NATIONAL QUALITY FORUM (COMMPARTNERS, LLC)

Moderator: Ashlie Wilbon
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Operator: This is Conference # 24986900

Welcome, everyone. The webcast is about to begin. Please note today's call is being recorded. Please stand by.

Ashlie Wilbon: Good afternoon, everyone. This is Ashlie Wilbon, managing director here at NQF. I wanted to welcome everyone to our webinar this afternoon, which is a convening of the Cost and Resource Use Standing Committee. They will be discussing the conceptual analysis submitted by the CMS/Yale CORE team for the cost of resource use measures that were recently endorsed.

Today, we'll be focusing on reviewing the submission of the conceptual analysis of the relationship between the SDS factors selected by the Yale CORE team and cost and payment outcomes as a part of the SDS trial period.

So, just to move on to the next slide here.

So, our agenda for today, we'll start out with a welcome and roll call, and we'll move into a background again about how we got here, the purpose and goals of this call. The last convening of the Cost and Resource Use Standing Committee was in January, so we just want to refresh everyone on the purpose of today's call and the process we're in the midst of within the trial period.

Then we'll jump into the actual review of the conceptual analysis and the submission from the Yale CORE team. We'll have a discussion with the

committee over the submission and some key questions that we've queued up for them.

We'll then open for public and member comments for those of you that are listening in on the call and have any comments or thoughts to – for the committee to consider. And then we'll move into next steps and adjourn.

So, at this time, I'd like to just take roll of the standing committee to see who has joined us on the call.

Brent Asplin?

Brent Asplin: I'm here. Thank you.

Ashlie Wilbon: OK, great. Lisa Latts? Are you there yet? OK. Ariel Bayewitz? Lawrence Becker? Mary Ann Clark? Cheryl Damberg?

Cheryl Damberg: I'm here.

Ashlie Wilbon: Thanks, Cheryl. Jennifer Eames Huff?

Jennifer Eames Huff: I am present.

Ashlie Wilbon: Great. Nancy Garrett?

Nancy Garrett: I'm here.

Ashlie Wilbon: Great. Andrea Gelzer? Stanley Hochberg? Matthew McHugh? Carolyn Pare?

Carolyn Pare: I'm here.

Ashlie Wilbon: Martin Marciniak? James Naessens? Jack Needleman?

Jack Needleman: I'm here, Ashlie.

Ashlie Wilbon: Great. Hi, Jack. Janis Orlowski?

Janis Orlowski: Here.

Ashlie Wilbon: Great. John Ratliff? Andrew Ryan? Joe Stephansky?

Joseph Stephansky: I'm here.

Ashlie Wilbon: Great. Hi, Joe. Lina Walker? Bill Weintraub? I thought I saw Bill on the Webinar. OK. Herb Wong?

Herb Wong: I'm here.

Ashlie Wilbon: OK, hi. Dolores Yanagihara?

Dolores Yanagihara: Hi, Ashlie.

Ashlie Wilbon: OK, great. OK, good.

We've got a pretty good group of people from the committee on, that's great.

So we'll go ahead and jump right into a little bit of background about how we got to where we are now. If you recall in our January call, the last time we convened the committee, we went over a little bit about the SES trial period and how it came about.

So, it started with the report that was finalized last year from an expert panel that we convened to specifically look at and address socio-demographic and – sorry – socioeconomic status and other demographic factors and the impact of those variables on risk adjustment, in the context of our current – our NQF policy at that time, which was not to include those factors in the risk model.

As a result of that work, there was – the recommendations in that report was for NQF to consider the – changing our policy to allow those factors to be included in the risk model under certain circumstances, and given analysis of that – deemed that that is necessary.

So, as a result of that, the recommendation was to allow our policy to – which was currently to not allow those factors in the risk model, for the next two years, we would allow measures to be submitted with SES factors included in the risk model with analysis, particularly around conceptual link to those

factors in the outcome, and empirical analysis showing the impact of those factors in the risk model.

So as a part of this trial period, once the resource use measures were endorsed, the board at that time requested that we reassess the cost measures under this trial period, this period of time under which this policy would be lifted, to see whether or not there was any impact of SES on these particular measures.

So during this period, we will be asking developers to do some background work and determine whether or not there is a conceptual relationship between a variable that they've identified and the measurement topic or the outcome that is the focus of the measure. And then further take on empirical analysis to see the impact of those variables that do in fact have a conceptual link.

So the three measures that will be the focus of today's discussion are those that were addressed by the board in their final endorsement recommendation, which are 2431, hospital-level risk-standardized payment associated with a 30-day episode of care for AMI; 2436, same title, but for heart failure; and 2579, again the same measure title, but for the pneumonia condition.

So with these three measures being endorsed with the conditions, we, here at NQF, have been working with the Yale CORE CMS team to come up with a process and a mechanism for reevaluating these measures during the trial period. And what we've agreed upon is to divide the evaluation of the measures into two steps or stages, if you will, which will be – in which we'll have one webinar on each of those steps.

The first of those webinars is today, which will be focused on the conceptual analysis. I have added links to the – to the webinar screen which you should be able to download the submission that Yale provided, one of which is a diagram of their conceptual model.

And the other is a memo to the committee describing the research and background work that they've done on their – for their conceptual analysis.

We will have another webinar in October in which we intend to focus on the committee's evaluation and review of the empirical analysis that they've done

as a result of the – of today's discussion and the recommendations from the committee on the variables that they've identified and next steps for empirical analysis.

Following the October webinar, we will put together a report which will go out for commenting – for a 14-day public comment period. That will go to the CSAC, the executive committee and then followed by an appeal. So it's somewhat of an abbreviated CDP process that mirrors our ad hoc review process, the same that we would do for a measure that was brought up for an ad hoc review outside of its regular endorsement-maintenance cycle.

So, I just want to pause there and just see if any of the committee members have any questions about the process, and why we're here today.

OK, great.

So, with that, we'll kind of jump into the conceptual analysis piece. So the next few slides will lay out the purpose of our discussion today, what we intend to address with the committee's discussion, and then we'll have the Yale CORE team give us an overview of their submission, and then the committee will be queued up to begin their discussion.

So with today's conceptual analysis, the goal is to review the analysis of the selected variables that have been submitted, to determine whether or not further empirical analysis is warranted and come to agreement from the committee, as well as with the developers, to identify those variables that should be pursued, and the next step – the next phase of this work, which would be the empirical analysis.

And then to have some discussion about, as an input for the developers, on a plan for the empirical analysis. The reason that we decided to divide this – this process into two stages was so that the committee would have the opportunity to provide input, you know, at an earlier touchpoint in the process so that the developers wouldn't, you know, go back, do all this work, and then get to the end of the process only to find that the committee, you know, would want more additional information in some area, or would like the developers to consider some aspect of the analysis that wasn't initially discussed.

So, at this point, following the review of the conceptual analysis, we did want to give the committee an opportunity to provide some input on the next stage of the process, which is the empirical analysis portion.

So what do we mean by conceptual analysis? We're trying to determine whether or not there is some conceptual relationship or logical connection that explains the association between the SES factor and the outcome of interest. And in this case, that's cost or payment outcomes.

And this may be informed by research or other healthcare experience related to the outcomes. But the relationship doesn't necessary have to be causal. So it can be direct, indirect or serve as a surrogate for a cause which there may not be a lot of data. So we're looking for the developers to do some background research to determine which variables do in fact or could in fact have that link.

So some of the key questions that we are seeking to address in this analysis is whether or not there is research out there that indicates there is a relationship between SES or some SES factors in the outcome; is there a logical relationship or theory about the relationship; is there a significant passage of time between the healthcare unit intervention and the measured outcome, during which those factors in particular have an effect; are there patient actions or decisions that influence the outcome; and are those decisions impacted by SES.

So the example that we give here is the ability to purchase medications, for example.

Another question would be about whether or not the patient community has an influence on the outcome, so, whether or not there are barriers in terms of accessing pharmacies, groceries, healthcare services, et cetera.

So some of the things we've asked the developers to consider as a part of their conceptual analysis is what factors do have – could have a conceptual relationship. Is there evidence? What variables would you have access to, to

actually, you know, gather the data and run it through for additional empirical analysis.

Also, we're looking for them to discuss whether or not they believe the results of the empirical analysis would warrant additional empirical analysis. And, particularly for these measures, because we're looking at three different conditions, have some discussion about whether or not there are differences, perhaps, in the impact of SDS between the various conditions.

And then have some discussion about whether or not there is a plan in place or some early thoughts about the approach that will be used to approach the empirical analysis.

So at this point, I'm going to see whether or not there's anyone from Yale CORE on the phone to give us an overview of the submission that you provided. Is Nancy or Jenna…

Nancy Kim: Hi, Ashlie, can you hear me?

