QUALITY HEALTH STRATEGIES

Moderator: Laura Benzel / Dr. Ian Stockwell
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1:56 pm CT

Operator: Ladies and gentlemen, thank you for standing by. Welcome to the Disparities National Coordinating Center's Community of Practice Conference Call. During the presentation, all participants will be in a listen only mode. Afterwards we will conduct a question and answer session. At that time, if you have a question please press the one followed by the four on your telephone.

If at any time during the conference you need to reach an operator, please press start zero. As a reminder, this conference is being recorded Tuesday, June 10, 2014. I would now like to turn the conference over to Laura Benzel. Please go ahead, ma'am.

Laura Benzel: Thank you, (Tia). Good afternoon. This is Laura Benzel with the Disparities NCC and welcome to our final tenth scope of work Community of Practice webinar. The title of today's webinar is Understanding Disparities Among Dual Eligibles with Mental Health Conditions.

Today's presentation, transcript, and audio will be posted on the Disparities NCC's Health Care Community's website, as well as the cmspulse.org website

under the Resource Center tab. We would also appreciate you completing the brief survey that will automatically populate at the end of the webinar.

And please note that we'll open the lines for questions and answers after today's presentation, but we also invite you to use the chat room to submit questions and comments. We are pleased to have as our guest speaker Ian Stockwell, Director of Special Studies at The Hilltop Institute in Baltimore.

Dr. Stockwell will provide an overview of Hilltop's recent report that assesses differences in chronic disease conditions among dual eligible Medicare and Medicaid beneficiaries with a mental health diagnosis. During our webinar today, as well as during our office hours on June 18th, Dr. Stockwell will discuss his methods, including the use of the chronic condition data warehouse so that you can replicate this work in your respective states.

I'm pleased to introduce Dr. Stockwell. Dr. Stockwell, we have passed you the ball.

Ian Stockwell: Great. Thanks, Laura. And hello, everyone, and just to touch on something Laura had mentioned, I will be doing the office hours next week and this talk is going to be very data heavy and the methods are fairly complex. So if you have any questions, feel free to ask during the Q&A or at the office hours next week or just get in touch with me directly or through the DNCC.

So this talk is built on a paper that is in the final stages of editing that focused on dually eligible individuals and the prevalence of mental health conditions and what else comes along with those mental health conditions. I've tried to frame the talk today so that it's going to be most useful in duplicating these methods in your own states with your own state's data.

The Medicaid data that we used for this study is, you know, Maryland specific, but the Medicare data is very similar to what other states would be able to access through the CCW. So hopefully I do a good job of that, and I really want to thank the Delmarva Foundation for sponsoring this work.

They have been excellent partners throughout the process, especially Maddie Shea who provided a lot of great insight and proofreading, and just was very helpful in the whole process. So we at The Hilltop Institute are interested in the work of combining data sets, and in particular combining Medicare data sources and Medicaid data sources for individuals who are eligible and enrolled in both programs.

As everyone here on the call knows, these dually eligible individuals are often quite expensive, often quite sick, and often can benefit most from coordinated care programs and interventions, because of their very complex health needs.

And, you know, it's from that motivation that kind of prompted this paper and this presentation, and again, you know, I'm going to try and present this information in way that's most helpful in not only understanding what we found in Maryland, but being able to do this again in another state.

So we focused on mental health for two main reasons. The first is the most important by far and that's that individuals with mental health conditions are known to have a very high occurrence of co-occurring chronic conditions and the functional impairments that come with them.

Second and not on this slide is that we have a new capacity for identifying those mental health conditions through the chronic condition algorithm that CMS puts out, and I'll get into that a little bit in the presentation. But not only

is it an important problem, but it's an important topic that we can now address given the chronic condition guidance that CMS has put out.

We approached this issue of mental health conditions in two parts. The first was very simply to figure out what has been done on this in the past. So we hit the literature like any good graduate student does. We did a very thorough literature review, including the search tools listed here and the search terms also listed here.

