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Speaker: My name is Christine Pouchie [PH] and I am an economist at HERC, Health Economics Resource Center, and I would like to welcome you to today’s HERC Health Economics Cyber Seminar. Today we are very pleased to have Paul Hebert and Chuan-Fen Liu presenting their work on a system for comparing outpatient use between VA and Medicare. I believe this is a really important topic, because any veterans who use the VA are also eligible for Medicare. In fact, nearly about half of all veterans who use the VA are age sixty-five or older, so it is really important for us to understand how veterans are using different healthcare systems.

Paul and Chuan-Fen are both health services researchers and core investigators at the Seattle-Denver Center of Innovation for veteran centered and value driven care. And they both have done considerable work on this topic of dual use among veterans. So we’re very glad and grateful to have them join us today. Before I hand it over to them, I would like to mention that we are planning on spending about forty five minutes on content that Paul and Chuan Fen will be presenting, and we’ll set aside about fifteen minutes at the end of questions and discussion. With that, I will hand it over to Paul and Chuan-Fen.

Paul Hebert: Thank you very much, and thanks everyone for joining us. Chuan-Fen and I are here, and we are excited to present some of this work that we’re doing. This is very much a work in progress, so I am looking forward to getting some feedback from you on directions to take this and other things that we can do with this framework for comparing outpatient use between VA and Medicare.

As Christine said, this is a big deal. Half of the veterans are duly eligible and about forty-six percent of veterans get care in both the VA and Medicare. Only about eighteen percent of veterans who are eligible only receive care in the VA. So this is a big deal as and has a lot to do with Medicare coordination and in evaluating VA benefits. If half of your... if half of your beneficiaries are getting half of their care outside the system, that’s an important thing to know.

In 2001, Fen and her colleagues did an interesting analysis of a cohort of veterans who were dually eligible. She found that the dual use was actually U shaped, so that there are a lot of people who are heavily reliant on the VA and a lot of people who are heavily reliant on Medicare. But in the middle, it’s a lighter distribution of patients. And the dual use is highest amongst specialty care rather than primary care.

Also importantly, if you look at the graph on the right hand side where reliance is on the X axis; so on the far left of the graph is Medicare reliance folks. And on the far right side are VA reliant folks, those four lines there reflect the use in 2001, 2002, 2003, and 2004 and as you can see if you follow the cohort, over time they become more and more reliant on Medicare for specialty care. Basically, as they get sicker, they develop more conditions and seek care more outside the VA. All of this is really important to the VA.

Todd White [PH] published a paper just a few months ago that also adds some real relevance for this. They were looking at whether veterans respond to notifications or large-scale outbursts at VA facilities by basically voting with their feet to receive care elsewhere. So on the graph on the right, the blue line is the odds of seeking care at the VA, the green line is the odds of seeking care at the Medicare, and the X axis is the time since the large scale, adverse event was announced. So as you can see, in the quarter after the large scale adverse event was announced, a lot more people used… odds of using Medicare increased a lot, or as the odds of using VA decreased. So it does look like we could use this VA reliance as sort of an omnibus measure of how well we’re doing in the market; how much value we are providing to the VA... to veterans in comparison to Medicare.

In comparing... the reason we need a framework is that comparing VA and CMS is complicated. Medicare is basically a billing system, where as the VA, the clinical care research uses an allocation system. So Fen and Burgess in 2011 described methods for comparing VA and Medicare use, but they limited their analysis to basically three dimensions. It was all outpatient care and they considered only primary care, specialty care, and mental health care.

In another study, we are trying to extend that framework. Basically we want to build on the algorithms developed by Jim and Fen to compare outpatient use between VA and Medicare. But we wanted to extend the different types of outpatient visits and expand it to different dimensions of outpatient visits. This work we should acknowledge is based both on the \_\_\_\_\_\_ [00:05:39] and on some work that Fen and I are doing after the PACT National evaluation. We think we have... how VA reliance changed in a \_\_\_\_\_\_ [00:05:51] to \_\_\_\_\_\_ [00:05:55]

So I’m going to set out and I’m going to describe the framework for comparison of outpatient use of the VA and Medicare. So I get the really boring task, and then Fen will take over and present some of the results on trends. I think in the abstract, we said we were going to present results on trends and inter-facility comparison. This is truly work in progress and \_\_\_\_\_\_ [00:06:20] inter facility comparison, just didn’t feel real comfortable about it so we left those things out, but there’s still plenty of stuff to talk about in terms of trends.