Ashlie Wilbon: Yes, we can.

Nancy Kim: Hi, it's Nancy Kim. I'm with Susannah Bernheim. We're here whenever you would like us to speak.

Ashlie Wilbon: You guys are ready to go.

Nancy Kim: OK. Good afternoon, everybody. Just to begin and state the obvious, disentangling the association of sociodemographic status and payments is a very complex endeavor. We began with a literature search on the association of SDS with cost containments for the conditions of interest, and found, rather to our disappointment, that the existing literature was not that informative. There was just very little evidence for SDS and cost for our population of interest, which is a Medicare beneficiary greater than 65 years of age.

What we did find was submitted as part of our text submission. And we found that the evidence at the patient level was really heterogeneous. There were

some studies that linked low SDS to higher costs, but some studies suggested that more insurance leads to higher cost, the so-called moral hazard argument.

We also found that there was some evidence at the hospital level to suggest that hospitals could mediate the effect of low SDS on cost.

So, in summary, we really didn't learn a lot from our literature search. It didn't help us in one direction. It wasn't a slam dunk in one direction or the other.

I hope everybody has a conceptual model in front of them. I hope they have it in color, it works best in color. And on this page, we've tried to depict the conceptual framework with which we're approaching the risk adjustment, of course recognizing that this figure is not exhaustive, it's not meant to be an overview of all the ways that SDS factors can affect population health, but, rather, a very focused view, guided by the narrow question of whether or not to risk adjust our payment measures over an episode of care that begins with a hospitalization.

So, looking at the conceptual model, just to orient you, we begin with an assumption that SDS variables exert their influence in a number of different ways over the span of a hospitalization and after discharge.

The grey represents the mechanism by which SDS may be operating at certain time points of the patient's illness. And the illness and the patient's experience is depicted in blue. The blue shading, the different shades of blue are supposed to represent the degree to which the hospitals exert influence over those decisions, with the dark blue meaning more influence and the lighter blue, meaning less influence.

We understand that there are decisions, processes, behaviors and circumstances in each of these blue domains that can impact the payment outcome over the episode of care.

Finally, the yellow arrow at the bottom summarizes the degree and manner by which a hospital influences an episode of care payment, and I will get to that in a little bit later.

Just to focus on the blue, beginning at the left. Once you follow a patient who presents at admission, let's say for AMI and envision in the grey that a lifetime of low SDS may confer more or more severe comorbidities, fewer prior procedures and a later arrival time, further along in the present illness course at admission.

Thus, a so-called sicker patient, who may or may not be expensive. In this model, these factors occur on patient on arrival and are out of the sphere of influence of the hospital for this admission, and probably shouldn't be adjusted for, because they're out of the hospital's control.

Moving to the right, following this hypothetical patient through hospitalization for an AMI, maybe he or she receives differential or even discrimination in care.

This may result in being offered or accepting fewer procedures. Perhaps the patient also is only offered medical management. This may make the patient cheaper.

Because of low SDS, maybe the patient requires additional services to provide adequate care, such as translation services or more consults with nutritionists and physical therapists for rehabilitation, possibly making the patient's care more expensive.

Because a hospital can dictate how they care for a patient, we would argue that to the extent that SDS exerts influence in this domain, in this blue area, risk adjustment might not be appropriate.

Upon discharge, during the transition of care to the outpatient setting, the patient may again receive differential care. Maybe the low SDS patient requires more intensive discharge planning and coordination of care, including, but not limited to, more communication with post-acute providers.

The sum total of these efforts may make the patient more expensive to care for. Because the hospital can partially influence or mitigate these

circumstances, one can make the argument that we should not adjust for these factors.

Once discharged, a low SDS patient may find themselves in an environment with few resources. They may lack social and community support, and they may or may not adhere to a thoughtful care plan, for a number of reasons and competing priorities.

Hospitals can partially mitigate the effects of low SDS after discharge by creating a thoughtful plan, but cannot force the patient to adhere to it. And in this scenario, the expense of creating the plan may be equalized by the fact that the patient does not follow through. And it's really unclear if we should risk adjust for that piece or not.

The yellow shading at the bottom represents the hospital's participation influence across the episode of care, with the darker yellow meaning more influence.

A hospital can directly impact cost associated with care decisions that occur in the hospital and partially influence the cost associated with the outcome post-discharge.

Based on the literature review and conceptual model, we feel that the association of low SDS and cost or episode of care payments is uncertain. Low SDS exerts its influence on multiple points of care and multiple pathways. It's really unclear to us if SDS influences are endogenous to the patient, intrinsic or causal, or exogenous, extrinsic.

Low SDS can also plausibly increase or decrease costs. Sicker patients may be more costly in theory, but may receive fewer procedures, making them appear cheaper. And patients may have no or limited access – they may not have an ability to accrue costs in the post-acute care period.

So, it wasn't that helpful to us. It was a wonderful exercise, but we are still left a little befuddled. And although we have tried to incorporate many of the nuances of real clinical care in our conceptual model, as a reminder, our episode of care costs, or I should say, risk-standardized payments are based on

DRGs. So we don't include translator services, length of stay, cost of care coordinators. We really just have the DRG-based payment, and that is really linked to procedures, complications of care and sometimes comorbidity.

So we presented a – we tried to present a thoughtful and nuanced conceptual model, but, in reality, again, our risk-standardized payments don't take into account a lot of those types of costs.

And I'm going to pause there, Ashlie, for comment and feedback.

Ashlie Wilbon: OK. Thank you, Nancy.

Brent or Lisa, I wondered if now might be a good time to pause for questions from the committee, just clarifying questions, before we kind of move into the actual discussion questions.

Brent Asplin: Yes, I agree that if there are clarifying questions that this would be an excellent time for committee members.

Janis Orlowski: Hi, this is Janis Orlowski. I have a couple of questions. The first is, as we took a look at the literature review, one of my concerns is how narrowly focused the literature review was. It appeared to only take a look at cost outcomes in the three conditions. And I think that, having looked at the literature, a more broader, including readmissions or articles on impact of SDS on health may have been more informative for this study.

And I'm concerned that the narrow literature search impacts the way that we're looking at it. I would say that's point number one.

The second thing is, I'm not sure that I understand your reasoning for not risk adjusting for those factors that are present on admission. And I – present on admission, I would consider preadmission health status, comorbidities. And I thought I heard you say that there was no reason to risk adjust at that point. And I actually believe that present on admission is the point to do risk adjustment, and I was wondering if I misheard you or misunderstood you.

Nancy Kim: Thank you for that question. It's Nancy Kim.

Just point two, you did mishear me. We do risk adjust for present on admission. We agree with you, because it's outside of the hospital's control, that the hospital should – those factors should be risk adjusted for, since the hospital exerts no influence over your present on admission conditions.

Just to return to your first point about the literature search. You're right. If we had done a more exhaustive search, we would have been inundated with many, many, many articles about SDS and health outcomes.

There are so many articles, if you broaden the search. But we really wanted to be focused on the payment outcome. There are other measures looking at readmission and mortality, so we really were focused on the measure that we had at hand, which were the three payment – episode of care payment measures.

So we had to make a decision, and we tried to focus narrowly on any information that would be informative for the payment outcome.

I agree the broader literature has a lot of stuff on SDS. By the way, that also works in multiple directions as well. But we did make a decision to focus on the payment outcome.

Janis Orlowski: My only comment – and I appreciate, Nancy, the response. My only comment to that is that that often those two things are linked. And to be very specific, only looking at the cost outcome, we may be losing valuable information, because I think there is linkages between the cost and other variables.

Andy Ryan: This is Andy Ryan. I have a question. I was – had the same question as Janis's first question, and I'm not entirely sure it was answered. Does – is the L-team saying that it's inappropriate to adjust for SES or race in the pre-admission period? Is that their kind of stance?

Nancy Kim: Hi. It's Nancy Kim.

So in the pre-admission, those patient characteristics that occur or on the day of admission, we do adjust for those things. As far as SES goes, we feel that

some of that may be represented in clinical comorbidities, i.e. the lifetime of SES effects on health care.

And so in so far as SES exerts influence on your pre-admission comorbidities, we do risk-adjust for SES. Do we put SES variables in the model at the time? No, but we feel that the way SES is exerting its effect pre-admission may likely be through the clinical severity of the comorbidities that the patient walks in the door with. Does that answer your question?

Andy Ryan: Right. It does, and so my follow-up to that would be that I think your kind of conceptual model would be that the effect of race would be completely mediated by observed comorbidities and other risk factors that end up in the model.

But, you know, we know that the risk adjustment is imperfect at best, and I think it's highly likely that in a lot of models, because we'd be modeling, there would be some residual relationship between SES or race and the outcome, even after adjusting for comorbidities.

