Cyber Seminar Transcript

Date: 01/09/2017

 Series: VIREC Databases & Methods

Session: Measuring Veterans Medicare Health Services Use

Presenter: Kristin de Groot

*This is an unedited transcript of this session. As such, it may contain omissions or errors due to sound quality or misinterpretation. For clarification or verification of any points in the transcript, please refer to the audio version posted at* [*www.hsrd.research.va.gov/cyberseminars/catalog-archive.cfm*](http://www.hsrd.research.va.gov/cyberseminars/catalog-archive.cfm)*.*

Moderator: Welcome to VIReC’s Database & Methods Series. Today’s session, Measuring Veterans’ Medicare Health Services Use is presented by Kristin de Groot. Kristin is the Technical Director for the VA CMS Data for Research Project at VIReC. Kristin has more than ten years of experience working with Medicare data in VA research. At this time, I would like to thank CIDER for providing technical and promotional support for this series. Any questions you have for Kristin will be monitored during the talk and I will present them to her at the end of the session.

As a reminder, a brief evaluation questionnaire will pop up when we close this session. If possible, please stay until the very end and take a few minutes to complete it. Now I am pleased to welcome today’s speaker Kristin de Groot.

Kristin de Groot: Thank you.

Moderator: Kristin your slides are in presenter view right now, not slideshow view.

Kristin de Groot: Okay let me switch to, how is that.

Moderator: Perfect thank you.

Kristin de Groot: Okay. Good afternoon everyone, as Cheryl said I am Kristin de Groot, let me flip through these few background slides about the Cyberseminar series and then we can get started.

I want to start with why this topic is important. We all know that we need to know about all healthcare use in order to draw accurate conclusions in our research studies. It is important to recognize that many Veterans who use VA healthcare also use healthcare outside the VA. While it is difficult to get complete healthcare data on younger Veterans, almost all Veterans sixty-five and older are enrolled in Medicare and many of them use Medicare services. By combining VA data with the Medicare data, we have a more complete picture of their healthcare use.

We will pause here for a moment to ask about your experience with Medicare data.

Moderator: And we are asking here – have you ever used Medicare data for a VA project? It is yes or no. Responses are coming in; I will give everyone just a few more moments to answer before we close the poll out and go through the responses.

It looks like things have slowed down so I am going to close that out and we are seeing forty-four percent of the audience saying that yes they have used Medicare data for a VA project and fifty-six percent saying no. Thank you everyone.

Kristin de Groot: Okay, great and there is actually one more poll question. How would you rate your overall knowledge of Medicare data?

Moderator: And here we are scaling from one to five, one being no knowledge and five being expert level knowledge. Again, we will give everyone just a few more moments to respond before we close this out and go through the responses. It looks like we have slowed down so I am going to close that out. We are seeing sixteen percent saying they have no knowledge; forty-five percent judging themselves at a two; thirty percent at a three, nine percent at a four; and zero saying they have expert level knowledge. Thank you everyone.

Kristin de Groot: Okay, great, thank you. Before we really get started, I want to state the purpose of this Cyberseminar is to demonstrate how researchers can obtain information on Veterans Healthcare use received through Medicare. Here is our outline for today and we will start with some basic information about Medicare.

First, who is eligible to enroll in Medicare? Almost everyone over age of sixty-five, some disabled individuals and patients with end stage renal disease. If a person falls into one of these groups, they can enroll in Medicare regardless of their income or whether or not they have other health insurance including access to VA healthcare.

Medicare has two main parts – Parts A and B. Part A is sometimes called hospital insurance and covers hospital care, skilled nursing facility care, hospice and home health services. There is usually no premium for Part A. Part B is sometimes called medical insurance and covers a variety of things like doctors’ visits, lab tests and medical supplies. There is a premium for Part B and so people who have other medical coverage do not enroll in Part B. Among Veterans enrolled in Part A, about eight percent are enrolled in Part B.

Medicare beneficiaries also get to choose how they receive their Part A and B coverage. The first option is fee-for-service, which is sometimes called – original Medicare. In this option, coverage is administered directly through the Centers for Medicare and Medicaid Services or CMS. The second option is to enroll in a managed care plan also Medicare Advantage, Medicare Part C Plans or HMOs. In this option beneficiary choose through a variety of plans and enroll in a plan, which is run by an insurance company that is contracted with CMS to provide the benefits. In 2014, about twenty-five percent of Veterans enrolled in Medicare were in a managed care plan at least one month as opposed to fee-for-service Medicare.

