

THE NATIONAL QUALITY FORUM

+ + + + +

NATIONAL VOLUNTARY CONSENSUS STANDARDS

FOR PATIENT OUTCOMES

+ + + + +

CHILD HEALTH STEERING COMMITTEE

+ + + + +

THURSDAY

MAY 6, 2010

+ + + + +

The Steering Committee convened at

8:30 a.m. in Suite 600 North of the Homer
Building, located at 601 13th Street, N.W.,
Washington, D.C., Charles Homer and Marina L.
Weiss, Co-Chairs, presiding.

PRESENT:

CHARLES HOMER, MD, CO-CHAIR
MARINA L. WEISS, PhD, CO-CHAIR
DAVID R. CLARKE, MD, MEMBER
SHARRON DOCHERTY, PhD, CPNP (AC/PC), MEMBER
NANCY L. FISHER, MD, MPH, MEMBER
FAYE A. GARY, EdD, RN, FAAN, MEMBER
KATHY J. JENKINS, MD, MPH, MEMBER
PHILLIP KIBORT, MD, MBA, MEMBER
ALLAN LIEBERTHAL, MD, FAAP, MEMBER
THOMAS McINERNY, MD, MEMBER
LEE PARTRIDGE, MEMBER
DONNA PERSAUD, MD, MEMBER
GOUTHAM RAO, MD, MEMBER
ELLEN SCHWALENSTOCKER, PhD, MBA, MEMBER
BONNIE ZIMA, MD, MPH, MEMBER
MARK ANTMAN, DDS, MDA (via telephone)
LISA BERGERSEN, MD
JAY BERRY, MD, MPD
KERRI FEI, MSN (via telephone)
BARBARA FIVUSH, MD (via telephone)
KIMBERLEE GAUVREAU, ScD
CRAIG LILLEHEI, MD
ELLIOTT MAIN, MD (via telephone)
NINA RAUSCHER, MS, RN
SCOTT STUMBO (via telephone)

SONJA ZINIEL, MD

NQF STAFF MEMBERS PRESENT:

HEIDI BOSSLEY, MSN, MBA, NQF STAFF
HELEN BURSTIN, MD, MPH, NQF STAFF
NICOLE McELVEEN, MPH, NQF STAFF

ASHLEY MORSELL, NQF STAFF
NALINI PANDE, NQF STAFF
SUZANNE THEBERGE, NQF STAFF
REVA WINKLER, MD, MPH, NQF STAFF

NOT PRESENT:

JANE PERKINS, JD, MPH, MEMBER

C-O-N-T-E-N-T-S

Call to order and Welcome Co-Chair Charles Homer	8
Introductions	9
Recap of Previous Day's Deliberations Nicole McElveen	13
Measure OT3-27 Ventriculoperitoneal shunt malfunction rate in children.	16
Dr. Jay Berry	17
Discussion of Importance	19
Vote - Importance	34
Discussion of Scientific Acceptability	34
Vote - Scientific Acceptability	48
Discussion of Usability	49
Vote - Usability	51
Discussion of Feasibility	51
Vote - Feasibility	57
Vote - Overall on Measure OT3-27	58
Measure OT3-28 Standard mortality ratio for neonates undergoing non-cardiac surgery	63
Dr. Craig Lillehei	65
Ms. Kimberlee Gauvreau	69

C-O-N-T-E-N-T-S (Cont'd)	
Discussion of Importance	68
Vote - Importance	85
Discussion of Scientific Acceptability	86
Vote - Scientific Acceptability	96
Discussion of Usability	96
Vote - Usability	107
Discussion of Feasibility	107
Vote - Feasibility	109
Vote - Overall on Measure OT3-28	109
Measure OT3-029	110
Standardized adverse event ratio for children and adults undergoing cardiac catheterization for congenital heart disease	
Dr. Lisa Bergersen	110
Measure OT3-029 (Continued)	
Discussion of Importance	112
Vote - Importance	121
Discussion of Scientific Acceptability	121
Vote - Scientific Acceptability	143
Discussion of Usability	144
Vote - Usability	145

C-O-N-T-E-N-T-S (Cont'd)

Discussion of Feasibility	145
Vote - Feasibility	145
Vote - Tabled	152
Measure OT3-031	153
Healthy term newborn	
Dr. Elliott Main	154
Discussion of Importance	158
Vote - Importance	189
Discussion of Scientific Acceptability	189
Vote - Scientific Acceptability	190
Discussion of Usability	190
Measure OT3-031 (Continued)	
Vote - Usability	192
Discussion of Feasibility	192
Vote - Feasibility	193
Vote - Overall on Measure OT3-29	193
Measure OT3-48	194
Plan of care for inadequate hemodialysis	
Ms. Kerri Fei	195
Dr. Barbara Fivush	196
Discussion of Importance	198

C-O-N-T-E-N-T-S (Cont'd)	
Vote - Importance	226
Vote - Scientific Acceptability	226
Vote - Usability	227
Vote - Feasibility	228
Vote - Overall on Measure OT3-48	234
Measure OT3-46	237
Validated family-centered survey questionnaire for parents' and patients' experiences during inpatient hospital stay	
Dr. Sonja Ziniel	238
Discussion	243
Vote - Importance	288
Vote - Scientific Acceptability	290
Vote - Usability	291
Discussion of Feasibility	292
Vote - Feasibility	296
Discussion	297
Vote - Overall on Measure OT3-28 deferred until later	305
Measure OT3-041	308
Children who attend schools perceived as safe	
Measure OT3-042	315
Children who receive the mental health care they need	

C-O-N-T-E-N-T-S (Cont'd)

Measure OT3-044	321
Children who have inadequate insurance coverage for optimal health	
Measure OT3-045	324, 342
Measure of medical home for children and adolescents	
Measure OT3-050	327
Children who receive standardized developmental and behavioral screening	
Measure OT3-044	328
Children who have inadequate insurance coverage for optimal health	
Mr. Scott Stumbo	329
Vote - Importance	330
Vote - Scientific Acceptability	340
Vote - Usability	340
Vote - Feasibility	341
Vote - Overall on Measure OT3-044	342
Wrapup	348

1 P-R-O-C-E-E-D-I-N-G-S

2 8:31 a.m.

