STATE OF FLORIDA
DEPARTMENT OF HEALTH
AGENCY FOR PERSONS WITH DISABILITIES
iBUDGET RULES DEVELOPMENT WORKSHOP

Office of the Agency for Persons with Disabilities
4030 Esplanade Way
Room 301
Tallahassee, Florida 32399

February 16, 2015
2:00 - 4:00 p.m.

In Re: Public Workshop, Rule 65G,
Florida Administrative Code

MEMBERS PRESENT:

Ms. Denise Arnold, APD Deputy Director of Programs
Mr. Art Barr, APD, Program Manager
Mr. David Dobbs, APD, Budget Director

Xu-Feng Niu, Ph.D., FSU, Statistician for algorithm
Minjing Tao, Ph.D., FSU, Statistician for algorithm

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(Whereupon, the public meeting was called to order by Mr. Art Barr, after which the following occurred:)

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MR. BARR: Just to make sure. All right, just for the recorder's sake this is a publicly noticed meeting, February 16th from 2:00 to 4:00 Eastern Standard Time for the Agency for Persons with Disabilities on the algorithm. I think we've covered that. Dr. Niu will be here shortly, so those of you that are wondering, this is Dr. Tao. We've introduced her before. All right. And you're sitting up front; we finally got you up front. Dr. Niu informed us he was going to be a little bit late at the beginning of this, which works out perfect because beginning of the presentation is a recap so that we can kind of remember where we came from, where we're going, and then we're going to get into the meat of it.

There's also handouts and I see that most people have them on your lap and I love the fact that they're in color 'cause it's easier to read, and I know some people are already going through the handouts which means your questions will be

ready for us.

We're going to stop throughout the presentation. You're going to see a slide that comes up that says "Discussion", and we could wait 'til the "Discussion" slides, there are several of those throughout this afternoon's presentation; that's when we're going to take questions from the audience here and then we'll be monitoring on the computer system questions that come in.

Before we get rolling is there anything that I might have missed? Do you have any burning questions?

What a President's Day, right? We've got Valentine's Day, President's Day, algorithm meeting. Perfect. I got a few chuckles on that one. All righty.

So off we go. I kind of went over some of this but we would like to make mention that if you just are here for the first time today, you can catch up. You, too, can catch up by going to our website and I put the hyperlink right there for you. You can cut and paste that in and you'll be able to see all the Power Point presentations that we've done to date; and also there is transcriptions and there's audio along with the

public notice. So all of that is there for you. And, again, I mentioned that the Power Point for today's presentation has already been posted.

Okay. I mentioned to the folks on the phone that they will have an opportunity to possibly ask questions at the end, depending on the feedback loops if we're able to do that. We'll play that part by ear. And we talked about the links. So with that we're going to continue on.

Dr. Niu will be here but I would like to introduce Dr. Tao again and she is the assistant professor at the University of Florida in the Statistics Department. I guess we call it the Department of Statistics, so forgive me for that.

MS. ARNOLD: Is that in presentation mode?

MR. BARR: It's supposed to be, yes.

MS. ARNOLD: Okay. I just wanted to check. I left the room for a minute. Sorry.

MR. BARR: Yeah, we were sharing the screen and that means we're seeing this, right?

MS. ARNOLD: No, I meant on the phone. Is it - did you mute them already?

MR. BARR: I thought I did, but I can always double check.

That's a good connection. It's really quiet

so that means we've got a good connection.

MS. ARNOLD: We would have known soon if we weren't on.

MR. BARR: All right. Now, we're just going to dive in here and do a little bit of catch-up. For those that want to know everything about algorithm, especially the one that is in the Agency for Persons with Disabilities Individual Budget. This is the foundation for the algorithm as you all know.

So just to recap, it's age 21 and under, 21 and over; it is living setting so if the living settings are listed out: family homes, supported living, group home and residential habilitations center. Additionally, you have QSI which is the Questionnaire for Situational Information. And what you have is a sum of scores for your functional and your behavioral. Most of you know this and also then there's three questions: 18, 20 and 23. I know this in my sleep because I've presented it for many years and those are transferring, self-protection, and maintain hygiene.

All right. Any questions on where we're currently at?

That is the algorithm basis that we're running right now.

All right. So the current algorithm, the way it works, and this is - I'm kind of - I must be turning into a nerd because I'm getting very excited about where we're headed with the algorithm. As you study states and see how algorithms or statistical analysis work, it takes time. So we started with this original algorithm or allocation of amounts for individual budgets with considering 53 variables, independent variables, excuse me, and we use fiscal year '07-'08. That's very important because we're going to talk about that later as the dependent variable.

And then you looked at the expenditures and you come up with the goodness of - oh, what that means again real quickly, and it came out to 0.67, 67% as far as a goodness of fit. But here's the great news. This is what we're going to be going through today.

This presentation will demonstrate new information that we can now consider and that is up to 126 independent variables based on I might add your input because that was very, very, very important part of this from the beginning. We

asked for stakeholder input, we received that.

As we talked about the last presentation, we're looking at fiscal year '13-'14, and I'm sure there will be questions on that towards the end or when we take a break for discussion, we'll be happy to answer those.

Now, we've started running this information that you all wanted and you'll notice a really big change from the original one which is 0.67 R-squared factor. I can't believe one up here that says R-squared, but that's how it works.

0.79. That's a dramatic increase in the goodness of fit. We're going to go over exactly why that increase came about. I can tell you why it didn't the first time 'cause we didn't have reliable information for the independent living setting. Denise is going to talk a lot about the living setting, how we've been able to pull that out better to get a higher R-square factor.

Examine the goodness of fit. That's what we're doing when we talk about R-square. Very simple. How does it fit the model? R-square, I'm just going to read this part; I know you can read for yourselves, but for the recording:

"R-square is a number that indicates how

well this fiscal model fits the data."

The next part is "R-square value is the fraction of the total variation of expenditures explained in the model."

Do you feel like you're in class yet?
A little bit.

"Total variation is the sum of squares of individual expenditures from the average."

We did this slide last time and we felt it's important to keep it in for people who want to know what R-square is.

The next slide really is the one that I like a lot better because I'm more visual and it shows you - basically, we took a sentence from our last presentation, the R-square value is a measure reflecting the model goodness of fit. This is the part I get. The larger the number, the better the fit. Keep things simple. So if you have a higher R-square value, as we do in this slide right here, and you also see that the way that it works out, that's what we're trying to get. That's the object. That's why we're meeting to enhance the algorithm which was always meant to be. So the lower the R-square it's not quite as good a fit.

All right. The two tasks that we contracted

with Dr. Tao and Dr. Niu were evaluate and refine Florida APD's current iBudget algorithm. We've done most of that presentation already in the last meetings. Today we're really going to be focusing on this second part of the task which is update statistical models for the Florida APD's iBudget algorithm to identify new algorithm options. That's why we're here. All right.

Moving on, our famous discussion. I wish this term didn't refer to people because to me it's like outlier. No, we're people. But that's how it is in statistics. So as we talk about outliers, they're generally individuals in this case with individual budgeting, people who have extremely high or extremely low budgets. We've done a lot more research in this and we'll be able to answer more detail. So I'm sure there will be some questions on that.

Outliers can sometimes reduce the precision of the model estimation as a predictor and then, finally, in practice outliers commonly need to be detected and removed from the data. I have been one of the folks tasked at looking at other states. How do they do their algorithm? How does it work? And what we have found is that all

states have what you would call, if you're using a statistical model, outliers. It's part of the whole process.

However, with your input there are some changes that we, we listened, we wanted to make regarding the outliers. What we presented last time is that it was a typical 10% of the amount of folks would fall somewhere on this high or low range. Well, according to not only your questions but the testimony that was given in court by another statistician that you were much more comfortable - at least, you'd like to see much lower percentage of outliers, in this case 5%. That is what we were asked to do and that is what we have done basically.

I disclosed the 5% as the standard rather than the 10%. Let's look at the actual numbers of people that are involved with this. When running a new algorithm removing 5.1% of folks from those extremes, high and low for the most part, it turns out that there are 1,309 customers that are affected. If you remember the last time we met last month, it was closer to 5,000 I believe or somewhere of the overall outliers, which three to 5,000 depending on what models we were running and

everyone thought that was extremely high. So at 5.1% we are down to 1,309 consumers affected.

So who is affected? What do you mean? What's that mean at all? It's done by claims and I found it surprising that they were so evenly split. I wasn't sure. Were they all high? Were they all low? I didn't know. So 532 folks are below the $20,000 claim threshold and then you have 564 above the $50,000 threshold that we are terming, and Dr. Nu is terming, an outlier of the algorithm.

So what are the 213 down here? Someone's going to ask, Art, what's the 213? I don't understand that. Well, basically, it's the difference. So if you add all these up you're going to get 1,309 and the way it's described is there are always some people that might be between the $20,000 and the $50,000 and they still would be considered an outlier in the model. That's 213 folks. See, we're getting into some detail this time. We're going to get even more detail as the presentation goes on.

What did you all ask for? What did people on the phone ask for? What were the comments we've received? We've received over time, over

the last five years. What your recommendations have been is look at caregiver H. That was very, very important to y'all, and we have done so. Also, caregiver provides care to others. You know, if you're a single mom it's a little bit different possibly than being in a family that has a husband a wife and is doing the caregiving. I know for myself, you know, God bless my mom and dad and I'm glad they're still here, but it's become more, more - a little bit more caregiving. You know, so that situation is arising for many of us, especially the Baby Boomers.

