Medicaid Innovation Accelerator Program Data Analytics National Webinar

So You Built a Dashboard – State Medicaid Agency Experiences

January 17, 2019

Introduction

Keith Branham (KB): I am a research analyst on the Medicaid IAP data analytics team in the data and system group, the Center for Medication and CHIP services. I will present our speakers, give an overview of the IAP, then we'll hear from our speakers, then Q&A.

New Jersey will discuss their experience with the Family Care data dashboard.

Washington will talk about a rapid cycle monitoring dashboard for an opioid project.

Our first two speakers are Felicia Wu and Brian Lee. Felicia is a research scientist from the State of New Jersey, Division of Medical Assistance and Health Services. Brian comes from the same agency and is a software development specialist.

Our second presentation is from Washington State Healthcare Authority from Shalini Prakash. She will be discussing the opioid dashboard.

IAP is a cross center collaboration at CMS to support state Medicaid program payment and delivery system reform efforts. My group is the data system group, which falls in the data analytics functional area. The purpose of these webinars are to increase state Medicaid capacity on data-related topics and challenges.

The goals for today's webinar include learning about lessons learned for developing dashboards, approaches to selection process for data visualization, and examples of selection criteria and process for metrics. Now Felicia and Brian.

Discussion

New Jersey

FW: Our working hypothesis is that most listeners already have Medicaid dashboards available online and may be looking to expand the visuals they have. We realize some other listeners may not have online dashboards and are looking to build them new. Through this IAP we partnered with Truven Health Analytics and Health Data Viz to conceptualize our dashboards and provide training tasks in our selective dashboard tool, Tableau.

Our goal for the project is to create data visualizations and a website to host these visualizations completely in-house using existing staff and within the 12-month time frame of this IAP. The first takeaway, which we hope might be transferable, is our approach to selecting visuals, or for those who already have a set of initial dashboards, how they might go about selecting additional visualizations for public use. We want out visualizations to focus on known key performance metrics of our program. I read an article recently that described this process as identifying nice versus necessary metrics.

To deliver the most effective tool we believe it would be best to focus as much as possible on only the necessary metrics of our program in order to guide a public user to key information about our program. How do we go about drilling down to these necessary metrics? To achieve this we took the following steps.

First we reviewed and catalogued all the OPRA requests received by our division. From this we were able to determine the type of data requested, who was requesting the data, and the frequency of that type of request. From this we saw the likely end users of our website would be the press, various advocacy groups, researchers and provider associations.

We also knew from requests coming outside the OPRA process that initially users would be our managed care partners. In addition, we of course hoped to build dashboards that would be of use to our almost two million Medicaid beneficiaries.

Additionally we looked at all the materials circulated by our division externally or presented at public meetings. We did this to ensure that whatever data we put forth on our public dashboards would be consistent with our existing published reports. Best case scenario, we wanted to use the same data source as these publications to ensure total consistency.

We looked at other states to see what data they most frequently reported and found relevant and of interest to their stakeholders. In total we reviewed 13 states' public-facing Medicaid dashboards, looked at the type of information presented, the level of detail provided and the number of years of historical data presented. This gave us an idea of what has been successful in other states.

Finally we leveraged our IAP partners to exchange ideas with them. Our Medicaid director and other senior management provided us ultimate guidance on the visuals to develop for the 12-month development time for this project.

These are the 13 states we reviewed for our comparables. We did most of our comparability study within second quarter calendar year '17.

This chart shows the breakdown of our OPRA requests for fiscal year '17. At least in New Jersey's experience we found our OPRA requests related almost entirely to financial eligibility and claims, and particularly in eligibility there were a lot of similar requests from our different stakeholders. We purposely build our dashboards to address when possible recurring OPRA requests. We did this in hopes of reducing the Division's workload going forward through providing a tool that will allow interested stakeholders to self-serve some of their common requests.