The newest part of Medicare is Part D which was added in 2006 and covers prescription drugs. Unlike Parts A and B, which could be administered either through CMS or by an insurance company, Part D is always administered by insurance companies. This is an important distinction when we look at the data that is available to researchers. Part D plans often require premiums so as we saw with Part B people who have coverage elsewhere like drug coverage through the VA, may choose not to enroll in Medicare Part D. Among Veterans known to the VHA only about forty-six percent of those who are enrolled in Medicare A and B were also enrolled in Part D and that is much lower than what we see in the non-Veteran population.

A misunderstanding I hear sometimes is that Veterans who are enrolled in the VA have all of their care paid for by VA and therefore and all of their utilization will be in the VA data, but this is not true. Keep in mind this is a simplified view of things. For the most part when a patient is enrolled in both Medicare and VA, and receives care at the VA the VA pays. Likewise assuming the same patient has Medicare, and receives care outside the VA at a community hospital, Medicare pays.

The VA does not and cannot legally bill Medicare and for the most part community providers do not bill the VA. There are exceptions to this like in emergencies or for care that has been contracted like through the Choice Act, but most of these situations require pre-approval from the VA.

Now we will talk about the types of Medicare data starting with enrollment data. CMS collects data related to administration of the Medicare Program. While this data will not tell you about a person’s healthcare use, it can still be useful to researchers. Data directly related to administration or enrollment is likely to be accurate and complete. Here is an example of data elements related to Medicare enrollment. The Social Security Number is the unique ID used by CMS and here in the VA we also have data with the VA scrambled SSN. CMS has the beneficiary data first; date of death and their address; they have dates of enrollment and disenrollment from Parts A, B and D and their dates of enrollment or disenrollment from managed care and the managed care plans contract number. CMS also tracks ineligibility due to incarceration, when people are incarcerated they get healthcare through the prison system, not through Medicare so Medicare wants to make sure that the bills are not being submitted for a person if they are not getting care in the community.

I mentioned earlier that Medicare Part B requires a monthly premium. For some low income individuals, the State’s Medicaid Program pays the premium and this information is also captured in the Medicare data. Finally CMS’s information on whether or not a person has insurance that is primary to Medicare, this is also called a primary payer and it is often employer based health insurance.

In contrast, data that are not needed by CMS are unlikely to be collected. While CMS has some demographic data, things like marital status and income are not collected. There is no information on what Medicare calls secondary payers, these are Medigap Plans and other insurance that pays after Medicare paid its share. And while we saw on the previous slide that CMS does capture the managed care contract number there is not much about benefits that that plan offers.

While we are on the topic of managed care, I want to mention that Medicare utilization data, which we will get to in a few minutes, contains little to no data on utilization by people who are in managed care plans at best, it should be considered incomplete. Because of this, you will also find that research projects exclude managed care enrollees from their analysis. Recently the VA obtained a new type of data called HEDIS, which contains summary utilization from managed care enrollees. We will talk more about the HEDIS data later on in the presentation.

Now I want to go over the actual files that are available for researchers to use. The first I will refer to as the Enrollment and Demographic File. In this file, there is one record per person and there is one file per calendar year. Each calendar year file will include everyone who was enrolled at least one month during the year.

The file has monthly indicators for Parts A, B and D and for managed enrollment and whether Medicaid paid the premiums during that month. The file has changed names a few times in the last few years, historically it was the Denominator File and then it was Beneficiary Summary, now it is the Master Beneficiary Summary File Base Segment. But for all practical purposes, it is the same file with a different name. [excuse me a moment].

Another type of enrollment data [I am sorry just a second]. Another type of enrollment data for custom extracts the VA gets from Medicare’s enrollment database or EDB. The VA gets five different types of data from the EDB. All of these are cumulative files that are updated annually. The vital status is the most current demographic data, which is primarily used in obtaining death dates. Entitlement Enrollment History File will tell you when an individual first enrolled in Part A or B and it is not limited to just whether or not they were enrolled in the calendar year like the Enrollment File is. The Group Health Organization File will give you the dates a person was enrolled in a managed care plan, and the contract number of the plan. The Incarceration History File has the dates a person was incarcerated and therefore ineligible for Medicare. And lastly, the Primary Payer File has information on the insurance plans that pay before a primary Medicare. And you can also learn the dates that the other payer was active and what type of payer it was.