So we were trying to find relevant work both published and in white paper format that talked about dual eligibles, mental health conditions, co-morbidities. We were able to find a lot of literature. It was very helpful in letting us craft the data exploration that came afterwards, and this is, you know, a best of, of what we found.

A lot of people have done a lot of work on chronic conditions. A lot of people have done a lot of work on mental disorders. We also found that people with mental health conditions are the most rapidly growing subgroup of SSDI beneficiaries and that dual eligible with co-occurring mental and physical health conditions have a high degree of care complexity and increased costs.

Good findings, findings that we kind of knew going into it, but it was really the limitations that helped us focus on the data work that was going to come next. Some of the limitations were that the combination of conditions were limited, for example when individuals looked at mental health disorders, they would focus on a specific mental health disorder, not the constellation of mental health disorders.

Even defining what those disorders were or conditions were, was fairly scattered. Individuals or researchers would use different definitions, some

homegrown, some from, you know, HEDIS or another standard. But none that we found used the CMS official definitions through the chronic condition warehouse.

Also the further drill down of the results, the more limited in scope of the study population. So these limitations really set the boundaries for the work that we were going to do using the data that we have in-house. So I'm not going to go through all of these research questions, but, you know, we had a lot of specific questions that we wanted to get answers for out of the data.

But they were all about the broad question of mental health conditions in the Medicare and Medicaid eligible populations. We were very lucky to have a very deep and wide data set to work from, so we were able to come up with these more specific research questions.

But in general we wanted to look at the individuals with mental health conditions who were dually eligible in Maryland. So we focused on the individuals in Maryland who became dually eligible in 2008. So we call them the new dually eligible individuals.

So these individuals were found to have a first enrollment span in either Medicaid or Medicare in 2008, and they also had an existing Medicare or Medicaid span before that first span. In other words, an individual started their Medicare eligibility in May of 2008, but had Medicare eligibility before that, maybe starting in 2007.

And it's the order of that eligibility, in other words if someone was Medicaid eligible before they gained Medicare eligible or vice versa that led to these two classifications, Medicaid to Medicare, meaning they were Medicaid first

and then became Medicare eligible, or Medicare to Medicaid, meaning they were Medicare first and then became Medicaid eligible.

We have done work in the past breaking down these pathways, we call them pathways to dual eligibility, and it is very clear that the types of individuals, the demographic characteristics, the health characteristics are quite different between these two. So we felt it necessary to break out our results between these two populations.

The data sources we used were primarily focused on the Maryland Medicaid Management Information System, which we have in-house. And we combined that with the Chronic Conditions Warehouse research identifiable files from CMS.

So the way that we get this Medicare data for our Medicaid individuals is we, for a given year, calendar year, that the research identifiable file covers, we send CMS a list of the individuals who we think are dually eligible for that year. And CMS then sends us the list back saying whether they could confirm each of those individuals that they were, in fact, dually eligible, being they had a Medicare eligibility span or a Medicare claim.

And then we request the full data set for eligibility spans and claims for that individual. A big note for this work is that we did not have Medicare part C, Medicare Advantage, Medicare Plus Choice data, or part D pharmacy data for this analysis. There's a long-running issue with having Medicare Advantage plans submit their data for CCW use.

The part D data was just something that we had not requested for this analysis. So those are two areas that we were missing data on. Because the process for getting the Chronic Conditions Warehouse data from CMS really focuses on

this back and forth between us and CMS on individual people who we think are dually eligible, we have an individual identifier beneficiary ID that can span both our Medicaid data sets and the Medicare CCW data that we end up getting from CMS.

Now this is key. You know, if CMS had just sent us claims and eligibility information for individuals who they thought were dual eligible without any identifying information, we would not be able to link those claims to claims or people on the Medicaid side.

