

## Using Data to Identify Housing Needs and Target Resources:

### Audio-Only Transcript

November 7, 2018

#### Welcome and Background

Hannah Dorr: Good afternoon, everyone, I'm Hannah Dorr from NASHP and welcome to today's webinar. Before we get started, I'd like to go over a few logistics. [Logistics]

Melanie Brown (MB): Welcome, everyone, to today's webinar on Using Data to Identify Housing Needs and Target Resources. I'm Melanie Brown, Technical Director at CMS in the Center for Medicaid and CHIP Services, CMS. I work with the Medicaid Innovation Accelerator Program (IAP). We're going to kick off today by trying to get a better sense of who we have joining us in the audience. With that, I'm going to turn it over to Melanie Starns with IBM Watson Health, with a polling question.

Melanie Starns (MS): Hello and thank you for joining us. So who is joining us today? Please take a minute to mark one of these organizations on your screen. We'll give you a couple of minutes to do that and then we'll close the poll.

Who is joining us on the webinar today?

(Organizational Affiliation)

- State Medicaid agency
- State housing agency
- Other state agency
- Regional or local housing organization
- Regional or local support/service provider
- Managed care organization
- Advocacy organization
- Contractor/vendor
- Other

Looks like the responses have slowed down so we will close the poll and we can see that there are lots of folks from state housing and Medicaid agencies, very appropriate for this webinar, and then a number of local and regional housing authorities and organizations in advocacy. So we have a good mix of people on the line. Thank you for taking the time to join us, we really appreciate that.

MB: The purposes of today's webinar:

- Learn the advantages of using data to identify needs and prioritize housing resources
- Understand the range of data systems available for data matching and targeting
- Become familiar with examples of cross-system data matching and targeting and their applicability to your state

Today's agenda:

- Brief Overview of the Innovation Accelerator Program (IAP) Medicaid-Housing Agency Partnerships Track
- Framework for Cross-Systems Data Analysis and Targeting
- States' Experiences with Data Matching and Targeting:
  - Connecticut
  - Michigan
  - Massachusetts
- Questions and Answers
- Key Takeaways
- Closing Comments

To provide background, IAP has offered technical support to two cohorts of states – one in 2016 and one in 2017. In 2016 the states were California, Connecticut, Hawaii, Illinois, Kentucky, Nevada, New Jersey and Oregon. The 2017-18 cohorts were Alaska, Massachusetts, Michigan, Minnesota, Nebraska, Texas, Utah and Virginia. Those states received technical support using standard tools to help them identify goals and current resources, and create an action plan that was really focused on how to expand access to community integrated for Medicaid beneficiaries that required long-term services and supports (LTSS).

These states were also able to participate in many cross-state learning opportunities. The IAP initiative is really focused on the provision of intensive technical support that is tailored to meet the needs of the state as well as facilitating the exchange of ideas and learning between states.

The key accomplishments of the states were:

- Establishment of cross-agency partnerships and ongoing workgroups focused on Medicaid-housing partnerships.
- Better alignment of multiple existing housing and health care initiatives.
- Development or expansion of data matching to target resources and examine costs and outcomes. Data sources used by states previously include:
  - Medicaid Management Information Systems (MMIS)
  - Medicaid managed care data
  - Homelessness Management Information Systems (HMIS)

So I'm going to stop here for a polling question and turn it over to Melanie Starns.

MS: Polling question: Do you or your staff, department or agency have any experience bringing together data from across different systems?

- Yes, we use cross-systems data frequently
- Yes, we did a one-time match
- No, but we are looking at options for cross-systems data matching
- No, we have no experience

Over half the people on the line are actually doing data matching frequently. That's impressive - good for you! I hope you find it a useful tool. One-time matches, just under 10%, and about 38% said no, but you're looking at it, so this is a great way to get more information and hear what other states have done.

Hopefully today will spark your thinking. Now we will begin the meat of our program. I'm going to turn it over to Kim Keaton, Director of Data Analytics with CSH.

## Framework for Cross-Systems Data Analysis and Targeting

Kim Keaton (KK): Director, Data Analytics, CSH. It was really great to see the results of that poll. I am pleasantly surprised by the 50% of you that say you are frequently using cross-system data in your work. Hopefully this will be useful for you along with the other 50% that have either done this one time or are looking into it or have never done it.

First we're going to go through some of the reasons why it is a wise decision to use data to identify specifically housing needs and to use that data to target resources such as housing with supportive services. You have four things listed here. First, it can help stakeholders understand the complexities of the target population, both medically in terms of their medical needs and costs, and then socially in terms of their housing needs. This information can help address policy concerns such as rising healthcare costs and rising homeless population numbers as well.

Secondly, it can help identify members of a target population to prioritize for housing. This is specifically if you're looking to target a specific housing resource to, for example, high utilizers of health services. Looking across systems can help identify the members of the target population for that resource.

Third, sharing data across systems can help improve coordination overall. Of course there's a lot that goes into the word coordination, but better and improved coordination between the health and the homeless and housing systems can hopefully turn into improved health and housing outcomes for Medicaid beneficiaries, homeless clients or patients. One example is improving discharge planning for people discharged from hospitals and/or improving the care that homeless patients are receiving once they exit.

Finally, sharing data across systems, specifically the right data on utilization costs and the costs of housing and services, can really help make the business case for that supportive housing intervention and can often show a potential return on investment when you build in some assumptions on what housing can do to offset or lower health costs.

When we consider what overlapping systems look like, it is helpful to think about the impact a lack of housing has on a person's utilization of the health, homeless, corrections, behavioral health and other systems. In this diagram, it is a schematic that shows potential overlap between looking across the health utilization data, homeless services data, and potentially jail data as well with an intersecting population at the center.

We know that a lack of housing results in the inability to manage chronic conditions appropriately along with a host of other related health impacts. We know that the very nature of homelessness and prevalence of mental health and substance use disorders in homeless populations contributes to justice system involvement for this population. Therefore, thinking about this from a social determinants of health perspective, really addressing the housing needs of the overlapping population, can improve some of these other system impacts.

In the first poll where people said they were coming from it didn't seem like a ton were from homeless services or housing agencies so I'm hoping this will be helpful for folks. When we say the acronym HMIS what we mean is Homeless Management Information System. This is the HUD-mandated database—and

the software differs by region—that each Continuum of Care (CoC) is mandated to maintain. The CoC are regional corrections and homeless service providers that get funding from HUD to provide those services. They usually map onto counties, sometimes cities or regions, sometimes even statewide.