So we looked at different things: caregiver health status, caregiver employment status - as I just mentioned - and protective services involvement.

Do these things matter? Do they make a big impact and difference in the actual final amounts when you're running a statistical analysis for an allocation amount?

Additionally, you started getting into and I agree 100% with each of the caregiver, 50 was one of the discussions that we had. But then it went down to 45. Do I hear 60, 65? I mean, it was all over, right? But the good news is we've looked

all over and we're going to present this afternoon the outcomes of - does that make a difference? How does that make a difference potentially as far as caregiver age? You asked for carving out of transportation, dental, support coordination, environmental adaptations, and medical equipment.

Another comment and recommendation was the breakout of residential settings by rate levels. And the reason that's such a good comment is we did not have that five years ago. iBudget, the application, which is the computer system, we went from about 39 codes in ABC to 120-something now, meaning we're actually able to look at living settings in more detail, especially those that are group homes. So that's one of the things that's changed that you'll see increase the R-square value.

We wanted to include some data from the fiscal section of the QSI. You all did. We did, too. What's it look like? Why do you only use this one section of the QSI? I thought the Questionnaire for Situational Information was the whole person's life. So we're looking at all these factors and the recommendation was for more QSI questions.

Have I hit pretty much the mainstays that you remember from the previous conversations? I saw a couple of nods, so I'll go with that. I saw a double nod; I'm really going to go with that one.

Okay. At the request of stakeholders and some of the things that we've gotten through the e-mail system, we've been asked to look at other states with developmental disabilities' individual budgeting amounts. How did they do it? One of the comments was how did Wyoming particularly do it? They have a system called the 'DOOR System'. And the person who proofreads the Power Point, they put an acronym up there, he didn't say what it was. I'll tell you why because I don't know what it is. But it's called the DOOR System. I'm sure we could find out, but I just didn't get it for this slide.

So we did research in other states. We looked at are we missing something? Why is it an R-squared value higher somewhere else? Review of other states showed that there are some commonalities. All states use an assessment tool. I mean, but they are different assessment tools. But everyone starts with an assessment tool. Ours

is a question here for situational information.

Now, what all states have also done in all the research that many of us have been conducting is found that as an algorithm or a statistical model matures, is one way I would put it, that states have had to look at things like outliers, extraordinary needs - all these type of things that we're doing, and they've had to kind of layer it and say, well, how can we serve folks that are falling outside the goodness of fit model? So that's all really the difference in states. It isn't so much that we've done anything dramatically different in the statistical models; it's really about methodologies, how do you implement them. So that was kind of refreshing to see that that we're blessed with a new 0.79 that we're getting up to be one of the top in the nation if we go with this model, which is really a decision for the Agency and the State Board. That's why we're having this public meeting.

So significant factors were covered in the new algorithm analysis. All questions, every question that we have gotten, Eve has been the person typing them out and they'll be posted in the very, very near future. So I know they come

through (Unintelligible) and others, that we get them through legislative affairs, whenever we get them, we're going to put them on a chart, we're going to list them out and we're going to post them for everyone to see. Quite frankly, not everything's a question. Sometimes people just need to vent. That's okay. We're going to throw it all out there. And we'd like to say thank you for your comment if it's a venting, but there's a lot of good questions, too, and we hope we've covered them in the recap, where we came from right now, and now we're going.

So with that for the folks here in Tallahassee, if we could open it up to questions in that first part which is the recap, there's a little bit of information about where we're going. We have run new things and we're going to go into in detail in the next section.

But any questions so far? Suzanne?

Thank you so much.

MS. SEWELL: If we could go back to slide -

MS. ARNOLD: Could you state your name just for folks on the phone?

MS. SEWELL: Suzanne Sewell, Florida ARF.

If we could go back to slide 12, I did have

some questions on that slide.

MR. BARR: Yes.

MS. SEWELL: The number of claims below $20,000 is 532; and I just didn't understand exactly what was being shown and what you meant by claims because when we used to look at this waiver two or three years ago, about half of the people's expenditures were around $15,000 or below.

So what does number of claims with a $20,000 price tag for 532 people equate to?

MR. BARR: That's a great question and I'd like to hold you in case of a follow-up. The claims themselves, the number for these claims, are people that are outliers. There are still a tremendous amount of folks overall. In fact, I do have a breakdown. There's about 11 or 12,000 that are $10,000 or $20,000 and under, so we're not talking about all claims. We're only addressing outliers.

MS. ARNOLD: Yeah, but the - let me just add to that. What those numbers represent is, and in our current model there were a lot more outliers, because remember our outliers were close to 10%. So this is 1,309 people who the model doesn't - they don't fit within the model, kind of the bell-

shaped curve model. They're either way low or higher, and so the break-out of those is what this is trying to explain to you, that they're not all the people on the high end. There are some people on this low end and that's all we're trying to show is where they are.

MS. SEWELL: So when you say 'outlier' these people, when you look at these 1,300, according to the criteria and the standards, either should have been much higher or much lower if you're just applying the algorithm? Is that what -

MS. ARNOLD: That would be the assumption, yes, and those people - any outlier is someone who in our process in the past and continued process would always be looked at with an additional process that you look at, instead of just looking at an algorithm. So it's only 1,309 people; it's less than it was before; you're never going to get all of them unless, you know, you just want all of them in there in which case your prediction might go down some. But so the point is just to show you that it's some people that are lower than their, than the prediction would indicate and some people that are higher.

DR. TAO: Can I add some more to -

MS. SEWELL: And when you give the dollar amount was that all services included?

MS. ARNOLD: Yes, all services were included. We'll get to that in a minute.

MR. BARR: All services were included, just for the recording.

DR. TAO: So I want to mention a little bit more about outliers. So here we mention outliers extraordinarily low and high. This low and high is not just for the expenditures. That is at the same level of the leading study and the age, all of the staff, so we have this group of people. We look at all of the exponentials then we look at what is, like, this is the middle level and we look at whether they're spread too high or too low. So that's why you'll find there are some of the claims, some of the outliers with the expenditures less than $20,000 but some of them greater than $50,000; but still there are 215 or 213 of them with expenditures between, between $20,000 and $50,000.

So this high or low is not just for look at the expenditures only. We look at other conditions as well. It's like we only look at people in certain group. It's not - it's like for

every group we look at whether it's extraordinarily high or low.

MR. BARR: Thank you.

MS. ARNOLD: There's a question back there.

MR. BARR: I'm sorry, I didn't see that hand. We've got one, two. Okay.

Welcome. Dr. Niu has entered the room. Appreciate having you and we'll just throw you right in the fire.

DR. NIU: Sorry, sorry.

MS. ARNOLD: No, you're good. We just got to the -

DR. NIU: My fault.

MS. ARNOLD: - to the question part, so you're perfect timing.

DR. NIU: We, we're just off, 2:00, 3:00 to 5:00. So -

MS. ARNOLD: Okay. So, Nancy?

MS. WRIGHT: Nancy Wright with - representing the ARC of Florida. So do you have a mathematical definition for an outlier? Is an outlier, for instance, a - someone whose algorithm amount is X amount above or below the actual claim amount?

DR. TAO: Yes, there is a formal definition for the outlier. For short, it is after we fit in

the model, we look at the difference between the actual expenditure and the predicted or the estimated expenditure, and we calculate what is called a standard residual. That represents the distance between the actual value and the fitted value, and we use this standard residual to define outlier. If this standard residual is very - too high or too low then we determine it as outlier.

MS. WRIGHT: Okay. But you can't - if you determine a single person's algorithm, let's say somebody comes in and they're newly enrolled on the, on the, on APD and you run an algorithm, you can't at that point make any decision about whether or not they are an outlier, correct? 'Cause you don't have a claims -

MS. ARNOLD: That's correct.

MS. WRIGHT: - to represent then?

MS. ARNOLD: That's correct.

DR. NIU: That's correct, yeah, because for some, somebody, you see, the current dependent variable we decide to use the consumer's - they have one full year as they expand each. Also, they started the - at January 2013, so that's - for consumer they see either a waiting list or they just come in and say that the calculation not

apply to them.

MS. WRIGHT: So those people you'd have to be able to look at whether or not they're getting correct services based solely on that second step in the iBudget rule, which is to determine significant additional -

MS. ARNOLD: Yeah, thank you, Nancy. And you have to try to separate those two for the benefit of understanding the algorithm. You can't think too far ahead on what happens with new people because then you'll, you're just going to kind of get a little bit lost. Just keep it clean to who we're looking at, current waiver people who have been on long enough to have sufficient claims, and this is what it showed. It doesn't mean that's the way they're going to be treated as they come in. That's sort of a whole different discussion of how do you use an algorithm and what do you do for people as they come on board? That's, that's kind of the methodology piece. But right now we're still at here's how we ran the algorithm. So that may help a little bit, Nancy.

I know it's hard not to think ahead but I think it'll be helpful.

MS. WRIGHT: It's not possible.

MS. ARNOLD: And you're more than welcome to continue to ask the question because, you know, we need to have that discussion. But I'm just saying that that's not where we are at this moment.

MS. WRIGHT: Okay. And then I have a second question that is also statistically (inaudible) and the other one - the second question is, so when you do, you did that nice little slide with all the little points.