3 CO-CHAIR HOMER: It is 8:30. It
4 is a few minutes after, so I think we should
5 get started because we have a lot more to
6 cover today.

7 Good morning, everybody. Thank
8 you, members of the Committee, for coming back
9 after yesterday's experience. That's always
10 a vote of confidence.

11 (Laughter.)

12 We do have a number of new members
13 here, and we also have some new guests. So,
14 should we just go around the room and everyone
15 introduce themselves, first among the
16 Committee members and then our guests and
17 speakers and members of the public afterwards?

18 So, I will start. My name is
19 Charlie Homer. I am CEO of the National
20 Initiative for Children's Healthcare Quality,
21 and with Marina, always happy to co-chair the
22 Committee.

1 DR. WINKLER: Hi, everybody. I'm
2 Reva Winkler. I am NQF staff.

3 MEMBER PERSUAD: Donna Persaud,
4 Parkland Health and Hospital System,
5 Pediatrics, in Dallas.

6 MEMBER McINERNY: Tom McInerny,
7 Golisano Children's Hospital, University of
8 Rochester Medical Center.

9 MEMBER KIBORT: Phil Kibort, Vice
10 President, Medical Affairs, Children's,
11 Minnesota.

12 MEMBER FISHER: Nancy Fisher. I
13 am the Chief Medical Officer at Washington
14 State Health Care Authority.

15 DR. WINKLER: I will remind
16 everybody to please use your microphones.

17 MEMBER CLARKE: David Clarke,
18 pediatric cardiac surgeon, Denver Children's
19 Hospital, retired.

20 MEMBER JENKINS: I am Kathy
21 Jenkins. I am a pediatric cardiologist at the
22 Children's Hospital in Boston and the Chief

1 Safety and Quality Officer.

2 And as I said yesterday, the
3 Program for Patient Safety and Quality is a
4 measure developer on the agenda for today.
5 So, I will be recusing myself from that part
6 of the discussion.

7 MEMBER PARTRIDGE: I am Lee
8 Partridge, the Senior Health Policy Advisor at
9 the National Partnership for Women and
10 Families.

11 MEMBER GARY: I am Faye Gary,
12 child psychiatric nurse, Case Western Reserve
13 University, Cleveland, Ohio.

14 MEMBER ZIMA: I am Bonnie Zima,
15 child psychiatry, UCLA.

16 MEMBER DOCHERTY: I am Sharron
17 Docherty, the Duke University School of
18 Nursing, and I am representing the National
19 Association of Pediatric Nurse Practitioners.

20 MEMBER RAO: Goutham Rao from the
21 University of Pittsburgh. I run the Pediatric
22 Obesity Center at Children's Hospital,

1 Pittsburgh.

2 MEMBER LIEBERTHAL: Allan
3 Lieberthal, Kaiser Permanente, Panorama City,
4 California.

5 MS. MORSELL: I am Ashley Morsell.
6 I am NQF staff.

7 DR. BURSTIN: Hi. Helen Burstin,
8 the Senior Vice President for Performance
9 Measures at NQF.

10 Sorry I couldn't be with you
11 yesterday. We had our board meeting. Kind of
12 a hard thing to pass up.

13 MS. THEBERGE: Hi. I am Suzanne
14 Theberge, NQF staff.

15 MS. BOSSLEY: Heidi Bossley,
16 Senior Director, Performance Measures, NQF.

17 MS. McELVEEN: Good morning,
18 everyone.

19 Nicole McElveen, NQF staff.

20 We can now allow some of our
21 guests to introduce themselves briefly.

22 DR. BERRY: Hi. I am Jay Berry, a

1 general pediatrician, Children's Hospital,
2 Boston.

3 MS. GAUVREAU: Kim Gauvreau, also
4 from Children's Hospital, Boston, a
5 biostatistician.

6 DR. LILLEHEI: I am Craig
7 Lillehei, a pediatric surgeon at Children's
8 Hospital in Boston.

9 DR. BERGERSEN: Lisa Bergersen, a
10 pediatric interventionalist at Children's
11 Hospital, Boston.

12 DR. ZINIEL: Hi. My name is Sonja
13 Ziniel. I am the Senior Survey Methodologist
14 of the Program for Patient Safety, Quality,
15 and Clinical Research Program at the
16 Children's Hospital, Boston.

17 MS. RAUSCHER: And I have the
18 privilege of serving as the steward for this
19 group for Children's Hospital, Boston. I am
20 Nina Rauscher, the Executive Director for the
21 Program for Patient Safety and Quality.

22 MS. GALLAGHER: I am Rita Munley

1 Gallagher, Senior Policy Fellow in the
2 National Center for Nursing Quality at the
3 American Nurses Association. I have the
4 privilege of supporting the work of the NQF
5 nursing organizational members.

6 MS. McELVEEN: Operator, you can
7 open up the conference line, and we can allow
8 some of the participants who called in to also
9 introduce themselves.

10 OPERATOR: All lines are open.

11 MS. McELVEEN: Do we have any
12 Steering Committee members or audience
13 members, measure developers, who have called
14 in to listen to our meeting today?

15 DR. ANTMAN: Yes. Mark Antman
16 from the AMA PCPI.

17 MS. McELVEEN: Anybody else?

18 (No response.)

19 Okay. I just wanted to quickly do
20 a recap of our deliberations yesterday. I was
21 looking through some of the measures to try to
22 really capture how many we passed, how many we

1 would probably review on a future conference
2 call, and how many the Committee just didn't
3 feel were appropriate for endorsement.

4 There were about three measures
5 which you did recommend for endorsement.

6 I am sorry, did someone call in?

7 (No response.)

8 There were actually three measures
9 that we did review and move forward with
10 endorsement on. That was the number of school
11 days missed due to illness for children;
12 children who have no problems obtaining
13 referrals when needed, and, also, children who
14 live in communities perceived as safe. Those
15 are the three I have on my list.

16 We also tabled a few measures.
17 Some were due to allow the measure developer
18 to provide some further clarifications on a
19 measure, and others were the larger-serving
20 measures submitted by the CAHMI developer, and
21 where NQF staff is going to work with CAHMI
22 to, hopefully --

1 CO-CHAIR HOMER: If we could ask
2 the person on the phone who is calling in to
3 put his phone on mute? We are hearing a good
4 deal of static which is broadcast over our
5 speaker system.