Okay, so the previous methods by Burgess and Fen were basically they defined a type of visit. We had one dimension of outpatient care, which was the type of visit. Why did the veteran receive care? Did they receive care for primary care, specialty care, and mental health care? We want to expand that to some other dimensions of the outpatient visit. So for example the type of service; once they got to the VA or CMS what did we do for that veteran? What services were provided that veteran? Who provided the service, or the type of provider if another dimension? The location of service with the service provided at home, or in a clinic, in a nursing home. Then the cost of the visit; and we will talk... basically the cost of the visit is very much a work in progress. So any feedback you can give on how to incorporate cost into this framework would be terrific.

In order to... particularly with this framework... we need data from both CMS, so from... for the type of service, we use CPT codes from VA data versus line level CPT codes from the CMS carrier claims. For the provided service, we take the first listed provider for our stop code, for the CMS we take the specialty code on the line item on the claim. The location we backed the stock codes to different locations and for CMS we take the line item in place of service code. For the cost of visits, again, this is difficult because as you can see on the right hand side, the CMS data are all in a line item, which we will talk about in a little bit; whereas the cost of DSS and HERC are in stock and so combining those are going to be difficult. But we’ll start with HERC and DSS costs and then compare them to the line item of the reimbursed amount.

Then the type of visit, we define as a combination of the service to location of the provider. Many of you are probably familiar with the VA \_\_\_\_\_\_ [00:08:54] but in case you’re not familiar with the CMS database, mercurochrome’s basically all come from the 1500 form, which is all electronic now, I don’t think there are many people who actually submit claims on an actual form. But it’s interesting to look at the form because that informs what the database looks like.

So here’s the line item portion of the form. As you can see there are line items one, two, three, and four showing on the form. There is a date of service, an amount of service, and some other information that we are going to use to get at the type of service and location of service. For location of service, we are going to use the place of service code, so with CMS, I think that is about seventy or so patients with service and we have mapped them into a small number of place of service. So, this particular \_\_\_\_\_\_ [00:09:50] place of service of twelve, which is a hospital out patient clinic. It also has CPT codes for each line item. That’s gives us the type of service, so a ninety-seventy-one-one-zero is physical therapy, so that would be mapped into a physical therapy type of service. Then there is the rendering providers NPR, and that information is used by CMS to identify the specialty of the provider. Then there are the charges on the claim, so this is the charged amount, but when you actually get the databases, CMS will add a bunch of additional information to this. So for example you get the charges, you get the deductible amount, the co-pay amount, and then the reimbursed amount, and ultimately we want to use the reimbursed amount of our \_\_\_\_\_\_ [00:10:47] cost.

So let’s start by describing the framework for coming up with the type of service. The type of service is based on BETOS codes. BETOS codes are Berenton-Eggers Type of Service Codes [unclear] [00:11:12] to [00:11:15] hit the codes that CMS uses and just puts them into bundles. There are about seventeen thousand HCPC codes and we map them to ninety-eight BETOS codes. It consists of some easily understood categories and we have been using them for a long time to look at the growth in Medicare expenditures. It is one of the \_\_\_\_\_\_ [00:11:38] time, although... and we will see later, not completely stable over time. It is immune to the changes in minor technological changes, and it is available for download for every year. So every year we can take a bunch of CPT codes and map them to BETOS codes. It’s not a perfect map and we have to go through and do some hand mapping for some of the codes that the VA uses, but CMS doesn’t... it’s a good way to go from a large number of claims to something more manageable.