So I think that it's – in a lot of case, it's, you know, going to be an empirical fact that there still is a statistical relationship between SES and race after adjustment for comorbidities and that comorbidities aren't completely mediating the effects of SES.

So that's kind of, I guess, why it seems like it would be worth at least not, you know, dismissing SES variables to be accounted for in these pre-admission period.

Jack Needleman: This is Jack Needleman. I'm going to pile on with Andy on this one in two ways.

First of all, the comorbidities are only one dimension of the pre-admission health status. But within the comorbidities, we, in fact, have fairly blunt instruments for measuring variations in severity.

So if you're relying upon comorbidities, you do have to, you know, you've got the count, but you don't have the severity very well in the current measures.

So having an additional measure that might capture the severity dimension is appropriate.

And then in your very neutral language – I understand why you did this, but I'm a little – I've got some questions about it also.

When you're talking about time to arrival, as opposed to talking about delays in seeking or obtaining care, that can have an effect on the presentation not of the comorbidities but the presentation of the primary diagnosis.

And therefore, you need – if SES is affecting time to arrival or delays in seeking or obtaining care, you need a direct measure of SES's effect on that.

Nancy Kim: Thank you guys so much for those comments. We agree with you. It's a very complex phenomenon, and there are most certainly some residual effects of SES and the outcome, some of which may be mediated with the hospital, which we don't want to adjust for, differential care that is discriminatory, for instance, and some of which we do want to adjust for.

I think the question is how – which pathways are they going through and how do we operationalize that partial contribution to the outcome that is not accounted for in the clinical comorbidities, prior procedures, et cetera.

And then we, again, don't want to – we don't want to bury any sort of – I don't want to keep using the word "discriminatory" but differential care that is avoidable and not in the best interests of the patients.

So I agree. It's just how to operationalize that residual piece that we're not accounting for just now and that we deliberately don't want to account for.

Susannah Bernheim: This is Susannah with the Yale team. Just to follow on what Nancy said, I think what would be helpful to us – I mean, if the committee can follow this conceptual model, which was hard to draw, our sense is exactly what you're saying, which is we can look and see if there is a residual effect of SES on the payment outcome for these measures after you've adjusted for the other factors.

At that point, the question is what pathway is that working through, and if it's through multiple pathways in multiple different directions, it's a complicated question about whether risk adjustment is the right or the wrong thing, and it would be – I think one of the main goals of this webinar is to get feedback from the committee about what analyses might help to illuminate those pathways.

So, you know, what are feasible things that you think will help us untangle, given that there's some pathways that might not be appropriate for risk adjustment? And if those are the primary pathways, then you might handle things differently versus those pathways that would argue for risk adjustment.

Nancy Garrett: Well, this is Nancy Garrett, and I think I would just add, if you look at the post discharge environment on your slide, you've got community factors and patient behavior, but I think you need another bucket of patient resources.

And the lack of patient resources is kind of related to community services, but if you think about it, that's the root cause of a lot of the issues is that the patient leaves the hospital and doesn't have enough money to buy housing or doesn't have a place to store their medicine or they face resource barriers. Some patients face resource barriers. Others don't.

And so for those that don't have – that have enough resources to take care of themselves, they don't need community support. But those that do then the lack of community services come in. And that's where it feels to me like the lack of patient resources, unstable housing situations, low-income, low educational attainment, those are things that I think we really do need to consider in the risk adjustment model, because there's such a clear link to readmissions and, you know, basically not being able to keep that episode into one episode.

Cheryl Damberg: This is Cheryl Damberg. I agree with the comments that have been made thus far, but I'm also wondering, related to, you know, setting up kind of conceptual thinking, because I know I've been doing some related work for Medicare.

And I think there's a lot of confusion out there around what I'm going to call – between some of this example, hospitals, disparities and within hospital disparities.

And the idea is that, you know, a lot of these, let's say, low income or low-SES beneficiaries are probably more likely to get care in these lower-performing hospitals, and those – and probably represent true differences in quality, and, you know, that's the space we're saying is not appropriate for adjustment, you know, whereas sort of within hospital disparities, where you could have two patients, one who's low-SES and the other isn't, and the low-SES patients are left likely to receive, you know, the recommended care of, in this case, have, I guess, higher utilization.

And so, you know, in that sense, what we're saying is that there's kind of a mismeasurement problem. And I think it would be helpful to kind of conceptually break those things apart, because I think, you know, this conversation always gets a bit muddled in terms of people not wanting to sort of adjust away everything.

Janis Orlowski: So this is Janis Orlowski…

Jack Needleman: If I could comment on Cheryl's comment of, you know, at some point, we want to understand why hospitals have different quality. That may not be the primary focus of – but – and can't do that until you have the measurement.

So I think the issue of organization of care is one dimension, and that supposedly is very changeable. The other is the resources available in individual hospitals to treat patients, patients going to Cedars-Sinai are going into a very different resource environment than patients going to Harbor or UCLA in Los Angeles County.

And those differences in available resources can affect the hospitalization, the care, transition and so forth. I agree, we shouldn't be adjusting for those in terms of the risk adjustment. But at some point, there ought to be some discussion in the background materials here about sources of differences within hospital treatment that may be resource-driven and may reflect the SES

status of the population served by a given hospital, even if it's not going to be subject to risk adjustment. There needs to be an acknowledgement of that.

Ashlie Wilbon: Thanks, Jack. This is Ashlie.

I wonder if it would be helpful to have Yale kind of finish a summary of what they submitted in their packet, which includes, you know, the identification of a few variables that they have identified that would be accessible for, I think, to do some additional analysis on.

So Nancy or Susannah, if you could maybe kind of finish your presentation about the variables that you guys have landed on, and then a lot of the committee discussion already has been on some of the questions we're going to pose, so I think it might be useful to kind of finish hearing that, and then we can jump into the committee discussion questions.

Nancy Kim: Sure. This is Nancy. So we are very limited in our variable selection. The variables that we have to represent SES are some census level variables around income and education. These will be six digit census ZIP code variables.

We have insurance status, which is really limited to – among Medicare patients, who is dual-eligible with Medicaid. And then we have race, which is really just black, not even really – it's just black, so it's not a nuanced race variable. And really, we're quite limited to those four at this time.

You know one practical question, and it's great to get this feedback from you all, is, you know, what is it, what empirical data would be convincing for you? And what, if we found that low insurance status or low income status or low education status is associated with lower payments? Would we want a risk adjust for that?

So, I really look forward to hearing the committee discussion.

Cheryl Damberg: So Nancy, this is Cheryl Damberg. I'm a little confused.

So, I understand you have the dual indicator that tells if somebody's Medicaid, but why would you not have access? Because you have access to the Medicare data at the patient level, is that correct?

Nancy Kim: Yes.

Cheryl Damberg: So why would you not have access to – they have a low income supplement which helps Medicare beneficiaries pay for coverage. So that gives you another marker on the income.

Nancy Kim: Yes, you're right. There's two variables.

So our statisticians look at that variable, and the data that we have used, which is the CCW data set. They'd prefer the Medicaid as a marker because they have a number of reasons, and I forget why, but we do know about that variable.

But for some reason, our statisticians, and I can't remember off the top of my head now, felt that wasn't a very robust variable. So I know that variable you're talking about, but I think the Medicaid variable is preferred from the CCW data source.

Cheryl Damberg: Yes, because we've been modeling using both, so it's like a combination indicator. But the other thing, a la the race variable, again, I'm surprised you only have access to black versus other, because Medicare actually does keep a race variable on all the beneficiaries.

Nancy Kim: Yes, I think it's not just – are the other, and I don't know this and I don't want to overstate if I'm not correct, I think it's that our belief is that the other race variables are not that robust. So that's why we use African-American. But your point…

Cheryl Damberg: Yes, you might want to try to talk to me offline a bit about that. But, the other thing that I would say is to the extent that you're going to be adjusting for education and income at the ZIP code, you're, in essence, capturing something broader than just something about the person. You're capturing the neighborhood effects.

Nancy Kim: Yes.

Nancy Garrett: And so that's the question, this is Nancy Garrett, that I had. Since we're talking conceptually here, are we going to be limited to just what's available in the data now? I feel like we should be talking conceptually what we think we should be looking for, and then from there we can talk about what's available and how we might get what's not available.

Jack Needleman: Yes, the…

Nancy Garrett: Go ahead, sorry.

Jack Needleman: Sorry, it's – it's, you know, it is frequently the case that our – our – the data available for measurement is far narrower than our conceptual model. So the disparity between the conceptual model and the measurement, two different problems. I do think we want the conceptual model to be broad and robust. And as I go back and look at it again, it just feels like a very medicalized model in terms of understanding the effects of SES on – on health care use and health care need.