6 Thank you.

7 MS. McELVEEN: So, we will look
8 into those larger-serving measures and gather
9 the questions and some of the additional
10 materials that you will need to fully evaluate
11 those.

12 There were about three measures
13 that were out of scope or either considered to
14 be a process measure, which again we discussed
15 yesterday possibly taking some of those
16 measures and moving them on to the second
17 phase of the Child Health Project.

18 And it looks like there was one
19 measure that the Committee agreed was not
20 appropriate for endorsement. That was the
21 children living with illness and the effects
22 of that condition on their daily life.

1 So, again, we will summarize all
2 this information and get this out to the group
3 in a meeting summary, but I just wanted to do
4 a quick recap before we begin today.

5 Helen, do you have any comments?

6 DR. BURSTIN: No.

7 MS. McELVEEN: Okay. So, we are
8 going to start with some of our more clinical
9 measures, which will be a little bit of a
10 change from yesterday.

11 We are in Work Group 1. So, if
12 you all have the materials, either on your
13 computer or printed, you can go ahead and pull
14 up the table that we have compiled of the
15 Committee reviewers, their initial comments on
16 this particular measure.

17 The first measure we are taking up
18 is No. 27. We do have our measure developers
19 and a lovely team of folks back there who have
20 worked on these measures.

21 Did you all want to take some
22 time?

1 CO-CHAIR HOMER: Barry, would you
2 like to present the measure?

3 DR. BERRY: Sure.

4 CO-CHAIR HOMER: That would be
5 great.

6 DR. BERRY: Thanks very much for
7 having me today. It has been a great
8 opportunity to develop this measure with our
9 pediatric neurosurgeons at Children's.

10 This measure reflects sort of
11 bread-and-butter procedure by the pediatric
12 neurosurgeons there. It is also very
13 important to me. I have a clinic that is full
14 of children with special healthcare needs,
15 especially those who are technology-dependent.
16 We are seeing a lot of readmission rates
17 around these children, especially with
18 malfunctions. So, that is why I was brought
19 to the table to help these guys.

20 It has been fun developing the
21 measure. In terms of the neurosurgeons'
22 acceptance of it, it seems that most

1 neurosurgeons across the country feel that
2 shunt malfunction is on their radar and it is
3 something that they consider an outcome
4 already.

5 So, the challenge for us was how
6 to take that measure clinically and plug it
7 into administrative data in order to pull out
8 a valid measure. So, we spent most of our
9 time searching through the codes and figuring
10 out the best way to do that, and then, also,
11 looking at populations that might be at risk
12 and the case-mix adjustment issues in trying
13 to figure out how to risk-adjust those things
14 or whether to exclude them in the end.

15 So, there were a number of parts
16 of the measure that we actually had built in
17 initially as risk-adjustment, and then we
18 ended up excluding them to try to homogenize
19 the measure a little bit. That is why we
20 excluded the population with spina bifida and
21 also with other types of shunts that could be
22 placed, that go not into the abdomen, but into

1 other places.

2 We have been using the measure for
3 a while at our hospital. It has been
4 accepted, and the neurosurgeons feel like it
5 has helped change their care and their
6 approach to the operation. So, we are proud
7 of it.

8 CO-CHAIR HOMER: I would like to
9 invite the other members of Work Group 1
10 initially to either make comments or ask the
11 developers in areas. I would suggest we go
12 through the sequence of the areas, the
13 criteria that we need to do in order to
14 approve, the first one being an indicator of
15 the importance.

16 MEMBER RAO: Dr. Berry, just a
17 couple of questions. I mean one of the
18 questions that came up for me is, not being
19 familiar with this area clinically, is, how
20 common is shunt malfunction?

21 The other more important question
22 from my standpoint is, how much of shunt

1 malfunction is actually due to procedural
2 issues as opposed to something that had just
3 happened spontaneously?

4 If you could address those two?

5 DR. BERRY: Right. So, in terms
6 of the commonality of it, we think that
7 probably you are looking at an overall average
8 of around 10 percent. So, 1 in 10 shunts are
9 malfunctioning within 30 days of being placed.

10 In terms of the variability of
11 that among hospitals, it seems that there is
12 around a four- to fivefold difference in the
13 variability. So, you can look at rates that
14 are going between like 3 to 25 percent. If
15 you expand out beyond 30 days, we see rates
16 that climb up much higher than that.

17 In terms of the quality of the
18 operation and how that can affect the
19 outcomes, the surgeons feel strongly that one
20 of the largest indicators of the shunt
21 survival is due to the actual placement. I
22 mean it actually is the angle and the

1 insertion of the shunt into the brain and also
2 into the abdomen, and the way that the shunt
3 is routed to make sure that it is not at risk
4 for being kinked or broken, or that somehow it
5 is being placed that would impede the flow of
6 cerebral spinal fluid.

7 They also believe that there are a
8 fair number of malfunctions that are due to
9 infection. So, in the operating room, trying
10 to increase the efficiency of the operation
11 being performed, double-gloving, antibiotics
12 at the procedure, et cetera, are all process
13 measures that they feel relate to the outcome.

14 So, they do feel that there is a
15 strong bit of clinical happenings that are
16 associated with the malfunction rates.

17 CO-CHAIR HOMER: Please, Faye.
18 Please use your microphone. Thank you.

19 MEMBER GARY: Would you just say a
20 bit more about infection? Could you just make
21 one or two additional statements about the
22 rates of infection and what kinds of

1 complications that might cause? And the other
2 issue is, what are the professional healthcare
3 providers that help take care of these
4 children, and did you get any feedback from
5 any of them?

6 DR. BERRY: Sure. So, in terms of
7 infection, the prevalence rates of infection
8 within the malfunction rates, you are probably
9 going to have around a third to a quarter of
10 these that will be associated with infection
11 in terms of the ones that are malfunctioning.

12 What infection means is that you
13 likely have bacteria that are getting into the
14 shunt. If the bacteria are inside of the
15 shunt, that is a direct route into the brain.
16 So, essentially, when you are talking about an
17 infected shunt, you are talking about treating
18 a child with suspected meningitis.