MS. ARNOLD: Can you go back to that?

MR. BARR: I can.

MS. WRIGHT: Yeah.

MS. ARNOLD: Page 8. I have a feeling that was going to be your question.

MS. WRIGHT: Yeah. I feel like I ought to get class credit for this.

So you have the higher R2 value - R-square value on the left-hand side. But what those dots are showing is the relationship between the algorithm and where they would hit on their actual claims.

DR. NIU: That's not anything with, as you say, an algorithm. Nothing related to the algorithm. That's just the illustration to show this kind of data, the left side you get a higher

R-square. The right depends on you get a lower R-square.

MS. ARNOLD: I think she's asking against what are you measuring it? You're measuring it against the claims data?

DR. NIU: Well, the response would be claims data. Claims -

MS. WRIGHT: So -

DR. NIU: Claim data, for example, age over something else. So whether that's the data, the picture is showing you here that's nothing to do with the algorithm. We did not say, that has nothing to do -

MS. WRIGHT: No, I understand this isn't your - our algorithm but a good R-square valued is shown on the left.

DR. NIU: Yes.

MS. WRIGHT: How does margin of - the statistical margin of error relate to R-square value because my understanding is that when you hit - when you get an algorithm there's a plus or minus that translates into a dollar amount of accuracy and I'm not sure how that relates to R-square?

DR. NIU: That's nothing to do with R-square.

R-square is just a fixed number. We, we don't have to like a interval you see a lack of interval have a plus/minus arrow for R-square. But for individual, you say, particular value we do can't, you see, also, you see, we also can't calculate for example interval. So this person, you see, instead of giving a number like $20,000, we may have plus or minus three percent, so that's, you see, we can't do that stuff. So that's a measure of accuracy of that, you see, algorithm. But generally we still use $20,000 but we can state that actually for this consumer there's probably, you see, that averages $20,000 but they may have three - three percent, something, you see, some errors for it.

MS. WRIGHT: Do we know the margin of error?

DR. NIU: We - after we have the model, we know that, yeah. We can do that calculation.

MS. ARNOLD: So we will know once we run a model?

DR. NIU: Yes, yes.

MS. WRIGHT: Okay, all right. Thank you.

MR. BARR: Other questions? Thank you, Nancy.

Yes?

MS. SEWELL: Okay, still having trouble with slide 12 here.

MR. BARR: Okay.

MS. SEWELL: Let's take the $20,000, the number of claims below $20,000 is 532. So if I understand this, you ran the algorithm and you found 532 people, let's say they all had cost plans that were - or if their algorithm amount generated would have been $100,000 each, say, and then could we say 530 came in with claims expenditures of $20,000 and that was considered to be an outlier because it was so different from the $100,000 projected?

Am I interpreting that correctly?

DR. NIU: (Unintelligible) - two algorithm below $20,000, just a means for those consumers. The model turned out pretty well for them. So either it's because the condition, consumer, for example, somebody actually just got $15,000 but actually based on the algorithm that because of that physical condition, the QSI question, they probably should get $30,000. So that's, that condition is not a match with what they're getting now. So an algorithm easily predicts much higher or lower just for this, for those 532 persons, you

see, consumers, the model didn't predict well for them.

MS. ARNOLD: Am I right in saying it's not talking about how much money above or below that they need to have added; it's just simply showing that the model doesn't predict well for them and their claims happen to be in this range.

MS. SEWELL: They just had a poor prediction, what you're saying?

MS. ARNOLD: Yes.

DR. NIU: Poor prediction for those consumers, for those 532.

MS. SEWELL: Right.

DR. NIU: Generally, that's where they are using it too literal, but the algorithm give them help because of their condition other, you see, variables. That generally means -

MS. ARNOLD: If something's not matching up well.

DR. NIU: Yeah.

MS. ARNOLD: With the variables we're using. And we'll talk about in a minute all the different variables we use.

DR. NIU: So like consumers they live in a family home. They live, children live in the

family home. By their condition they may need about $30,000 but they just - actually they are just using $10,000 or $5,000. We see a lot of cases the living family home, those consumers, we so appreciate them, they use just very little even in their condition that's much worse. They should get more but that's, you see, we need to pay special attention to them. So, you see, whether we can keep the lower or we have to, you see, the algorithm actually generally gives them more.

MS. ARNOLD: And that's again where once we define the process we would use as a result of the algorithm, we decide so what do we do with people like this. And as you know what we did transitioning in is they all got individual reviews and we assigned a final iBudget allocation. So that's typically what other states do with these outliers as well; they end up being someone you've just got to take a look at what it is and as you continue to run algorithms and get better data over time, you may end up picking them up later on, but at this point they're not, they're not, you know, we don't have a good prediction for them.

MS. SEWELL: One follow-up and I'll leave

this, I promise.

Was there a percentage variation between say the $20,000 that's spent low - what if their amount had been $30,000? Was there a number that you identified how much it had to vary to count as an outlier?

DR. NIU: So, actually Denise asked me. We have for each $10,000 increment we have the numbers, we have numbers for each of $10,000 from, you see, below $10,000 actually we have 474 consumers. They're outliers. Below $10,000. That means they are using too little by the algorithm, based on that condition, functional condition, if they have a condition they should get higher. So that's - below $10,000 is the 474. That's for the low end. You can see the outlier that's just for those people, they spend too little. But actually the algorithm, based on the algorithm they should get more.

Between $10,000 and $20,000 there's about 58, 58. Okay. So we have, you see, for each tense on the increment we have a number how many, you see, there you see, we, we have actually for these people over $100,000, we have 149. So there you see, for those consumers they're using over

$100,000. Okay. For those people that's generally, again, that is a condition not imagined with what they got. For whatever reason, for example, somebody got - we have the highest one that's about $315,000, so that's the highest one. So for those consumers generally, we use the algorithm. We could not catch that high. Okay. So that suggest that they are using too much, you see. That's, again, you need to pay special attention to have a (Inaudible) how to handle those consumers, they have low, they have some high.

MR. BARR: Are there any other questions on part one? I called it part one; I should have labeled it part one.

Okay. If not, I'm going to move these slides back and the next one then, Denise?

MS. ARNOLD: All right. So, again, for the folks on the phone I don't know if you're getting any questions - you have one question?

Okay. Can you go ahead and read what that is and we'll see if we can address the person's question on the phone.

FEMALE VOICE: Bob Gentry, Linda Miller, and Vera Cramer. At this time, does the model have

statistically significant measurement for outcomes of positive or negative seven?

MS. ARNOLD: Positive or negative setting?

FEMALE VOICE: Seven, seven, number seven.

DR. NIU: Not so clear. What's the question?

MS. ARNOLD: Don't know what the question means.

DR. NIU: No, so, what means the positive or -

FEMALE VOICE: Okay. Let me see can I get her to make it a little bit clear.

MS. ARNOLD: Okay. We'll go back to that. We're gonna move on then.

So, Art, if you'll help me remember we've got a question lingering over there.

MR. BARR: Sure.

MS. ARNOLD: For Eva. Thank you. Okay. So we're on slide 19. Okay.

So we're going to talk a lot more about what we looked at and this is just a little bit of a summary slide. We've already told you this but I'm going to tell you a little bit more. So we're on slide 19 for those of you on the phone.

The algorithm considers 126 independent variables many of which are new and were not used

in the current algorithm. So you would probably ask, well, what are those? So I'm going to tell you a little bit about what they are.

As opposed to, let me just tell you, 53 in our current algorithm, okay? So they're big, more than double the independent variables. And just to be clear an independent variable is a characteristic that you're using to try to predict the dependent variable. The dependent variable is the expenditures so you're trying to find all the characteristics that best predict what someone's expenditures are. I have to keep reminding myself of that as we talk about independent variables.

So we use all the QSI questions, so that's questions 1 through 50 and includes a lot of different pieces. We used several different flags if someone was in community-based care. If someone was on CDC plus, these were all suggestions that came from the stakeholders. The disease management flag that's in the FIMA (ph) system, the Medicaid system. We used disability type. We looked at do they get nursing services. We looked at some data from ABC if they had previously had been in jail or in the defendant program.

Let's go to the next slide. Oh, do I have it?

MR. BARR: You do.

MS. ARNOLD: Great, then I'll do it. How about that? Okay.

DR. NIU: I think you might have skipped one. You may skipped one.

MS. ARNOLD: There. Okay. So just so you know, and we're going to get into more dependent variables, but back to independent. The dependent variable, again, is the claims from '13-'14 with individuals removed that were not actively enrolled as of January 1st or who did not have 12 months of expenditures.

We included all expenditures, the second bullet, all expenditures. We took no service expenditures out.

We'll talk about a little bit later you all asked us carve out these, we did try that and we'll tell you the results of that.

We included the geographic rate differentials; they are not taken out of the expenditures. Okay. So that's what we did on the dependent variables.

MR. BARR: Backwards.

MS. ARNOLD: Backwards. I guess I hit it too long with my finger or something. So we're on slide 21 if I could get it there. There. Okay.

So the removal of the services that y'all talked about - waiver support coordination, dental, environmental adaptations, durable medical, and transportation - were tested. The inclusion of these services was also tested, so we tested it both ways. We took them all out and then we tested the algorithm and then we put them all back in and tested the algorithm. There was no difference in predictability. So that's pretty significant, whether you left them all in or you took those, that group that you all identified out.