They are all required to capture data across different providers and different partner agencies into one system.

The type of data that a HMIS system contains is really service utilization and the types of services are shelter stays, outreach contact, entries and exits to different types of housing and reasons for those exists. These data can really help enhance the picture for Medicaid beneficiaries in terms of providing more detailed information on an individual's homeless status and show where they're staying, at a given shelter, for example, or given housing development, so health plans can really more effectively manage care for their members by knowing where they are and deploying staff as needed.

Homeless data is different from health data in that it is generally not HIPAA-protected. That doesn't mean it's not protected at all but it just doesn't fall under HIPAA. CoC's always have releases of information that are fairly limited and that might need updating for specific data sharing purposes. I'll later go through some tips for how to look for that.

When it comes to looking for a specific target population or prioritizing housing resources for a target population there are three main methods used that are listed here. The one on the top is one I'm mostly talking about today and that is where we match across systems to develop a list of priority individuals. You can see how this might play out in a community by looking at how potentially a list of individuals can be flagged in a system for referral. Or you can have a more proactive approach where service providers and outreach teams partner to really find those eligible members in the community.

The second way listed is another data-driven way in which, for example, there is an integrated data system or county data exchange but they can't share any identified administrative data. A couple of communities have used deidentified administrative data to develop predictive algorithms that someone is a high-cost user. One community has something called a triage tool, actually in Los Angeles and another county in California that they used when folks show up [for service]. If folks fall into a certain range [based on the results of the triage tool] then they're referred for a specific initiative.

The third way is actually the way that's used to identify and prioritize people for housing in nearly every homeless system across the country by the use of an assessment tool. This is because all homeless systems are actually required to perform an assessment on people experiencing homelessness to assess their vulnerability and housing needs. The vast majority of the assessments—and you'll hear names like VI-SPDAT or VAT, those are some of the acronyms of the types of assessment in use—they're all subjective on the part of the assessor in writing down and capturing information and the information is self-reported by clients.

It's worth noting that these types of assessment tools that are in use in homeless systems can be enhanced by match administrative data that can help prioritize high-cost users for specific housing interventions. In fact HUD [U.S. Department of Housing and Urban Development] in their Homeless Coordinated Entry System guidance specifies that match administrative data is one of the ways that folks can be prioritized for housing along with vulnerability and other dimensions.

I'm going to talk about tips for getting started. Hopefully this will give you some ideas on how to look for opportunities in your community or state. After me you'll hear some great state examples of how they have actually achieved some of this work matching health and housing data.

First, you want to see what's going on already and see if you can leverage any existing agreements by conducting a scan locally to see what's happening already. Can you build on any existing data sharing arrangements? Who has access to any data that's already shared and who do you need to talk to? If your resource has an integrated data platform or a real-time data exchange you probably know that already, and that's a great place to start. You may not have exactly the right data that you need but it's a great place to start to also lay the groundwork for getting to the right types of data that you want.

So familiarizing yourself with basic confidentiality requirements often feels daunting to people but it doesn't have to feel that way. There's a few things to remember. When it comes to sharing data between the homeless, housing and health sectors, less protected data such as HMIS would generally flow or be sent to a higher protected data. Again at the health level, though it's totally worth noting that with the right agreement such as a business associate's agreement the sharing can occur in the other direction as well.

Secondly, review those releases of information signed by homeless clients that are presenting as they're being entered into HMIS data system. They may need to be revised but there are some communities out there with really pretty flexible ones that don't always have to be revised.

Third is substance use data to be included in the matching. So if it is, you need to consider whether requirements under 42 CFR Part 2 apply. For those that don't know what 42 CFR part 2 is, it regulates the use of substance use disorder information. The biggest difference between 42 CFR part 2 and the HIPAA privacy rule is that part 2 requires that consent be obtained before sharing substance use disorder information. It also applies specifically to federally assisted programs defined within the reg. It's really important to note that this does not include self-report substance use data gathered as part of an assessment, so those homeless system assessments I mentioned previously usually would not be included under 42 CFR Part 2.

Fourth, if you're at the state level you'll want to take note of any state statutes that either facilitate or bar data sharing. Some states have protections on health data that go above HIPAA. Other states have statewide data prohibitions on other systems. For example, Nevada doesn't allow broad sharing of criminal history information. There are also on the other side examples of places where state statutes have been enacted that actually facilitate data sharing at the regional or county level. Florida is an example of that. Another one that didn't make it onto this slide is in California. California AB210 authorized data sharing on the county level for the purpose of coordinating housing and support services and ensuring care for homeless populations in addition to other populations. It's important to note these don't actually change the law but they do allow for some comfort at the county or regional level to share data.

Finally, you'll want to look for analytic capacity or who in your data matching effort. Matching data across systems requires some skills in matching. Usually that's using a probabilistic algorithm that involves a specific skill set or ease of comfort with matching programs that might be out there. You'll want to look around to see who might have that skill set and be interested in the work. Some counties or states employ a research and analysis unit to look at state and local data, while others might have a university that performs research and analysis on the same data that act as a partner in that work. Both those options are worth pursuing. I've seen both options happen in places.

MB: A couple comments/questions came into the chat box. Question: Beyond just identifying eligible clients and doing referrals, do you have any suggestions for actually sharing pertinent information about

clients between orgs? For example, in an asthma intervention, if a health worker goes into the home to do education and wants to provide information with the housing assessor about need in the home.

KK: That's a great question. I would say that a great resource for that particular, really health-level information—what we're talking about here is really a precursor to getting folks in the home. There's an organization called the Center for Complex Care Needs that actually has done a lot of work in that area. I would recommend taking a look at their website and resources.

## States' Experiences with Data Matching and Targeting

MB: We will have more time for questions after our upcoming speakers. Today we have Steve DiLella, Connecticut Department of Housing, Paula Kaiser VanDam, Michigan Department of Health & Human Services, and Emily Cooper, Massachusetts Executive Office of Elder Affairs. We're going to hear three specific examples from states about how they're using data matching and targeting. First up is Steve DiLella.