So here are some examples of BETOS codes. There is a major BETOS Category of Evaluation and Management that has thirteen sub groups. Some examples there are M3, emergency department, so evaluation and management are conducted in an emergency department, or in an emergency setting. There are also specialty evaluation management codes; for procedures, there are forty-five of those and some examples are knee replacement, which would be a major procedure, versus skin procedure, which would be a minor procedure. There are eighteen subcategories with imaging, for example, MRI of the brain is one of those categories. There are twelve subgroups of tests, diagnostic tests, so EKG is an example of that. Seven subgroups of durable equipment, including wheelchair. And other is a bunch of useful groups \_\_\_\_\_\_ [00:13:14] no offense to chiropractors, but chiropractor is one of those. And then there’s a bunch of unclassified codes, like local codes that basically we just didn’t know what they were so we just put them in those unclassified section.

So we took these seventeen thousand codes, mapped them all to BETOS codes and then we felt that the ninety-eight BETOS codes was actually too many for some of the things that we were looking at. So we further ID’d them to thirty-three types of service codes.

So that’s how we got the type of service code, and Fen will show you data on those codes later on. This is how we got the location of visit. So we took the fifty-three CMS place of service codes and mapped them to the VA stop codes and then collapsed those into a these 12 codes that we see here. so, pretty big categories like clinic, home, [Unclear] [00:14:15] to [00:14:21] these will appear in VA, \_\_\_\_\_\_ [00:14:22] like a retail clinic, but not so much a VA, but at least it gives us a way to compare where care is being done in VA and Medicare.

The type of provider is derived from SMS specialty codes, so CMS has a hundred and twenty-seven specialty codes; those are derived from provider taxonomy codes. We reduced those to thirty-two specialty codes. The top thirty-two are shown over here. This is also a work in progress. The primary care and cardiology are pretty good, some of the other ones seem to be having a lot of procedures going to preventive endocrinology and rheumatology.

For the VA side, we took the first listed provider for the primary stop code as the only provider for that visit. So if we can get some feedback on how critical an assumption that is, that would be helpful to us.

The classifications for the type of visit is the most complex. Physically, our goal is to classify every encounter into one of eight mutually exclusive categories that are listed here. We do this in four steps. First we identify the location of the visit, then you identify the type of service, then we identify the provider, and then we combine all those to make up the type of visit.

Here’s a little graphic and we should see that this is hierarchical, so the program runs from the top and goes down. So depending on where you put these boxes, you would get a different assessment of the number of visits in each of these categories. So we start by this... we only have the ED visits, so if we find a claim that is code for emergency care or the claim says that there’s a stop code for points of service for ED, that goes to ED visits. We then go and look for a primary care provider code, or a general office... and a general office PM visit, and then we category that as primary care. If neither of those two things are present on a claim, or the encounter, then we go and look for a psychiatric CPT code, or a mental health provider and a general office PM code, and that goes to mental health. And it goes further down the list, so the next is surgical. Again, CPTs or providers medical specialty, CPTs or a providers, physical therapy, and finally diagnostic. So you can imagine if we rearrange these and put diagnostics second, we’d come up with a ton of diagnostic visits and many primary care visits, because if you go to a primary care visit and the physician does the diagnostic test, we’d rather classify that as a primary care visit and a diagnostic test. So you can see how the order of these things is important.

Okay, so that is how we came up with our categories, and now Fen is going to present the results of tracking these categories over time.

Chuan-Fen Liu: Okay, So I am going to present the work that we do... I have been doing for the... as part of the PACT National Evaluation. For this analysis, we wanted to assess the time trends in reliance on VA outpatient care for different types of visits and different types of providers among Medicare eligible veterans from 2003 to 2012.

So we conducted a repeated cross sectional time series analysis using Medicare claims and VA administrative data. I wanted to mention this for our VA administrative data, we included C bases, but the C bases have a different classification algorithm because C bases doesn’t have... Data don’t have by the type, so we classified by CPT codes, but we didn’t talk about it in past section because it’s a very different... it’s somewhat different, but I just wanted to let you know that we did include C bases data here and... Actually, in fact, the C bases data does not make that much a difference in VA reliance.

So we focused our study sample on primary care patients, so we first included all patients in PCMM, and then those people who also enrolled in both Medicare Part A and B, and we excluded Medicare advantage plan enrollees because of no medical claims available, so basically we focused on Medicare people service patients.