Next, we get into the Claims Files that are available. We often hear about research results moving from bench to bedside but I want to talk about how Medicare data moves from bedside to bench. First, the Medicare fee-for-service beneficiary receives care outside the VA from a provider that accepts Medicare. The provider submits a bill or a claim to CMS for reimbursement. The term provider refers to any provider that bills Medicare and could be individuals like physicians, chiropractors or organizations like laboratories, hospitals or home care agencies. After the claims are processed and the provider has been, paid CMS stores the information form the claim in databases and creates analytic datasets for use by researchers.

As I mentioned in the previous slide, claims are bills submitted by providers. There are two types of bills that providers use to submit claims and the type of bill used is determined by whether the provider is considered to be institutional or non-institutional. Examples of institutional and non-institutional providers and the number of the bill used are shown on this slide. It is also important because the type of bill determines which datasets the claim ends up in. One other thing I want to mention is that I have heard some researchers refer to the institutional providers as Part A and the non-institutional as Part B, but this is not always the case. Services provided by institutional providers could be covered under A or B. For example and x-ray taken when a person is an inpatient will be covered by Part A, but if the person is an outpatient it will be covered by Part B. Services for non-institutional providers are almost always covered under Part B.

Now I will go over the analytic datasets that the Medicare claims are found in and you will see that it is primarily based on provider type. The claims submitted by institutional providers are found in five Institutional Claim Files– inpatient, skilled nursing facility or SNF, home health agency, hospice and outpatient services within an institution. I will also discuss the Medicare Provider Analysis and Review File or MedPAR. This is an Institutional Stay Level or Summary File created from the Inpatient and SNF file. Claims submitted by non-institutional providers are found in the carrier file, which was previously called physician supplier and the durable medical equipment or DME file. Finally, we will discuss Part D data.

Now we will go into more detail about each of the claims files. First it is inpatient, they contain services provided by both short and long term hospitals like rehab or psych hospitals. Because it is an institutional file, it includes facility charges and payments. An inpatient stay means one or multiple claims. So what exactly does this mean?

Here is an example of a single stay that is made up of two claims. The first claims covers the first half of the stay, the second claim covers the second half of the stay. In some cases the stay might have been submitted as a single claim; a hospital might split the stay into multiple claims so they can be reimbursed more quickly or maybe it just makes for easier accounting to end the claim at the end of the calendar or fiscal year.

Next, is a SNF File including services provided by skilled nursing facilities? It is important to note that not all stays in SNF are covered by Medicare. For example, Medicare will cover skilled nursing and rehab care for a short time following a hospitalization, but Medicare does not cover custodial care like when a patient needs help with activities of daily living. Just like the Inpatient File, the SNF File includes facilities charges and payments and also like the Inpatient File, a stay in a SNF may involve multiple claims. CMS realized that it can be more work to transform the data from the claim level to the stay level so they created the MedPAR file. This is an alternative to combining claims in the inpatient or SNF File. It is created from the inpatient and SNF claims, but the claims are combined or rolled up to stay level so each record represents one stay or admission. The MedPAR File will not meet all needs for all projects. It contains many summary variables and does not have the same level of detail as the Inpatient and SNF Files do. Also, only the diagnosis and procedure codes from the last patient or SNF claims are included.

Two more Institutional Files are hospice and home health agency. The Hospice File includes services provided by hospice agencies for end of life care. The majority of hospice care is provided at home but it can also be provided in an inpatient setting. The Home Health Agency File includes services provided at home such as skilled nursing, therapy and home health aide services.

The last Institutional File is the Outpatient File. Most of the services are provided by hospitals but it does include services from other providers like dialysis facilities and rural health clinics. The most common types of services include labs, radiology, physical therapy, dialysis and emergency room services. Just like other Institutional Files, the Outpatient File includes facility charges and payments. In just a minute you will see why I keep emphasizing these files include only facility charges.