Steve DiLella (SD): I work at the Connecticut Department of Housing and in my role I manage most of the homeless population, whether it is a shelter, rapid housing, coordinated entry, permanent supportive housing, as well as our Section 8 and our state rental assistance programs. Here in Connecticut we have certainly had a solid history over the past 22, 25 years of creating numerous units with the Board of Housing across the state really to address the issue of homelessness. As we've become more experienced looking at supportive housing, we started to realize what is important is trying to determine how to best utilize that really service-intensive unit to ensure that the housing and support services we provide go to some of the highest utilizers of the system.

About 10 or 12 years ago in collaboration with the Corporation for Supportive Housing, the idea of data matching between our homeless information and other state systems began to come around, because we did want to really identify folks that were high utilizers of both the Medicaid system as well as our criminal justice system to see if we could identify those folks that are really cycling back and forth and that may get lost between systems. And if we could provide those cohorts with supportive housing we believe we would have much better outcomes for those households that we serve.

While we were thinking about these data matching processes, we had four questions we really wanted to look at and see how best to really create our system. Here are our major questions:

1. Why is data driven targeting important for identifying individuals for supportive housing?
2. What systems' data should be utilized in determining your approach?
3. What data matching strategies should our state consider?
4. How can data matching efforts be integrated into existing systems of care?

When we look at that first question we realized that data-driven targeting was really important because we realized that there were these folks that were just caught between systems. We have a really strong interagency partnership here in the state of Connecticut. We have an Interagency Council on Supportive Housing, which has 10 state agencies that sit together. So in discussions about supportive housing we talked about the interaction of one household that may go between four or five or maybe even seven or eight of our state agencies. So we realized there is quite a costly overlap of services. So if we could identify those folks really going between all our state agencies, we were better able to target the

resources and better able to serve them. That was one of the prime reasons we wanted to go and attack that.

When we looked at strategies, we really tried to figure out what were the systems in which it was possible to do data matching. We all know that it is difficult to match certain systems, but here in Connecticut we have the one advantage of having a single HMIS system, so we have been able to reduce our numbers of continuing care down to two, and as a result we were able to create just one platform for the entire state. We are a little bit weird because we do not have a county form of government so everything is managed at the state level. That also really assisted us in being able to put everything on one HMIS platform.

From there then we can look at our other sister state agencies to determine what are the other data systems we can look at. Our two biggest ones to start with were Medicaid as well as our correctional systems. This has actually been helpful for us because this was the first foray into really working together in an interagency collaborative. It really helped us as we started to think about a coordinated entry system on how we'd be better able to integrate all these different systems to be able to identify those folks as they come into the homeless service system and which outcome or type of service we'd be best able to provide.

We all realized that our permanent supportive housing resources is our most intensive. We also realized that in Connecticut about 93% of the folks we house in permanent supportive housing stably housed throughout the first year of their engagement in the program. In fact, like I said we started about 25 years ago with permanent supportive housing and we still have a bunch of individuals that have been housed for the entire 25 years. So we know when you provide a permanent rental subsidy with services, the outcomes are quite good. Our recidivism rates are quite low, so we know we really want to be able to really use that resource and be able to deeply target it to those individuals that seem to have multiple barriers to housing.

Like I said it also really assists us in working with our coordinated service delivery system. Because we realized that these are individuals that are bouncing back and forth between systems. So anytime we can coordinate between systems we can provide a better level of care. Especially when you look at the permanent supportive housing model in which we really focus on housing-based services, the main goal there is to ensure that the person stays stably housed. Because as Connecticut is a housing first state, we believe that when you provide somebody the basis of housing all the other outcomes will have a much better chance of improving. And our case managers in the supportive housing system then are able to connect better with primary healthcare, with mental health, substance abuse treatment, employment, education. Using housing as a basis has allowed us to start it as a jumping point for stabilizing the individual lives we serve.

And obviously we want to spur these lasting system changes. So we know that when we keep somebody stably housed, their costly institutional stays decrease and stays in patient settings or institutional settings also decrease. So we've been able to really push that system along by looking at data matching technique.

Here are the systems we really look at when we look at data:

- HMIS, which we're lucky enough to once again have it on a single platform to look at the entire state.
- State Medicaid System, which also has all the data for the entire state, which also will have information from our hospital systems.
- ERs as well as ambulances.
- Correctional institutions. We have an agreement with them to be able to tap into their data and look at those folks that go back and forth.

So back in 2013 we applied for a federal grant, the Social Innovation Fund, in which we proposed a data match between our HMIS and our Medicaid system to provide permanent supportive housing to approximately 160 households. In order to get started with that we had to do the original data match between those two systems.

In the beginning, as anybody knows who tries to do data, there are always struggles of really setting up the processes to be able to communicate between state agencies and be able to share that data in a way that is sensitive to the HIPAA rules as well as some HMIS rules. As a result of that it took some time to get our data use agreements up and in place between our Medicaid agency and HMIS provider. We also needed to ensure that we had to redo our releases and information for the folks in HMIS to really allow us to be able to share the data from the HMIS if it allowed for a match to permanent housing or a housing resource in general. By creating that release rule it allowed us to do this data matching in a much more fluid manner and able to move forward with the ultimate goal of housing folks based on their HMIS data.

When we did that data match for the first time about five years ago, the data set included about 8,000 individual in HMIS and about half of those folks were also matched in our state Medicaid system. Then what you see here is that really those high-cost utilizers—the top 10%—costs in the Medicaid system are an average of about \$67,000 a year, almost \$68,000. There were also some really high-cost users that we really wanted to see if providing a permanent supportive housing subsidy or resource would be really effective to them.

When you look at high-cost users, we really wanted to figure out where they were, how often they were also staying in shelters, and what types of services through Medicaid were they using. As you can see here, those folks who had a Medicaid cost over \$20,000 annually, a bunch of those folks, over half of them, had more than 31 days in shelter and almost a third of them had almost two months in shelter. You're starting to see these are folks that have multiple barriers to housing. They are not the ones that are quickly self-resolving. Again this is out of those homeless situations.

When you look at the types of Medicaid interventions or at least healthcare interventions that we saw in this first original data match, you see a whole lot of ER visits. You have 78% or three-quarters have three or more and nearly half had more than six. We also see high numbers in terms of inpatient usage and also something that is really important is looking at chronic conditions and how many folks have chronic conditions. Nearly half our folks had at least one chronic condition.