So we classify a visit for this presentation we focus on four types of visits, face to face encounters, primary care and mental health care, medical specialty care, and surgical care. And we wanted to look at... we also look at what provider type, provider specialty within the medical specialty care and what service types of those patients.

We defined the reliance measure at the system level, so it is not a patient level, \_\_\_\_\_\_ [00:20:42] so we decided a portion of visits occur in VA for a specific visit type in a given year, so that the measure is an annual measure. So first, we sum up all the visits provided in VA and Medicare across all patients, and then we consolidate the VA reliance as the VA visits divided by the total visits, which is the sum of VA plus Medicare visits.

And so the VA reliance measure went from zero to one, zero as completely Medicare reliant and the one is completely VA reliant. Because this is a system level measure, we adjusted for age, gender, and race by using direct standardization methods. So we standardized the starting population in a given year to the distribution of the study population in 2010 by age, gender and race. We used 2010; because that is the year that Peck [PH] implemented.

So here, this figure shows the number of VA clinic care patients from 2003 and 2012, so the top portion, the yellow portion, so this is by Medicare status... let’s go to the bottom. So the bottom one is the Medicare fee for service, number of Medicare fee for service patients. And the middle, the green section, is the MAMOEs, and the top portion is the VA, there’s no Medicare coverage, so those veterans have VA only coverage.

So we can see in terms of the total number of primary care patients, the number increased over time, but the number of Medicare fee for service enrollees, actually remained pretty stable over time, it’s around two million patients each year. And so this table shows the results of the classification methods, the visit type classification in 2012. So here, we can see we run through our classifications, the first one is ED visits. So the ED visit about point-five million, half a million in VA, about a million Medicare. And then the second visit type is primary care, so it’s... we... they were about four million... no, four point two million in Medicare and four point five million visits in VA.

And the next step is mental health visits, so most of the mental health visits occurred in the VA, two point five million, versus point four million in Medicare, and then this next step is the surgical care, and so which most happen occurred in Medicare. VA is about two million versus six point five visit in Medicare. And the largest category is Medicare... medical specialty care. So it’s about... more than seven million in VA and more than eight million in Medicare.

So then go through the... Next, we run through the other categories we have, that is rehab therapy, that’s OPTP and telecare, that’s telephone and online, we can see that it’s pretty much happened in the VA, not in Medicare, because Medicare doesn’t reimburse phone calls. Then the diagnostic and the bottom one is the other catch all category.

And we will focus now looking at the trends of primary care, mental health, and surgical care and medical specialty care. This is a comparison of number of visits between 2003 and 2012, and this number is adjusted... we talked about we adjusted for age, gender, and race. So, the physical care, 2003 to 2012, is a big increase for surgical care visits. So from two... total is four point... five point four million in 2003 and eight point eight million in 2012, and mostly the increase is Medicare.

Again, look at the mental healthcare, the total number of visits increased from about two point four million to two point nine million, but the most of the increase is in the VA and so, Medicare provides a very small proportion of mental health care visits.

For primary care, it didn’t change that much, so it’s about nine point five... it’s a decrease a little bit, nine point five visits in 2003 and in 2012 there were eight point nine visits. The biggest increase is in specialty care and so in 2003 they were almost fourteen million visits, by 2012 that is about eighteen million visits. And the number of visits the Medicare actually pretty stable, but there was a big increase in specialty care visits in VA.

This is the time trend of VA reliance for type of visits.

Speaker: Can I interrupt with a question? This is just a clarifying question, so Medicare is generally used by patients who are aged sixty-five and older. In your VA data, are you looking only at patients sixty-five and older, or are you looking at everyone using the VA?

Chuan-Fen Liu: We are looking at everyone; so that is including disability eligible veterans under sixty-five.