If you are interested in the other charges, the physician charges or what are sometimes called professional fees, you need to use the Carrier File. The file was previously known as Physician Supplier, which is a little more descriptive than its current name. The term carrier refers to the Medicare contractors that process claims on behalf of CMS. The claims processed by carriers end up in the carrier file. As you can guess by the name, it contains claims submitted by physicians in both inpatient and outpatient settings. On the outpatient side, you will find visits and procedures. On the inpatient side, you will find consults and services provided in hospitals and nursing homes. You will also find physician services provided in emergency rooms. In addition, claims submitted by ambulance providers and clinical labs are found in the Carrier File.

The last Claim File is durable medical equipment or DME. This file contains both purchases and rentals of equipment and any other product covered by Medicare. Some examples here are wheelchairs and hospital beds; prosthetics and orthotics; oxygen equipment and supplies; diabetic testing supplies; and some drugs. But it is limited to drugs provided in an outpatient setting and administered by a provider. Mostly these are injectable drugs including some chemotherapy drugs.

In keeping on the topic of drug coverage I want to talk about Medicare Part D. Everything I talked about up to this point is covered either by Medicare Part A or Part B so this is a little different. If you remember from the earlier slide, I mentioned that all Part D plans are administered by insurance companies so the when the beneficiary fills the prescription the claim is paid by the insurance company CMS never sees the actual claim. But CMS does require the insurance companies to submit data on all the prescriptions that were filled. Technically the Part D data that are available for research use are not claims exactly but they are referred to as claims typically.

After CMS obtains data from the insurance companies, it makes the data available to researchers in the file called Prescript Drug Event Files. CMS also has data on the drug itself, the dispensing pharmacy, the prescriber and the insurance plan that paid for the drug. Because the data is considered proprietary by the insurance companies, this data is a little more difficult to obtain than the other Medicare Files. Because of this restriction, CMS has created a subset of the PDE called the Slim File, which contains the data elements most commonly used by researchers including the drug characteristics. The Slim File is the Part D data that is most easily available to VA researchers.

Next, I will talk about an Annual Summary Files available for research use. These files are relatively new so even if you are familiar with Medicare data, these may be new to you. The Annual Summary Files contain variables created by CMS based on the Medicare fee-for-service claims data. CMS uses the claims data to create files that contain one record per person per year. These data are a summary of what is found in that years claims data. And there are two types of summary data. The first is a cost and use data that summarizes payments made by Medicare and by the beneficiary during the year for different types of care and also the number of “events” for each type of care. The word “event” is in quotes here because an event will often have different meanings depending on the type of care. The second type of summary data is the chronic conditions data, which contains disease indicators for approximately sixty different chronic conditions. CMS developed standard definitions for all of these conditions using claims data. The chronic condition summary data has flags to tell you if a person has been diagnosed with one of these chronic conditions and there are also variables to tell you when the person was first diagnosed.

Here is an example of cost and use variable. You will see that both Medicare and beneficiary payments are available for different types of care. For the use variables, you will notice that there are several different types of care and the measure is different for each type of care – stays, days, visits, here are some of the examples.

Here are a few examples from the chronic conditions data. For each of the conditions, there is a first occurrence variable that tells you the date when the condition was first identified and a mid-year and end-of-year indicator to tell you if the condition was identified during the current year at these two time points.

If you are interested in finding the annual summary data, you will have to look in different files, depending on the year and the type of data you are interested in. The cost and use data, and some of the chronic conditions variables were in the Beneficiary Annual Summary File until 2010 beginning with the 2011 data, the cost and use variables and chronic conditions variables are in their own files. Also, beginning in 2011, there is an additional set of chronic conditions indicators, which are primarily disabilities and mental health conditions, found in the Medicare, and Medicaid dually enrolled population.

Our next topic is Utilization for People Enrolled in Managed Care. As I mentioned earlier in the presentation, about a quarter of Veterans enrolled in Medicare are in managed care and most of their utilization is not found in the claims or summary data that we have discussed up to this point.

The Healthcare Effectiveness Data and Information Set also known as HEDIS is a relatively new source of data for researchers in the VA. HEDIS is a tool used by many health plans including Medicare Advantage Plans to measure quality of care using a standard set of performance measures. These measures can be used to approximate the number and types of services each Medicare Advantage enrollee received. Since the data is collected to evaluate health plans, there is only one record per person for each plan they were enrolled in during the calendar year. So if someone were enrolled in Plan A January through June and Plan B July through December this person would have two records.