Therefore, our recommendation is that we leave in all service expenditures as for the dependent variable and not carve out anything, as we previously talked about. And here's where we're going to stop and take questions about that.

MS. WRIGHT: It's Nancy Wright again. So I'm not sure, when I read the 2010 legislative report the statement was that these items, support coordination and dental, I think, yeah, all of the ones listed were not - were going to be part of a

separate fund because they weren't predictable, they weren't being - there was no way to accurately include a variable to predict these services.

MS. ARNOLD: Right.

MS. WRIGHT: So they would be separately -

MS. ARNOLD: But that was from 2010.

MS. WRIGHT: - from a reserve fund.

MS. ARNOLD: Correct.

MS. WRIGHT: So this is the opposite of what I was thinking you were going to do. I was thinking you would make sure that there was a way that if people weren't getting these services when they were medically necessary that there would be an easy way for them to be added to their funding, as opposed to trying to take them out of the model to use to determine the algorithm.

MS. ARNOLD: Right. So in a way it makes it a little simpler than what the 2010 report is. The 2010 report indicated that at that time we couldn't find a good predictor for that. When we put them in and tested them and took them out and tested them and came up with the same thing, then we do have a predictability for those services. There's not really any point in taking them out.

What you're talking about is again when someone gets their budget, do they have enough for medical necessities? So you're, you're getting into then what happens when I get my budget but I look at my budget that you've given me from the algorithm and it doesn't meet my need?

MS. WRIGHT: Right.

MS. ARNOLD: And what do we do with that individual review? That's, that's for the implementation methodology of what do we do when someone's needs can't be met with their budget. It's a great question, but in running the algorithm we're just trying to make sure is it - do we have the right variables to predict the expenditures? And this shows that we do and it doesn't matter whether you put those services in or you take them out. So why take them out and confuse the matter? Let's just leave everything in and run the algorithm.

DR. NIU: So, Denise, let me answer this. Okay. I think that's an important question. So there you say you say recommendation by our statistic team, we still gave two options. So the final, you say which one the Agency will use? That's - you need more discussion, you need more

discussion. Actually, from my own opinion I still believe that 2010 put the variable and those expenses aside, tried to put the (Unintelligible) back, but from the lawyer I heard that we have a status not allow to put, as you say, the money back for those geographical, you say, differential rate for those transportation. But for that, you say, for, for my team I still recommend at least two models, okay. So that, that final decision that was made by the Agency. But for the R-square that's identical. We get identical R-square, okay. R-squares. So that's - but, you see, I still believe what we did in 2010, that's the same that makes more sense. You see, that's more reasonable because the transportation tends to expenses, also those like durable medical devices, medical geography called differences. I still think that because of those consumers, they will feel a difference if we use this way or that way. I feel, I still feel the first way that's better, but so the R-square identical. Okay?

MS. WRIGHT: Yeah.

DR. NIU: The weeks were different, a little bit different.

MS. ARNOLD: Yep. So, yeah, great

distinction there. So all we're trying to say here is the R-squaring was no difference with both of them, with all the services in, take them all out, same R-square. So there's no, no difference there.

If in implementation you think there is a big difference and you need to, as he's described, go with the one where the services are pulled out for some reason, then we have to come up with a methodology of how do you put them back in, which we can do. That's just not the way it occurred last time. And, and so that's the important point here. We're recommending as an Agency to leave all the services in. We understand Dr. Niu's point. We've talked about it a lot. We are interested in your feedback on that. Okay.

And so I see Linda has a question. So is there another mic we can give Linda?

LINDA: You know, I think I'm still mixing up implementation and the R-square.

MS. ARNOLD: Yeah, it's hard to get them separate, it's hard.

LINDA: I'm not really into R-square, but -

MS. ARNOLD: Yeah.

LINDA: You know, when you have something

like environmental adaptations, you could have a huge amount of money spent that's a one-time - and, again, that may be the decision, do we leave it in? What happens what's carried over? But I guess I'm confused on why that doesn't influence the predictability or -

MS. ARNOLD: The R-square.

LINDA: - the R-square.

MS. ARNOLD: Well, my understanding is because - and Dr. Niu obviously needs to answer it.

DR. NIU: Yeah.

MS. ARNOLD: But when I think about environmental mod, it's not very many people that get it.

LINDA: Right.

MS. ARNOLD: So spread across doesn't make the predictiveness change much.

DR. NIU: Good answer, yeah.

So that's -

MS. ARNOLD: But you would like to add to it?

DR. NIU: So actually, you see, for transportation that's currently the base item, that's about May 2007, 2008, that's about 14,000,000. That's about - and last year, 2013,

2014, that's about 21,000,000. So those numbers, that's the biggest one. The next one will be geophysical differential. That probably about eight to 9,000,000. But those numbers compared to the total about 100,000,000. That's still, you see, that's still not 100, that's 1,000. It's one billion. Okay. So then so when you compare the total value, you have those small adjustments. That does not affect the model, you see, that asked where, you see, the (Inaudible). Not effect that too much. But a little bit, okay. Even to distribute over, like, you have maybe 500 that use durable medical equipment. Now you distribute it to 30,000 or 26,000 so each - everybody cannot use it, too much money. So then, then, even that way, so when we use the model that's not effective model, that total predictability, the total.

But that's what makes the difference for an individual that wait. For those people, for example, people you see they need the geographical adjustment so that's - they, they - if we use (Unintelligible), they will get really relax. So that's, that's, you see, we need more discussion about this part.

MS. ARNOLD: Yep.

DR. NIU: Okay.

MS. ARNOLD: So just to kind of circle back on this one, again, we need to think about in implement - okay, so you know that it makes no difference in the prediction either way; you know that. So if you, if you took them all out and you got a much higher prediction that might tell us to do something different, but it didn't tell us that. It just said they're the same. But, again, that implementation question, if you think even though it's the same, it's very critical that we pull out transportation anyway and apply it back some way, that's, that's in the methodology and that's something we can talk about.

Any other questions on this one? We've got a lot to cover.

MR. BARR: Denise, we did have someone come back on line while you were on a discussion slide.

MS. ARNOLD: Awesome. Okay.

FEMALE: I think we've already answered this question. It is from Kathy Pinder (ph). She said, why were these particular services initially carved out? Why were these services, particularly why were they carved out initially? I think you've answered it.

MS. ARNOLD: I'll take a stab at it. But the reason why I think they were carved out is that some of them were one-time expenses, like dental, unless it's just cleanings, but that's a given for people. Environmental adaptations and durable medical equipment were one time things that we thought we would do something different in implementation with them and apply them and give that money for folks.

There's always still an opportunity for people to get significant increases if they have a need for those things.

The transportation is because the rates are so varied across the state and that was one reason why a lot of stakeholders said and because people couldn't afford some of the transportation that they previously had with their current budgets. So transportation was a hot item and that was why the stakeholders I believe, stakeholders, some of them are in the room here - waiver support coordination is a constant for everyone; everyone has to have one. Some have limited which is half the cost of a full support coordination, and so at the time it was thought that was going to, you know, affect it somehow. And so, you know, we

learn as we go on. But that was the reason.

FEMALE: She said thank you, she understands.

MS. ARNOLD: Okay. Thank you.

Okay. So we're going to move on to the next slide.

A CALLER: Are you going to take phone questions on the QSI?

MS. ARNOLD: I'm not sure what you mean.

A CALLER: Some different questions about the QSI or -

MS. ARNOLD: Yes, ma'am, we're just starting -

A CALLER: Or that's for later on?

MS. ARNOLD: Yeah, it's later on. We're getting there.

A CALLER: Thank you.

MS. ARNOLD: Thank you.

A CALLER: Thank you very much.

MS. ARNOLD: Okay. So we're now on 23 and this is about the ages. Okay. So remember our current algorithm looks at under 21 and over 21. We looked at all ages, so it's not that we just looked at these - the way these are separated out. But this helped us kind of, as we looked at all the cross spectrum of the entire age and

expenditures, this is the way we kind of broke out the decades, if you will.

And then the next slide kind of talks about age group 21 to 30 showed a high claim mean or significance. So we already know under 21 and over 21 does, but 21 to 30 is even more significant. So there was a jump there in people's expenditures for 21 to 30. Makes sense to me. They're leaving school, things like that.

After removing outliers, the estimated waits for the last four age groups, 31 - so those last four decades - the remainder of those age groups 31 to 40, 41 to 50, 51 to 60, and 61-plus, did not have that same significant change. Kind of surprising but that's what the data show.

DR. NIU: So let me mention. Here the 31, so this full group, they are still higher than the 21-30 group, but this full group, they are most - almost identical. So we treat it as now there's three levels instead of either two or six, so we are doing 21 to 30 and the 30-plus. Okay. The 30-plus they do get more money.

MS. ARNOLD: Right, and that's what this slide shows there. So that's what we're recommending for age variables at this point.

And we'll go to questions on age from the audience here in the room.

Any questions on that?

MR. BARR: We'll go from back to front. Dr. Bowman (ph)?

DR. BOWMAN: I was just curious from seeing the crisis cases that come in why 0 to 20 wasn't split in half or 0 to 10 and 11 to 20? We usually see folks coming in at the high end cost about age 12, for example, and they're getting bigger, more aggressive, families are having a hard time managing them.