So, the fewer resources, you know, that – that right hand side thing, as Cheryl said, doesn't include patient resources. It doesn't include the patient environment. The patient behavior, I understand why that might have been chosen and why it's considered neutral language, but the – what people do reading that is attribute to well, it's the patient's fault. It's under the patient's control.

And what Cheryl's addition of resources of what I would add about housing or environmental insults from the neighborhoods people live in, are not within people's control.

And I would like to see some – some language in the discussion of the conceptual frame that – that communicates some of the things and influenced behavior that influenced insults to health are simply not within the patient control, and that's one of the reasons for SES adjusting it.

So, it's a very medicalized model. The community factors talk about lack of community services, lack of social supports. It does not talk about the environmental quality of the neighborhood. It does not talk about the quality of housing in the neighborhood. So, I like – I'd like, you know, even as we're dealing with a very narrow set of actual measures that might be used in risk adjustment, because that's what the data has.

I'd like to see a much more robust and non-medicalized expanded version of an understanding of how SES and where people live and how they live and what resources they have can affect their care.

Janis Orlowski: This is Janis Orlowski. There are a number of studies out that suggest that ZIP code is way too broad a instrument to be used to determine SES. And I'm actually recalling a recent paper within the last year that took a look at sub ZIP code and very, very – what they termed in the paper very, very poor social demographic information that was highly related to readmissions and other cost.

So I am raising the concern that ZIP code be reconsidered and that we look for other proxies that get us to a neighborhood or a smaller geographic area.

Jack Needleman: To interject, you guys have suggestions on what the alternatives would be?

Female: Well, since this block group is much narrower level of geography and it's really designed to try and capture homogeneous populations where the ZIP code is for mailing …

Female: Exactly.

Female: ...for mail. So it's not – doesn't have that kind of use. So, but you need patient, you need member addresses to get that, and so I don't know if that's available, but it should be. I mean, someone in the government has it.

Female: Right.

Female: We won't be able to have that by October. We are working toward that since this block track, but we won't be able to have that for the due dates of the empiric analyses.

Female: OK, so that's important. I think I would like us, you know, if we're going to make a recommendation that we really need to get address and then what we would use for that, that could be part of the recommendation for refining this as we go forward, and that's part of the hope is that we build the data to be better over time, so I hope it's not just a static recommendation of what's available today, but really looking to the picture and what we need to get.

Janis Orlowski: The other thing.

The other thing I would say, this is Janis Orlowski, is that since there's already reports out there that ZIP code does not appropriately capture it, for us to do that kind of analysis using the ZIP code, because we're trying to hit an October deadline, concerns me. And the question is, is either using sub ZIP codes or the census data blocks that we work to get the best available data in the time that we need, rather than using a variable that we know is already questionable.

Bill Weintraub: So this is Bill Weintraub. Let me – can I bring this back to a – a 50,000 foot level for a second, and I want to speak about what we're trying to accomplish here. Because it sounds a lot like what we're trying to accomplish is build – build a model of – of socioeconomic determinants of cost, but that's not quite what we're trying to do. We're trying to do, if I understand this right, is primarily improve a risk adjustment, and we're trying to primarily improve risk adjustment. We know that the variables we're going to have are flawed and limited.

So, so – so can we – we talk about that a little bit? What are – what's our goal here?

Ashlie Wilbon: So Bill, this is Ashlie.

And the goal I think for today is to have – well, to have that 50,000 foot discussion about what variables would be of interest conceptually, and then

kind of maybe narrow that down a little bit to see, you know, what's feasible, what's accessible within a reasonable amount of time?

I think, you know, the October deadline was set with, you know, not necessarily having had this conversation about, you know, what specific data might the committee want? How long it would take to give access to. But, you know, if that's something that the committee would really, you know, prefer to have them pursue rather than the ZIP code data, we can certainly try to, you know, work with you and see what the timeframe on that is.

But I think starting at – Bill, to answer your question, starting at the 50,000 foot level and narrowing that down, and then once we get to a set of variables that is agreeable upon, have them go back and then relook at the risk adjustment model, which is kind of, I think, get into your question, but I think the discussion on the conceptual piece is what we're trying to get through now so that they can go and do that work and figure out what's the actual impact on the risk adjustment model there is.

Bill Weintraub: Right, so but it doesn't quite answer my question, Ashlie.

Ashlie Wilbon: OK.

Bill Weintraub: Because the question is this, if we think what we want to do is build a good model that looking at socioeconomic determinants of cost, we don't have it. We're not close. I think we're agreeable on that.

If we think that we want to just approve risk adjustment, so what? Then I think that our goals in terms of picking variables can be more limited.

Ashlie Wilbon: I'm going to reach out to some of my colleagues here to see if they have a maybe more eloquent way to explain, but Karen Johnson or Taroon, if you have some input on that, you're welcome to do so.

Karen Johnson: So, you know, I think your question is definitely a valid question. I'm – I'm – I think where I'm wondering is getting down into the weeds and, you know, just addressing for example, you know, should we fool with ZIP code since we know that's not great, would actually addressing that question work our

way back up to your 50,000 foot level? And I don't – I don't know, what do you think?

Bill Weintraub: All right. So it's – so I'll answer it a little bit. And if we wanted to have a – look at socioeconomic determinants of cost, ZIP code doesn't do it. If we think that that might improve our risk adjustment just a little bit, it might.

Karen Johnson: So let's just go ahead and talk about that. What does the committee think? Should Yale and company go ahead and spend the time and resources and actually do the empirical analysis looking at what they have?

Female: And one clarification, I just want to be really specific. What we're going to be able to get is down to nine digit ZIP codes, which is not the exact same as the census block. It's better than the five-digit ZIP code. It's much smaller. But just to be very specific about the data we think we'll eventually be able to have.

Karen Johnson: So, let me make sure I understand. You can use the nine-digit ZIP right now or eventually?

Female: We're getting nine-digit ZIPs. We do not think that we're going to be able to get actual street address.

Karen Johnson: OK, that's a little different than what I thought I understood earlier.

Male: … and you get the census proxies down to the nine-digit ZIPs?

Female: You can link the census data at the nine-digit ZIP level.

Male: Do you ever try it?

Male: OK, because the – those extra four digits are basically a delivery route, and that tends to be much smaller than the ZIP code.

Female: Exactly.

Female: Yes, it is much more than a...

Female: Yes, it gets you down to the census block level.

Male: Anybody know – so, how highly correlated is that – are addresses by route with addresses by census tract or census block? Has anybody done that?

Female: I don't know personally, but I – there's a possibility somebody at RAND has done that, because we do a lot of geo coding up, up, oh, for, you know, the census blocks income, education, as well as to determine race/ethnicity for all the Medicare beneficiaries.

Andy Ryan: Can I just make one point to try to maybe help the conceptual conversation a little bit, this is Andy, coming back to what Cheryl said about the within and between hospital variation, effects of race, say, and Bill's comment about what are we trying to do here.

Let me just give my sense of how I think about this. And it gets to the point that the Yale team raised about exogenous – race being exogenous or even endogenous here. And so, if we – if race is reflecting greater unmeasured severity, like greater health need, then it's an endogenous factor, and you would expect there to be – OK, so let's just leave it at that, it's an endogenous factor and it makes sense that you would want to adjust for that.

If it's – if race as a mechanism is that people of different race or low SDS are being treated differently in the hospital, either through discrimination or, you know, whatever, they just don't – their insurance is worse and – it's not relevant in Medicare, but, anyway, they aren't getting the same amount of care, then I think it – then, particularly with the discrimination angle, that it's something that the hospital is – some way that the hospital is treating these patients differently, and that we would not want to adjust for that.

And so, the real conceptual question is whether race is affecting the outcome through what hospitals do or through something that's just a completely, you know, orthogonal, like, you know, just an exogenous factor.

To me, the literature review would want to focus on that issue. And if the weight of the evidence suggested that race is important to this outcome

because of how patients – how hospitals differentially treat people of different races, then we don't want to adjust for it.

But if the evidence suggests that race is a proxy for a greater health need, then I think we would.

And so, you know, in empirical analysis, it might be nice, it might show some of these things, but or just show the overall effect of race. But I think that until we could bring some evidence to bear about the magnitude of the effects of race across those two mechanisms that I mentioned, that I don't think the empirical analysis is going to shed too much additional light on the problem.

Cheryl Damberg: Yes, this is Cheryl. I would concur with Andy's comment.

Nancy Kim: This is Nancy. We completely agree. Completely. I mean, thank you for that summary. That is exactly what we're trying to convey.

The literature out there, we just – we haven't found much. If other people know of a resource, you can point us in that direction, that would be great. We tried many search sites. We submitted the one that we thought was the most focused (e-mail) event, but, you know, we did many other things.