Here is an example of measures found in the HEDIS data. It includes information on whether or not someone received preventive care such as screenings, medication management for select drugs, comprehensive diabetes care, including whether they received an eye exam or their A1C was within a specified range. Several different types of surgeries and major procedures and for some procedures how many of the procedures they had. If they were hospitalized their total length of stay and if they used specific classes of antibiotics.

HEDIS data is promising because it gives us a glimpse in to the services that managed care enrollees using, but has several limitations. For most people there is only one record per calendar year, which means there are not dates so you cannot determine the sequence in which events happened. There are also no diagnosis codes or procedure codes nor is there information on the physician or hospital providing the care. Lastly, I want to point out that not much is known about the quality of the HEDIS data. One publication pointed out that these data are rarely audited and they are more likely to be incomplete because they are not tied to payments like the claims data are.

Our next topic is how Medicare data can be used in research. While there are many types of analysis that can be done with Medicare data, I am going to touch on five common ways of using Medicare data and health services research. I will discuss procedures, diagnoses, cost, inpatient stays and outpatient visits.

One thing that can be measured using Medicare claims are procedures. There are two types of procedure codes in the Medicare data – ICD-9 and starting with the FY16 data ICD-10 procedure or surgery codes and they are primarily used in an inpatient setting and they are found in the MedPAR and Inpatient Files. The other types of procedure code is the healthcare common procedure coding system also known HCPCS. HCPC codes are a combination of CPT procedure codes and codes developed by CMS for Medicare covered services and products that were not already included in CPT. You can tell when you are dealing with CMS developed codes because they all begin with a character while the CPT codes are strictly numeric. These codes are used in Outpatient, Home Health, Carrier and DME files.

One thing that Medicare claims are used to ascertain is diagnoses. The Medicare claims use ICD-9 and starting in FY16 the ICD-10 diagnosis codes. Diagnosis codes are found in all files with the exception of Part D. In addition to ICD codes, the Inpatient and MedPAR files also include the diagnostic related group or DRG.

There are several ways a procedure and diagnoses codes are used in researcher. They can be used as inclusion or exclusion criteria when defining the cohort. They can be used as an outcome measure and are commonly used in risk adjustment in particular in the development of comorbidity indices.

Another thing that Medicare claims are used for studying is cost. There are two types of cost data in the claims, - charges and payments. Charges are what the provider submits to Medicare but often what they are actually reimbursed is quite different than what is charged. More often researchers study payments made to providers. This includes payments from Medicare; payments from the beneficiary in the form of deductibles and co-payments and payments from primary payers. Users should keep in mind that these claims do not contain any payments made by secondary payers which are usually insurance plans that pay after CMS has paid.

So switching gears a bit from elements found in the data to the type of utilization itself Medicare claims are used for looking at inpatient stays. Here I concluded some common measures that are used when studying inpatient stays. The Medicare data can be used to study the number of sick days; the length of stay which is calculated from the admission and discharge dates. And by comparing inpatient stays with each other, you can determine whether or not the stays are readmission. The claim tells you the facility number, which can tell you the type of facility and its location, and of course, you have procedure, diagnosis and cost which I have already mentioned.

As we have seen earlier, inpatient and skilled nursing care are provided by institutional providers and the claims, the facility charge can be found in the Inpatient or the SNF File or MedPAR and these claims will include services provided by the facility and its staff. When care in an inpatient or SNF are provided by physicians that are not employed by the facility, these claims are submitted separately and end up in the carrier file.

A question that often comes up – should I use MedPAR or inpatient and SNF? But there is really no right answer; it depends on what you are studying. The MedPAR file is advantageous when studying the big picture, things like number of stays, length of stay, total cost or payments. But if you need greater detail, you will want to use the inpatient or SNF file. In addition, if you want all diagnosis and procedure codes, you will want to use inpatient and SNF since the MedPAR contains only the diagnosis and procedure codes found on the last claim of the stay. Some researchers may find it beneficial to use both MedPAR and inpatient – use the MedPAR for studying stays, and the inpatient file when additional details are needed. In addition, if you want to know about any consults that occurred during the stay or procedures that may have been done by non-staff physicians, you should also use the carrier file.

