a lot of providers understand once explained. Yes, verification does happen.

Thank you. I will ask one last question. When you and Krista talked -- when you and Krista started the webinar and I think it even had a little bit of [Indiscernible - low audio]. It's making me wonder, we've also had a lot of development in core technologies that we use toward universal design, or elements of the software and of functionality that can really serve people with accessibility needs, as well as others. Have you found that universal design has made this more ready for you? Or how have you had to maintain that accessibility as you are filling out these sophisticated sites and searches?

It's interesting you are using that term. We're using responsive design. We are definitely using responsive design meaning we want to look the same on a smartphone as it does on the Internet in a browser. Will be don't want to have to do is maintain an app. Along the way, I do not think we are finding real limits in terms of making sure that we have a policy that we have to exceed the accessibility requirements in Section 508 and the World Wide Web Consortium. The vendor really strives to constantly make sure that we are keeping in line with that. I wouldn't say that -- and we are taking this back out to focus groups, having them look at it and getting constant feedback. I do not find if we are finding limits with regards to accessibility, generally. I hope not, at least. The one thing I will say, you mentioned Google. We purchased one-year subscription to a Google server and hooked it up on MinnesotaHelp. I was convinced because I don't understand why we are messing around with search engines rules [Indiscernible] and crazy coding. I thought we would use Google algorithm. It found hardly anything correctly, just so you know. It was the worst thing we have ever done. We had it up and running for three months and said shut this down. It was a failed experiment. Google search engine and at their algorithm works well for

Google, but is probably not going to work well for your site. That's all I'm saying because we tried it and you can learn from our mistakes. Those Google servers, I don't know.

Thank you, Krista. That made me thinks, power to the resource Specialist. The work that we do is really hard but is valuable and not yet replicated on other commercial sites.

One very last question from an audience member saying, could you please clarify what parts of your website and database are vendor supported? Do you have vendors for each component?

It's a little hard to answer. If you want more information, contact me offline. But a quick simple answer to that is, we have a vendor that supports the website development and back-end programming. They would be the software Developer. They also do the hardware side of it, the whole hosting, maintenance and all of that. We also have a Developer that does data maintenance and that is Bethany. They maintain all of the resources and that data. There's technically really 2 vendors and the State unit on Aging provides the [Indiscernible] oversight and contract management. I would say there is probably 2 vendors, at most. The reason I hesitate to be really clear about it is because we have other functionality in MinnesotaHelp we did not talk about today that has other vendors involved. I mentioned the Extranet and that's a different vendor -- vendor. It does support MinnesotaHelp but different. The answer to that is 2.

Thank you. I know that we could keep going. We may forward questions to you that have come in. It is time, and that we really, Krista and Bethany, thank you, so much, for joining us. This has been a fantastic presentation. We want to thank attendees for joining. Again, go look for all of the material and transcripts that will be available on our website. I want to wish you all the rest of a great week.

Thank you.

[Event Concluded]

I&R Center webinar
February 15, 2017
Helping People Access Home and Community Based Services: Migrating, Coding, Storing, and Searching for Data in MinnesotaHelp.info