We didn't find a lot in the literature. I agree, we can test this, but, again, the results are going to be open for interpretation and interpretation is going to be colored by our different perspectives.

So, thank you for explaining that.

Brent Asplin: Ashlie, this is Brent. I don't know, do the developers have more material that they wanted to walk through here? Or have they finished kind of where they're at, in which case I would suggest we start at post-acute and work our way through the hospital to the present on admission, because the post-acute might be the simplest area to address. I don't know.

Nothing's going to be simple, but it may be the most straightforward.

Nancy Kim: This is Nancy. We don't really have any more materials to guide discussions, but we are very interested in hearing the conversation.

Ashlie Wilbon: So, Brent, this is Ashlie. I wonder, I think Andy might have touched on this, but kind of looking at some of the discussion questions, we've got about an hour left, probably about 45 minutes left to get through a little bit more discussion, but whether or not the committee believes there have been conceptual links demonstrated, I think Andy's point kind of touched on that, that maybe it hasn't been sufficiently met yet.

But I'm just curious to hear what other think about whether or not there is a conceptual link here or whether or not there needs to be more – if there is more that can be done at this point to demonstrate whether or not there is more to pursue there.

Brent Asplin: Ashlie, NQF had a committee looking at SDS risk adjustment. Clearly that affected the board decisions on moving forward with it. I'm just wondering how the work of that committee has influenced the conceptualization here or the choice of – the choice from available measures for possible risk adjustment, SDS risk adjustment models.

Ashlie Wilbon: So the board's decision on the measures that came through the – to come through the SES trial period, it's somewhat complex, but essentially this project, the cost and resource use project and the readmissions projects were the two projects that went before the board. Were they specifically asked that this issue be examined in more detail partly because the report from the effort – the risk adjustment expert panel was still in process as this project was going on.

All the other measures essentially after starting in January of this year, are kind of fair game in terms of whether or not committees, you know, will want to reexamine measures that have already, you know, been endorsed, and for developers to submit either updates for their measures or to submit new measures with SPS as a part of the consideration for risk adjustment.

So, I'm not sure if that answers your question totally, but I'll just let Karen add on to that.

Karen Johnson: I think the other thing to add is the idea of needing the conceptual basis first and then going along and thinking about the empirical relationship that came directly from the work of the SPS panel.

The panel also put a lot of work into talking about potential SPS factors. They have a whole table and some pros and cons and operationalizations. And we can ask Nancy, because she was on the panel, but my understanding of that was they really talked about a lot of the really common ones and that sort of thing, but that wasn't meant to be like an all-inclusive list, necessarily. So if something's not on that list, that doesn't mean it's off the table, but I think they hit a lot of – a lot of the main ones, and I should see if Nancy has anything she wants to add to that after being on that panel.

Nancy Kim: Yes, and that list is an appendix to the memo that was sent out to the committee.

Brent Asplin: Right.

Nancy Garrett: Yes, and this is Nancy Garrett. I mean, that's a great summary, I think that we really felt it was important to first establish that conceptual relationship, because what we didn't want to have happen is that we decided OK, as matters come through, we'll do an empirical test, and if income is significant, then we'll include it. And if it's not, we won't.

It's really not an empirical question. Initially it's a conceptual question. And then whether or not we have the data to accurately measure and capture it empirically is going to be a whole other question. But we wanted to (get) the conceptual relationship first.

And we were really compelled by the literature when you do do that kind of broader search, which we did as a committee, there's a lot of linkages between socioeconomic status and health outcomes, as, you know?

And as we move into this performance measurement world more and more, it's really important that we're considering these factors outside the providers' control in measurements that have a direct impact on compensation.

Male: Can I just follow on Jack's comment and ask Ashlie and NQF, you know, that – that panel on SES, you know, that basically as far as I understand, the final recommendation was like, you know, yes, you can – you can think about SES or race, you can adjust for this, like if appropriate. So I guess, but I do wonder, are we going to like relitigate this question for each measure?

Because it seems like, you know, that's going to be a – a huge burden for all of us. And I just wonder, if, you know, we could start with some priors about this, and like work off these priors. And my prior is that there's a lot of evidence about between hospital differences in quality and what this says based on race, and limited, more limited evidence of within hospital variation based on race.

Now, there's – I can think of like the Barney Epstein study about differences in cardiac revascularization by race. That's a good example of like with evidence of within hospital effects, but, you know, there's in general, those studies are harder to do and it's harder to – to, you know, find that evidence. And anyway, I mean, I just wonder if NQF or developers could kind of like, you know, start with priors about the relative effects of, you know, race or SES outcomes, and then think about in the case of specific diagnoses or procedures that we're looking at, is there s reason why we would move off those priors based on existing evidence or theory, and then, you know, if not, then we would like, stick with the extend prior, which would suggest that we do – we do or do not, you know, adjust for SES.

So again, I don't – I'm not sure if that's helpful, but that's how I'm trying to think about this – this problem. And don't want to – want to be able to take some kind of shortcuts, thinking about how we – how we make these decisions.

Ashlie Wilbon: Sure, Andy. This is Ashlie. I think that's certainly an appropriate approach, and I think, you know, the – the way that Yale has presented the analysis is kind of at that prior, you know, referring to your language appropriately, the prior's language, and then really just to have a discussion about whether or not that holds true for the different conditions about having to do kind of separate

discussions on each one, I think that's a very reasonable approach, and would work.

Female: And I think that the questions on page three of them for today, I think these came from our report, and I think that these are things that might help our discussions today in the conceptual leadership, and they might even be in your slide.

So those – prior research indicate a relationship between SDS and the outcome. And in this case, the literature review, there was lots of heterogeneity, but overall it looks like yes, there is a relationship. Is there a logical relationship or theory? Well, some of that's described in the model here.

And et cetera, there's a bunch of questions here, so that might be something for us to go through.

Ashlie Wilbon: So this is Ashlie. So why don't we start there, because I think that will help us kind of get through the first discussion question that was a few slides forward about whether or not the committee does believe that there has, you know, demonstrated a conceptual relationship, and then we can kind of move on to the other questions which kind of build on each other. So, let's start there.

Lisa LattsThis is Lisa. I guess I think there's a relationship. I think it's obviously very complex, but every time we've had one of these meetings, we've said, if only we could adjust based on X, Y, and Z. And so after all those discussions that we had, I guess despite the difficulty as least like to see it tried.

Bill Weintraub: Yes, I mean, I think that's right. Your ability to predict cost. Remember or what our original R-squares were like, were really weak. So our ability to predict costs is pretty weak. There's nothing – not the gain department maybe will get a little bit better.

Ashlie Wilbon: So, why don't I read through a couple of questions, and if folks have thoughts we can kind of pause for discussion or – or move on.

Cheryl Damberg: Can I say one more thing? This is Cheryl.

Ashlie Wilbon: Good.

Cheryl Damberg: So, I agree. I think that we should have some things here, but to the extent that we find differences, I think we have to go back to, you know, the fundamentals of, you know, how much of this is potentially between versus within, and can we sort of make the case for why it would be a within component.

Karen Johnson: So, this is Karen. This is a question I think to the committee and to the developer. I think that I heard the developer say that they were unable to find literature to eliminate that question of within or between. Did I understand that correctly? Did I misunderstand?

Nancy Kim: Hi, this is Nancy. The endogenous versus the exogenous is where we struggle to find evidence to support the contribution of each, which is maybe slightly different from the within and between. It's a slightly – it's a related, but slightly different thing. It really is about the patient and the care they receive within a hospital, rather than the between and within, which I think is a separate question.

There, we – we didn't spend a lot of time looking, but I was referring to the endogenous contribution versus the exogenous contribution.

Female: And if you look at this measure itself, you have this 30 days of a post-discharge environment which may well have nothing to do with – be completely separate from the services that the hospital offers. And so the theory is, well, the hospital can influence some of what happens afterwards, and so that's part of the reason we have the measure is to try and incent us to figure out better ways to do that.

But there's still a lot that's not in the control of the hospital and that is influenced by patient resources or community availability. And so that's why I think that there is a strong conceptual basis here for doing SES risk adjustment.

I think the race one is a little more complex, because there is that possibility that maybe there is some – there's something within the hospitalization involving care, that it could be because of the literature. So that might be something we want to take off the table and just focus on SDS for that conceptual relationship. So that's something we could talk about.

Ashlie Wilbon: So, how about based on Nancy's suggestion, why don't we go through these questions in the context of income and education and see where that gets us?

So, does prior research indicate a relationship between SDS and the outcomes? And is there a logical relationship or theory about the relationship between SDS and the outcome?

Male: And here we mean economic outcomes, right?

Ashlie Wilbon: The outcome would be payment.

Male: Because that's the type of measure it is.

Ashlie Wilbon: Payment – it would be a payment.