One thing you want to keep in mind when combining VA and Medicare inpatient stays is that there are differences in VA facilities or stations and Medicare facilities. Sometimes a single VA facility can provide a wide range of care, for example acute care and rehab. But a single stay outside the VA in Medicare this might be split between two facilities and two stays so it would appear there is more admissions in Medicare. When you are looking at inpatient stays, it is a good idea to know what took place during the stay so you know you are counting the same thing in both systems.

The last measure I will discuss is outpatient visits. Here is a list of some common measures that are used when studying outpatient visits. The Medicare data can be used to study the number of visits, by using the dates; the place of service; the provider number; which can tell you the provider’s type; specialty and location, and also as I mentioned you also have procedure codes, diagnosis codes and cost.

Going back to what we learned, we remember that outpatient care can be provided by both institutional providers like hospitals and non- institutional providers like physicians. The claims submitted to the hospital will end up in the outpatient file and the claim submitted by the physician will end up in the carrier file.

In most cases, researchers should use both the Outpatient and Carrier File. One of the most common mistakes I see is that researchers want to study outpatient care so they request only the Outpatient File. There are some situations where you may need only one or the other like if you only wanted to study physician visits you would probably be okay with just Carrier but in most situations you should use both. Keep in mind that for some events, there will be a claim in each file like with emergency room visits. Depending on the type of services you are studying, you also may want to consider adding the Home Health Agency File if the services you are interested in could be provided at home like certain types of therapy.

The title of this slide I used the term Outpatient Visits and there are several terms we could have used – visit or event or encounter. Whatever terminology you use, it is important that you define what you mean. In the VA often several appointments are scheduled on a single day like seeing a primary care physician, a specialist and a therapist. If you are familiar with VA data, you will know that this will probably be counted as one visit but three events. On the Medicare side, regardless of whether the three services are on the same day or different days, they will be submitted as three different claims or three visits. Sometimes you see the measure of days of care received, but this is not a perfect measure either. Regardless of the terminology, it is important to be sure that you are counting the same thing in both systems.

We see what can be done with the Claims Files, but I also want to show how you can use the Annual Summary Files in your research. They obviously will not meet all needs but they can be very beneficial. They are very easy to work with since they contain only one record per person. I know there are a lot of projects that have limited resources and do not have the time or staff to dedicate to analyzing huge claims files. On the flip side, the annual summary file will not work well if you need the data summarized by fiscal year or any other timeframe. They also will not work well if you need more detail of that event or if the event you are interested is not included in the file or if you want to define a condition differently than the definition CMS has used.

Here are some examples of questions that can be answered using either of the cost and use or the chronic conditions summary data.

So I just covered a lot of things that you can study with the Medicare data, I want to take a moment to mention the things you will not find in the Medicare data. Because these data are created for billing purposes things that are not required for billing will not be in the data like clinical data. With few exceptions, you will not find any lab results in Medicare data and obviously, if the provider did not bill for the service it will not be in the claim.

I mentioned earlier that the data from managed care enrollees is incomplete and lastly I wanted to add that some Medicare services are billed using a perspective payment system or a bundled payment where single payment is made to cover many services. So the amount of detail you will find in the claims will vary.

Now I am going to show a few examples of research that used Medicare data.

The first example is a recent publication in the *Annals of Internal Medicine* from Dr. Thorpe and colleagues entitled *Dual Healthcare System Use and High Risk Prescribing in Patients with Dementia*.

The purpose of this study was to investigate the association between dual VA and Medicare health use and prescribing of potentially unsafe medication or PUM. Their cohort was comprised of VA users with Alzheimer’s disease who were continuously enrolled in Medicare Parts A & B from 2007to 2010. In order to limit the cohort to people for whom they would have Medicare data during the entire study period they limited the cohort to people who are sixty-eight or older at the beginning of 2010, which meant that they were sixty-five or older at the beginning of 2007. During 2010, cohort members had to have at least one outpatient encounter and one VA prescription. Lastly, the patients were excluded if there were any hospital or nursing home thirty-one days or more during the study period. And their final cohort was over seventy-five thousand people.

