Michael Weiner: So, I’m going to start out, Jean Yoon is the first presenter and she’s talking about the impact of patient aligned care teams.

Jean Yoon: Thank you. Good morning. So, today, I’ll be taking about results for an evaluation that was done in partnership with the Office of Primary Care Services. I’d like to acknowledge all my collaborators on this work.

So, in the VA and in most other healthcare systems, a small group of patients accounts for the majority of healthcare cost in the system. And, because of that, policy makers are interested in understanding how do we improve care and lower costs this group of patients. These costly patients often have multiple chronic conditions, behavioral problems, social problems such as low social supports and poor functioning, and rely a lot on acute care, such as hospitalizations and ED visits.

Traditional primary care models may not be enough to address the complex needs of these sicker, high-risk patients. And, so one type of model that has been developed for these patients is intensive outpatient management, which involves more frequent, more intensive outpatient care, usually provided by an interdisciplinary care team.

And, so once I implemented this type of program and they randomized it to patients, but they did not find that there were indifferences in total costs between patients who were randomized. So, the VA wanted to build on this one site study, so they initiated the PIM [PH] demonstration in 2014. So, the goals were to develop and test approaches to managing high-risk patients and to identify best practices that could be disseminated across the VA. And, they wanted to do this in an operations evaluation partnership.

So, the main outcomes for the evaluation included VA healthcare costs and utilization, which I will be presenting today. And, the other main outcomes included patient satisfaction and provider satisfaction.

So, five geographically diverse sites were chosen for the PIM demonstration through an RFP. The sites developed their programs independently based on the needs of their patients. A lot of their program elements were similar. They all screened patients, triaged them and assessed them for services. They all used interdisciplinary care teams involving providers, nurses and social workers. Most of them included mental health specialists. They all provided care coordination, assistance with medications, home visits and health coaching. Once I used the PIM team to replace their patient’s PACT team, whereas the other sites used PIM as adjuncts to PACT. And, then one site more provided additional support to patients through former military medics.

So, PIM, the PIM demonstration was designed as a randomized quality improvement trial. We first identified patients at the high risk for hospitalization using the CAN score, or the care assessment needs score. And, patients had to have a recent acute care episode. So, they randomized patients to PIM or the PACT, and not all patients randomized to PIM had any PIM services. But, we included all randomized patients in our analysis.

So, the source of data for this work comes from the CDW utilization data, where we measured inpatient stays, ED visits and other outpatient visits. We measured costs from MCA data, including the cost of PIM encounters. And, then we included some non-VA costs from Fee Basis.

So, we ran some regression models where we estimated the difference and difference estimator or the additional change for the PIM group relative to the PACT group in the post-randomization period. We modeled utilization and costs and we tested various models. And, all of our regression models used fixed effects for patients.

Bringing to the characteristics of the patients, we can see that characteristics were generally similar between the two groups. Patients were older males for the most part. They had on average seven different chronic conditions, most common mental health problem was depression, which was higher in the PACT group. And, then patients had high rates of ED visits and inpatient stays in the year prior.

So, turning now to our results, we can see that hospitalizations and ED visits decreased in the post-randomization period for both the PIM and the PACT groups. The differences between the PIM and PACT groups were not statistically significant. Looking at differences in outpatient encounters, these are the higher number of encounters for the PIM group relative to the PACT group. So, we can see that PIM patients had higher encounters for primary care in person and by phone than significantly higher home care visits, and then home-based primary care visits. They had higher visit, higher mean number of visits for care management, care management by phone and mental health, although this was not statistically significant, as you can see by the 95% conference intervals.

Now, to inpatient costs, we can see that inpatient costs were similar pre, post-randomization for the PIM group and they, inpatient costs were higher for the PACT group in the post-randomization period. So, while the PIM group had more than $2,000 less in mean inpatient costs, these were not statistically significant.

In terms of outpatient costs, we can see that the PIM group had higher outpatient costs in the post-randomization periods, whereas the PACT group had lower outpatient costs in the post randomization period. And, then PIM patients had more than $2,000 more in outpatient costs compared to the PACT group, which was statistically significant.

Finally, in terms of total cost, total cost was similar in the pre and post-randomization periods for the PIM and PACT groups, and there was no difference between the two groups.

In summary, we found that total costs were similar between PIM and PACT, although PIM had a higher mean outpatient cost, while they have lower inpatient costs. Although, that difference did not reach statistical significance. The higher outpatient costs for the PIM group was driven by higher utilization for primary care in person and by phone, and also for home care and home-based primary care encounters.

There were some limitations to our work. So, 12 months may be too short a period to observe impacts on utilization. The PIM sites in this demonstration had relatively high SAIL performance measures, so these results may not generalize to all VA sites. And, we did analyze any prescription drug or Medicare utilization data, so it’s not clear what the impacts on these utilization might be.

In conclusion, PIM was unassociated with any reduction in costs, but it did appear to shift costs from an inpatient side to the outpatient side. One goal of these type of models is that it might improve the efficiency of care. And, so while we didn’t see that through the reduction in costs, there is some suggestion from other program data that we may have helped to improve care. In a survey of patients, we found that PIM patients reported higher trust in their providers compared to PACT patients. And, then in a survey of providers that we conducted, we found that PACT providers in PIM sites reported higher satisfaction with the help they received for their high-risk patients.

So, you can look at our findings from two different perspectives. One perspective is that it was a failure, because it didn’t reduce total costs for the PIM patients. On the other hand, you can also see it as a success, because it was cost-neutral, while at the same time our data at this point suggests that it did improve care for these patients.

And, finally, just want to acknowledge everyone who was part of the PIM demonstration.

[Applause]

Michael Weiner: Take questions.

David: Okay. Hi, it’s David Ganz from LA. Just a quick question. Did you include program costs in your cost calculations?

Jean Yoon: Yes, we included the cost of PIM encounters. They were attained for the MCA data, which report all outpatient encounter costs.

David: But, what about the funding to the sites?

Jean Yoon: Sites were supposed to map the PIM teams to the correct clinic locations, that is, it’s supposed to show up in the MCA costs.

David: Okay.

Jean Yoon: So, we did compare the average primary care encounter for PIM versus PACT, and we did find across all sites, it was higher in the PIM sites. So, it seems to reflect the fact that these PIM encounters were more expensive given that PIM teams had smaller caseloads.

David: Thanks.

Unidentified Male: So, so one explanation is that, you know, people, these sort of high-intensity users actually have sort of a cyclic pattern to their use that, and, you know, perhaps that once they get into crisis, it’s kind of hard to really affect what’s going on. You have to basically manage them out of it. And, the question is can you, can you find an opportunity to get them at the point where they’re meta-stable, but, but, you know, and prevent some of the future crises down the, down the line. How, what is, what’s your sense of the sort of trajectory of these people as you look at it? And, is, do you think there would be any way to try to sort of time these interventions in a way that might allow them to be more beneficial or effective?

Jean Yoon: Yeah. I mean, part of rationale for selecting patients, not just who had high CAN scores, but who had to have a recent acute care episode, either a hospitalization or ED visit, was the sense that because it was recent that there would be opportunities to improve care and to address unmet needs for these patients. So, you know, in terms of the trajectory, you know, some of the patients, as you saw, did not receive PIM services, because their providers considered them to be sort of stable and not needing additional care. But, they were sort of made, the providers were made aware of these patients, so they were sort of in the light touch group, where they receive sort of watchful waiting. Like, the providers could monitor the patients more carefully, even though they may not have necessarily needed more intensive services. And, then there was a group of patients that received more high-touch care, where they needed more intense encounters upfront.

[Applause}

[End of audio]