So this is a time trend, so the top one is mental health, it’s not surprising that the reliance, the most Medicare eligible veterans rely on VA for mental health care, so it’s more than eighty percent of the reliance visits occurred in VA; and they have been trending upwards from 2008. And for the green line, it is primary care, so the VA line is about fifty percent, a little bit more than half occurred in the VA. The big increase is the red line; it is specialty care, so the reliance increased from thirty... almost thirty-three percent in 2003 to fifty percent in 2012. And the bottom line is surgical services and we see that there’s a big drop in 2004 and 2005, and then it’s going back up after that, and that was... we found out that was actually a big increase in Medicare use rather than a decrease in VA.

The next slide we show that we are trying to figure out... because based on our VA reliance measures either the shift in VA or in Medicare, or both, can change the VA reliance measures. So we tried to look at which part of both, which part that changed the reliance. So we index... this has been the rate of growth from 2003, so we index VA and Medicare CMS visits in 2003 as one, to see what’s the proportion increase or decrease from 2003. So the orange line is VA and the blue/gray line is Medicare. So for primary care, we see the... could follow along the same time trends and going down... going up and down a bit. And mental health care, the increase in VA reliance mostly attributed to the increase in the VA use around that 2008 time period, there’s an increase in number of mental health visits.

And for specialty care, we can see that... so this is the panel on the right sight of the panel, we can see that the CMS visits actually remain pretty stable, but the increase is mainly due to the increase in VA visits, not a drop in Medicare visits. So we wanted to go down to see what specialty contributed to the visits... to the increase in VA specialty care visits. So we look at the specialty care visit type by provider specialty. And we found that actually the increases was across the board, in pretty much all categories and the table, this table only provided just a selected number of categories, just for your information. So, but I want to say this is the total count, the CPT code, this is really the... this is still the line item, the procedures and so it’s any procedure associated with that specific provider type. And so, for instance the cardiology in 2012, they were five... point five million records, and the VA reliance is twenty percent. That means only twenty percent of the procedures occurred in the VA, and the increase the VA use from 2003 to 2012 is one hundred and seventy seven percent.

So when we look at the VA reliance column, we look at to see whether actually VA reliance varies by provider specialty. Veterans are more likely to rely on VA care for pulmonary, pain medicine, and neurology. But they were more likely to rely on Medicare for cardiology and oncology. So, the veterans choose their own different provider specialties across the systems.

And in terms of the increases of... percentage of increase of VA use from 2003 to 2012 is not really related, it’s read... When you see that the highest increase that is actually the pulmonary care, which is really highly VA reliant, and the other one is oncology... now there’s a big increase in VA use, but it has low VA reliance; so this big increase across the board for specialty care.

And we look at service type to see what type of services provided in VA and Medicare, and so here we see the largest... the top one is labs, it is lab work, and VA actually has a lot. Okay, I cannot see the number here... so the VA actually has taken a number... the VA reliance is seventy one percent for lab. And the second largest category is general E&M, so it’s about half and half between VA and Medicare.

So the other categories, like catch all and other and other drugs and other testing, and so this actually has like ambulatory and minor procedures that is mostly a third in VA and two-thirds in Medicare. Another high reliance category service type for E&M and other specialists.

So we wanted to share... looking different types of services, this is just an example of looking at a finer category of service type. So this is imaging, so there are four types of imaging here, imaging standard, imaging advanced, and imaging echo ultra for heart, and for other. So, we can see this is the count from the millions... number of services, so we can see that imaging advancing to the upper right hand corner, is going to increase over time. And I wanted to talk about... This is kind of the interesting this is when we first look at the imaging echo and ultra, and we realized there’s a big drop in CMS in 2009. And actually dropped... at the end it’s close to zero, and we started looking at to see what changed the trend. And we found out that’s actually change in reimbursement rules that if imaging... heart imaging, and imaging of echo and that they can only bill one, they cannot bill two. So this, because of the change in payment, that imaging of echo and heart ultra... ultrasound for heart, actually decreased substantially in Medicare.

So in summary, so far we found that VA reliance, there’s a large increase in VA reliance in specialty care resulted from more VA use and it’s across the board, across all provider specialty and high reliance on mental healthcare and trending upwards. And reliance on VA primary care actually was stable over time. And there is some limitation, this is just an overall trend at the system level, so it would be different if we look at the longitudinal cohort. And we did not adjust for comorbidity.