The study used VA Medical SAS files and the Pharmacy Benefits Management or PBM and in Medicare, they used enrollment and summary data for utilization and for utilization, they used MedPAR, Outpatient, Carrier and Part D. They used this data to do several things including to limit the cohort to those meeting criteria listed in the previous slide. They also used Medicare enrollment data to identify and exclude patients who were enrolled in Medicare Advantage since their claims data would be incomplete. To identify patients with dementia the project was able to utilize the MBSF Chronic Conditions File, one of the Annual Summary Files, which has an indicator for Alzheimer’s Disease or CNL dimension and use the same diagnosis code to identify Veterans who met the criteria from the VA data. They used VA and Medicare diagnosis codes to identify comorbid conditions. Finally, they used VA, Medicare and prescription data, both to identify medications that may be potentially unsafe when used together. Then they assigned users into two groups based on whether or not they used Part D for their prescriptions in addition to VA.

Here are a few results from the study. The study found that fifty-nine percent of Veterans who received drugs from both VA and Medicare Part D were exposed to a potentially unsafe medication. The number of exposed days was also higher among dual users. When looking at an adjusted model they found that Veterans who received drugs from both VA and Medicare were 2.2 times as likely to be exposed to potentially unsafe medications compared to those who got all their medication from the VA.

The second example for today is from Dr. Axon and colleagues in the *American Heart Journal*, called Dual Healthcare System Use is associated with higher rates of hospitalization and hospital readmission among Veterans with heart failure.

The purpose of the study was to determine the rates of emergency department visits, hospitalizations and readmissions among patients with heart failure. Their cohort was comprised of Veterans who received primary care in the VA in South Carolina from 2007 to 2011 and who had an ED visit or hospitalization for heart failure in either VA or a non-VA facility during the study period. Their cohort was about fourteen thousand patients.

The study used data from the VA’s Corporate Data Warehouse and Medicare inpatient, outpatient and Carrier Claim Files. The study used this data to identify heart failure using diagnosis codes. They also used both VA and Medicare data to identify emergency visits and hospitalizations in order to categorize patients into three groups based on where they received those services, in VA, in Medicare or in both.

Here are a few results from the study. When looking at services provided for any diagnosis, they found that Veterans who used only non-VA care had fewer ED visits and readmissions whereas dual users had significantly more of these services compared to Veterans who only used VA. They found a similar pattern when focusing only on care where heart failure was the primary diagnosis. Veterans who used only non-VA care had significantly fewer ED visits, hospitalizations and readmissions whereas dual users had significantly more of these services compared to Veterans who used only VA.

So the two examples I just described are research focused on dual use on comparing VA care to non-VA care or to dual use. Your research does not need to be focused on dual use for the Medicare data to be important to the study. On this slide, I am going to highlight four studies that used Medicare data but these are studies that are not primarily focused on dual use. All of the studies included Medicare data because the type of condition or service they were interested in is often provided through Medicare. In the first example, the project was interested in identifying all fractures regardless of where they occurred. In the case of fractures and other emergencies, patients often go to the nearest hospital, which may not be a VA hospital.

Next, the study wanted to identify only patients with incident dementia during the study period. One way Medicare data was used in this study was to exclude patients who had been diagnosed with dementia prior to the study period.

Third, the study wanted to identify all imaging services to determine if there was overutilization compared to clinical guidelines, which requires information on all services provided regardless of setting in which it, was provided.

Lastly, this is a study that focused on hospice. The study noted that fifty-five percent of Veterans who received hospice care received it through Medicare, which makes the Medicare data essential when studying hospice.

Finally, I will talk about data access and how to get assistance using Medicare data. VIReC’s VA CMS data for research projects is the data stored for all CMS data use for VA research. This includes the Medicare data but also Medicaid, patient assessment, Medicare survey data and data for patients with end stage renal disease. Data are available for projects that are approved by their local R&D committee and their IRB and there is no cost to use the data. I want you to know that if you are planning to use CMS data for your VA project, you must request it through VIReC. VA policy does not allow VA employees to obtain CMS data directly from CMS or ResDAC.

We have an entire portion of our intranet website dedicated to researchers who plan to use or who are using CMS data. On this site, you will find descriptions and documentation for all the CMS data we have available for request. You will find information about how to request data including the request forms. You will also find information about our pre-request consultation service, which are one-on-one phone calls with researchers who are planning to use CMS data for their VA researcher. We can help researchers determine which CMS data will be most appropriate for the study, we will review request forms and will answer any questions about your request process.