DR. NIU: That's a good point. That's about 2009-2010. We always think of that below 20, 21. We did not think 20 between for, for that group, you see, 0 to 20. So we did not - because everybody believe, you see, after 20 reaching 21 the service will change, everything will change. But that's a good point. We may try it so, see, like a 0 to 12 to see if that makes a difference or not.

MS. ARNOLD: Yeah.

DR. NIU: That's a good suggestion.

MS. ARNOLD: Yes. Other questions?

Go ahead, Suzanne.

MS. SEWELL: Suzanne Sewell, Florida Health. We've commented and I think others have on several occasions about those who are mid-50s, 60s presenting with early onset dementia. And, okay, the age doesn't show it but is there a high degree of competence that when you start looking at the behaviors and the descriptors and some of the changes that you might by including the QSI questions and other assessments or whatever that you'll pick up those changes and behaviors, even if we can't tie it to age?

DR. NIU: Yeah, let me - the current model, you see, we are still working on. The final model we have not made the final recommendation yet, but we are doing - we are making very good progress. That's - the model currently much better, I thought, Suzanne, than what we got in the year 2009-2010. So we have more, you see, QSI score like that, you see, we have in part. Also, you see, fiscal part. They come in to the current model. But after we consider all other kind of factors, so for the age, okay, so I tried all that, you see, several options. So if we are, for example, we - currently we have 0 to 20, that's one group; 21 to 30, that's another group. That's

a jumper then. Then I tried, for example, we have 31, for example, 31 to 50 or to - then you see you will see if you have one more level, that level will get lower. That is why - that's why we have the people at 31 to up, as they, you see, catapult. Otherwise, if we have more levels later, so even though they are almost identical they can lower than that, you see, the 31, for example, 31 to 40 group.

MS. ARNOLD: Yeah.

DR. NIU: So that's why, you see, we keep - you see, people - we discuss about the should we go down to 50 or 45, now 31. That's - we down all the way to 31 and up. Okay.

MS. ARNOLD: And in answer to how we will capture sort of the functional loss that people have when they get Alzheimer's, I think we will capture it through the QSI as well as the res hab levels that are a little more distinctive in this model that we're looking at 'cause we see that a lot for people in group homes, definitely see their support level needing to go up as they lose functionality.

So back here and then Linda.

MS. JACKSON: Yeah, that was my question,

too. I'm Kathy Jackson, ARC of the St. John's.

One of the questions I did have is when you're getting into the 51 and plus, that does encompass a lot of the individuals with Down's syndrome who are moving into Alzheimer's, those kinds of things. But because there's so little availability of residential nursing those expenditures are not being expended possibly through things that they need.

MS. ARNOLD: That could be.

DR. NIU: Yeah.

MS. JACKSON: And that we have found that under the Medicaid stay plan that there are no providers out there that can implement that, so I've got a feeling that that needs to be looked at more closely.

MS. ARNOLD: Gotcha. Yeah, and I think, you know, as we move along we can look and see if that does change, but I hear you. We may not be seeing it in the claims. But I do think those res hab levels definitely will catch it and I think if someone's functionality is decreasing, the QSI will pick that up and that's why it's so critical if people get the QSI updated if that's occurring. Now, there may be some other nuances that, you

know, the QSI won't pick up and I know we've talked about as a state some other screening that we may want to put in place for folks in that 40 and 50 age group that some of the folks that are really good at the Alzheimer's issues have suggested, and that maybe could be a way to help families and group home operators sort of predict or see over time that functionality is being lost versus, you know, requesting a new QSI every month to see. I mean, that's kind of unreasonable but I think there are some other screening tools, and if we have data over time then any future algorithm changes that we kind of start picking up on will start to show up.

It's definitely a big need. We were surprised we didn't see it, but then we thought about the claims as well, and maybe we're just not seeing the services in place that need to be put in place.

Linda?

LINDA: Denise, mine is a comment more than a question. And, again, I'm sorry it's on implementation but, you know, I have a concern with defining the ages that, you know, it becomes really important that you set up and I know this

is preaching to the choir probably, but some systematic application. So either through re-initiation of the QSI or as the algorithm is refined over time because one of the biggest issues we have right now is responsiveness to changing needs.

MS. ARNOLD: Mm-hmm.

LINDA: So, you know, you can't carve out that group and, and some of it may simply be -

MS. ARNOLD: Okay.

LINDA: - that we don't have good data right now.

MS. ARNOLD: Right.

LINDA: You know, we just aren't seeing the services that would meet the needs. The end implementation we assured that there's some procedures so that -

MS. ARNOLD: Good point.

LINDA: - they're systematically looking at needs and what the system is -

MS. ARNOLD: Okay. Yeah, that's a good point, that if people are in that age group we need to be kind of delving in a little bit. Yeah, okay.

MR. BARR: We have one more computer question

or folks on the computer?

FEMALE VOICE: Here's another question from Candy Pinder.

What is the significance of the age groups? Younger groups get more points, older groups get more points. Please explain.

What Dr. Niu did is looked at expenditure data and correlated it to age, and so where the, the expenditures became higher is when someone reached age 21 and above, and that's indicative of the State of Florida where 0 to 21 our Medicaid state plan provides many, many services. And so in trying to predict the waiver cost the claims aren't going to be there. So, typically, someone under 21 gets less money in algorithm than someone older than that, and that would be the case in this example with 31 plus. They would get additional because there's, there's an additional need showing up there.

Okay. We're going to move on then to living setting, I believe. Yes. Okay.

So living setting, we did a lot of work on living setting at y'all's request. We, of course, kept family home, independent living, and supported living as a variable we were looking at.

But in the licensed facilities we looked at the service procedure codes. So we got down to the very nitty gritty of, you know, 22 different break-outs of residential habilitation, whether it was minimal, basic, behavior focused, intensive behavior, all the different extensive one's, extensive two's, all of those variations in the res hab rates. The intensive behavioral and then the C-TIP rate for the one facility that does C-TIP. Special medical home care as well.

So we looked at all of them and a bit cumbersome to look at all of those, so then we took a little bit of another step and we tried grouping them by the level of description in the res hab levels. You remember there's basic, minimal, moderate, extensive one, and extensive two. So we took another look at that and grouped them so that there weren't - wouldn't be so many different variables for someone living in a licensed facility. That would be 19 different ones that would really over-emphasize a group home setting versus there's one indicator for family home and one for supported living and independent living. So you don't want for two-thirds of the people that live in their own home or supported

living to have only two factors and the seven or eight thousand that live in group homes to have 19. It just - it was out of balance, so we grouped them.

And here's how we grouped them: Group one is all the basic and minimal residential habilitation, whether that's in standard or behavior focus. Group two is all the moderates, anything in standard or behavior focus, as well as residential live-in if there's a residential live-in rate. Group three is all the extensive one and extensive two levels, both behavior and standard. And Group four is all the comprehensive training education program and any intensive behavior rates and special medical home care. So there's four different groups now for living setting.

So, again we - what we recommend for the independent variable for the living setting is to keep family home, to have supported living and independent living together, and then to have four break-outs for residential group settings, the four we just went over.

Questions on that, residential setting, living setting?

MS. WRIGHT: So I'm wondering if there are

predictors where you could do a similar breakout in family or supportive living. Family bothers me the most because, because it's so variable what the needs might be, but that's one place where I wonder where having a single caregiver might be a predictor to break out. Supportive living, maybe you could look at, you know, whether there needs to be a limit or not. This is off the top of my head, but it seems like if you're going to break out for - if the break-out works so well for, for the res hab, there might be something also that you can find that results in that same sort of predictor of claims -

MS. ARNOLD: Okay. Yeah, and we talked a lot about that. Your suggestion about supportive living, do they need a live-in, I hadn't thought about that one. I don't think any of us did. Maybe we should look at that. That's probably - that may show something different for - 'cause you're right. If they've got the live-in, they may, you know, probably need more supervision and support.

MS. WRIGHT: Yeah, yeah.

MS. ARNOLD: We did, we did look at that and we'll go on a little bit when we get to that at

the caregiver age. We looked at the situation in the family home based on the QSI addendum questions, so we'll talk about that in a little bit. But basically it didn't show any predicted value because we were capturing so much from the QSI, that when you added those factors in there was nothing new added to the prediction. So, apparently, that is being caught by all the QSI questions that are coming in and we'll talk about the QSI questions in a minute 'cause there's new ones that it looks at, not just the ones that we did in our current model.

MS. WRIGHT: Okay.

MS. ARNOLD: But that's a good point about the live-in; that may be something that helps a little bit.

MR. VINSON: Dave Vinson, the Arc of St. John's. I have a question about how you broke down the residential habilitation. I would think by combining, say, for example, basic minimal you've got a fairly higher cost in each of those categories of one versus the other, especially when you get up to, like, extensive one be in group with extensive two, you know, that's going to be somewhere a $20,000 different cost over a

year's time. So by putting those into those sub-groups, anybody who's currently at the higher part of the sub-groups right now, you know, would probably do less well on the algorithm as opposed to the one that's on the lower.

MS. ARNOLD: Are you speaking just of the basic and minimal or all of the groupings?

MR. VINSON: All of the groupings except for possibly the last one.

MS. ARNOLD: Okay. Well, I mean, we'll certainly re-look at it but it didn't look that way from the data. It, it looked like those were natural groupings. There was not a lot of difference in, in who got extensive one versus extensive two. We'll look at it again.