The summary of our selection process is here. For your reference, in terms of the state comparables we looked at, the most commonly reported types of data were HEDIS and other clinical measures and eligibility information broken down by demographics such as gender, age, race, and geographic distribution. As mentioned before, our OPRA requests related primarily to financial eligibility and service utilization. For the initial duration of our IAP project, our director selected the topics in yellow for us to do dashboards for, and we will demonstrate four of these dashboards for you later in the presentation.

We felt that the visuals selected for our project addressed the high-level questions that research showed us were of interest to our stakeholders. These topics we believe have the added benefit that they are the type of information that is easily understandable for a lay user and not likely to be misinterpreted by users such as the press.

These core questions of who, how well, what and how much we also believe are the necessary metrics, meaning these are the significant data points that our stakeholders have consistently expressed interest in.

This slide shows our beginning point. This is the situation which I'm sure looks familiar to many of you. We have many existing reports on many different websites and multiple formats such as PDF, Excel and Power Point. They all have different publication frequencies and different update time frames. In all cases

the data is static with no ability to drill down or filter, which really limits users' ability to get to the slice of data that they're interested in.

Flash forward to the present. We now have a single analytic website that hosts our dashboards and provides links to other data related to our program. We wanted to build a single interface that would be the entry point for all data related to New Jersey Medicaid, which we hoped would streamline our users' experience.

A second takeaway is that the website and dashboards are mobile friendly and browser independent. According to a report we received from Oliver Wyman Consulting, consumers that are younger, lower income or racial minorities use mobile phones for 90-95% of their Internet use. Designing dashboards with mobile devices in mind are also one of Tableau's 10 key recommendations in its recent whitepaper entitled "The Do's and Don'ts of Dashboards."

This next slide is a press release related to our dashboards. I wanted to quickly call out New Jersey's Human Services Commissioner and Medicaid Director's comments, which express common themes that I'm sure we're all aiming for, namely greater transparency to the state's Medicaid program through the provision of easy-to-navigate and in-depth information.

Another thing is that these beginning set of dashboards were quite inexpensive. In total for the project we spent about $9,000. This is an annual cost for our five Tableau desktop licenses. We use a free public server to host the dashboards and another free server to host our staging development website. Because of this low cost we were able to purchase the software quickly.

Existing in-house staff comprised of four individuals from our Business Intelligence Unit as well as one from our Information Services Unit was the core team that developed the dashboards and websites. This team project managed the different dashboards through the Business Units as well as supported various administrative tasks such as managing the sign-up processes, editing, proofreading, etc.

Our IAP partners provided training in Tableau. In total New Jersey received around 15-20 hours of focused training through this IAP as well as many additional hours of consulting related to software selection and feedback on the visuals we built as well as the website we developed.

Of course many of our Business Units and senior managers in our division were tapped to serve as subject-matter experts advising on visualizations and reviewing and improving them.

Brian will give you an overview of our website and key features, as well as demonstration two of the four dashboards we currently have online. You can find our dashboards by going to www.njfamilycare.org. On the left-hand panel you'll see new and normal statistics in New Jersey family care data dashboards. If you click on that you will be brought to our analytics website.

BRIAN LEE: I'd like to go over two dashboards we built. First I'd like to give a quick overview of our analytics website. While a well-designed dashboard is key, it's also important that each dashboard is easily accessed and easily understood, and a website helps address that. This website you see here we built using Bootstrap, a popular and free use framework designed for developing device responses and mobile-first websites. We use bootply.com, a free online Bootstrap editor for prototyping so we can see what it looks like on various devices and can also share it while we review it. We are currently in the process of integrating Google analytics to provide us with insight into our user base including site and dashboard usage, geolocation and language settings, device and browser usage, and when available demographic information such as age group and gender details.