19 It is a problem. The shunt has to
20 be taken out. You are looking at maybe a 14-
21 to 21-day course of antibiotics, externalizing
22 the shunt. You still have got to deal with

1 the pressure when the shunt is removed to make
2 sure the kid is safe, and then you have got to
3 put another shunt back in. So, infection is
4 a big deal, and they take it very seriously.

5 In terms of the co-management, the
6 other operating staff, in addition to the
7 neurosurgeons, feel like they play a heavy
8 role into the process. Again, they try to
9 really streamline as much as they can in the
10 operating room the time of procedure and time
11 to completion. So, having the surgical
12 assistants there and everyone else onboard
13 with exactly what is going on and making sure
14 that they are comfortable with the procedure
15 makes a difference.

16 When a child is out of the
17 operating room, then at our hospital there is
18 a good bit of co-management that goes on
19 between some of the general and developmental
20 pediatricians and the surgeons to help manage
21 these children afterwards. Sometimes it is
22 harder than you would think to determine

1 whether a child actually has a shunt
2 malfunctioning or not. So, when a child has
3 symptoms that are suggestive of it, oftentimes
4 the surgeons will consult with us, if we know
5 the children very well, to determine if we are
6 highly suspicious of that happening or not.

7 CO-CHAIR HOMER: Dr. McInerny,
8 Tom?

9 MEMBER McINERNY: Yes, I think
10 this is a terrific idea. It reminds me a
11 little bit of what we have been able to do
12 with central line infections. You know, we
13 used to consider them, well, that is just part
14 of putting central lines in, and now we know
15 that if you do things correctly, you can avoid
16 that.

17 A couple of questions. I am
18 wondering, in Boston are they using checklists
19 when they are doing these?

20 DR. BERRY: Surgical checklists, I
21 am not sure if they are using the checklists
22 or not.

1 DR. LILLEHEI: Yes, as one of the
2 surgeons in the operating room in Boston, yes,
3 checklists have become a part, a required
4 part.

5 MEMBER McINERNEY: Okay. So, that
6 should help.

7 And two, essentially, you are sort
8 of providing a 30-day guarantee. I am
9 wondering why you pick 30 and not, say, 60,
10 90, or 365 days. Any evidence to suggest --
11 because my experience has been 30 days, you
12 know, you may get some, but another month or
13 two or three later you are going to get more.
14 So, where do you draw the line? Can you
15 perhaps extend it to more than just 30 days?

16 DR. BERRY: It is a great
17 question. We really argued about this for a
18 while.

19 So, it seems that the majority of
20 shunt malfunctions are occurring closer to the
21 operation than later out. Now, if you do
22 expand out to 60 or 90 days, you are going to

1 pick up more signal.

2 However, it was a little bit of a
3 dance with the neurosurgeons in terms of how
4 the quality of the operation was related to
5 the outcome. So, they sort of felt like, yes,
6 well, the further you are going out, the less
7 likely it was associated with a previous
8 operation. So, in that regard, we sort of
9 negotiated and ended up on 30 days.

10 However, I would say that I think
11 that we are minimally considering going out
12 further, if that is important to the group.

13 CO-CHAIR HOMER: Phil? If I could
14 also ask the questions right now, I would like
15 them focused on the importance question
16 particularly. We can deal with some of the
17 other issues as we go through, but go ahead.

18 MEMBER KIBORT: All right. So,
19 from my perspective, and I will concur that
20 there is importance there. I think most
21 active children's hospitals believe that this
22 is a major problem. I think there are data

1 about anywhere from 3 to 20 percent or 25
2 percent is true. So, for me, it is an
3 important operation.

4 And in some hospitals, the
5 hospitalists also take care of the patients
6 post-op, as do our neonatal or our pediatric
7 nurse practitioner hospitalists. So, it
8 crosses different aspects, different
9 professionals.

10 CO-CHAIR HOMER: David?

11 MEMBER CLARKE: Just one issue
12 that I am not sure that the Committee is
13 really aware of related to the importance of
14 this measure is, what are the implications of
15 shunt failure, particularly acute shunt
16 failure, from the standpoint of
17 morbidity/mortality of the patient, and also
18 the cost? My impression is most of these are
19 emergencies, particularly when they occlude.
20 Would you comment?

21 DR. BERRY: Thank you.

22 So, they are considered

1 emergencies, and if not treated promptly,
2 there is a high risk of death. If death does
3 not occur, then you are looking at essentially
4 a lot of permanent neurologic sequelae from
5 pressure on the brain.

6 In terms of the economic impact,
7 we were able to go back and look at some of
8 the HCUP data from AHRQ that has been
9 published on this. And it is estimated that
10 there are probably around 10,000 admissions a
11 year associated with shunt malfunction in
12 children, and the mean cost of those
13 admissions is around \$17,000 to \$20,000. So,
14 you are looking, I think, at around \$200
15 million annually just in shunt malfunction
16 admissions.

17 CO-CHAIR HOMER: That is very
18 helpful, David. That last point is the kind
19 of data that I was looking for in figuring out
20 the importance.

21 I understand the clinical
22 importance and the frequency of shunts that

1 are put in that fail. One thing in the
2 measure specifications, in your description,
3 though, that concerns me is if it requires
4 three-year averages, three-year running
5 averages, to come up with stable rates
6 sufficient for conducting analysis and
7 benchmarking, what are the implications of
8 that in terms of really the frequency and our
9 ability to use it to actually track changes?

10 DR. BERRY: So, I was thinking
11 more of the three-year running average less in
12 order to collect the numbers --

13 CO-CHAIR HOMER: Okay.

14 DR. BERRY: -- but more to
15 stabilize the confidence intervals of that,
16 and, also, so that you are not trying to
17 change or do not change the quality of care
18 that you are doing for these things just
19 because of a quarter where you may have looked
20 bad or maybe a year. So, we thought that it
21 stabilized the measure to median in terms of
22 more of the variance than it did the actual

1 signal.

2 CO-CHAIR HOMER: Okay.

3 DR. BERRY: And that was sort of
4 my approach to it.

5 MEMBER LIEBERTHAL: I would like
6 to ask members of the Group 1 why they chose
7 partially rather than completely as far as
8 impact. We went from yesterday these very
9 broad measures that had value as far as
10 populations and government to now a very
11 operational small volume, but to this
12 specialty very important measure that is a
13 true outcome measure. I wanted to know why
14 people considered it only partially meeting
15 the impact, that one.

