Moderator: Our third speaker is Amresh Hanchate and his topic is Veterans’ demand of VA healthcare.

Amresh Hanchate: Hello all. I’m Amresh Hanchate from CHOIR via Boston. And I’m presenting findings from HSR&D pilot study on external determinants of Veterans’ demand for VA healthcare. First, I’d like to acknowledge a number of my collaborators. Some are here and also acknowledge Veterans from the ADUSH office for policy and planning.

And the office of productivity, efficiency, and staffing. With increasing recognition that demand for VA care is influenced by factors external to the VA. What we call external determinants, both among working age Veterans, as well as those 65 and older. And by external determinants, we mean policy changes.

Such as the Medicaid expansion, as a result of the ACA, particularly in 2014. And changes in employer sponsor coverage, changes in unemployment, or available GFR physicians or others outside the VA. Particularly for Veterans who have outside coverage. So understanding the relationship between VA utilization and these external determinants is important for making better models of projections of VA healthcare demand and budget and staff plan.

The work today is, in some sense, a complex work in progress project and builds off of earlier work. Particularly from Wong and colleagues at Seattle who looked at demand models with respect to changes in area level unemployment. And work in our own group in Boston where we look at models that included state policy and Medicaid and changes in housing prices.

So this work extends the previous work in three significant ways. One, we have this more recent data that allows us to look at the 2014 ACA expansion. And two, we include two that I think are important external determinants into the story. The private insurance coverage, as well as provider availability outside of VA.

And finally, a methodological one, we do all estimations using individual longitudinal data, which we think has better estimation properties. Overall objectives were to develop a comprehensive model to estimate the sensitivity of VA utilization to changes in these external determinants. And apply this model to get the aggregate VA utilization changes, particularly with respect to the 2014 Medicare expansion.

As you’ll see, there are a number of external determinants we’ll look at today. But that’s the one that I’ll try to focus on. And also, to see how the sensitivity differs across different important subgroups in the VA population. In the models we look at, there are up to five external determinants we look at.

And conceptually, our models were guided by the demand models in the health economics literature. So the hypothesis, for example, was that expansion in Medicaid coverage would be associated with a decrease in VA utilization, as more Veterans would be qualified for Medicaid.

And the similar logic would hold for expansion in private employer coverage and the third policy is increase in unemployment. That is simpler and that represents, aside from the insurance part, it represents a decrease in income. And therefore, risks increase in VA utilization because of a lower cost of VA care.

And increase in providers outside the VA may represent increase in access to care outside the VA. And may have a dramatic effect of reduced demand for VA services among some Veterans. And how the price changes also may have a dramatic effect on VA care. Although, the natural effect is a little bit more complex because it depends on whether you are a homeowner who would be feeling better about it or a renter whose cost of living has increased.

The study population comes from, it includes all the Veterans in the Adish enrollment files from 2008 to 2014. And once we identify a Veteran, we keep them in the dataset until their death. The unit of time is here. We exclude Veterans who had only one year of data. Because all our estimation is based on longitudinal change of individual level.

And we also excluded those who relocated across counties in the study period. Because that may confound some of our external determinants, which are area based. Our primary outcome was the dollar value of all acute inpatient, outpatient, pharmacy, and fee basis care of each individual in one year, expressed in 2010-dollar terms.

And as secondary outcomes, we also looked at these values by type of other, four types of service. All the external determinants were measured at the annual level. Four are state level measures, one is a county level measure. The Medicaid coverage is a derived measure, which we defined as the percent of a nationally standardized population that would be eligible for Medicaid in each state in that year.

And the measures for the remaining four external determinants are directly borrowed from other sources. Employer coverage, for example, as the percent of state employees who go for coverage. Unemployment, VA provided data, and housing price index directly obtained from other sources.

We also estimated the model for a number of different subgroups by category. And as there is no complete race, ethnic, or income data, we characterized population based on zip code. What proportion of the zip code population was minority and so on.