At this point we have one household that accrued almost \$60,000 in Medicaid costs over the course of the year. So if we can provide permanent supportive housing, which in Connecticut with the housing



subsidy and support services average about \$17,000, we believe we can drag down that Medicaid cost pretty substantially by providing a stable place to live as well as consistent case management.

Here are the real Medicaid uses that we saw throughout the program. As you can see, really almost half of the Medicaid costs were from an inpatient stay. So when you really think about how we can really reduce Medicaid costs, this really shows that inpatient stays were also the most expensive. If we're able to reduce those high-cost systems or high-cost levels of care by providing a permanent supportive housing resource, we believe we can see some significant cost savings.

We also see high usage for medications, the drug level there. We know that as people also stabilize we'll get them on medications that they need. So that cost may actually increase as part of our evaluation of our program.

When we came up with the 160 units for permanent supportive housing, the state actually invested in the rental assistance program that we have here in Connecticut to provide housing for these folks. Then we use the federal Social Innovation Fund to provide the services to do the case management for the households. We really wanted to see what the average decrease in costs would be for our Medicaid folks. When we did this we also wanted to look at some of our higher cost users instead of those that were simply at the \$27,000 annual cost. So when we started targeting based on the data match, we really started to look at some of those higher cost users. As a result you can see that we really started to focus on those folks that had chronic conditions. So over 80% of the folks had at least one chronic healthcare condition including hypertension, asthma, and diabetes.

What we did notice when we do this is the population tends to skew a little bit older because as folks age they'll be more likely to have some of these chronic conditions. So as you can see over three-quarters of our pilot were age 45 or older. We also had multiple chronic healthcare conditions. The vast majority of folks also had mental health diagnoses as well as some alcohol and drug symptoms and addictions.

One thing we also found out during this process was that there was also a high level of involvement in the criminal justice system throughout the lifetime. It may not have been concurrent with the actual data match, but when we did some evaluation of these households we saw that over 80% had been at least involved in the criminal justice system at one point within their lifetime. So we can really see that cohort of folks cycling between multiple systems, and how we can reduce costs by providing them a proper level of care out in the community.

Like I stated earlier, when we provide a permanent housing resource, our stability is really high, with 92% of our folks staying permanently housed, at least for one year. Then we started to look at the decreases in services throughout their stay within the permanent supportive housing. As you can see, we had decreases in the use of emergency departments as the main source of care. So we really were able to work with these individuals and families and really get them connected to the mainstream healthcare resources. We also were able to get them connected to mental health treatment as well as substance abuse treatment and any other specialty care they may need. Now the service utilization pattern started to trend in a positive direction over the course of the pilot. We started to see overnight hospitalizations decrease and emergency room visits are also decreasing, while our typical outpatient mental health and care went in a positive direction, so people are now getting their proper medical and mental health service in an outpatient setting on their terms instead of in an inpatient setting.

Now over to Paula of Michigan.

Paula Kaiser VanDam (PVD): Hello everyone. I'm Paula Kaiser VanDam, Director, Bureau of Community Services, Michigan Department of Health & Human Services. We were one of the states that participated in the second round of the Medicaid housing IAP. As we participated in that technical assistance opportunity we put together our Michigan plan, and it was really focused on how do we reduce homelessness, improve health outcomes, and decrease avoidable Medicaid utilization including emergency room utilization as well as inpatient stay. That was our ultimate goal.

We organized our work in three buckets. One was data integration, so how do we do data matching for the purposes of prioritizing and targeting for our high-cost population in terms of a housing intervention. Then related to that, based on some of the data matching, how do we improve data quality because we knew that was probably going to be a bit of an issue as we got into some of that data matching. Also, improving overall capacity.

We were ultimately moving towards we wanted to implement a frequent user pilot similar to what Connecticut just described where we identified individuals who were category one homeless who had high Medicaid costs, high ED utilization, and we provided them a housing intervention and then to be able to track the outcomes associated with that and what would that housing intervention do. We're ultimately doing data matching as a way to determine who that target population should be. But we also knew that while doing that we needed to look at some overall capacity-building things we wanted. We've been working towards looking at how do we get tenancy support services approved through our Medicaid state plan? How do we ensure that the permanent supportive housing providers in our state are providing high-quality permanent supportive housing? So, there's some work being done associated with that.

But today I'm going to spend the bulk of the time talking about our data integration and our frequent user pilot. Again the purpose of our data integration was to improve prioritization for our target population through that. We wanted to see better data quality, reduced duplication, and have higher confidence in a target population. Those were our real outcomes we were striving for through the data integration.

I should mention that Michigan is also fortunate in that we have a statewide HMIS so we are able to pull all our homeless data from one system and integrate it into our state data warehouse.

In terms of our frequent user pilot, we are excited to say we just launched our pilot last month in October. We're piloting it in three communities in Michigan. It's going to serve about 100 people. Our state Housing Development Authority has given us housing choice vouchers and we're paying for the tenancy support services through a combination of state innovation model funding as well as some general fund dollars. We've provided the communities sort of a by name list of individuals that were identified through the data matching and those lists have been provided to communities and they're currently outreaching in housing and trying to house those individuals based on the list. I'm not going to be able to share impact data with you because we're sort of new to this. Unlike Connecticut, we're in the early stages of a frequent user pilot, but we're very excited to finally be doing this and be able to do the data match.

I'll talk about what we've done with data integration and matching, and share a little bit more about the frequent user pilot. In terms of the data integration match, a little background. We have a statewide HMIS which makes things a lot easier for us. Our system began statewide around 2005. We did an initial data match with Medicaid in 2015 as part of a National Governors' Association Complex Care Initiative that we participated in. We learned a little bit when we did it back then as kind of a one-time match. It

provided us some information and started us thinking about the overlap between high Medicaid costs and the homeless population. So we wanted to build off what we did back in 2015.

We had an opportunity through our state innovation model to do some additional data integration between HMIS and Medicaid. We started that work in late 2017. We're looking to automate the match process. It's not currently automated but we're looking to do that long-term so we can help provide information back to our CoC's to help them refine their prioritization process. That's sort of our ultimate goal there.