Other than the individual pages where the dashboards can be found we have a few additional pages including the homepage on the screen. The homepage allows users to read more about our programs and our available dashboards as well as providing some key enrollment statistics. We also have a timeline of events page, which highlights events that have occurred since the beginning of the Affordable Care Act. We felt this helps users better understand some of the dashboard data trends. We have our individual dashboard pages where we embed each dashboard into a separate page, which makes tracking things easier. Then we have a More Information menu, which contains an About Us page, which basically offers an overview of who we are and what we do at the N.J. Division of Medical Assistance and Health Services. We also have a User Tips page, which provides tips on how to use common Tableau features as well as other features found on our dashboard. We have a Contact Us link which will launch our email client and send an email to a frequently monitored account so we can get feedback from our users. We also have a Sources and News page, which provides more information on underlying dashboard data sources. That's the website.

Now our COPS(?) dashboard. Under the COPS initiative standardized surveys are used to assess the healthcare experiences of New Jersey Family Care (NJFC) beneficiaries. Survey results are compiled into four major categories, being overall rating of healthcare, overall rating of health plan, overall rating of personal doctor, and overall rating of specialists. We receive the data for this dashboard each year from our vendor. When we develop dashboards, we like to identify our target audiences and ask the question why should they be interested in our dashboards.

For this particular dashboard our target audiences are NJFC beneficiaries, NJFC organizations or MCOs, and state staff. NJFC beneficiaries who have an option to choose a particular managed care organization should be interested in the overall ratings and trends of each MCO. The MCOs should be interested in patients' healthcare experiences and state staff should be interested in the performance of its contracted MCOs.

For this dashboard we like to see what kind of insight it offers. We can see for the adult survey type the overall satisfaction ratings are pretty similar for 2017 with the exception being Aetna, which shows room for improvement under overall rating of health plan and overall rating of specialists.

We also see if we select trend for our overall rating of child service types, for all plans the overall rating of health plan performance increased slightly from 2016 to 2017. Those are some insights that can be found on this dashboard.

Now onto our timeliness and claims processing dashboard. NJFC monitors the timeliness of claims processing, meaning payments or denials, made by New Jersey Medicaid's contracted MCOs to providers of Medicaid services. The claims processing data is submitted quarterly by the MCOs and we identified for this particular dashboard that our target audience is New Jersey Medicaid service providers, state staff, and NJFC MCOs. Providers and state staff want to know if MCOs are meeting claims processing standards as outlined in the contract. The MCOs should want providers to know that claims processing standards are being met.

If we look at this dashboard we can see that in the quarter ending June 30, 2018, the timeliness of overall claims processing has exceeded standards in all categories. However, when isolating the manually submitted claims we can see that there are a few areas where it falls slightly below standard, less than a percent. That's some insight provided here.

If we go to the acute or other MLTSS payment details tab, we can also see that processing lag times for manually submitted medical daycare and personal care claims fall below standards, outlined in orange. This dashboard is actually three dashboards in one that we tied together with a simulated attach strip,

the reason being there was a lot of data to present on this dashboard and we didn't want to leave any of those details out. Tableau's Story feature isn't really a viable option for navigation here because the purpose of Story points is to create isolated instances of a dashboard, and it would prevent us from maintaining the user-selected filter values when navigating between tabs, which may cause confusion. So if I select electronic only and then navigate to another tab, it maintains the filter selection, which is really what we want to do. That's about it for the COPS dashboard and the timeliness and claims processing dashboard.

FELICIA WU: I'm going to walk through the first of our eligibility dashboards. We found through research that eligibility was one of the most common types of data requested. This is also proven true in practice. Of the 11,000 views our dashboards received over the last three months 77% of the views were focused on eligibility data.

We provide context for these dashboards in the information button so the user can learn about our program. We also provide a help button which allows users a basic introduction to the built-in Tableau functions. We allow demographic data to be sliced by county of interest, by the beneficiary's health plan, and for a selected month from January 2014 and forward.

The dashboards allow the user to quickly look at key demographics in our program including the program of eligibility for beneficiaries, their age groups, gender, their managed care affiliation and county. By default the dashboards are shown by percentage breakdowns. If the user is more interested in actual counts they can quickly toggle and see the counts.