16 CO-CHAIR HOMER: For me, it was
17 basically we didn't have population prevalence
18 data. We didn't have the financial data. The
19 three-year average concerned me. I think this
20 was the measure with the lack of improvability
21 over time. Well, there was the variation --
22 I may be confusing with a different one where

1 it had been tracked, but there hadn't been
2 changes. If I am confusing it, please tell
3 me.

4 But those were why I put it only
5 in the partially rather than the completely
6 area. So, even if it was clinically -- again,
7 I am operating a little on the assumption that
8 NQF already has 600 measures, many of which
9 are -- 450 -- many of which are clinically-
10 accurate, but relatively low-prevalence
11 conditions and so aren't going to have broad
12 impact on changing.

13 So, that is why I wanted to make
14 sure this was something that was not only sort
15 of valid and clinically important for a very
16 small subset, but actually was worthy of
17 investing the resources in maintaining and
18 continued for a significant impact. That was
19 my personal reason for only putting it at
20 partially rather than completely.

21 DR. BURSTIN: Just one comment on
22 the criteria, and the way we read this

1 specifically was that impact could either be
2 in terms of broad impact, broad population,
3 big numbers, or a small population with a
4 significant impact on them. So, I think part
5 of what you have heard is the significant
6 impact on a small population is quite
7 reasonable as well.

8 MEMBER DOCHERTY: Yes, and I would
9 say that that was really my learning curve
10 over the past two days, is that it had to do
11 with the broad population. I was thinking
12 more of the impact broadly and now realizing
13 that this is a very strong measure of a
14 specific group.

15 MEMBER RAO: My concern is, and I
16 think Dr. Berry has addressed this to some
17 degree, I was under the assumption that the
18 vast majority of shunts are placed in a
19 handful of hospitals, and therefore, it would
20 be harder to pick up variation. But it seems
21 like there's a lot of different places where
22 they are performing the procedure.

1 DR. BERRY: That is right.

2 So, going back into the HCUP data,
3 not in the nationally-weighted data, but in
4 their actual sample from 38 states in 2003,
5 there were over 300 pediatric hospitals that
6 were performing these across the country.
7 About 70 percent of those are considered by
8 NACHRI to be teaching hospitals in some way.
9 Thirty percent are community hospitals. So,
10 we think that there is a lot more bandwidth
11 out there for this than we initially thought.

12 CO-CHAIR HOMER: So, Tom?

13 MEMBER McINERNEY: Yes, just a
14 quick question. Is this somewhat similar to
15 pediatric cardiac surgery in that, the more
16 you do, the better you are, the less you are
17 going to have some failures?

18 DR. BERRY: So, that is emerging.
19 You know, the volume/outcome relationship for
20 this over time is emerging as in cardiac
21 surgery, yes.

22 CO-CHAIR HOMER: So, just

1 following our procedure, the first thing we
2 need to do is vote. Because importance is a
3 threshold we have to vote on the importance
4 first, and then we can go on to discuss the
5 other elements of the measure.

6 So, I would like to have a vote
7 from the Committee on whether this measure
8 meets the threshold criteria for importance.

9 So, all in favor raise your hand.

10 DR. WINKLER: Marlene, are you on
11 the phone?

12 (No response.)

13 No.

14 CO-CHAIR HOMER: Terrific. So, it
15 meets that criteria. So, let's move on to
16 discussion of scientific acceptability.

17 Any members of the Committee, the
18 Work Group, want to make any comments?

19 MEMBER CLARKE: I have a couple of
20 points that I would like to ask about. Going
21 back just tangentially to the 30-day issue,
22 one of your data-gathering points was

1 reoperation for ventriculoperitoneal shunt
2 during the same hospital admission. I am
3 wondering, does the 30-day rule still apply in
4 that situation?

5 And I would also like for you to
6 comment on the exclusion of the children under
7 one-month of age or children with spina
8 bifida, which are known risks for shunt
9 failure that are, I guess, at this time
10 considered non-preventable. But my concern
11 about that is that, if you don't measure those
12 kinds of things, they never become preventable
13 because they are not identified.

14 One of the things that has been
15 applied, for example, in the STS database is
16 that the data is harvested, but these things
17 are initially excluded from analysis until
18 they determine exactly what their relationship
19 is to the overall measure.

20 Could you comment on those points?

21 DR. BERRY: Sure. So, if a child
22 receives an initial shunt, remains in the

1 hospital past 30 days, and has a shunt
2 malfunction at 30 or greater days, then they
3 are not counted.

4 In terms of the age less than one
5 month, we are understanding now that there is
6 a lot of treatment variability going on across
7 the country in how to manage hydrocephalus in
8 those kids with modalities that lie in
9 addition to VP shunts, which makes it more
10 complicated to study.

11 There is an endoscopic third
12 ventriculostomy and a reservoir of things the
13 neurosurgeons know much more about than I do,
14 but they felt like it was better to pursue
15 what is actually going on among the treatment
16 modalities for those kids than to single out
17 shunts in those kids less than 30 days for the
18 measure. They thought that it made it more
19 homogenous across hospitals to exclude them.

20 In terms of the spina bifida, I
21 think you have a very valid point. So, when
22 we initially created the measure, we included

1 spina bifida within the cohort and we risk-
2 adjusted for it. Then, after some discussion,
3 we thought it was best, again, to draw a nice
4 circle around the measure and exclude the
5 children with spina bifida because they
6 weren't exactly sure what is going on and why
7 their malfunction rates are so high.

8 We did have discussion yesterday
9 about whether it would be appropriate to have
10 a subdomain measure for those kids. I feel
11 that that would be important for something for
12 us to do as we test the measure and move
13 forward. I agree with you, if there is a lot
14 of signal without that group, we should not
15 exclude it.

16 MEMBER PERSUAD: What percentage
17 do you know of children who have shunts placed
18 have shunts placed for spina bifida?

19 DR. BERRY: Total?

20 MEMBER PERSUAD: Yes.

21 DR. BERRY: I think you are
22 looking at around 10 percent, 10 to 15 percent

1 at the most.

2 CO-CHAIR HOMER: So, Jay, could
3 you talk a little about the validity
4 assessment? Have you compared, for example,
5 the chart review data with the PHIS data, et
6 cetera? So, just technical aspects of the
7 measure.