Here are some key steps we've done through our data integration process. We had assigned DUAs between our department and the statewide administrator of our statewide HMIS. That took some time to work through logistics of that but we were successful in getting those done and were able to bring HMIS data from 2014 forward into our state data warehouse. We created HMIS ID tables that matched against our state's Master Person Index (MPI), so there were some key things that had to match in order to match against that. From there we could actually match it against Medicaid from the MPI.

Then we refined filters, identified target population, and based on that update, the Releases of Information (ROIs) that Kim mentioned within the HMIS, so the release of information from our HMIS didn't allow us to share information back in the way we needed to. So those had to be updated and re-administered with individuals.

Once we had this target list we shared that information with the three communities that were going to be participating in the pilot and got feedback from them in terms of how on target was this data. Were these individuals still homeless? Were they still on their prioritization list, etc.? We had some interesting learning from that as well.

In terms of some of the things we did, as I mentioned the match was against our state MPI. We used an algorithm. We matched first name, last name, date of birth and full Social Security number. They had to be homeless within the last two years, currently enrolled in Medicaid and enrolled in a housing outreach or shelter program within the HMIS. We also added additional criteria in order to be participating in the pilot, and that included they had to have a minimum of \$10,000 of Medicaid claims in the last three years and still homeless and interested in housing. I should mention it's only category one homeless that were eligible or that we brought into the system.

So the initial match was done. Because of the size we exported it in multiple segments in order to be able to do it. It was done manually. As I mentioned we're long term wanting to automate the process but that's not accomplished yet. That's our sort of next phase. We really wanted to just get the data in first and do the match and learn from it and better understand what we could do and not do.

In our initial match we had a 56% match. So we had some issues. We have some CoC's who are entering all nine digits of the Social Security numbers, so we know that that's created some challenges. We had one CoC where only 17% of their data records were able to be matched. We had others in the high 80%, some even into the 90s. So we had a range by CoC's of whose data was sort of better than others. That's why we talked about doing the data cleanup and focusing on some of the data quality, because there are things like that that make a huge difference in terms of the overall match.

Long term we want to standardize how we do the data uploads. We want to create custom extracts which we can run on a regular interval. We want to make the data transfer and automated process between us and our statewide HMIS vendor and provider. We want to routinely provide information from the match back to CoC's. Also we're exploring ways for our Medicaid health plans to collaborate

with our service providers to serve these mutual clients. So how do we ultimately leverage that as well. Those are our long-term strategies.

We look forward to maybe having an opportunity at some point to report back on our frequent user pilot. We're super excited to have just kicked that off last month and to serve the roughly 100 individuals that we've identified through the data matching, who we think are ideal candidates for a housing intervention and ongoing tenancy support services, to not only stabilize their housing but to increase and move towards more appropriate use of healthcare. We're super excited about that. I'll now turn it over to my colleague from Massachusetts, Emily Cooper.

MS: A quick clarification question for you first. Is this pilot just for members in managed care, fee for service or both? If it's managed care have you partnered with the health plans?

PVD: It's both. And health plans have not been at the table yet, so we did an RFP with permanent supportive housing providers to participate in the pilot. As I mentioned, we're piloting in three communities in Michigan right now, but we are in discussions about how to integrate health plans and in particular in our state, our plans have community health worker requirements as part of their contract, the utilization of those resources to continue to serve this population.

MS: Ok, thank you.

Emily Cooper (EC): I'm Emily Cooper from Massachusetts, the Chief Officer at the Massachusetts Executive Office of Elder Affairs, which is a little bit odd that we're not really focused on seniors or IAP. I actually chair the statewide committee of our version of the Interagency Council on Housing and Homelessness committee on chronic homelessness and homelessness among elders. I have been working on both issues.

I would say as you're going to hear every state is a little bit different. Our experience, history, context is different than in Michigan or Connecticut. We have 15 CoC's as compared to the one I think I heard in Connecticut. We have no data warehouse so we have 15 different HMIS implementations. That makes things definitely a little more complicated. And what we did with the data as part of the IAP was a lot less technical, probably a little more basic. We were just getting our feet wet and it was definitely a good way for people to start. I would say though it was very small and in retrospect very simple, it's had a very large impact.

To set the stage a little bit, we did participate in the most recent round of the IAP. Our IAP team included not only our Medicaid again known as MassHealth and our housing agency, but also key leaders from our state Administration and Finance Agency and our Interagency Council on Housing and Homelessness. I really want to underscore that it was extremely helpful to have high-level leadership involved coming to the meetings, coming to the onsite meetings in D.C. and here in Boston. When you have administration and finance, for example, who are the money people at the table, it's a lot easier to have some of those conversations and to get people to move ahead.

All the parties were aligned coming in that we really wanted to work together to figure out how best to serve our target population. We spent some time figuring out who that was. We really were looking at people who were chronically homeless and who were high utilizers. We actually spent some time talking about is it high utilizers of healthcare or high utilizers of public systems overall. We wanted to make sure we were addressing high utilizers and cost across not just healthcare utilization.

The other thing that was in play is that the state has a very close relationship with the city of Boston as well as other cities, but the city of Boston has actually set a goal by the administration of ending chronic homelessness and the mayor has actually designated a specific staff person to work on ending chronic homelessness. If you look at our numbers across the state in chronic homelessness, about 12,038 individuals who were chronically homeless from a point in time last year, 43% of them were actually in Boston, so they had a large number of chronic homeless living in the city.

We have a history of collaborating on events named surges where we have brought together housing and social services, particularly those funded by Medicaid, together on one day. We prescreened everybody and brought people there, and basically they walk out with an apartment and hooked onto Medicaid services with a case manager and enrolled in what they need to be. So we've had a very successful history of working with them (the state). We had people who were key leaders in the Medicaid agency attending, participating in and volunteering at many of these events that were for chronically homeless people and seeing how the Medicaid products themselves were or were not working for the population.

The other thing we'll hear about in a second is that the city of Boston itself has created a by name list of chronically homeless persons and is actively case conferencing, so we were able to leverage this relationship.

Beyond that, MassHealth, the Medicaid agency, has historically been committed to addressing homelessness. In 2005 there was a pilot developed with a long acronym called CSPECH, Community Support Program for People Experiencing Chronic Homelessness. It allowed Medicaid to be a billable service for some of those things that were a little bit intangible, like the special expertise that people have who are homeless providers and working with chronically homeless people who are searching for housing, negotiating with landlords, addressing barriers they may have to housing. Then once they find an apartment moving in and learning things like what needs to be refrigerated and how you don't want to have all your friends over all the time in the middle of the night and leaving the stereo on and leaving. Then continuing on to stabilize that person in housing who may not have been in housing for a while.