In the end, I think I would like to share some of the challenges and lesson learned from our work and classifying visits across systems. This is actually really complex process but we gain a lot of knowledge and details about cross system use by all the eligible veterans, and that would give us a lot more information about what type of providers they visit in the VA and they visit in Medicare. And what types of services they obtain in VA and obtain in Medicare, so that will give us a lot more information to improve care.

And so the one important thing is we have to keep reminding ourself about the differences between billing records and encounter data. The billing records, the Medicare claims that are out for payment, and the encounter data is that VA data really tried to capture workloads so the data generating processes are different. And so we caught different things, and so for example, we only show that... because some codes are only available in the VA... coded in VA... and so like telephone care, we have a lot of phone calls and the VA \_\_\_\_\_\_ [00:39:11] data recorded all the phone cares, but we found really little in Medicare because of the payment.

Also, we found that we have to keep telling ourself, and remind ourself that there are changes in simple codings over time, and a few things we learned is first, if we find something different, or a new pattern, first we look for policy changes. And so one example is that saw a big drop in VA reliance in physical care in 2004 and 2005, then we started looking to see what service type actually attribute to the big drop, and we found out that it’s mostly attributed to a very big increase in Medicare use for ambulatory surgical procedures.

And then we further found out this is actually coinciding with a large number of certified ambulatory surgical centers in Medicare, but that year was the largest increase in decades, so the increase, there’s a lot of ambulatory surgical centers certified during that year, and so a lot more \_\_\_\_\_\_ [00:40:49] happened in that service location.

And we have to look for a change in reimbursement rules. Just like the imaging ultrasound and echo for heart, and so when something... the patterns change, we first look at policy changes, then we look for whether there’s any change in treatment rules that resulted, or contributed to that change.

Then we try to map... we \_\_\_\_\_\_ [00:41:28] annually, so really try to keep up to date on all the classifications.

Finally, we would like to acknowledge our work... part of the work from the HSR&D funded IRR and part of the work from the PACT National Evaluation, and this is a very data intensive work, and we like to acknowledge the hard work from our data analysts who processed the data. And thank you, and we would like to now have your comments and questions.

Speaker: Yes, this is Christine. Thank you Paul and Chuan-Fen, there very clearly was a lot of heavy lifting required in order to do this analysis. I think this is really important work. We do have a few questions; I will just start working through them. Someone pointed out that Medicare CPT codes will not be entered unless they are reimbursed and that patients actually arrived to receive the care. The VA has very high no show rates, are VA CPT Codes only counted if the visit was completed and the patient showed?

Chuan-Fen Liu: Yes, we only... I think the encounter data only... we only included people who... actual visits.

Speaker: Okay, thank you. I should also mention that if anyone else has questions, please type it in and send it over and we’ll try to make time to answer them. Another question, in this analysis, your focus on outpatient care, do you have plans for looking at inpatient care?

Paul Hebert: Yeah we do, and we are taking the inpatient data and writing it down by the MDC code, the major diagnostic category code. That I think actually will be a lot easier than the outpatient stuff. Outpatient stuff is pretty complex.

Speaker: Okay, thank you. We also had a question about the adjustment that you performed for age, gender, and race. Can you explain a little bit more about how that adjustment worked and what the purpose of it was.

Chuan-Fen Liu: We wanted to make some adjustment because the population distribution changes over time. And so we started off saying that we do this direct... we look at the... first we look at distribution each year, the population distribution by age, gender and race and we just standardized it to 2010, just assume that all the distribution, just like the distribution in 2010, so then we compared to the same population distribution. So even though we adjust for age, gender, and race, actually we are trying to incorporate additional adjustments, like copayment status because the income status could affect whether they choose to use the care. That is one thing that we are still working on to bring in the VA copayment status and continue to think about some additional variables that need to be adjusted when we look at the system level.

Speaker: Now Chuan-Fen, did you find that the distribution of...or the characteristics of the population changed very much across time?

Paul Hebert: Well, the adjusted and unadjusted numbers, I am not...