Female: So it's essentially resource use.

Ashlie Wilbon: Yes.

Female: Medical resource used.

Male: A relationship, but a real messy one, as we've discussed.

Male: Yes, I would agree – multi-directional.

Male: Multi-directional.

Male: Yes.

Ashlie Wilbon: OK. OK. That's fair.

So the next question is around whether or not there is a significant passage of time between a healthcare unit intervention and the outcome, which would be payment, during which other factors may have an effect.

Female: So, there's 30 days after the hospitalization when lots of things are happening, that don't have to do directly with the clinical care in the hospital. So I think that's a yes.

Male: Yes, the – the longer the period of time, the more likely other things are going to have an effect.

Female: Right.

Male: Yes, the, you know, implicit in this point is sort of focus on the – the post-discharge situation, rather than, you know, all the factors that may affect differences in the pre-admission issue.

But yes, 30 days is enough to capture differences in health literacy and availability of follow-on services, of – in – of housing and other environmental insults to health, all of which might influence readmissions, which if I remember the earlier Yale presentation, readmissions is one of the big differentials in – in the cost on these – on these measures.

So, yes, 30 days is plenty of time for those factors to play out and lead to a differential readmission. Where it might go the other way is the lack of availability of SNF services or home health in the community, might lower the – the cost because services that would otherwise be recommended are – are simply not – are not as available in the community for these patients.

That's where that – the effective complicated issue comes in.

Ashlie Wilbon: OK. So the next question is around whether patient actions or decisions influence the outcome or process, and whether or not those decisions are impacted by SDS.

So do patient actions or decisions influence the amount of resources that are used or the amount – and therefore, payment? And are those decisions impacted by education or income?

Male: Well, you know, none of us have a literature sitting before us.

Ashlie Wilbon: Right.

Male: And some of this, what we're saying is purely conjectural. So from that point of view, from a conjectural point of view, do patient actions and decisions matter? Of course, they do.

Male: OK. And I'm just going to keep – I came to public health late in my career, but I'm going to keep hammering in on it here. It's not just actions and decisions. It's context and environment.

Male: Of course.

Male: So it's not just their income. It's their housing. It's – it is their health literacy. It is their income. But it's also the environments in which they're living in, social supports, lots of other stuff that can influence these – these outcomes and processes.

Ashlie Wilbon: Does the patient community have an influence, basically, which is kind of to Jack's point, which if everyone is in agreement, then I think that answer to that question would be yes.

Male: Yes, just add environment to this list.

Ashlie Wilbon: Yes.

Male: And the longer – the longer-out you go, the more so that's going to be true – distance to pharmacies and the availability of high-quality, higher-quality food and the ability to access healthcare services. So the fullest time, yes, those things are truly very important.

Ashlie Wilbon: So, OK, I'm going to lead us back to the discussion questions again and see how far we get on these.

So, does the committee believe there is a conceptual relationship? Again, we're going to focus on income and education – educational attainment.

Female: Yes, but I – I also think that we need to consider housing instability as another variable – related to income, but distinct. And I – we are developing a -- see away to measure that from patient address, where we map all the homeless shelters to an address, and then we look at if someone reported a general delivery mail address as a possible indicator of housing instability. So I think there may be a way to calculate that from addresses, if that can be made available. And/or use census data as a proxy.

Female: So can we just not forget that one, and come back to that, and just when we start talking about the (technical difficulty) come go back and make sure we remember that one.

Ashlie Wilbon: I'm sorry – could you guys make sure to mute if you're doing things in the background.

So, the next question, again, was around whether or not, or how well do these variables proxy for the intended factor in line with the conceptual model.

Female: Yes, so I mean, what the developer has told us right now they can get – and I might have it wrong, but right now they can get five digit ZIP code data. In the future, they should be able to get nine digit ZIP code data. Is that good enough for – to proceed?

Male: Well, you know, we're going to – someone's going to spend some money evaluating that. But short of that, we have the money that's redoing the model, including that. So nothing ventured, nothing gained department. Maybe it will make things a little bit better.

Male: Yes, the one concern I have is we don't lose sight of the fact that the measures we have are limited and potentially have a lot of measurement error for what we're trying to measure.

And if we run the models and say, "Oh, we've just, you know, it changes the – the explained variance by 4 percent; it changed the rankings typically by, on average, by no more than two or three places in the rankings, you know, or X, you know, only 3 – 1 percent switched quintiles."

That could be because SDS doesn't have a big effect; could be because we don't have the right measures. And I think it's going to be important to reflect on and think about the likelihood that it's the latter, rather than the former.

Male: Yes. So – so I didn't quite finish my point. My point was that we cannot sort of sign off with – with this little change like this and say, "Well, now we've accounted for socioeconomic factors," by any means.

I think the bar we need to get over today in terms of recommendations as a committee to the developers is we know we're not going to get perfect with such a complex issue. Is – is the analysis work worth it and at this point? Is that the question you know?

In reflection, assuming a negative result, there – as Jackie just pointed out, that there isn't much shift, is it worth moving forward with the nine-digit coded ZIP code analysis now? Is there another more refined census block data coming beyond that or not? I guess that's one question I would have, that would be dependent on how long it would need to wait.

Male: You know if we get no bang for the buck on the five digit, I'd be skeptical about putting more into it and to look for the nine digit.

Male: Then clarify again if – do you have that now, the – the – what do we have now, or could be done by October?

Nancy Kim: This is Nancy from Yale. We have the five digit. We've been working on the nine digit, but it's really unclear to me what that timeline would be to obtain the nine digit in a usable format to get it steady for these kinds of analyses, but it certainly, we would not – we have the five digit now, ready for October. We would not have the nine digit ready for October.

Male: And is there any pathway on the actual address to use the census block. Did we answer that as a no, or an unknown at this point?

Nancy Kim: I thought the nine -- I do not think so. So I'm sorry, go ahead.

Female: Nancy and I were just saying the same thing. I don't think we have really much hope of getting individual patient addresses at this point.

Male: OK.

So I think Jack set it up pretty well. If we don't find much shift, we always have to ask ourselves whether it's just the right, you know, would a better measure, a better variable lead to a different result, the question for the committee is, should we go ahead with the five digit analysis for October?

Bill Weintraub: We just have to understand the limits of what we're doing here.

Ashlie Wilbon: Yes, I'm not sure it's going to tell you a whole lot, so I would suggest not.

Bill Weintraub: You know my set is the same. They won't – it won't show much, but we don't know until we try.

Susannah Bernheim: This is Susanna from the Yale team.

One thing I just want to make sure we circle back to is we're talking sort of vaguely now about, you know, doing analyses with the variables, and I – and I teach a reference to sort of if it makes essentially our R-square better. And I do want to go back to the earlier conceptual model piece, because you can put something in a model that makes the R-square better without it being the right thing to do for a quality measure to put it in. So I think it's equally important for us to sync with you about, you know, aside from just going back to literature, I mean, I really appreciate the point about it, and we struggle to find stuff that's comparable enough to what we're doing that it really can reveal these pathways, but we will look again.

You know are there analyses we can do that would be compelling to start to detangle these pathways, because without that, I don't think this group wants

us to just put it in because it increases the R-square. I don't think that's consistent with the goal.

Bill Weintraub: Well, it has to at least do that, right? It may not be sufficient, but it has to at least do that.

Ashlie Wilbon: OK, so I'm not sure – so it sounds like maybe we have mixed feelings or feedback on whether or not the recommendation for Yale will be to pursue the five digit ZIP code analysis. Any other thoughts on that? I think what we can do to do that, I think Yale has agreed to maybe take another look at the literature, to see if there's further literature to make a stronger case for the conceptual length for some of these, particularly to Andy's point on the between versus within hospital effect.

But I think it might be useful to get a sense maybe via survey monkey or something online about the committee's feeling on the five digit ZIP code and whether or not that's worth pursuing, if there doesn't seem to be kind of a – a strong direction on that right now.

Male: Ashlie, I'm not so sure. I think most of us think the five digit ZIP code is probably not worth going after. I mean, we might as well wait until January of next year to look at a deeper analysis.

Ashlie Wilbon: OK. Is that -- would everyone agree with that?

Male: We are very non-committal today.

Female: I would.

Ashlie Wilbon: OK.

Male: No, Cheryl, who's done a lot of work here was very strong on that point. I'll back her up.

Ashlie Wilbon: OK.

Male: Also, just another note, somebody reminded me offline that sometimes what people -- what Social Security has for the ZIP code is where the checks are being sent, which may be direct deposit.

So I would just make sure that we're dealing with residential ZIP codes and not payment ZIP codes. So that's just another question for, you know, what's actually in the data.