You know, we could some, let's say, inpatient use on the Medicare side plus inpatient use on the Medicaid side. But we couldn't parse out the different claims and assign them to a unique person. So having that unique identifier that spans both data sets really was the main thing that allowed us to do this work.

We also have a few years' worth of archived data on both the Medicare and Medicaid side. So I'll talk a little bit about assigning chronic conditions and looking at costs, and those things were also only able to be done because we have this archive of data that we can go back to, to look for specific diagnoses or to summarize costs from claims for.

I have talked a little bit about, you know, the idea of using these chronic condition algorithms from CMS to identify the mental health conditions that we were looking for. That is a very complex process, but you can think about it in two steps. So the first is using the archive of claims and on the Medicaid side and counter information, and pulling out any claim or encounter that has a diagnosis that's related to one of the CMS chronic conditions.

Pretty straight forward. You look at a claim. You look for this specific list of conditions. There are some criteria for specific conditions limiting what diagnosis counts, in other words, can you look at just primary diagnosis? Can you look at secondary tertiary? Or does it matter? And you simply pull all of those claims and set them aside.

The next step is parsing all of those claims at an individual condition level and comparing the utilization record for that person relevant to that condition to the criteria set forth by CMS. In other words, if I pull a record for person A, and that person had a claim that had a depression diagnosis on it, but they just had one claim.

And that one claim was a carrier claim, so it was their primary care physician. That doesn't necessarily mean that we flag them as depression, because the depression criteria you have to have more claims than that with a depression diagnosis. And they have to be in different spots, for example, in-patient or out-patient or skilled nursing, et cetera.

So it's not as simple as just looking for diagnoses related to depression or Alzheimer's or hypertension, but you have to pull those diagnoses and then check to make sure that the frequency and type of those diagnoses match or exceed the criteria laid forth by CMS.

And this is a list of all the chronic conditions we looked at. You'll see highlighted in blue, the conditions that we identified as mental health conditions. So individuals that met at least one of these condition criteria did end up in our study cohort as being flagged as having a mental health condition.

We also flagged all of the other conditions and that assisted with our co-morbidities and condition pair analysis that we did towards the end of the paper. So once we've identified our people, and we've identified their conditions, then it was, you know, the classic data summarization, data exploration work that many people are good at and many tools can handle.

We can identify dollars that go towards a specific condition, because we have individual-level claims and individual-level conditions. We can identify co-morbidities, because we have conditions at the person level. And this is very simple stuff. This is not fancy statistics, this is just summing and doing some univariate analysis at a fairly entry level.

So now for the findings. Shown here is the demographic distribution of both our total study cohort and the subset of our study cohort that had at least one mental health condition. You'll see them broken out between the total study cohort and the Medicaid first individuals, and the Medicare first individuals.

And what you'll see is the percentage in the total study cohort, male and female, white or non-white, urban or rural, young versus old, and comparatively the percentages that fell into each of those demographic categories, and also had a mental health condition.

So you can see here that the ratio between men and women for individuals with a mental health condition was about equal to individuals in the total study cohort, although females were more represented of those individuals that had a mental health condition. There was a higher proportion of white individuals that had a mental health condition than in the overall study cohort.

There was a slightly higher proportion of rural individuals that had a mental health condition. There was also a higher proportion of younger individuals,

so individuals under the age of 65 that had a mental health condition. On the bottom, the gold row, you see the total percentage of individuals in our study cohort that had a mental health condition, a little over a third.

In other words, of the new dual eligible in Maryland in calendar year 2008 a little over a third of them were found to have at least one mental health condition. While that third of the study cohort was significantly different, so this is a statistical term, significantly different, in all of these demographic categories than the total study cohort, you can see that by and large, individuals with a mental health condition were still demographically mixed.

And while significantly different than the overall study cohort, I would argue that they weren't really that much different. Next we'll look at the breakdown of the specific mental health conditions, also between the total study cohort and the Medicaid first and Medicare first individuals.