Chuan-Fen Liu: ...right... so

Speaker: Okay, that was my follow up question, it would be interesting if the population did change, to understand kind of decompose the change in utilization. How much of it is due to changes in demand or supply, and how much of it is due to changes in just the population of patients?

Paul Hebert: Especially the supply side. Especially when we start comparing facilities, because some facilities will be in Miami where the supply of CMS physicians is all over the place, and some of the facilities will \_\_\_\_\_\_ [00:46:26].

Speaker: We have a question related to this issue of supply. How... can you explain the very fast and substantial increase in surgical care in the VA?

Paul Hebert: It was not a gross... surgical care... I will hand it over to Fen.

Chuan-Fen Liu: Talking about surgical... the surgical care, actually it is not the increase in... What I pointed is it is a decrease of VA reliance in between 2004 and 2005; it is due to the large increase in Medicare use in ambulatory surgical centers, which just had a great increase during that year. So that’s a supply factor that there was a big increase in Medicare in terms of the availability of the services. And so a lot of services occurred in Medicare and the VA service is actually pretty stable.

Paul Hebert: Which we have to point out that either outpatient... it was all outpatient care so this isn’t...

Chuan-Fen Liu: Inpatient... surgical inpatient... this is outpatient care.

Speaker: Okay, thank you and actually there is a correction to that. It looks like there is an increase in the VA reliance for specialty care. Now can you explain that increase? It looks like it is pretty substantial.

Chuan-Fen Liu: Yes, it is pretty substantial. We know that the number of provider specialists’ increase over time, we are still... We are looking into to see what provider specialty, in terms of STE increased during this time period and how that contributed to that big increase. But definitely we observed this huge increase... As I think all the \_\_\_\_\_\_ [00:48:50] the VA has really focused on provider care and want to meet... no, veterans demand different type of specialty care. And we haven’t really... I think we need to look into to see what type of services and providers and looking at the specialty care categories a lot more carefully. It is driven down to service type and provider type a lot more.

Speaker: Okay, thank you. I had another question. Very early on in the presentation, Paul mentioned, you found that there is a U shaped reliance. Many patients either use a lot of VA or a lot of Medicare. Now, in this analysis, we are looking at the system level reliance, now if you look at patient level reliance, do you know if you will find the same U shape for each of these different service types?

Paul Hebert: That is a great question

Chuan-Fen Liu: Yeah, we have not done the patient level analysis yet, but that is one of our planned analyses that we will be doing. So we do not know yet, and I think this is something that is in the pipeline.

Speaker: Now we also had just a comment about the different services that are offered in Medicare and VA. So there are some services that are offered in the VA but not Medicare. For example, long term care and support, or geriatric primary care. Care like that is not offered in Medicare, but it would be interesting to actually specifically look at these services to see how the reliance on them changes over time, especially if these systems also change over time.

Paul Hebert: Actually, we can look at that with the \_\_\_\_\_\_ [00:51:13] because although Medicare doesn’t provide the facility fee for nursing homes, if a physician goes and sees a patient in a nursing home, we will observe that. So we can compare trends in the care in nursing homes between Medicare and VA.

Speaker: Okay, that sounds like it would be great. Well, I will make the final call for any other questions for the presenters. It looks like we have worked through all of the questions that have come in.

Unidentified Female: Okay, sounds good, so we could probably wrap up now, Christine. Paul and Fen, do either of you have any final remarks you would like to make before we close things out today?

Paul Hebert: Yeah, actually, if anyone has any good comments or suggestions on how we can improve this, please eNote either of us that would be very helpful.

Unidentified Female: Wonderful, and I really want to thank both of you for taking the time to prepare and present for today’s session. We really do appreciate it. Christine, thank you so much for being available to help out with this session. That makes things run much more smoothly to have a subject expert on the call.

To the audience, we want to thank everyone for joining us. When I close the session out in a moment here, you will be prompted with a feedback form. Please do take a few moments to fill that out, we really do read through all of your feedback and use it to plan our current and upcoming sessions. Thank you everyone for joining us for today’s HSR&D cyber seminar and we look forward to seeing you at a future session. Thank you.