By providing a map it allows users to quickly visualize where beneficiaries are located. Dark blue shows areas of fewer beneficiaries. Dark oranges and other oranges show areas of greater beneficiary counts. For instance, if one was to look just at Amerigroup, a user could quickly see that Amerigroup is very focused in just this Northeast region. Whereas if the user looked at a plan like United, all our plans are statewide. But even then they do have geographic concentration. For United, for example, you can see that a significant number are in Ocean County. Whereas Horizon, our biggest plan, has a distribution in the state that looks basically like the distribution region of beneficiaries just in general.

The second dashboard we have for eligibility is trend data. We find there a lot of questioners that want to know how our program has changed over time. One instance where this came in handy was Horizon recently called our CFO because they were concerned that their membership had been dropping. You can see from July onward their membership has taken a pretty steep decline, around 3.5%. Our CFO was able to forward them our website so Horizon could pretty quickly look at other plans and review what their roles look like to see whether or not they were using market share to other plans or whether the entire NJFC population has been dropping similarly. When you look at each individual plan you'll see they all do have the clients very similar to Horizon with the exception of WellCare, which has a slightly more nominal design.

The trend data also allows filtering that's not available in the month at a glance. You can also look at it by age group or by eligibility program. You can just look at the expansion of adults if you like or by CHIP children or by the IDD population. Just based on our OPRA requests we found that this functionality would answer a lot of OPRA requests we received related to eligibility.

Lastly, I want to quickly show our dashboard related to long-term care. The other three dashboards I showed are relevant to the entire NJFCP population. The long-term care population dashboard is a little bit different as there is just a subset of our population. There are only about 60,000 individuals but we chose to focus on the long-term care population since their costs are so disproportionate relative to their size.

For a dashboard like this you can easily look at the nursing facility dashboards, whether in a fee for service setting or delivered through managed care. You can see where our nursing home beneficiary is located. Alternatively you can see where the assisted living and home- and community-based members are located. You can see them by age groups or plans. We provide this data anytime since July 2014—the inception of our managed long-term care (MLTC) program. Additionally and similar to our eligibility data we also allow the user to look at our MLTC data over time, again from July 2014 onward.

Here you can see the nursing home facility population in fee for service, which is declining as we move into the managed care setting. You can see the breakdown between long-term care recipients and home- and community-based, the blue here, in assisted living settings compared to nursing facility settings. For instance, if you wanted to just see the distribution of home- and community-based versus assisted living versus nursing home, you'll see that over time from July 2014 to November 2017 that the distribution is much more balanced now between a home- and community-based and assisted living versus nursing facilities. Then you can look quickly at the breakdown by healthcare, setting type, and age group.

For lessons learned, takeaways are:

- Assess which data topics are of greatest need for public interest. By doing some legwork in the beginning we thought it would make it easier for us to explain and defend to stakeholders what visuals were selected.

- Present context within the dashboard, so we wanted to answer the question of why should the user care.

- We believe if it's simpler it's more user friendly, so we wanted to make our interfaces as much as possible very straightforward.

- We choose our data sets thoughtfully to focus on data consistent with existing publications.

- We had a set process for reviewing sign-up with our external and internal stakeholders.

- We were fortunate to have a good team of analysts and subject-matter experts as well as really strong executive-level sponsorship.

A final thought is plans should continue to monitor usage. As Brian mentioned we hope to layer Google analytics on top of our dashboards so we can continue to find out which views in the dashboards are of most interest to our users, and we will continue to review incoming OPRA and non-OPRA data requests to adapt to changing public interests and relevant issues. This is our contact information. Feel free to reach out.

BRIAN LEE: I forgot to mention if you were following along and looking for the timeliness of claims processing dashboard you will not see it. It hasn't been published to the live site yet and we were using our staging site for the presentation today.

Washington

KEITH BRANHAM: Now Shalini Prakash from Washington State.

SHALINI PRAKASH: I have with me some colleagues from the analytics team that I'm a part of, including Anu Kumar, who developed the dashboard for this project. I will provide a brief background and walk you through the actual process we went through in the development of this dashboard and do a quick view of the dashboard, which is still in the staging area and not public yet, and lessons learned from this process.