MR. VINSON: Thank you.

MS. SEWELL: I think I'm fine. I would just add on and say there's not maybe that much in terms of the descriptors, but if you look at cost between extensive one and two -

MS. ARNOLD: Okay.

MS. SEWELL: - I, I've got the same concern that you do. I would like to maybe see the cost spread or just an example, you know, to take what you have here and then how that breaks out in

actuality because -

MS. ARNOLD: Okay.

MS. SEWELL: - there are some concerns with this one.

MS. ARNOLD: Okay.

MS. SEWELL: I can't put my finger on that.

MS. ARNOLD: Yeah, that's a good point. We will look at the cost spreads a little closer.

MR. BARR: Other questions? Okay.

MS. ARNOLD: All right. So now we're going to go on to the QSI independent variables. So we're very used to thinking about in the QSI the behavior section, the functional section, and the physical status. But there's a whole other section which is identified on this slide 51. Excuse me 50 - excuse me, 32. I don't know where I got 51. Let's get back here. Okay, 32. My numbers are a little different. Sorry, y'all.

So the number one that's listed here, community inclusion, life change, and adjustment information was not used in our previous algorithm. It includes a lot of information about community living, changes that have occurred, particular mental health issues people have had. So some of those turned out to be significant and

we'll look at that in a minute. So when we say we used all the QSI questions, we used them all last time but only in functional, behavioral, and physical. Okay. We used all those questions. Now we're using those plus what was in that earlier piece, and that earlier piece just so you know is not what calculates into an overall level. You know how the QSI comes up with five different levels - one, two, three, four, five. The community inclusion is not the section that calculates that which is why we previously chose functional behavioral and physical thinking. Well, we'll pick the ones that calculate into the levels, but we really purposely wanted to look at every single data point in the QSI and so that gave us some good results that are very interesting.

So we're going to talk a little bit about - the next slides tell you a little bit about which QSI independent variables were significant. So obviously transfers, that's still in our current QSI. If someone needs help with transfers, the more help they need, then they're going to need additional staff to help. Hygiene, same way, if they need help taking care of themselves,

dressing. And then a new one came - self-protection. I think dressing actually is the new one. Sorry. Self-protection was already in there. Can they evacuate on their own or do they know how to get out of danger?

So the new one is the dressing which was question 21 out of the functional area. In the behavioral section, inappropriate sexual behavior, question 28, came out as very significant. In the physical status which y'all were very interested in seeing that included, and it was included last time; it just didn't show any correlation last time but it does this time.

The use of mechanical restraints or protective equipment, which is question 34, was very significant; and the use of psychotropic medications, question 36. Those seem to be appropriate.

And here's where the new section comes in, the community inclusion and the life change. So there's a question that talks about, have you had any of the following in the past 12 months? Something like that. I'm not quoting it. If anxiety disorder was indicated, that was significant. And that's out of question eight.

If a person could use transportation or the level of support they need to use transportation was significant. So if they need more help to use transportation, that's more significant to, to more needs of someone helping them, either paid or unpaid.

Person attending and participating in community clubs, organizations, and activities, that's question 12. Again, the more help they needed the more significant that would be related to cost.

So those are brand new interesting results, I think.

The QSI addendum, Nancy, you brought up the questions about the situation with the caregiver in the family home. We did a QSI addendum and the - when we ran it with all of the variables I just described, there was not any additional predictive value to those questions. And just as a reminder, those questions are about the age of the primary caregiver; the unemployment of the caregiver due to primary caretaking; any, any adult that's been removed from a living setting by protective services; if there's others in the family home that need care or if the primary caregiver is

unable to give care due to health of that particular caregiver. So, although it's an important question and certainly seems, you know, to be factors that would pop out, apparently they're captured through the other variables because when you add them in nothing new is resulting from adding them in.

And Dr. Niu may want to explain that more, but let's see if you have questions. So our recommendation is obviously to use the variables we just identified, which does not include those caregiver questions because they, they just - but the other thing is, and I think it's important to note, we want to continue to capture that information and we have it on a certain number of people on the waiver, we'll continue to get it on everyone, and that may change over time as we get better data and more people that have that data. But right now that's where it shows.

And, and you have to be able to use data that obviously is available even if you think, well, if you ask this question or if you ask that question, well, we would have to collect data for a period of time, have reliable data on that piece of information, and then run it to know whether it

made any difference. So that's what we did with the, the addendum questions but they just didn't add any, any predictive value.

Questions?

MS. SEWELL: Denise, I'm just curious. You know, you've broken out the residential and however we end up there, I think that's a really good move to have more detail there, but I'm concerned about other services where you have levels that are tied to behaviors or -

MS. ARNOLD: Okay.

MS. SEWELL: - specific rates, like ADT where you have the need for one to one, one to three, one to five.

How is that captured when you get into settings other than by residential?

MS. ARNOLD: Wel, I mean, they're all part of the claims data. They're all - those QSI questions are pretty correlated to those ratio levels. I don't know that we separately tested that and we certainly can, like we did with res hab. Are there any others, other than ADT? Let me think.

MS. SEWELL: Some of the live-in and some of the -

MS. ARNOLD: Yeah, somebody mentioned the live-in already.

MS. SEWELL: - companion, you've got the ratios -

MS. ARNOLD: The ratios with companion.

MS. SEWELL: Yeah, yeah.

MS. ARNOLD: Okay. Okay.

MR. BARR: Thank you.

MS. WRIGHT: Hey, sorry, me again.

So if you start using services, and I know that services are - in other places have been a decent predictor. Once again, thinking forward, I'm not sure how you would, you would do an algorithm for someone who's never had services before. You see my question?

So if you, if you have someone who is new to the, to the program and they're not getting ADT but you want them to get ADT, I guess you'd have to make a decision as to what level they would need to -

MS. ARNOLD: Yes, for implementation, we definitely would, yeah.

MS. WRIGHT: - for implementation. Okay.

MS. ARNOLD: Yeah, yeah. Good point.

MR. VINSON: Dave Vinson of the ARC at St.

John's again.

My question with folks who are in supportive living and also receiving home supports, does that get - I mean, obviously the folks who have in-home support, especially live-in in-home supports - and I'm not sure whether this is a repeat of Nancy's question or not, but if they would be in supportive living, but they're also receiving that other service.

Is that, is that looked at in this case?

MS. ARNOLD: Well, we did not pick it out specifically to test it separately and we can do that. Y'all have recommended that. All of that's in the claims data, but in terms of looking at that separately like we did the res hab predictors, that's a good point and we'll, we'll look at that.

MR. VINSON: Thank you.

DR. TAO: We used that last time.

MS. ARNOLD: Yeah.

DR. NIU: So, Denise, may I make a comment?

MS. ARNOLD: Yes.

DR. NIU: Okay. I would like to, to, you see, Denise gave a very good discussion about the current algorithm that seems to come out.

When we do this modeling we also think that because res hab, now we feel that four categories specific categories for res hab that captures a lot of information for that group. We do feel, you see, we need to pay more attention to family and the independent and the supportive living. So we need a binder, you see, for example, eventually if we have some categories. Because the family home and the independent - the supportive living that counts about over two-thirds of our consumer. We need to continue to better classify those consumer, these two categories.

This time because we don't have other variables available yet, this time we didn't consider about interaction. The interaction, those QSI scores, how they interact with those three groups - that's family home, that's supportive living, and res hab. So we do, for example, we consider the family home and the supportive living. Those consumers with higher scores, the summation of scores, how you see that's akin to try to classify the consumers in that two groups. Okay.

MS. ARNOLD: Mm-hmm.

DR. NIU: We have what we call the

interaction term. We do have one interacting term for family for the behaviors that (Inaudible) - less going to family, that's way more practical for some of the living, we have two of them. One that is behavior goal and one that's a function of the goal. So we, we, we think something try to -

MS. ARNOLD: Yeah.

DR. NIU: - use a classified interactive term, I think that's, that's a good improvement over the last model.

MS. ARNOLD: Yeah.

DR. NIU: That's because we feel those people living in family home, some people are just even spend less, much less money, so we should have give, you see, much more consideration and try to do a better job to see what we can do. I think that, that, you see, the new variable, we are collecting even, even though currently seems not significant yet. After we consider all other 126 variables, additional information, seems not significant but we discussed, we think we need to continue to collect the information. Maybe currently we have about 33 solid, maybe after we have the total -- currently in family home we have about close to, I believe it's about 12,500. So

if we have all the information, they may, they may become significant, they may be useful.

Anyway, I think we are thinking we have many meetings together. We trying to do better in that family home situation and also that supportive living, independent living, for that two group.

MS. ARNOLD: Yeah.

DR. NIU: Okay.

MS. ARNOLD: Yeah, and they've given us a couple of suggestions about that live-in, Dr. Niu, that we haven't, I don't think really checked and we will. But, yeah, I forgot about the interactions that we did look at with that. So that, that has some potential, too, to be in the algorithm. So, good, thank you.

Other questions? Yes, Eva?

MS. FAMBRO-PRICE: Next question. Questions about a person's physical functioning seems inadequate. While it identifies those who go in wheelchairs, it misses persons who have cerebral palsy, for example, have trouble walking and accessing the community physically.

MS. ARNOLD: Thank you for that question.

MS. FAMBRO-PRICE: That's from Kay.