8 DR. BERRY: That was our first
9 step. The neurosurgeons at first did not
10 trust the administrative data whatsoever,
11 which was a great process.

12 (Laughter.)

13 Luckily, they were collecting
14 their own. They had their own registry, which
15 was nice. So, they had all of their shunt
16 patients lined up. Then, we went through and
17 correlated that with the administrative data
18 from our hospital first. That made them much
19 more comfortable when they saw that the same
20 patients were showing up.

21 I don't have specific specificity
22 or sensitivity data for you, but there was a

1 litmus test of this work and the neurosurgeons
2 bought it, which made me feel good.

3 It seems that the codes are okay.
4 I mean to have a code that is specifically for
5 ventriculoperitoneal shunt is very well-
6 circumscribed. There is not a lot of noise in
7 that code from other things that can be thrown
8 in. And they had specific codes for shunt
9 removal, shunt revision, et cetera. I think
10 they have done a nice job upfront of sort of
11 thinking about these codes. So, we like the
12 face validity of the codes as they are.

13 CO-CHAIR HOMER: Any other
14 questions about different aspects of that?
15 Ellen, please.

16 MEMBER SCHWALENSTOCKER: This may
17 actually be a feasibility question, but the
18 one question I had is about the 30-day and
19 whether they always come back to the same
20 hospital, or how can you capture a 30-day rate
21 if a child is admitted to a different
22 hospital?

1 DR. BERRY: That is a very, very
2 important question. So, the data that you see
3 before you captures only kids who come back to
4 the same hospital. We polled a number of
5 neurosurgeons and did a few key informant
6 interviews to just try to get a sense of could
7 these kids go elsewhere. Because you could
8 imagine if a kid lives in a more rural area,
9 say, they have shunt malfunction; they may not
10 have time to come back to the tertiary care
11 center where they were operated first.
12 However, the surgeons feel strongly that the
13 vast, vast majority of the time the kids are
14 coming back to the same hospital.

15 CO-CHAIR HOMER: Jay, did these
16 data come from the PHIS database?

17 DR. BERRY: That's right.

18 CO-CHAIR HOMER: Describe how you
19 have applied this or have you tested this with
20 other discharge data for non -- since you said
21 only 30, you said a very significant number of
22 children have these procedures that are not in

1 tertiary children's hospitals, so would not be
2 in the PHIS database.

3 DR. BERRY: That's right. That's
4 right. So, beyond PHIS, we know that using
5 the HCUP and AHRQ data, that the codes are
6 being used across the country nationally. Now
7 the problem with the AHRQ data is that we do
8 not have the ability to link patients across
9 hospitalizations at the moment.

10 However, there have been a few
11 states that have been released in the last few
12 months where they have their patient linker,
13 which is allowing that process to occur, with
14 Claudia Steiner from AHRQ, I think with the
15 ultimate hope that they will be expanding out
16 for longitudinal data as it grows over the
17 next few years.

18 So, our next, I think, is to look
19 into that small sample of AHRQ data, have some
20 of the community hospital cohort included, and
21 start to test the measure there to see if the
22 codes are lining up appropriately.

1 CO-CHAIR HOMER: And somewhere in
2 the specifications it says the measure hasn't
3 been tested, but, in fact, you are using it.
4 It sounds like maybe you are doing more than
5 you gave yourself credit for.

6 DR. BERRY: That is a good
7 question, Charlie. I wasn't sure exactly what
8 the testing meant. I mean, in terms of what
9 we have done at our hospital, we have done the
10 chart review. It has been plugged into PHIS.
11 We have looked at the rates and benchmarked
12 and targeted against other hospitals, and we
13 have acted on the data.

14 So, to a certain extent, I mean we
15 are using it, but the gold standard to me, if
16 you are really going to test it, I think,
17 would be to go out and do a multi-
18 institutional chart review and validation
19 process to make sure that there is not a lot
20 of coding variability, et cetera. That hasn't
21 been performed.

22 CO-CHAIR HOMER: It really was

1 just performed at your institute? When you
2 said you compared to registry data, that was
3 really only within your own institution?

4 DR. BERRY: Exactly. Right.

5 CO-CHAIR HOMER: Okay.

6 MEMBER CLARKE: I have a question
7 relative to your three-year rolling data plan.
8 Does that apply only to single institutions
9 or, if you are implementing it more broadly --
10 in other words, if the entire group of 70
11 institutions, academic institutions, are
12 participating in the measurement, does that
13 modify your need to do that?

14 DR. BERRY: This is a great
15 question. I think it depends on what you are
16 going to use the data for, what's the
17 actionability of the data. I think if you are
18 looking on a population level of are we
19 getting better with shunt care, are we
20 decreasing the malfunction rates, I don't
21 think you need the three-year rolling average.
22 I think you can do that on the population data

1 with a year of data and be fine.

2 I think, however, if you are
3 trying to look at yourself and say, within
4 this cohort of hospitals, are we doing better;
5 are we doing worse; are we in the middle; do
6 we need to think about changing or not
7 changing our care, then I do like to
8 incorporate the variance surrounding that
9 measure and making sure that, before I say
10 that my hospital has worse malfunction rates
11 than Hospital B, that I sort of look around
12 the noise of that signal and make sure that it
13 is not due to the noise, that it is the
14 signal. So, I would say go for the three-year
15 if you are doing that.

16 CO-CHAIR HOMER: Just one more
17 technical question on this, and then I think
18 we can probably on to vote on this. Have you
19 looked at disparities issues? Have you looked
20 at variation in rates across different
21 populations?

22 DR. BERRY: We did, and this is

1 what we found. So, in our bivariate analyses
2 we found that non-Hispanic Blacks have higher
3 rates of shunt malfunction compared to Whites.
4 Now when we threw that into a multivariate
5 model, controlling for other things, the
6 effect went away. So, I am not sure if there
7 is something there or not, and at this point
8 I felt that it was best not to cull it and put
9 it into the measure.

10 However, if people are thinking
11 that it is important to present within the
12 measure subdomains rates within different
13 race/ethnicity groups, we are certainly
14 amenable to doing that.

15 CO-CHAIR HOMER: I mean the NQF
16 process is to stratify results by different
17 populations rather than adjust. So, okay, the
18 point is, again, you looked at it and that it
19 is feasible to look at within the dataset.