Cheryl Damberg: And this is Cheryl again. The other variable that I did not see on your list, which is somewhat correlated with low income supplements is disability status. And I know that is something we are looking at and MedPAC also looked at disability status, so it's another marker of whether someone is going to be sort of under-resourced.

Nancy Kim: This is Nancy Kim from Yale.

We do have disability as a small proportion of the folks we have, it's – if that's something the committee wants to include, look at that.

And I just wanted to remind Ashlie how maybe we could ask the committee how they feel about the insurance? Sent us the Medicaid as well on survey monkey, or…

Ashlie Wilbon: Yes. We were just looking at the clock. Thank you, Nancy.

If we could – yes. So let's just hit pause on the income assurance, I'm sorry, income and education and see if we can circle back on the rates and insurance status kind of maybe briefly kind of walk through a similar thought process with those to see whether or not those variables would also be worth pursuing in the analysis.

And I'll just flip back on the slides here.

So let's start with insurance status with Medicaid. Any thoughts on that?

Janis Orlowski So – so my question, this is Janis Orlowski. My question on Medicaid status is the variability that it poses by state now?

Susannah Bernheim: This is Susannah from the Yale team.

It is becoming a bigger and bigger issue. I keep hoping that Cheryl's team at Rand is going to figure out a solution for us.

Cheryl Damberg: So the only way that I could see Medicaid right now, and I – what I would say is I don't have specific knowledge of this, but if we were taking a look at dual eligibles, you know, there's probably some information about Medicaid, and, you know, if we linked Medicaid with some education, or income level, but Medicaid by itself I think becomes more complicated over the last year or two.

Ashlie Wilbon: Other thoughts on Medicaid and related to these questions, whether or not there's a relationship in the research or a logical relationship or theory?

Carolyn Pare: This is Carolyn Pare. We've used some Medicaid risk adjustment as a proxy for a pay for performance program that we use here in the – in Minnesota. So there's a state program where we do some risk adjustment based on insurance status, and then on the commercial side, we don't risk as much. And what we've found is there's not that big of a difference between the numbers.

Susannah Bernheim: I'm sorry, this is Susannah from Yale. There's one other thing I wanted to make sure we just looked at with the committee, because again, I think you're asking a really important question about what's worth doing at this point?

With AMI in particular and heart failure, if you look at the differences between the hospitals just on how they do on the payment measure, when they're divided into subgroups based on the percentage of patients that they have that are sort of low SES, again, using the definitions that we're stuck with there's very little difference.

So I just want to make sure that the committee is taking our – the analysis we've done so far into account, because for us, again, it doesn't answer the question of sort of should you risk adjust, but it gives you a hint about how much does that play in the measure without risk adjustment. And so I do want to make sure that the committee reflects on those findings as they're helping guide our next work.

Ashlie Wilbon: Thank you, Susannah.

Any thoughts from the committee on that?

Female: So, our sense is that maybe Medicaid may not be very popular as well to pursue at this point, or looking for some…

Bill Weintraub: Even more cost play.

Female: … direction here.

Cheryl Damberg: I guess I would be in favor of adjusting for, you know, dual-eligibility, and maybe in combination with LIS.

Ashlie Wilbon: Cheryl, I'm sorry, what was the second thing you said? Dual-eligibility?

Cheryl Damberg: LIS or low-income supplement.

Ashlie Wilbon: OK, LIS. OK, thank you.

OK, OK. I wonder if we could have – I know we're getting very short on time, so this is going to be somewhat abbreviated, but I wanted to make sure we had some opportunities to discuss race and particularly in the context of these questions, which I know gets even more complex, but it'd be nice to have a little bit of discussion on that before we try to – try to summarize and come to some conclusions on next steps here, particularly for Yale and what you'd like for them to look at next.

So, any thoughts on whether or not I know we talked about race, the influence of race in terms of within the hospitalization versus post-hospitalization. Any thoughts on that and whether or not it impacts the payment outcome related to either of those points in time in terms of episode of care?

Jack Needleman: Well, this is Jack.

You know race could be a measure of – of direct discrimination, and that's the concern, particularly within healthcare, and we don't want to risk adjust for that. But here I think it's standing for a proxy for the communities people live in, the resources that are available to them as individuals. I mean, this is America. We live in a very segregated society. And rates is one of the ways we measure where people live and what kind of resources they have.

So the question is on balance, what do we think is being measured when we include rates in this model? Direct discrimination or something about the – the resources patients have.

I actually think in this day and age, it's more likely to be the latter than the former. Indirect discrimination that reflects where people live and the resources they have.

Somebody could convince me otherwise in terms of the context of health care, but at least some of the studies that have looked at the experience of white patients in minority-heavy hospitals, suggests that the white patient experience looks very similar to the – the minority experience in those hospitals, that it's a – and I would suspect that it has to do not only with the resources available in those hospitals, but also what comes before the – the care that those people are getting and the care after.

Bill Weintraub: Yes, so, you know, you're getting a very complex, sort of very important issues here that we can't quite resolve. So let's consider a hospital that's in a poor community, and they're seeing mostly minorities. And they're spending less.

So without correcting for – for minority status, they're getting a bye, because it looks like they're spending less. But if we correct for that, maybe they don't get as much of a bye on that, because that spark seems to be an explanation. But it doesn't get at the causal task properly, because the reason it's being spent less may not be because of minorities. That may actually be an epi-phenomenon, and the real reason they're spending less money is because they don't have the resources to spend.

So then we may be correcting it in a way that is actually unfair to them. We're saying well, you know, if you can account for this, then we pull you more in line, but they shouldn't be pulled in line. What the real problem is, is they don't have the resources they need.

So it becomes, you know, incredibly complex. And then this kind of modeling, I don't think we can get at it.

Cheryl Damberg: So this Cheryl.

I just wanted to add to Jack's comments that I agree that race is likely a proxy for income and education because they're highly correlated, but again, going back to this between and within, I think what you ultimately want to know is, you know, within the hospitals, how much of a difference or a delta is there between let's say your variable is black versus not black. And, you know, does that consistently work in a negative direction?

Do some hospitals have it work in a positive direction? You know what does that pattern look like across hospitals? So I think you want to do what I would call some exploratory analysis here to see, you know, is there a difference, is it a consistently, you know, negative effect across all hospitals?

So, I think there's an opportunity here to explore and learn something.

Ashlie Wilbon: Thank you, Cheryl.

Andy Ryan: Can I? This is Andy.

I want to say that I think what Jack laid out is exactly the kind of thinking that we need to do, and say what – what – and, you know, I think Jack, this is informed by, you know, Jack's expert opinion. But the literature – someone's done the study or we could pull together people have done some more studies, and say what does the literature support in terms of the how race affects the outcome?

And the concept that Jack laid out was basically that there – it's not really all within hospital phenomenon. Instead, it's probably between hospital

phenomenon. And – and the effective race is probably the really the effect of more so the effect of the institution where people are going.

So it's like a between hospital effect, and therefore we wouldn't want to adjust for that in a risk adjustment model.

Like, I think that's a really strong prior. I think that's probably right. And – and – but it would be – it would be nice to me if we could establish these priors and then say "OK, well we think this is generally the case, but, you know, for this situation that you're looking at for this measure, it might not be for some reason, so if it's not, you know, convince us otherwise, otherwise the default is that we're not going to adjust for race."

And that we could do that with all these, you know, SES variables.

So to me that's a way forward so that we wouldn't have to like relitigate, you know, these super complex questions on for every measure that we – that we look at.

Ashlie Wilbon: Thanks, Andy.

That's very helpful. And we have about five minutes before we're due to open for public comment, so I wonder if we could kind of pause and kind of summarize here what we think we've landed and what the next steps are.

We didn't get through everything, but this is, you know, honestly this – you guys are the first group to have this discussion within the trial period, and so I want to commend you guys for having a very thoughtful discussion, but it just goes to show how complex and really complicated this really is.

So, thank you and I'm going to do my best to try to summarize where I think we landed, and I will, you know, I'm open to having others add on if I miss anything. But it sounds like in terms of the five digit ZIP code data, that the consensus was that the committee does not believe that it is worth pursuing at this point in time, and that the nine digit ZIP code data would be more useful, but that that data is not going to be available based on the October webinar

date that we've set thus far, and Yale is not sure when that date or what kind of time frame that would be.

Agreement on that?

OK, I'm going to move forward.

The Medicaid status, my notes, I have that Medicaid itself is probably not very useful, but that it might be more useful to do some analysis on dual eligibility and low income supplement together as a proxy of income and insurance status versus just the Medicaid.

And then in terms of race, it sounds like there is at least from a few folks, a feeling that it's probably not a good variable to pursue at this time, and that perhaps there is more literature review that could be done on this variable as well as the income and educational attainment in terms of the between and within effects.

Anything to add Karen, or Taroon or co-chairs?