You can see that by far the most prevalent mental health condition was depression. That condition was found in about 25% of the total study cohort, but found in 65% of the individuals who had at least one mental health condition. So this was by far the most prevalent condition we found, followed by bipolar and anxiety disorders, schizophrenia, and then the last three, conduct, personality, and PTSD were fairly rare but still found in, you know, a fair amount of individuals.

Just for clarification, the way that you can read this chart the N is the total number of individuals, percent all is the percentage of the total study cohort that N represents, and percent mental health is the percent of the total individuals with at least one mental health condition that N represents.

Next we'll talk about the cost associated with these individuals. The first thing that you'll probably notice is that the Medicaid first individuals have dollars in a lot more categories than the Medicare first individuals do. This is simply because Medicaid offers a larger basket of services than Medicare does.

So for those individuals who are Medicaid first, so we're looking at their Medicaid costs, these are costs before they became dually eligible, we're finding dollars in things like home health services and pharmacy, and capitated payments to managed care organizations that either weren't covered or we didn't have data for the individuals for whom we were looking at their Medicare claims records for.

You can see here that regardless of payer, individuals with any mental health condition were more expensive than individuals without a mental health condition. This was significant in both cases, but extremely large for the Medicare first individuals, where an individual with at least one mental health condition is almost twice as expensive as an individual with no mental health conditions.

This is not to say that the mental health conditions are causing, this is not a causal relationship. I'm not saying that the mental health condition is causing those individuals to be significantly more expensive. This is a simple summary of the data. It is quite likely that due to the high occurrence of co-morbidities for individuals with a mental health condition, that could be driving the costs.

It could be ancillary care or somatic care related to the mental health condition, et cetera. But the numbers speak for themselves. But again, we did not do a causal analysis. You can see that on the Medicare side, the type of service that accounted for the majority of the difference in cost between the

non-mental health and mental health populations was in-patient care, and that was followed by nursing facility care.

So both of these categories were about twice as high for individuals with at least one mental health condition as those without. On the Medicaid side, pharmacy costs were about twice as high for individuals with a mental health condition. And the nursing facility costs, as with the Medicare claims, were also significantly higher. And you'll see the cost difference is highlighted blue.

So now we'll talk about the co-occurring conditions for individuals with a mental health condition. When I had mentioned and talked a little bit about the Chronic Conditions Warehouse algorithms that we used, I had mentioned that we flagged all of the conditions that we had algorithms for, because we figured why not, right?

It can only serve more explanatory - give us more explanatory power, and we have those definitions now from CMS. So we did. And what we found was by far the most commonly occurring condition for individuals with a mental health condition was hypertension. This happened on both the Medicaid first individuals, who tend to be the younger, poorer individuals, as well as the Medicare first individuals, who by and large are older.

You'll see that on the Medicaid first side, about 35% of individuals with a mental health condition also had hypertension. On the Medicare first side, over 80% of individuals with a mental health condition also had hypertension. From there the co-occurring conditions get a little bit different.

Tobacco use and diabetes, arthritis, on the Medicaid side, anemia, Alzheimer's, and some heart issues and blood issues on the Medicare first side. You'll also notice that, in general, individuals who were Medicare first

were much more likely to have a co-occurring condition, as well as a mental health condition.

This chart builds on the prior chart and talks instead about these condition pairs. So what we did was, for a given individual, identified all of their conditions, and then the unique pairs of those conditions, and looked at the frequency of those unique pairs across each the Medicare and Medicaid first populations.

So this gives you a sense of pairs of conditions that don't necessarily have a mental health condition as one of the conditions, but they are all occurring in individuals with at least one mental health condition. The most frequent condition pair on the Medicaid side was the combination of depression and hypertension. The most prevalent condition pair on the Medicare side was anemia and hypertension.

And you can see the rest up there. This was fairly interesting, because you get to see the number of individuals with this specific pair. So for example, there were 15,030 individuals on the Medicare first side that had both anemia and hypertension, and a mental health diagnosis. And this was out of about 7,000 individuals total in the cohort. So a very high number of prevalence of this specific pair of conditions.