6

Like the previous speaker, we also received one of the IAP grants in spring 2017. Our grant, the TA, lasted about 14 months due to some delays on our end and some unforeseen delays in the development process. Similar to previous speakers, technical assistance was provided by Truven, the Technical Assistance Collaborative (TAC)and subject-matter experts from there. For the dashboard visualization we also had Health Data that assisted. But all the data, development, Tableau licenses, etc. are all in-house. All resources used for development were from the Washington State Medicaid agency. Our grant was more narrow and we focused on assistance with developing metrics and also a method to disseminate it. We developed a dashboard for some of the opioid projects that our partners Accountable Communities of Health initiated as a result of our Medicaid transformation project grant.

We received it from CMS January of 2017, were awarded a grant, and opioid projects are a big focus. The doors of most of the project to achieve the goals of the transformation are what we call entities, Accountable Communities of Health (ACHs). There are nine regions in Washington that are more or less collaborative and comprised of providers, MCOs, behavioral health organizations and some community organizations that together are the implementers of most of the projects, including the opioid projects.

The majority of time we had technical assistance actually was spent on development of the metrics. Three-fourths of our engagement time was actually on the development of the metrics, basically which was facilitated by Truven and the TAC team starting with interviews of ACHs about their plans. We assessed a lot of potential monitoring metrics. We also had to get a lot of stakeholder input for these metrics. Finally we had recommendations from our TAC experts. From Health Data we had assistance in the development of the Tableau-based dashboard for visualizing these metrics.

We also had internal partners including our sister agency, Research and Data Analysis, which sits within the Department of Social and Health Services, and our agency's deputy medical director, who gave clinical input on the appropriateness of these metrics for the context.

There were a lot of criteria we had to consider by selecting these monitoring metrics including availability of data. We had to have easily accessible data sources. These reports are monitoring measures that allow for less lag and for our partners, the ACHs, to quickly course correct if they needed a shorter data lag. So we couldn't, for example, use HEDIS measures and wait for claims to mature and visualize them for the dashboard service purpose.

Also for these measures, the dashboard itself, we had to consider the feasibility of the updates because of the nature and intention. We also needed drilldown capability so the regions, the region-based partners, they needed to drill down to policy level, and other drilldowns we needed that users could drive themselves.

As part of the MTP program, we have a lot of pay for performance measures and we had to make sure that these monitoring metrics in some way overlapped with our pay for performance measures for financial incentives to the ACHs they're tied to. Finally the metrics also had to meet privacy standards. So lots of demographic drilldowns especially of small populations, in rural regions for instance, was out of scope.

The monitoring metrics span prevention, opioid use reporting, treatment, and also intervention in overdose and prevention of overdose. In the release of monitoring metrics we just focused on treatment, including provider capacity.

I won't go through details but these are the measures we finally landed in consultation with our stakeholders. They included provider capacity and a lot of drilldowns of opioid use disorder treatment, including MAT, consideration of therapy and such. Because the majority of these metrics are pharmacy-

based, by focusing on non-methadone treatment it become more apt to fit in this rapid cycle type of monitoring purpose, and our stakeholders were comfortable with that position.

We have more measures still under development we don't have time to go through but there are more provider profiles. They will be released in the future.

This is an example of the kind of rubric subject-matter experts recommended we use to show the profile, where you devise positions in various strata that relate to the risk of opioid abuse among the patients they served.

These kind of provider profiles basically somewhat moves away from identifying providers themselves, like what you would think a provider profile would do publicly. But it gives the sense to the planners in the region what kind of questions they could be asking within the regions that could help move their programs forward in the prevention aspect.

I'd like to do a quick walk-through of our dashboard. I'll share with you the Tableau dashboard. It's still in development, in the staging environment, and is expected to be in the public for use very shortly. What you see on the screen is the dashboard that shows the six measures we've been able to visualize. Essentially this is the landing page. It is going to exist within a bigger dashboard production from within the agency. This potentially is one screen the user would see and it is specific for the opioid project monitoring metrics and the target audience really are the planners and our partners in the ACOs.