Taroon Amin: Ashlie, I think that you did a nice job there. My only question is if the timeline, which we might not have available to us today, the timeline on the nine digit version is two years, does that change anybody's opinion about why we need to look at the five digit data even though those of you who are closest to it don't believe that it's really going to show much?

Ashlie Wilbon: Any thoughts on that question?

Female: I guess I'm more optimistic that they'll get the nine digit before two years. Is that?

Ashlie Wilbon: OK.

Nancy Kim: And it feels like there were two other things that I'm not sure were captured in the summary. One was around the housing instability and trying to get a measure of that.

Ashlie Wilbon: Yes. I'm sorry, go ahead Nancy.

Nancy Kim: And then really trying to get specific piece and address so that we can get better geocoded data is something we want to work towards and I don't know how to build that into the plan, but I think we need to keep that. We need to work towards that.

Ashlie Wilbon: OK.

So, I just wanted to kind of ping the developers quickly and see whether there are any questions or kind of immediate kind of reaction to the summary or additions or questions for the committee before we open up for comment.

Nancy Kim: This is Nancy. So, no.

Medicaid plus LIS, yes. Nine digit ZIP, yes. Which everybody knows we don't have. And then no to the – to the other variables that are available to us.

Male: OK.

Nancy Kim: Thank you Ashlie.

Ashlie Wilbon: Thanks.

So I did want to just clarify, Nancy. Is – are you guys able to do some additional literature review and – on some of the questions that came up today in terms of between it was then hospital and see whether or not there's anything else there that might help kind of solidify some of the conceptual thinking about whether or not these variables are?

Nancy Kim: Yes, and I would encourage the committee to send us anything they have that they think is relevant. I think that would be very helpful, but yes, we can also go back and take a look.

Ashlie Wilbon: OK, great.

So on that note, let me just pause for a second again and thank the committee for a really thoughtful discussion.

And operator, can we open up the line, or maybe queue for public member comment at this time?

Operator: At this time, if you would like to make a comment, please press star one on your telephone keypad.

And your first comment comes from the line of Koryn Rubin.

Koryn Rubin: Hi, this is Koryn Rubin from the American Medical Association.

I'm seeking clarification over the debate with the Medicaid status, because I'm under the impression that CMS already adjusts for Medicaid status, and the findings are that adjusting just with Medicaid is not enough of a proxy.

So would that go away? So clarify in terms of what would this replace and what would be possibly combined for adjustment purposes?

Nancy Kim: Ashlie, do you want me to take that?

Ashlie Wilbon: Yes. Please. Thank you.

Nancy Kim: The measures do not currently adjust for Medicaid status.

So that's point number one, and point number two is if we use Medicaid and the low income supplement together, these would be exploratory analyses to address the question of the association of FDS with the payment outcome. But currently, the payment measures do not adjust for Medicaid or dual eligible status.

Operator: And your next comment comes from the line of John Shaw.

John Shaw: Hi, this is John Shaw from Next Wave up in Albany, and I want to just piggyback on a couple of the comments from the steering committee and tie them together a little bit. In context, a lot of what we heard is that it's very complicated and we don't have perfect measures yet. And I want to just restate the – the typical let's not make perfect the enemy of the good, and particularly relative to the five digit ZIP. During the exploratory analysis

period, that may be all we have to explore some of the measures. Would be better to wait for the nine digit to implement something, but I think during the exploratory period, that might be worth looking at.

Another thing is during an exploratory analysis, we can look at areas where there's a lot of diversity in the local area, but without an apparent measure impact versus a matching group that might have a lot of diversity with a lot of impact for the SES variables measured as best we can with five digit ZIP for example.

And look deeper at those individual cases. I know in the SES discussion in the first place, there was a lot of examples that let's not do it because some of the providers that serve a disadvantaged community have excellent outcome measures, but when you dig into that particular area, you find that it may be because they have a very well financed social support network financed by the local government or community-based organizations in that area.

And so doing in that exploratory analysis, what's really going on with the dynamics, so we have a better sense of how to structure the analysis when we have better nine digit numbers?

Thank you.

Operator: And your next comment comes from the line of Mary Barton.

Mary Barton: Hello, this is Mary Barton, vice president for performance measures at the National Committee for Quality Assurance. I just wanted to add my congratulations to the committee for a terrific discussion, and in particular, thank the Yale folks for trying to fix this all and help all measure developers figure out how to work on this in the future. It's so challenging, and I know the work that you did was really required a lot of elbow grease, and also, you know, heart sinking.

So thanks so much.

Operator: And again, if you would like to ask a question or make a comment, please press star, one on your telephone keypad.

Your next comment comes from the line of Zahid Butt.

Zahid Butt: Hi, thank you. And appreciate the conversation. Just had a comment for the committee to consider, but perhaps the conceptual model to be more in a broader context that sociodemographic factors do impact the payment outcomes. And then potentially the empiric data could be used to narrow down to the specific conditions. Because if the conceptual model starts out with the specific conditions, then it might be harder to get the data to support it.

And the other comment is to the risk adjustment that is typically seen in for example the outcome measure of mortality or readmission, it's pretty clear the outcome is the higher rate is considered to be the worse rate, I assume. But in this context, even though it says payments, we're specifying that the higher payment is the worse outcome.

And we have priority on that.

Nancy Kim: Ashlie, this is Nancy Kim. Can I address that comment?

Ashlie Wilbon: Sure, please.

Nancy Kim: So no, higher payment is not considered to be worse. Really, the purpose of the 30 day episode of care payment measures are to characterize the variation across hospitals for the care of the same acute conditions.

That's really to incentivize efficiencies. The point of the payment measures is really just to know what's out there, it's not to say higher is worse. Hospitals with more low SES patients may have to spend more to provide quality care. That's why we really want to see these payment measures linked to their harmonized quality outcomes, like AMI mortality, so the higher payment is not worse.

Zahid Butt: So could I make another comment in response to that?

I think it might be beneficial to then specify what outcomes in payments you are looking for and then risk adjustment.

In other words, are we – look, you know, there may be higher payment as an outcome and a average payment group as an outcome, or a low payment group as an outcome. Those are two separate outcomes potentially that could have their own risk adjustment factors if that makes any sense. Because I think it's at this point not fear what the exact outcome you're looking for within payments.

Nancy Kim: Ashlie, this is Nancy. Did you want me to comment?

Ashlie Wilbon: Sure.

Sure. Please, go ahead.

Nancy Kim: So like the other limitation quality reporting measures, really the way this gets, the AMI payment measure gets reported in hospital care is the three categories. Are you an average payment hospital, higher or lower? But we are not modeling differently.

We are letting the model decide if you are a higher payment hospital, average payment hospital, or a low payment hospital. The point I think of this discussion about low SDS, I can let NQF and the committee way in is to ensure that we are comparing across hospitals fairly with or without the consideration of SES based on the conceptual and empirical relationship of the SES factors. It is not to try to arrive at a higher payment hospital, lower payment hospital. It's really to start with the right fundamental vision of fair comparisons across hospitals for the payment outcome.

Zahid Butt: Thank you.

Operator: And we have no further comments at this time.

Ashlie Wilbon: OK. Thank you, operator.

So we've got about four minutes left, and we didn't get through the whole conversation today, which is fine. We can figure out how best to go about doing, you know, addressing some of these additional questions at a later date. We'll be working on providing a summary of the call, sharing it back with the

developers in the committee to make sure there aren't any kind of afterthoughts or other kind of things that come up as some time has passed and let things set in to see what the next steps will be, and whether or not we will still reconvene in October, and exactly if we do convene in October, exactly what should be brought forth at that time.

So, I wanted to just again thank the committee, and just pause if there's any last thoughts from the co-chairs or the committee before we – before we disconnect and adjourn.

Lisa Latts: This is Lisa. I just wanted to thank everybody for dealing with this really, really complicated and difficult subject.

Brent Asplin: Yes, I would echo that. Thank you. It was a good conversation. I would just ask that we continue to get suggestions about how to strike that balance between what is practical and available and what might be not attainable or, you know, kind of that balance between the perfect and the good. I think that's where we got to get if we're going to move this forward, and so suggestions about how to do that would be very helpful.

Ashlie Wilbon: Great, thank you Brent and Lisa, and thank you everyone on the committee for again, for a very thoughtful discussion. You've certainly given us here at NQF a lot to think about, and really are kind of serving as the foundation for how we will address these discussions with other committees going forward within this trial period. So thanks again for being the guinea pig, and for taking this on so thoughtfully.

So please feel free to e-mail me with any thoughts that you have once we get off the call or things come up, and I'll be working on a – a summary to share with everyone and we'll post it online on the project page as well within the next couple weeks.

So thanks again everyone for joining us, and have a good weekend.

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