In addition to the resources, I just mentioned you can also get help from VIReC on both VA and CMS data through the HSRdata listserv and from the help desk.

If you need data within VA, CMS data, but not for research purposes, you can request the data through the MAC, the VHA and Medicare and Medicaid Analysis Center. It is part of the Office of the Assistant Deputy Undersecretary for Health for Policy and Planning and they are the data stored for CMS data for VHA operational or administrative purposes. This would include use by VHA program offices and also for quality improvement or quality assurance purposes.

I am also going to mention two resources outside the VA. First, is ResDAC a CMS contractor that provides free assistance and training to researchers using CMS data. They have a help desk, a knowledge base and offer webinars and in-person workshops.

The final resource is the Chronic Conditions Data Warehouse or CCW. The CCW is the source of most of the CMS data that we received at the VA. The CCW website has documentation, summary tables and guides and reports on using the CMS data.

Lastly, I want to highlight a few general resources for researchers using VA data.

That is all I have and I am going to turn it over to Cheryl.

Moderator: Okay. We have two questions. First question is – can you briefly go over the difference between MedPAR and inpatient files again.

Kristin de Groot: Sure. Let me go back to my slide. The basic difference, the inpatient file is a claim level file, the MedPAR file is a stay level file. But for probably over ninety percent it is going to be, they are both one record per stay because most inpatient stays are only one claim. The main difference is the variables you will find in the data, the MedPAR file has more summary variables where the inpatient file gets down into more details.

Moderator: Thank. Another question – regarding the quality of HEDIS data, this audience member says – it is not accurate to say that the HEDIS data is unaudited. HEDIS data is submitted to NCQA, no I am sorry. HEDIS data submitted to NCQA undergoes a HEDIS compliance audit. Could you comment on that?

Kristin de Groot: I can comment on that. The HEDIS data I am not saying that the HEDIS data is poor quality, I think most researchers think that data that are tied directly to payments are traditionally shown to be more reliable and there just has not been as much checking of the data as there has been with some other types of data. I refer you to the article that is shown on the screen right now that is where…I know they questioned the quality of the HEDIS data.

Moderator: Okay. Those are all the questions we have now, maybe we can wait a few more seconds and see if there are any other questions otherwise those are the questions. Okay we did get one other one just a moment please. You mentioned that ED visits may show up in both Outpatient and Carrier Files. Are you saying that the same visit may appear in both places?

Kristin de Groot: Yes, that is possible. Typically, the claim that would show up in the Outpatient File would be the hospital doing the billing, the claim that would show up in the Carrier File would be a physician billing. There may or may not be a physical bill associated with an emergency room visit. If you are using the Medicare data, you would need to compare the dates. If a person has a claim for an ED visit and in the Carrier File, there is one on the exact same date, more than likely it is one ED visit not two.

Moderator: Okay we have another question. Which site do we access CMS data from as someone who uses CDW for VA data.

Kristin de Groot: If you request the data from VIReC, which you have to do, you have to request it from VIReC. We can provide the data to you either on a local server or we can provide it to your VINCI workspace. You would indicate where you want the data delivered to in your request form.

Moderator: Let me see, we have another question. Is the first occurrence date in the Chronic Conditions Data File the first occurrence ever or the first occurrence in that fiscal year?

Kristin de Groot: It is the first occurrence ever.

Moderator: Okay. Let me see, do we have any other questions. Again we have a little bit more time if someone has a question that Kristin may be able to address this is a great time to type it into the question box.

Okay, any other questions out there, if not, I would like to thank Kristin for taking the time to present today’s session. To the audience if your questions were not addressed during the presentation, you can contact Kristin directly and I believe her contact information is visible now. You can also contact the VIReC help desk at [VIReC@VA.gov](mailto:virec@va.gov), the email address that is there.

I would like to tell you a little bit about our next database and methods session. It is “Measuring and Assessing Outpatient Utilization” scheduled for February sixth at 1:00 PM eastern. This session will be presented by Dr. Denise Heinz [ph] Research Career Scientist in the VA. Dr. Heinz has a joint appointment as Professor of Public Health in the College of Medicine and she is Research Professor in the School of Public Health at the University of Illinois in Chicago. We hope you can join us for this upcoming seminar.

Thank you once again for attending this session. Heidi will post the evaluation shortly, please take a minute to answer those questions. Thank you very much.