The top here has a couple of dropdowns. The first dropdown lists the various measures available for users. The second dropdown lists the geographies they could drill down to. The third you see the dropdown specific to certain measures so it will not be active at all sites.

The first measure is around provider availability. This particular measure refers to our available providers, our buprenorphine waiver providers that are authorized by the DEA to prescribe medication to treat opioid use disorder. This is one of the biggest initiatives out there to get lots of physicians, most of them primary care physicians, internists, and some physicians' assistants, etc. to qualify so they can prescribe treatment for those affected with opioid use disorder. It provides you with how many providers there are within that region. In this case we can select one of the regions called Healthierhere and this comprises the Greater Seattle area, King County, which has perhaps most of the Medicaid population. It's the largest county in Washington State in terms of population. This particular measure lays out the different kinds of providers—physicians, nurse practitioners and physician's assistants that can be waivered and how many they have available in their area. King County fortunately due to its urban nature and population is very adequately served by providers who can prescribe the medication for OUD.

On the bottom there is also an area where trending is happening for the past four quarters. Beginning in the third quarter of 2017, how does this measure look and how has it improved. This actually shows you how many more providers are actually getting the DEA waiver so they can start treating Medicaid enrollees that have OUD.

Similarly another provider measure that our stakeholders felt strongly about was you could have capacity but what if they're not actively treating the Medicaid population, and that it would be more helpful to get more of these provider waivers to enroll in the Medicaid system. This metric basically provides that. It takes a slightly different geography that is more rural in nature. You can actually see the county-wide difference in the number of providers who are actually active and actually prescribing these treatments to the Medicaid population.

Again in the bottom you see the trend in the various counties. We have seven counties comprising this particular region and how they have been doing with prescribers actually prescribing to the Medicaid population.

One of our treatment metrics that stakeholders felt strongly about was who is getting what kind of medication to treat opioid use disorder. This again is visualized where each treatment modality is displayed. The two primary treatment modalities are methadone dispensed in Washington state in methadone clinics, which is here, and the second modality most highly used is buprenorphine/naloxone combination, which is marketed mostly as buprenorphine. So these are more easy to prescribe primary care providers certified by the DEA to prescribe. You see how many people in this region are getting that type of treatment. So these kind of metrics essentially help the planners. But the ACHs focus on certain type of providers. Community agencies are in the forefront to improve a targeted area.

Another example of a very targeted metric is the continuation of pharmaceutical therapy for again the same opioid use disorder treatment. It shows how many people you got onto the drug but how many people are actually sticking to the therapy. This is again a very narrow focus for those planners in those regions to focus, talk to the providers, and share some of these insights. Ultimately the intention is they use this type of information to improve their scores, which are pay for performance scores to which financial incentives are attached.

In the interest of time, some lessons learned. We definitely had a lot of challenges and we had to extend our engagement to 14 months. We had to literally get focus groups of our partners. We have four of our ACHs participate to be interviewed and share what's most important to them.

Another big challenge was how to work within the Medicaid agency and the enterprise teams within the agency. Our team happens to be a very small analytic shop with functions that include supporting a lot of these newer initiatives including the transformation project. So we still have to work with our enterprise partners within the agency and meet all the requirements. That also takes a long time and somewhat unforeseen challenges.

Some of the requirements that our partners thought were useful could not actually be presented in this kind of dashboard because of privacy concerns. There was a lot of need to drill down to demographics and specific provider-level information, which was not feasible due to the privacy concerns. So it is still a constant struggle and we are still working with our enterprise teams to ensure the products that are in public and aim for a specific target audience to meet the privacy and all the rules that govern all the data projects coming from the Medicaid agency.

Finally, this dashboard was very context-specific. There were lots of initiatives that are specific for which it would not be feasible to show the data. One example that may be uniquely Washington state-specific is we don't have needle exchange programs and they are somewhat in the forefront of prevention in the context of opioid projects. But unfortunately, due to the nature of the data they collect, which is completely anonymous, they really cannot go up on a dashboard like this, and it makes it unsuitable, although where initiatives are done by entities like those needle exchange programs you'd want to know the outcome. Unfortunately as the stage agency we are unable to provide that kind of service. So our partners, ACHs, are doing that themselves.