MS. ARNOLD: Okay. The trouble walking or

any kind - when you have cerebral palsy and it affects your functioning, it's going to show up in the functional section. So it's going to show up in the - and I don't remember the question number but if you are able to walk on your own it's going to show up there.

What was the other?

MS. FAMBRO-PRICE: While it identifies those who are in wheelchairs, it's their physical functioning, and then that's where she said it misses -

MS. ARNOLD: Right.

MS. FAMBRO-PRICE: - the person who has cerebral palsy.

MS. ARNOLD: Okay.

MS. FAMBRO-PRICE: And has trouble walking and accessing the community physically.

MS. ARNOLD: Okay. And then the accessing the community, I was just talking about that community life question that would be a new one. So it would show up there if they need more assistance in transportation or need more assistance in community participation, it's going to capture that. So I think the caller's concern on that is going to be addressed by the other

questions because we certainly don't want to leave folks out that have cerebral palsy. So I think they're, they're captured but, you know, you can certainly give us more feedback on that as you look through that again.

Okay. We're going to go to the last -

MS. FRENCH: I have a, I have a couple of questions on the QSI and as it pertains to cerebral palsy, if I could.

MS. ARNOLD: You sure could, and could you identify yourself?

MS. FRENCH: Yes, this is Gail French. How are you?

MS. ARNOLD: I'm good. How are you, Gail?

MS. FRENCH: I'm not hearing y'all real well and my computer isn't working right, so I haven't seen any presentations or anything.

MS. ARNOLD: Oh. Well, that would be a disadvantage.

MS. FRENCH: Yes, I'm just here in the dark. But I have a question first of all on the question number 18 for transfers.

First of all, what is the purpose of question number 18 for transfers? Would you explain?

MS. ARNOLD: Sure. Question 18 is trying to ask the question of how people transfer; are they able to do that themselves? And so the 0 to 4 markings on the QSI, 0 means you can transfer independently; 1 means you need someone to supervise; 2 means you need physical assistance of one person so you're able to do some of it, but one person's got to help you; a 3 means you need physical assistance of two people to help transfer or to change position; and a 4 means needs lifting equipment procedures, so you'd need actual equipment to help transfer and move. And so that question is trying to get at how much support do you need in order to transfer out of your chair.

MS. FRENCH: Then that would lead up to my second question and it is on transfers.

If the individual has cerebral palsy and is considered a total lift, does not assist and cannot assist with transfers, they require total physical assistance or non-ambulatory, but they don't have lifting equipment, and all of the question number four there is applicable to them but they don't have lifting equipment due partly because of their medical condition, do - are there ever extenuating circumstances to score them as a

higher score number four, versus maybe with one person lifting them? Now, bear in mind they cannot assist with transfers. Are there ever extenuating -

MS. ARNOLD: Right. Well, that's a great question. I am not a certified QSI assessor, so I don't want to make a statement on that without knowing exactly what the training has indicated. My read on it would be that they would be a three, but that's not an official response on that.

So I can get someone to give you a call, Gail, and we can talk that through so that you can get a more concise answer on that. Thank you.

MS. FRENCH: Okay. And may, may I ask you - and there's like two more questions on that.

MS. ARNOLD: Sure.

MS. FRENCH: For the self-protection question, I think it's number 23, there again if the person physically has no means of defending themselves because of their disability and doesn't have alarms and they're non-ambulatory, et cetera, it would apply the same as what I had just asked you.

Are there ever extenuating circumstances for these individuals?

MS. ARNOLD: Yeah, I would not -

MS. FRENCH: And I guess that you would not have the answer to that because you're not a QSI assessor.

MS. ARNOLD: Yeah, so we'll get you - we'll have a call with you about the transfer question and the self-protection.

Did you have another one that was an example?

MS. FRENCH: Yeah, I did. I just wanted - my fourth question about the QSI is after the QSI is completed by the assessor, who determines the overall score for the level of need?

Is it the QSI assessor or is it the actual Agency supervisors that make the final determination for the overall QSI score?

MS. ARNOLD: Are you speaking of whether they're a level one, a level two, a level three, a level four?

MS. FRENCH: Correct, yes, and, and -

MS. ARNOLD: The computer has a form -

MS. FRENCH: - who makes the final -

MS. ARNOLD: Yeah. The computer has a formula in it and once the values are entered it calculates based on the, the factors that are in

the QSI tool.

MS. FRENCH: Okay.

MS. ARNOLD: So it's an actual database that has a calculation built in based on the questions.

MS. FRENCH: Okay. I appreciate that.

MS. ARNOLD: Sure.

MS. FRENCH: I have a couple of questions for Dr. Niu and then I'm all finished.

MS. ARNOLD: Okay.

MS. FRENCH: If I could?

DR. NIU: Yeah, sure.

MS. FRENCH: Hi, Dr. Niu.

DR. NIU: Yeah.

MS. FRENCH: How important is it for the QSI overall scores to be accurate on the levels of need in your statistical data?

DR. NIU: That's very important. Everything relies on data. Okay. We do need those consumers the QSI score to be as accurate as possible. That's - I believe the Agency definitely realizes the, the importance, I believe, and they are doing their best to try to make this accurate, accurate, yeah.

MS. FRENCH: Okay. Well, if the overall QSI score for an individual is seemingly inaccurate

and shows a lower level of need, then how can that individual or others like them ever have a statistically validated relationship to their level of need if it's an inaccurate lower level of need than it should actually be?

DR. NIU: So for, for each individual that's why I think we need updating those, you see, QSI scores, you see, definitely need to make them for each consumer. That's a major difference, big difference. Overall, for one consumer that may be not a factor algorithm too much, but for those consumers, each one is so important for us we want to make sure that's as accurate as possible for them because if one of the consumers, their score is not accurate, then the calculation would be off. That would mean they would not get the money they should have got or they get more money than they should get. Okay.

MS. FRENCH: Okay. Thank you. Thank you very much.

DR. NIU: Yeah.

MS. FRENCH: There was just one other question.

MS. ARNOLD: Well, Gail, let me just say something on that as well.

MS. FRENCH: Sure.

MS. ARNOLD: Any time an individual questions their QSI assessment or doesn't think it's accurate, they need to contact our Agency so that we can send someone out or talk to them, at least, about what their concern is.

MS. FRENCH: Okay. Okay.

MS. ARNOLD: Sometimes people's concern is they didn't understand the question and once you talk to people on the phone then they understand the scoring, but if that's not the case we will go out and update the QSI, so there's no problem on that.

MS. FRENCH: Okay.

MS. ARNOLD: And we also certify our -

MS. FRENCH: Okay. Well -

MS. ARNOLD: - assessors. We, we re-certify them every year.

MS. FRENCH: Okay.

MS. ARNOLD: We only have APD-certified assessors that complete the QSI. It's a controlled population of people for that very reason. That is so important to get it right for so many reasons. So -

MS. FRENCH: Okay.

MS. ARNOLD: - thank you for highlighting that. Appreciate it.

MS. FRENCH: Thank you very much.

MS. ARNOLD: Yes, ma'am.

MS. FRENCH: Okay. I'm done. Thank you very much.

MS. ARNOLD: Thank you. I appreciate it.

Okay. We're going to go on then to I think our final segment here.

Other variables we looked at, and then the other caveat is we don't recommend using them. And that was what we called a community safety factor and we looked at our ABC system and we looked at people who in the past had been in adult developmental disabilities defendant program, the name has changed, sorry about that. Juvenile defendant program, jail sentencing, jail post-sentencing, and prison. And while there was some predictive value there, we are very suspect on the validity of the data and do not feel like that's a valid collection of data, the manner in which we use it in the ABC system and don't recommend using it, and that's the reason why. And so we'd be interested in your suggestions on where we might could get at this in a different way.

I think the QSI gets at some of this because it's looking at the history of certain behaviors, but, you know, we need to use valid pieces of data and we don't have any way to validate this data. So at this time - in the future if we want to use it we'll have to figure out a way to get it a little bit more clean, but at this point we don't recommend using that.

The other ones that we used that we flagged that we do not recommend using because they did not show any additional predictive value was we flagged if people were in the community based care system, and it didn't show any predictive value, and we flagged people that were in the consumer directed Care Plus system at one of the stakeholder's request, and that also was not a predictor.

We looked at the mental - a mental health variable in the FIMA (ph) system. So we're looking at Medicaid data. And again this information hasn't been validated. Access to mental health services is, is pretty sporadic so using claims data from the FIMA (ph) system for that one did not seem to be a very good valid piece of data. So we do not recommend using that

and we do think that the factors in the QSI have picked up on the key pieces for that.

We looked at the disease management, if people had received services and were enrolled in disease management again in the FIMA system. There was no predictive value to that, so I think that probably is because the, the data we're capturing, I guess, is, is predicting enough of that that when you add that factor it doesn't add anything. We were kind of surprised at that one. We thought it might, but I, I think because we're using more QSI questions and some other things it's picking it up without this adding anything to it.

And then the nursing variable, independent variable, is a predictor and we do recommend a flag for that so if people are getting nursing that would be a flag in the algorithm.

So just in summary, we've tried to demonstrate how new information could be used including 126 independent variables based on your input and reliable data. We've used the '13-'14 expenditure data, we have preliminary results that we could have an R-squared value of 0.79 as compared to our current one of 0.67 and this would

rank among the top statistical values for a waiver service for people in comparable states. So I think we made some good progress.