So what did we find? We found that a lot of individuals in this dually eligible cohort have a mental health condition, and by far the most common condition was depression. While those individuals with at least one mental health condition were statistically significantly different in demographic characteristics than the general population, they weren't that different.

In other words, yes, they were statistically different, but that was really due to the high number of individuals we were able to include in this study, and there were still very large proportions of every demographic characteristic that we measured in the mental health condition cohort.

We also found that individuals with mental health conditions were more expensive. Again, this is not necessarily a causal relationship, but you can see, you know, some reflection of potentially the mental health condition in some of those cost factors. For example, in patient care being more expensive, for example, on the Medicaid side, pharmacy care being more expensive.

Then we thought about your role, and how these findings could affect you. And we really narrowed down on two things that we at Hilltop hope that you guys, the QIOs, can take away from this study. The first is that although people with mental health conditions may be statistically significantly different in demographic characteristics, they really are representative of everyone.

There are individuals of every race who we found with a mental health condition. There are plenty of rural and plenty of urban dwellers. There are people all across the age spectrum. And the mental health conditions that we reviewed in this study weren't just relegated to one type of person. They really were found across all types of demographic groups.

We also found that because the individuals with mental health conditions were more costly, this suggested that care coordination could help them many ways. It could bring down costs. We were not able on the Medicare side to do a lot of provider-level analysis, but on the Medicaid side it was clear that there were both mental health care professionals and somatic care professionals providing care to these individuals.

It is quite likely, especially at this time, that there was not a lot of care coordination between those two types of professionals. That could certainly be an area to explore as an opportunity for care coordination. That's it for me. This is a little bit about Hilltop for those of you who don't know about us. And that's how to get ahold of me if you have any questions.

I am certainly happy to take questions now. I know this is probably very difficult to follow. The paper will be out soon, so hopefully that will provide some clarity, and if you have questions, I'd be happy to take them.

Laura Benzel: Thank you, Dr. Stockwell. (Tia), if you could explain to folks how they can queue up for Q&A, I'd appreciate it.

Operator: Certainly. Ladies and gentlemen, if you would like to register a question, please press the one followed by the four on your telephone. You will hear a three-toned prompt to acknowledge your request. If your question has been answered, and you would like to withdraw your registration, please press the one followed by the three.

If you are using a speakerphone, please lift your handset before entering your request. One moment, please, for the first question.

Laura Benzel: While we're waiting for folks to call in, Dr. Stockwell, we do have one question in our chat room. And the question is from (Andrea) and she would like to know why were substance use disorders not included in your definition of mental health disorders and top diagnosis?

Ian Stockwell: Excellent question. That was simply because on the chronic conditions algorithms from CMS we did not have a substance use category. I believe on

the next update of the Chronic Conditions Warehouse algorithm substance use is in there. But that is, unfortunately, not out yet.

Laura Benzel: Thank you. (Tia), do we have any...

((Crosstalk))

Laura Benzel: I'm sorry. Go ahead.

Operator: That's okay. We have a question from the line of (Meredith Cobb). Please proceed with your question.

(Meredith Cobb): Hi and thank you so much for your presentation. There was some very insightful information included. I'm curious if there was any portion of your study that would indicate that access or lack of access to mental health services would impact the severity of the mental health condition, and, therefore, the cost of treating those patients?

Ian Stockwell: Excellent question. That is certainly one that we would like to look at in the future. Unfortunately, it was beyond the scope of the study and the work that we had done under this contract. But it is certainly, while it's not easily done with the data that we have, it could be done in a couple ways.

The first would be, so we have addresses for each of these individuals, and we have addresses for the providers. One way we could go about that in the future is doing like a provider scarcity measure. In other words, are people who don't have a mental health provider within, you know, 20 minutes of their residence, do they tend to be worse off than those who do or not?