So it will be released shortly. We will be having data going as early as February 3, 2019 to stay with the spirit of the dashboard, which is rapid cycle monitoring. So hopefully it should be out there in the public and you all will have a chance to take a look at the dashboard. You have my contact information for questions or clarification.

Q&A

KEITH BRANHAM: We'll move into the Q&A session. Tracy Yee from IBM will facilitate.

TRACY YEE: We have some great questions from the audience. The first one is for New Jersey: *Does your dashboard have claims processing data and is it publicly available? For example, do you have utilization data for imaging service for your Medicaid beneficiaries?*

FELICIA WU: Two points. One is that as Brian mentioned the claims processing we showed here is on a staging site that should hopefully be up on our regular NJfamilycare.org website within a week or so. Then with service utilization we will actually address that in the second phase of this project so we're just trying to wrap up the initial five or so categories of data we mentioned before, then we'll look at service utilization probably in this next 12 months.

TRACY YEE: For either presenter: *Can you speak to the accessibility of the dashboard? For example, for those with vision impairment or who may not be able to easily move a mouse to navigate filters. Some audience members mentioned this has been a barrier in making dashboards public. Was this something you also had to address?*

BRIAN LEE: We worked with a member of the Commission for the Blind and Visually Impaired in New Jersey and there are some issues. Tableau has some features that work with things such as screen reader software. However, we felt that you still really need to design dashboards specifically for screen reader software. The website we showed you uses Bootstrap so that seems to bef fine with this software, and there are things you can do in your web pages to facilitate the tab actions and to help them understand how to use the dashboards. We also try to create screen reader-specific dashboards and then kind of hide them but make them available to screen reader software on the same page as the other dashboards. You really have to take an additional step. It's not out of the box ready basically, we found.

TRACY YEE: *Has Washington State had to deal with accessibility?*

SHALINI PRAKASH: We had part of our agency government processes, the National ADA Compliance, and there are some online tools also which we tapped into that give you scores on how the dashboard does, especially for the visually impaired audience. That's about what we had to do to make it a little more accessible.

TRACY YEE: Another question for both states: *How did you decide that your data are reliable enough to include in the dashboard?*

JOSEPH TRANO, NEW JERSEY (Manager of Business Intelligence, Division of Medical Assistance and Health Services): We have a fiscal agent that processes all of our claims and recipient data, through a variety of auditing, and we have offices here that ensure that we're receiving the vast majority of claims for services and that we're receiving the correct data for our recipients. So we have a high confidence in our data.

SHALINI PRAKASH: It's a similar situation where we tap into the data from our data warehouse where the Medicaid claims and encounter data resides submitted by the MCOs. It undergoes extensive auditing before it is housed in the data warehouse, so delays and issues with fields that are incomplete, etc., are already taken care of. Unless they pass muster they don't end up in the data warehouse. So we have high confidence in the services provided and the claims and encounter data that resides in the data warehouse.

TRACY YEE: Another question to both states: *Does your dashboard connect to a live data source or to data extracts?*

FELICIA WU: All of our data is connected through data extracts only.

SHALINI PRAKASH: Our data is connected to extracts as well but the processes, like the SAS programs, etc., that are under the hood of those extracts are automated and are run with the click of a button.

KEITH BRANHAM: These are some high-level key takeaways across both presentations, without detail because of time:

- Identify important topics and focus on those areas of greatest need.

- Understand the limitations of your data and how this can impact your dashboard.

- Understand that leadership and other priorities change over time and try to keep them involved while during the development of your dashboards so you continue to have their buy-in.

Thank everyone for participating. We have a survey to complete. We need feedback to improve these webinars. For more information and resources contact us at Medicaid IAP@cms.hhs.gov.

[end of tape]