At this point, we want to see if you have questions, but I want to give you one final piece of information before we do that and what our next steps are, just so you have it in perspective.

We want to - we need to finalize our proposed models so you've given us some other things we'll look at. We have March 2nd scheduled for our last stakeholder meeting to present to you what we think the model should be. So we have some additional work to do based on your input today. And then we want to be able to run some case studies. You all asked us to do that and should kind of display the difference, so we are hoping that we can get at least some of that, those case studies done by the time March 2nd comes. I don't know how many we'll get done but we're going to do our very best to do a good job on that.

So with that, I think we want to see if there are questions on this last part that I just went over.

Yes, Suzanne?

MS. SEWELL: Suzanne Sewell. Suzanne Sewell, Florida ARF.

Do you have a listing available of the 126 independent variables that we could look at -

MS. ARNOLD: Yes.

MS. SEWELL: - before March 2nd? That would be good to see that.

MS. ARNOLD: Yes, definitely.

MS. WRIGHT: Nancy Wright. So you indicated that for - I'm a little concerned about the '13-'14 year, and you indicated that you tried to remove some of the - you tried to cull out some, some of the people -

MS. ARNOLD: People. Mm-hmm.

MS. WRIGHT: - from, from the '13-'14 year. What, what was the result of that?

MS. ARNOLD: You mean how many people were culled out?

MS. WRIGHT: Well, did you cull out? I thought you said you culled out and then you decided to put back in again -

MS. ARNOLD: No, that's, that's the services. What we did on the '13-'14 expenditures is we only counted people who were enrolled as of January 1, 2013, because they have to have sufficient

expenditure data for us to look at. Then we further looked at even with those people, they have to have an expenditure in every month. Otherwise, we're not going to have a good solid basis to, to try to predict the cost.

So that's what the dependent variable is. It's the '13-'14 year with all services in, geographic in, and only people who wouldn't have full claims data pulled out.

MS. WRIGHT: So I'm trying to remember the chronology of iBudget, and it still seems like that that year is going to include for at least part of the year a chunk of people who actually just got their algorithm; is that correct?

MS. ARNOLD: No, the - July 1 of 2013, everyone was in iBudget.

MS. WRIGHT: But some of those people were getting their algorithm amounts because, because they had not requested hearings, is that correct, for part of that year? So the '13-'14 goes from July 1st, 2013, to June 30th, 2014?

MS. ARNOLD: Yes.

MS. WRIGHT: So from July 1st, 2013, until -

MS. ARNOLD: People had -

MS. WRIGHT: - January 1st, 2014, people who

had not requested a hearing for any reduction of service -

MS. ARNOLD: Right.

MS. WRIGHT: - were getting either their algorithm or your sum of the service model, right?

MS. ARNOLD: Right, yes.

MS. WRIGHT: So you're including that.

Isn't that going to skew that - that were more than the algorithm?

MS. ARNOLD: They were people that were getting less than the algorithm if they did not indicate they needed the full algorithm amount. Those were the 14,000 that we then increased back in September.

MS. WRIGHT: Well, there's two - right, two things. So you didn't - the algorithm wasn't applied to people who had a cost plan that was less than algorithm, and then the second thing is that there were a group of people who got reductions who didn't request a hearing and therefore didn't have services continued.

MS. ARNOLD: That's correct, that is, in '13-'14 and the -

MS. WRIGHT: Okay. Can you pull those people out?

MS. ARNOLD: Okay. I, I don't know. I guess we could look at that.

MS. WRIGHT: Can you look at pulling those people out?

MS. ARNOLD: Sure.

MS. WRIGHT: 'Cause it - 'cause what you're doing then is you're -

MS. ARNOLD: Okay.

MS. WRIGHT: - comparing the algorithm to the algorithm, so that's going to make your test results a lot higher.

MS. ARNOLD: Okay. So let me see if I get this right. You want us to pull out of the '13-'14 people who had a reduction but did not request a hearing?

MS. WRIGHT: Right.

MS. ARNOLD: That's a lot of people.

MS. WRIGHT: Well, they were raised back in January, but there's half of the year that -

DR. TAO: But they didn't spend that when we gave it to them. We used the expenditure.

MS. WRIGHT: But they can't, they can't spend more than what they've been allocated.

DR. TAO: But they didn't even spend what we allocated.

MS. ARNOLD: So let me clarify what you're wanting. You're wanting the people who had a reduction from their tier amount -

MS. WRIGHT: Right.

MS. ARNOLD: - who, period. Is that who you want us to pull out?

MS. WRIGHT: No, who did not - the ones that had a reduction and asked for a hearing kept -

MS. ARNOLD: Right.

MS. WRIGHT: - their expenditures up -

MS. ARNOLD: Okay.

MS. WRIGHT: - at their cost plan.

MS. ARNOLD: Okay. So then I had it right. So they got a reduction and did not request a hearing, that's who you want?

MS. WRIGHT: Right. And if they didn't request a hearing then they accepted the reduction, so for those people many of them may have gotten their algorithm, I don't know, so what you're doing for those people is you're comparing the algorithm to the algorithm.

MS. ARNOLD: That's quite a few people. Isn't that the same as the 14,000 people?

MS. WRIGHT: No, no, I think that it's much less than that.

DR. NIU: It's 6,000.

MS. ARNOLD: It's 6,000?

MS. WRIGHT: Yeah.

MS. ARNOLD: Okay. So why wouldn't it be the same 14,000 that we moved up to the algorithm?

MS. WRIGHT: 'Cause the 14,000 - no, because the, those people got a cost plan. They -

MS. ARNOLD: Oh, right, 'cause they didn't get a reduction. Okay.

MS. WRIGHT: - didn't even get a reduction. Yeah.

MS. ARNOLD: Sorry, I got confused. Okay.

MS. WRIGHT: How could you get confused about this?

MS. ARNOLD: I have no idea. Okay. So I've got it now. Thank you.

David got a long time ago but it takes me a while.

Other questions?

MR. BARR: Any more questions?

MR. VINSON: Dave Vinson, the ARC of St. John's.

Just a follow-up on Nancy's question, and I'll just use point case here in using that set of data, Dr. Niu had mentioned during that year the

cost of transportation was approximately half it had been previous. He said it went from $40 million down to $20 million.

DR. NIU: That's about the number, yeah.

MR. VINSON: So to kind of echo what Nancy is saying, that's point in case, you know, that's $20 million that probably for the most part since the iBudget amounts roughly for many people equal the transportation amounts, that would definitely skew the data, I believe.

MS. ARNOLD: What is your recommendation?

MR. VINSON: I, I think it might be a bad set of data to use.

MS. JACKSON: I think you need to reinstate the transportation.

MS. ARNOLD: What do you mean by "reinstate transportation"?

MS. JACKSON: People's transportation decreased, you know, because it wasn't a core service item. You had a number of people whose transportation, they didn't have money in their budget for transportation, although I'm going to say this, if you ask transportation wasn't cut, there was just no funding for it because it wasn't a core service. So at some point we need to

correct that and reinstate transportation so people have access to services, and -

MS. ARNOLD: Okay. So your recommendation is to reinstate transportation to the prior level that it was before iBudget went in?

MS. JACKSON: Right.

MS. ARNOLD: Okay.

MS. JACKSON: Well, you'd have to look at that, I know, 'cause there's probably some service differences but that would at least be a starting point.

MS. ARNOLD: Okay. Thank you.

MS. JACKSON: And Suzanne's figures show about what, 20,000 per 20-million?

MS. SEWELL: $20 million.

MS. JACKSON: Yeah.

MS. ARNOLD: Thank you.

MS. FAMBRO-PRICE has one from the phone.

MS. FAMBRO-PRICE: We have one from Attorney Madden, Trisha Madden. She said QSI does not make clear variables between different family settings in current version. So how could you get any valid information on this present examination?

MS. ARNOLD: Thank you, Trisha. What we did on - in looking at the QSI addendum questions,

which do take into account the family situation and the caregiver circumstances, we did run a test on that with those that had that data which is somewhere around 3,000 people. And when we added that with all the other factors we've done, that we've already gone over and discussed today, it did not add any additional predictive value.

However, we want to continue to collect that data so we that we get the rest of the people to have that data and we may need to try that again at a future date, but at this point it looks as though the QSI questions that are now coming into play may be kind of overlapping with some of those questions.

Any other questions? Any other questions coming in from the phone?

Okay. All right. Well, we thank you very much for coming.

We'll see you on March 2nd and we have a lot of work to do in between now and then. So we'll be busy. Thank you.

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(Whereupon, the meeting was adjourned at 4:00 p.m.

C E R T I F I C A T E

THE STATE OF FLORIDA,)

COUNTY OF WAKULLA,)

I, Suzette A. Bragg, Court Reporter and Notary Public, State of Florida at Large,

DO HEREBY CERTIFY that the above-entitled and numbered cause was heard as herein above set out; that I was authorized to and did transcribe the proceedings of said matter, and that the foregoing and annexed pages, numbered 1 through 88, inclusive, comprise a true and correct transcription of the proceedings in said cause.

I FURTHER CERTIFY that I am not related to or employed by any of the parties or their counsel, nor have I any financial interest in the outcome of this action.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my seal, this 19th day of May, 2015.

SUZETTE A. BRAGG, Notary Public
State of Florida at Large
My Commission Expires: 2/21/2017