20 DR. BERRY: Yes.

21 CO-CHAIR HOMER: I think that is
22 what is important from the NQF perspective.

1 Members of the --

2 MS. BOSSLEY: This is Heidi. Can
3 I just jump in?

4 Going back to the evaluation
5 criteria, which all of you have been working
6 off in rating all these measures, the key
7 piece on testing, I want to make sure you all
8 understand why staff rated this as not tested
9 is it hasn't had reliability testing, the
10 test/retest or some type of look, and it
11 hasn't gone through any validity testing as
12 well, which is something that you all can
13 decide is okay for this measure, but we would
14 really feel that it needs to have a time-
15 limited endorsement, which means they have 12
16 months, or we will negotiate with them -- I
17 think sometimes it takes a little longer -- to
18 come back and provide that information.

19 I think the key piece that we
20 always want to make sure is any measure you
21 put out there for public reporting, anyone
22 else who goes and does the same thing with the

1 specifications that they provide can be
2 replicated to the greatest extent possible.
3 We don't know that yet, that you can with the
4 way this measure is specified. So, that is
5 really, I think, why we had it labeled as
6 needing time-limited endorsements.

7 Does that make sense to everyone?

8 CO-CHAIR HOMER: I think NQF,
9 quite appropriately, is tightening its
10 criteria. Certainly, this is more tested than
11 a number of measures I know when I was on the
12 Ambulatory Steering Committee -- (laughter) --
13 which was we sort of kind of think this is a
14 good idea, and we could actually pull the
15 data. That was viewed as testing.

16 This one has been validated in one
17 site, but not in multiple sites. And
18 test/retest in this seems like that, you know,
19 with administrative data, I am not sure that
20 concept is really quite applicability, but
21 that is probably getting too deep into the
22 weeds.

1 DR. BURSTIN: I'm sorry, we can
2 also take just a closer look at the testing
3 and get back to Children's as well, just to be
4 sure.

5 MEMBER DOCHERTY: Yes, I was just
6 going to say that I was less worried about the
7 validity than the reliability, and that there
8 should be some formal measure that across
9 sites people are --

10 CO-CHAIR HOMER: Well, I guess we
11 go through all the criteria and then we vote.
12 We will go through.

13 So, let's move on to -- and we may
14 have already addressed this -- the usability?

15 Do you want to vote on each
16 section? Okay. I forgot.

17 So, then, to vote on the
18 scientific acceptability, how many feel it is
19 completely meets criteria?

20 And how many feel it partially
21 meets criteria?

22 Okay. And does that get everybody

1 or are we down to minimally -- okay, good.

2 All right. So, moving on to
3 usability, that is, is it understandable? Is
4 it harmonized? Are there any other measures
5 out there? And does it provide added value?

6 Any comments from the Work Group
7 on that?

8 MEMBER PERSUAD: I think I would
9 like to ask, you said you are using it at your
10 institution. So, what I want to know is, what
11 has happened since you started the measure?
12 What has happened to your rates and what have
13 you done?

14 DR. BERRY: Since starting to
15 measure, I think the first thing that happened
16 there was a little of a Hawthorne effect going
17 on, which was fantastic. I think it just got
18 people thinking about malfunction.

19 And it also had non-neurosurgeons
20 thinking about malfunction as well. I mean
21 hospitalists, other people when they were
22 admitting to our services said, "Jay, we had

1 another kid that was readmitted with a shunt
2 malfunction," you know, blah, blah, blah. So,
3 it created a lot of buzz.

4 The second thing that happened is
5 that the neurosurgeons really felt like they
6 needed to streamline the amount of time it was
7 taking to perform these operations initially
8 in the OR, and that they really needed to have
9 a core competency within a small group of
10 staff in the OR to make sure the operation was
11 right.

12 So, they have actually tried to
13 decrease the number of personnel that are
14 physically in the room during the operation
15 because they feel like the more people that
16 are there, strictly adding another person may
17 increase the risk of the child having an
18 infection. So, they really are trying to make
19 a difference.

20 We have seen some small decreases
21 in our rates. Now, if you look at the
22 confidence intervals around that, they haven't

1 changed significantly, but we have seen a
2 little decrease in our signal since the
3 measure was put onboard.

4 CO-CHAIR HOMER: Any further
5 questions about usability?

6 (No response.)

7 All right. So, why don't we call
8 a vote on how many feel this completely meets
9 usability criteria?

10 That's everybody, right? No?

11 DR. WINKLER: You're a partial?
12 Many people are looking at Ellen back there.

13 Partial? Okay, good. Okay.

14 MEMBER PERSUAD: Ellen, are you a
15 complete or partial?

16 MEMBER SCHWALENSTOCKER: Partial.

17 CO-CHAIR HOMER: Okay. All right.
18 So, let's move on to the feasibility. I think
19 you have already addressed many of the
20 questions there, which is that it is feasible
21 within the PHIS database, may be feasible in
22 the other ones, but hasn't been, because of

1 the idea of whether you can actually track
2 individuals over time, hasn't yet been
3 applied. Is that correct?

4 DR. BERRY: That is correct. I
5 think that is the data that you are going to
6 need to really establish your targeting and
7 benchmarking.

8 I mean I would hope that most
9 hospitals across the country have enough admin
10 data in terms of for every admission they have
11 the procedures and the diagnoses that occur in
12 order to bill for them, that they have an
13 internal structure which from their admin data
14 they can pull their own rates.

15 So, I think you are looking at
16 more the national databases, then, to
17 determine, okay, how well are we doing
18 compared to other hospitals?

19 MEMBER LIEBERTHAL: What exactly
20 is the PHIS database?

21 DR. BERRY: So, the PHIS database
22 is a database of inpatient hospitalizations

1 for 42 freestanding children's hospitals
2 across the country. It is unique in that the
3 patients are linked across multiple
4 encounters. So, you can track a patient over
5 time to see the number of times they are
6 hospitalized, and for each admission you have
7 the diagnoses and procedures that occurred,
8 demographics, et cetera, to allow you to pull
9 data such as this.

10 MEMBER LIEBERTHAL: So, for
11 patients who do not receive the procedure at
12 one of these 42 hospitals, their own
13 administrative data would have to be used, is
14 that correct?