You know, that's one approach that we could take, and that is doable in the data. But remember that the data that we have is purely administrational, so we don't have a lot of those qualitative measures or survey responses that could do a better job of answering that question than just geographic location.

(Meredith Cobb): Thank you.

Ian Stockwell: Sure.

Operator: And ladies and gentlemen, as a reminder, to register for a question, please press the one and then the four.

Laura Benzel: Dr. Stockwell, we have actually a question here in the DNCC, so we're going to ask you that question now.

(Shanza): Hi, Ian, this is (Shanza). We worked together a little earlier...

Ian Stockwell: Hi, (Shanza).

(Shanza): How are you?

Ian Stockwell: All right.

(Shanza): Good. I just had a quick question followup with the measures that you used to do your exploratory analysis. Did you use chi-squared or nova, which particular statistical method did you use?

Ian Stockwell: Well, we used chi-squared to figure out if the findings were between the general cohort and the mental health cohort were statistically significantly

different. But, you know, by and large, what findings came out of the study were just simple tabulations and counts.

(Shanza): Okay.

Ian Stockwell: You know, the chi-squared was really only used to see if those mental health individuals were statistically different than the general cohort.

(Shanza): Okay.

Ian Stockwell: What I would love to do, you know, tack on to this type of work, would be some more sophisticated statistical methods. There is a lot of data that we have that we and others and CMS has on these individuals, and it's certainly right for analyses that can address the causality question.

In other words, you know, we could do a multivariate regression analysis to figure out the weight to which each condition affects cost. In other words, you know, and (Shanza) we saw this a lot when we talked about depression. Individuals with depression are a lot more expensive than individuals without.

(Shanza): Yes.

Ian Stockwell: Is that because of the depression, or is it because of another common co-occurring condition that happens to occur in individuals with depression, or is it something that the depression is a symptom of? In other words, there's a higher rate of cancers or heart diseases that makes people depressed, but they would have been more expensive even without that depression.

So that type of question can only be answered with more sophisticated methods that certainly the expertise exists and the data, but, unfortunately, it was outside the scope of this project.

Laura Benzel: (Tia), do we have any folks in the queue to ask questions?

Operator: There are no further questions at this time.

Laura Benzel: We have more from the chat room. Dr. Stockwell, how did you analyze the cost associated with each mental health condition?

Ian Stockwell: Well, that was actually fairly straight-forward. So when we assigned chronic conditions, we did so at an individual level. So, for example, if I, Ian, was in the data, and I had met the criteria for having depression, and I had met the criteria for having hypertension. Then I would show up as having depression and hypertension.

And when I pulled all of the claims and all of the payments associated with those claims for me, I could see that those claims were for a person with depression and with hypertension. So it was simply a summarization after that. In other words, we have claims at an individual level and we assigned conditions at an individual level.

So we had both pieces of information that we needed to do that math. I'm not sure if that answered the question. Hopefully, it did.

Laura Benzel: Thank you. So, (Tia), we will ask one more time if there are any folks queued up to ask any question?

Operator: No, there are not.

Laura Benzel: Great. Well, thank you, everyone. We just have a few final announcements. The first is that Dr. Stockwell will be joining us for office hours on June the 18th from 2:30 to 3:30. Please note the change in the time, usually we have it 2:00 to 3:00, but due to the availability of the webinar technology, we had to change it to 2:30.

So it's June 18th, 2:30 to 3:30. It's the same dial-in number and password. And also, CMS Pulse will continue to live, so if you want to send us anything to put up on Pulse, we'll be glad to do that. We believe it will be maintained in the eleventh scope of work, so we'd like to continue to populate it with all the success stories of the QIOs.

And we thank you all very much for joining us, and if you could please fill out the evaluation at the end of the webinar today we would appreciate it. Thank you very much.

Operator: Ladies and gentlemen, that does conclude the conference call for today. We thank you for your participation and ask that you please disconnect your line.

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