Finally, we estimated sensitivity of VA utilization to external determinants using linear regression models with individual fixed effects. And expressed sensitivity as the percent change in VA utilization associated with a ten percent increase in an external determinant.

And we stimulated this model separately by age because some of the external determinants are not defined for the elderly. It has also been focusing on some of the numbers here. But we’ll be happy to come back and answer any questions. For both the H cohorts, we had about four million enrollees. And for each individual on average, we had about five years of data.

The average VA utilization for individual was roughly $4,000 worth of care across this time period. And the average Medicaid coverage was seven point one percent. Meaning that on average, seven point one percent of a state’s population was eligible for Medicaid in 2008. And we see that between 2013 and 2014, there was a marked decrease.

According to the estimates here of sensitivity, the first one says that a ten percent increase in Medicaid coverage was associated with a point three one percent increase. That’s one third of one percent increase in individual VA utilization. And a very small change for the 65 plus population.

So if we took these estimates and applied it to all the enrollees in this group and used the actual Medicaid expansion in the states. What that means is there would be $118 million decrease in utilization. And as the percentage of all VA healthcare spending, that’s a pretty small amount, point four percent decrease.

And if you just look at the last column there of the aggregate VA utilization change, you see that across all the different external determinants. The predicted change from this model is very small. That was for the national data model. Next, we apply the same strategy for different subgroups, starting with the 26 states that expanded Medicaid in 2014.

And looking at the very first number, total VA utilization. Now the sensitivity is much larger, one point six three percent. And again, applying these estimates across the 26 states predicted well over $800 million reduction in VA healthcare, a nine point two percent decrease. And the other numbers below that are the breakdown of similar change but in different types of services.

We see equally large change or similarly large change across all four components. And the non-expansion states, there was almost no change in VA utilization associated with Medicaid. Coming back to those 26 Medicaid expansion states, this is the sensitivity across different subgroups for the Medicaid coverage variable.

And we see that in the low priority, that is seven and eight, the sensitivity was higher and also higher among the high morality areas. For conditions where changes in external factors are associated with change in VA utilization, an aggregate utilization change appears as well as small at the national level, but sizeable within regions and subpopulations, Medicaid expansion states.

This was a very complex modern project and there were a number of limitations we had tried to address. And a number that need to be addressed. One is potential confounding from external determinants that are correlated with other area factors that were not included in the model. And also, among all the external determinants, only one was and that’s unemployment, was based on data specifically for reference.

The main limitation is that projection of VA care should incorporate the potential role of external determinants. Now, I’ll take any questions.

Patrick O’Mahen: Patrick O’Mahen. I’m with the Houston VA and I have a question talking about, specifically regarding state Medicaid policy. So you looked at the difference between expansion and non-expansion states. But one of the things that we do know is that there’s a lot of variety within the expansion states. And if the ACA continues, like it looked like it might as of five pm yesterday.

We’re not quite sure yet, right. It’s very likely that the current administration will be pushing, will be allowing much broader waivers. So I was wondering if you guys looked at or you’d be willing to speculate a little bit intelligently on is an Arkansas model going to have different affects than a standard expansion? Or especially, something like an Indiana model. So state by state differences.

Amresh Hanchate: Right. So a number of things I skipped over. Let’s go back to one of them. So if you look at…so when you combine all the states together, the sensitivity estimate to Medicaid coverage was as I said point three one. And when we replicated this separately, for the expansion states it was one point six three. And for the non-expansion states, it was almost zero, point zero eight.

So there’s a difference in data for these states. But one of the things that may explain this wide difference between the two is things that we are not capturing in the process. And that is the higher sensitivity in the expansion states could be not just because there was higher eligibility. But these states may have also proactively enrolled or campaigned in terms of outreach activities to enroll in Medicaid.

As opposed to states which may not have done because they did not expand. So I think it’s…so the complexity of the model is that there are things that are missing in what we are measuring that get reflected when we start looking at components. So my long-winded answer is yes. I think we should probably, there’s enough sample size I would say for most states to look at differently.

Patrick O’Mahen: Thank you.

Moderator: Thank you.

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