So these services we see as very unique. Although they are offered as part of a healthcare foundation and in conjunction with healthcare, they're specialized for CSPECH providers. That began in 2005 with the pilot and it has since then expanded to other MassHealth Medicaid products, managed care products, senior care products for seniors, and we're trying to get this so it would be available to any chronically homeless person who could be on Medicaid. That's really shown a commitment that the state had early on in addressing chronic homelessness.

As part of the IAP we had great help in putting together this pretty driver diagram on your screen. It really helped us hone what we wanted to do with our time and our technical assistance. It's within this context that we decided to focus on two populations. One, individuals who are chronically homeless and high utilizers of healthcare. Two, homeless families that are high utilizers when compared to other Medicaid families. That distinction is because we wanted to make sure the homeless families were not always the highest utilizers but they were if you were comparing them to a cohort of non-homeless families on Medicaid.

We first decided to tackle the individual since there was an existing data sharing agreement between Medicaid and the city of Boston from those events I talked about, those surges. That was sort of an easier lift and so we decided to start with that.

Going into this, in general people believed that homeless people were high utilizers of healthcare, and if this is the case, then maybe healthcare agencies would be more interested in partnering around a solution. But there has been some kind of ad hoc, informal data sharing that the rumor mill had it that it was kind of inconclusive. The big shelter had shared some data with the big hospital and they couldn't find any overlap or very little overlap. So there was kind of this idea of we don't really know. Everybody kind of says they're high utilizers and we hear or we don't, but let's actually look at the data and confirm or inform this hypothesis. That's the first thing we wanted to do was figure out are chronically homeless people high utilizers of healthcare. We spent a lot of time figuring out what does high utilizers mean.

So we leveraged as I said the existing data sharing agreement we had with the city of Boston and they gave us their by name list of chronically homeless individuals and then MassHealth, the Medicaid again, looked through that list, analyzed the coverage status, the service utilization and the cost. This is not a large research study. This is not a huge data matching exercise. There are about probably 800 or 900 records. It was really a small project that we were kind of saying well, we can do this. We have the data. It's the easiest thing to do. So this really isn't looking at all chronically homeless people in the state, but we wanted to get the ball rolling and see if it would help further the conversation.

So we looked at the claims and coverage data for fiscal year 2017 and we looked at some trending data looking backwards at Medicaid to get really a picture of who was being served, how they were being served, and what the chronically homeless population looked like. Some of this is not surprising and I'm not going to spend a lot of time on the specific results and I'd be happy to share the report. I just want to highlight a few key findings.

So the average age of 53 and 81% male, I'm sure you've seen this in other states and it probably aligns with the national data. We had a large number of chronic conditions. You heard that from the folks in Connecticut and Michigan, which means this is really a medically frail population with acute needs. It's looking at not just their housing needs but once they are housed they really have medical issues as well. Studies have shown that homeless older adults often have medical problems and conditions of people 15 years or older than them, and this seems to be the case in Boston as well.

There was a recent study released in JAMA [Journal of the American Medical Association] that looked at the mortality among the unsheltered homeless adults in Boston historically from 2000-2009. They found the mortality rate was three times higher among unsheltered than sheltered homeless and 10 times higher than the adult population in Massachusetts. So, the chronic conditions was not surprising, but we have to start thinking about homelessness as not just mental health, not just substance use, not just housing but also medical to an extent. Obviously they're going and using healthcare in a different way and how we can address that in a proactive way.

Fifteen percent of the individuals have previously been enrolled in MassHealth but have lost coverage due to administrative reasons. That was something a little eye-opening and also not surprising, but we're talking about that internally. The team is still working on developing solutions to that.

We have a growing number of people enrolled in managed care and integrated care programs, which we see as a good thing. We really want managed care to be involved in a place that is worrying about them and paying attention to their costs and their needs. The average per member per month process was \$2,195. This was, I think, the most helpful part of the analysis, to put a number to it. Because healthcare providers will walk around talking about the PMPM, which if you're a houser like me, took a little while to figure out what they were talking about, and comparing that number to are they community well or

nursing facility level? What does this mean? Is this the cost we pay on duals? So in their head when we put that \$2,000 out there they ranked that number comparatively to other people in their population.

We also broke down the costs into different categories, such as pharmacy, inpatient non-maternity, and we indicated what percent of the cohort used each service. Not surprisingly the highest cost services were used by a small number of people. So when we look at the service utilization, we've had about an average of 8.4 Emergency Department visits per year but we had a cohort of people that had over 21 visits. We had an average of 2.8 hospital inpatient admissions a year and then a cohort of people who were admitted over 7 times.

The thing that was particularly useful was that we named the providers. We showed which hospitals were getting the majority of the visits, how many and the percentage. We told them how many were seeing the inpatient admissions. So we named the agencies that were actually impacted by these people's use of ED and inpatient.

We also noted that we have a cohort of chronically homeless individuals that use no Medicaid services during the fiscal year. So this kind of confirmed that not all chronically homeless are high utilizers of healthcare. Some are even non-utilizers. But a significant subset of the population is having a large impact on the system and the cost, and most of them are going to really three or four hospitals in our area. That was really helpful to see.

What did we learn from this? It was a really small exercise but it's got legs, as they say. The first thing is the lessons learned are you really need buy-in from leadership to make things happen. The analysis itself was really not time-consuming or difficult but until you have the right people and key people in leadership positions saying "Oh yeah, go ahead and do that," compared to all the other competing priorities staff have, nobody was going to go ahead and do it.

As we heard, privacy laws make the mechanics of data sharing difficult, so the city of Boston has releases signed in order to share data with Medicaid and there's a data sharing agreement, but it's not true data sharing because the city of Boston is not in a BAA [Business Associate Agreement] with the Medicaid agency with MassHealth. So we were not able to give them back individual specific information. All we could give back was aggregate signings. So that made it difficult, and sometimes colloquially it has been referred to as a data taking agreement rather than a data sharing agreement.

And perfect should not be the enemy of good. I know people say this a lot but despite the lack of specific individual findings, going back to the city of Boston, and the fact that the data is only for the city of Boston, this IAP team has been able to use this information to spur discussions with hospitals, accountable care organizations and managed care organizations and other healthcare providers around partnerships to end chronic homelessness.

So just to finish, there's so much activity it almost feels the stars are aligning. The city of Boston is trying to negotiate a BAA, business associate agreement, with MassHealth to use data to inform the coordinated entry system and to ensure that chronically homeless people are getting on and staying on Medicaid, and are getting the most services that they're eligible for. And even when they are on Medicaid, coordinating with those folks. The city of Boston meets weekly to case conference on their by name list but the healthcare provider, who may be listed in the person's Medicare record, is usually not in that meeting. So how do you start to incorporate that?

The city of Boston has used this information to also approach those hospitals. The hospitals are now being offered what they're calling a window into the system. As long as there's HIPAA compliance the

city allows the hospitals to log into their system and say “Oh, there’s Joe Taylor. He showed up in our ER. It says here he’s working with his case manager and I will contact this case manager.” They can’t write anything into the system but they can look into it.

We are working on a statewide homeless data warehouse, which I’m very jealous of Michigan and Connecticut with their data warehouses in one continuum. We are having the 15<sup>th</sup> HMIS exported into a data warehouse aggregated and be duplicated so that we can have a more robust way of doing care coordination and making policy decisions, and we’ll have a standard release of information for that.

Medicaid here in Massachusetts has just launched an accountable care organization, ACO’s model of care, and they are actively discussing housing and social determinants of housing and homelessness. They also will be given flexible services in order to address housing and unstable housing. So there are conversations about how to partner with homeless providers including the city of Boston and use this data to help do some hot-spotting and figure out where there are overlaps between who’s on the by name list and who’s on the ACO’s and how to bring them into the conversation to end homelessness.

One of the local hospitals actually spent their community benefits money that they’re required to spend on all housing-related activities including housing for homeless people. A large health plan just gave \$1 million to the city of Boston to create permanent supportive housing for chronically homeless people.

So all of these things are happening—this little analysis brought a whole set of players to the table that were not there before, including ACOs, healthcare providers, funders, a variety of hospitals, a variety of players that knew about homelessness but had never actually been active in the solution before. We may run this analysis with other continuums in other cities when they are ready to have this discussion and we can replicate it pretty easily. Now to Sue.

Sue Augustus (SA): We have a number of questions in chat. Melanie, do you want to read them out loud?

MB: There were a couple comments that came in early which I want to give our speakers an opportunity to react to. I think this came in when Kim was speaking. The comment was that it would be helpful for speakers to give ideas about the state’s role in data matching, particularly in states where public health, managed care, and CoC are all pretty decentralized at the local level. I welcome any of our speakers to react.

SD: I can answer quickly for Connecticut but it’s not going to be helpful. Everything we do in Connecticut is centralized and not decentralized. We just all work together. Like I said earlier we have no county form of government, and I chair the statewide CoC, so everything is extremely centralized for us, which I think makes it certainly a lot easier. So unfortunately I can’t be very helpful for that question.

PVD: In Michigan, our public health and our managed care, even our CoC - we have 21 CoC’s - so things are fairly decentralized here. We just decided that we felt that because we have the statewide HMIS that it would be best for us to try to tackle the data matching and the data integration at the state level, and then figure out the data sharing agreements that need to be in place to kind of give it back to the locals even though ultimately it’s their data to begin with, but they don’t have necessarily the Medicaid data in the same way. So that’s how we looked at that and went about tackling it.

EC: In Massachusetts we’re also pretty decentralized with so many CoC’s and managed care and now accountable care organizations. But our state Medicaid agency is pretty involved with all the different healthcare providers, so there’s definitely some local relationships happening but we’re really trying to



see if there's a way that we can kind of push the information out to our providers and get them to be linking at the local level, too.

KK: I would add that that is unfortunately the reality of most states. I think that the state-level perspective of Connecticut and Michigan you heard about here are pretty unique but places are more like Massachusetts. They're more like California, which has like 30 CoC's or something like that, all with different data systems. What we're seeing is there's increasingly a state recognition that there needs to be a statewide homeless and housing data source that can actually look across the state and reflect how people actually travel and use those services. You'll see more statewide data warehouses coming in the future, I think.

MB: Another chat box question was about awareness of states that have agreements with CoC's to have data from the HMIS directly uploaded to the MMIS. Also, how are state housing agencies identifying Medicaid members in the HMIS without breaking privacy laws or HIPAA?

KK: The only example I know of HMIS being directly uploaded into the Medicaid system is what you heard from in Michigan that's being worked on right now. That's not a reality really anywhere else where it's an automatic thing. With regards to how can that be done without violating HIPAA, HIPAA is about the exchange, really, of protected health information between healthcare providers and different players in the healthcare system. There are certainly provisions in HIPAA for sharing information for the purposes of coordinating care and that's what this is at the end of the day is sharing information, particularly on just identity, that a person might be eligible for a specific intervention and that is for coordinating care. So HIPAA does not bar that type of sharing. It actually provides allowances for that.

MB: Another chat box question was whether or not sharing was occurring via business associate agreements. Kim, I thought you had answered that already?

KK: Yeah. I'm not a privacy lawyer by any stretch of the imagination, but generally when health data is involved the business associate's agreement is what is necessary.

SA: Could I ask our three state speakers if they would be willing to share any of the data sharing or business associate agreements with others? We get that question a lot—I'd love to see what one looks like.

EC: I'm going to give you the politic answer, which is we have to check with legal first. If they say yes, sure.

PVD: I need to do the same but assuming they're fine with it we would be happy to share it.

SD: Yeah, I think we'd be fine. From our perspective if the state finds that it is subject to FOIA [Freedom of Information Act], it shouldn't be an issue here for us in Connecticut.

MB: A question for you, Steve, to verify the name of a grant you mentioned that Connecticut was able to update software for the data match.

SD: There were two things. There was a Social Innovation Fund grant that provided us with the motivation and the service funding to do the data match as well as to provide the permanent supportive housing. In terms of the software piece, the state actually paid for it so that wasn't a grant. The state paid for that piece but the federal grant paid for the support services for the permanent supportive housing.

MB: This question came in regarding the Housing First model. Could you please describe outcomes of your Housing First Model with those experiencing substance use disorder?

SD: We note no difference between those households that have a primary substance use diagnosis versus those that have primary mental health diagnosis, and in fact most of the households we serve are actually dually diagnosed. So there is no data difference between that. Those with primary substance or those with dual diagnosis also maintain their housing at a 90% rate over the course of a year.

When we're talking about Housing First, really we're talking about ensuring that these households are meeting the basic requirements of tenancy such as paying the rent on time and being good neighbors. So we realized that relapse is often a part of a substance use issue. Luckily when we have case managers working with these folks they're able to identify that some use may have been picked up so we can hopefully put them back into the proper channels, whether it's AA, NA or some outpatient or inpatient treatment needed to help them along the way back to sobriety. We do not remove anybody from the program if they're actively using, and that is probably also one of the reasons we have good retention rates.

MB: There was a question about how you would make a statewide HMIS work in a commonwealth state. Anybody?

EC: Just to also be clear, Massachusetts is a commonwealth. We're not creating a statewide HMIS. We will still have 16 HMIS implementations, excuse me, 15 at the CoC level. We are just creating a data warehouse for those HMIS' to be integrated into one place so it's a small distinction. I don't know how being a commonwealth plays into that.

SD: I can talk about we were in the state of Connecticut. About eight years or so ago we had 13 different CoC's in a state that's probably the geographic size of a couple of large cities out there. So we had really small areas and really small communities that had their own continua. What we saw was that by actually merging CoC's together we were able to realize greater efficiencies, such as being able to apply for more funding through HUD as well as not having to replicate the same NOFA [Notice of Funding Availability] application 13 times for a community that may be two miles down the road.

So once you start merging those CoC's you obviously have to make a choice of what the platform is, because every CoC can only have one platform. So that can be a potential start by just starting to merge the CoC's. Then when we got down to just two, obviously it made total sense for us just to all be one platform. So in a way that really wasn't driven by state decision per se. It wasn't that the state said "We all must be on one platform." It was really driven by our private nonprofit providers and the CoC personnel and the CoC leads that said this really makes the most sense, so that we can really look at how folks move across the state, because we are so small geographically.

We know that a lot of our population does move between jurisdictions, so it's certainly helpful for us to be able to look at the data on a statewide basis to really see how folks are moving, the total numbers of homeless throughout the state. That certainly has been a really important key for us to be able to look at our numbers and to use data to actually drive down the number of chronically homeless, veteran homeless, and family homeless across the state.

MB: This is one question all panelists could weigh in on. How have state legislatures been helpful in this work?

SD: We in Connecticut have a really strong homeless advocacy movement. We have a couple of organizations that their sole purpose is providing advocacy to our legislature and some grassroots support for our providers, so they really make inroads with individual representatives and senators from our state to explain how our homeless service system is doing, how it's been effective, and how investing in this system can actually save costs of other parts of state government, whether through Medicaid, corrections or what have you. Because of that strong advocacy push, we have been able to make some solid inroads in the legislature on both sides of the aisle that really support our movement and our work, and they see the results.

Luckily we've had a governor who has also been supportive and the advocacy entities have been able to work with the Governor, who will provide the necessary resources for us. In the past five years or so we've been recognized as ending veteran homelessness. We have only about 28 unmatched chronically homeless individuals throughout the entire state. So we certainly had a great partnership with elected leaders that really has helped us with the resources we needed to push this thing along.

PVD: We've not done a ton of educating. We did have one particular member of our legislature who was actually trying to propose something similar to our frequent user pilot for his specific district so we were able to share with him through the work that we were doing through the Medicaid IAP our plans for the frequent user pilot and how we were going to go about doing that. So he was extremely excited about it and asked us to keep him informed.

We are, as we continue to do the data analytics from the data match, looking at how many people, based on the criteria we used for the pilot, would be eligible and need housing. We hope in the next budget round to begin to think about how to submit an ask to either expand the pilot or begin to think about another way to go about including more folks and using that information to try to garner the resources we'll need to be able to do that. So we're just at the beginning stages of engagement with the legislature as a whole.

EC: In Massachusetts we have also not really actively engaged the legislature. Our administration has been actively engaged and has allocated resources to create a homeless data warehouse as a result of this. One of the goals of that is to put a public-facing dashboard that can help with some of the conversations with stakeholders and legislators about homelessness across the state.

MS: Emily, there is a chat box question specifically to you. Perhaps you could answer that directly through the chat box.

This is our last poll. Based on what you knew coming in, and for those of you who hadn't done this or were thinking about it, how likely is it that your state will engage or expand cross systems data matching and/or targeting as a result of this webinar? Are you: very likely; somewhat likely; or not likely at all to do that?

Looks like this is definitely the direction the states are looking at. We appreciate that and hopefully some of the information shared today was helpful and the recording will be posted to the Medicaid.gov IAP website by the end of the month.

## Closing Comments

MB: To wrap up quickly, here are key takeaways. Some state data matching lessons learned include:

- Data matching and analysis can effectively be used to identify target population needs and prioritize housing resources.
- Many data sources and systems can be used in data matching.
- Data Use Agreements are essential, and you may find it helpful to leverage existing DUAs and update those if needed and possible.
- Review privacy statutes should definitely be reviewed. Some support data sharing and others don't.
- You need agency/administration buy-in and support for success.
- Analytical staffing is essential. Consider the option of partnering with other state agencies, colleges and universities, etc.
- Data matching takes time. Don't let the perfect be the enemy of the good.

We have a new technical support initiative that is going to be starting in the new year. Expressions of Interest by states that would like to participate are due on November 15<sup>th</sup> by midnight. If you'd like more information about that Partnerships Implementation track, please go to [Medicaid.gov](https://www.Medicaid.gov).

November 15<sup>th</sup> is the due date. CMS will be holding office hour calls with interested states between November 27<sup>th</sup> and December 7<sup>th</sup>. Our state selection and state kickoff call will occur in early January and the official kickoff will occur in mid to late January 2019.

Here is contact information for speakers. If there were questions you couldn't get answers to today, please feel free to contact them with questions.

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I do want to thank all our speakers today for sharing your state's data matching experience and journey with us. We hope it has been helpful for everyone that participated today. Thank you for joining us today.

[end of tape]