15 DR. BERRY: That is correct.

16 MEMBER LIEBERTHAL: And you are
17 basing this on assumptions that they have
18 accurate databases that they can pull data
19 from?

20 DR. BERRY: Yes, some type of
21 administrative billing database that the
22 hospital would use for their coding, which

1 would be the same that PHIS is pulling from
2 our hospital. It is the same sort of
3 coordinated set. But the assumption would be
4 that they have that same similar dataset.

5 MEMBER CLARKE: I would like to
6 ask if there exists a Neurosurgical Society-
7 based database that would cover this issue,
8 and would that be useful?

9 DR. BERRY: Yes. So, one product
10 that has emerged from this work to start is
11 the creation of a multi-institutional
12 Hydrocephalus Collaborative, which is now
13 being started up by John Kestle in Utah, and
14 one of the collaborators in some of our work,
15 Tamara Simon.

16 It is really good stuff,
17 prospective data collection, looking at very,
18 very specific variables around quality of care
19 around the shunt procedure. Hopefully, we
20 will see data from them in the next year or
21 two.

22 CO-CHAIR HOMER: That's very

1 exciting.

2 Nancy?

3 MEMBER FISHER: I would like to
4 make a comment about this. In the State of
5 Washington, we have been doing collaboratives
6 like this. We have done it around
7 cardiovascular surgery. We now are including
8 some things in cardiology and PCI. We have
9 done it around surgical procedures that we
10 thought, like for appendectomies you ought to
11 be able to do an appendectomy. And we were
12 quite surprised to see the variation.

13 One of the things is that we have
14 used the three-year rolling average. It does
15 eliminate problems when people think that they
16 are being unfairly targeted for something that
17 it was just it happened.

18 The core thing that we found that
19 was going on when you started looking at
20 administrative data was one is the people that
21 were extracting the data. And we even get
22 asked by the hospitals to send out people to

1 make sure that we could look at this and do
2 validation on it.

3 The other thing is, when you first
4 start out, whether people take it, if you are
5 collecting the data, they say they will, if
6 they take it seriously. They have been pinged
7 and looked bad because they did sloppy data
8 collection. But all you have to do is be
9 pinged and you put yourself back together.

10 The other thing that I found good
11 about what he was saying is, if you want to go
12 into different hospitals, what we found out is
13 the key is to get a physician in that
14 specialty to be your champion. That is the
15 way to get in. This is one way -- I mean I am
16 very glad that you realize about the data and
17 stuff because the first thing we had to do was
18 get this data. People got sick of hearing
19 about it. So that we answered everybody's
20 questions about the data, so they could
21 believe, yes, maybe you do have a problem.

22 I am really happy to hear that you

1 are going to do a collaborative about that.

2 CO-CHAIR HOMER: Tom?

3 MEMBER McINERNEY: Just a quick
4 question, sort of suggestion. As more and
5 more hospitals migrate to electronic medical
6 records for both their inpatients and their
7 outpatients, would you foresee that maybe
8 sometime in the future you would be able to
9 use that data and get rid of the
10 administrative data?

11 DR. BERRY: Oh, boy, that would be
12 absolutely fantastic. I mean to move beyond
13 codes, to move into a lot of clinical detail,
14 the size of the shunt that is placed, the time
15 in the operating room, you know, very, very
16 specific clinical details going into it will
17 trump this stuff like no tomorrow. So, I
18 can't wait for that day.

19 CO-CHAIR HOMER: All right. So,
20 in terms of feasibility, I suggest that we
21 call a vote.

22 How many feel this completely

1 meets criteria for feasibility?

2 And partially?

3 Okay, good.

4 All right. So, now it is time to
5 call the vote on the overall measure. I think
6 the recommendation we are hearing from staff
7 would be that this should be recommended for
8 time-limited approval, pending additional
9 testing. I think particularly the idea of
10 looking at validity across multiple
11 institutions and potentially expansion beyond
12 the CHCA dataset seem to be the two areas we
13 would like to see additional testing on.

14 CO-CHAIR WEISS: With no
15 specificity about the time limit, right? They
16 would work that out?

17 CO-CHAIR HOMER: It's 12 months,
18 generally?

19 DR. BURSTIN: It's generally 12
20 months, but if there's a little wiggle room,
21 we can do it.

22 CO-CHAIR HOMER: Okay. So, all

1 those in favor of conditional approval -- I'm
2 sorry -- time-limited approval? Thank you.

3 There you have it. All right.

4 Thank you very much.

5 DR. BERRY: Thanks for your time.

6 Thanks for everything.

7 MEMBER PERSUAD: Charlie, I have
8 just two final comments about that measure
9 before we pass it.

10 CO-CHAIR HOMER: Yes, please,
11 Donna. We did pass it, but before we move on
12 it.

13 MEMBER PERSUAD: Well, before we
14 move on it.

15 CO-CHAIR HOMER: Okay.

16 MEMBER PERSUAD: One is I may have
17 just blanked out over the discussion regarding
18 when children get readmitted from different
19 institutions, and if it's possible to work
20 that out in the follow-up period through the
21 PHIS. I don't remember what he said. There
22 is a way to do it with the PHIS database, but

1 getting it cleaner to where not only from the
2 institution where you did the surgery, if you
3 readmit to another hospital for shunt
4 malfunction, if you can get that into the
5 data? It may not be doable just yet, but --

6 CO-CHAIR HOMER: If they do that
7 collaborative, it would be.

8 MEMBER PERSUAD: Yes, if they did
9 a collaborative, I guess they could sort that
10 out there.

11 CO-CHAIR HOMER: That's a good
12 question. I guess that is the challenge of
13 not having a Medicare database, that you can't
14 track individuals across institutions. But,
15 okay, so something during the test period to
16 encourage them to look at. That is a great
17 suggestion.

18 MEMBER PERSUAD: And, then,
19 speaking for Marlene in her absence over the
20 toolkit issue, since this group has a
21 checklist already, where the measure is
22 published, the checklist could become

1 available or I guess the collaborative would
2 probably come up with tools for having better
3 rates.

4 CO-CHAIR HOMER: So, that is a
5 question I think for Helen, which was
6 Marlene --

7 MS. RAUSCHER: Could I just ask
8 the measure developer to come in?

9 CO-CHAIR HOMER: Sure.

10 But just sort of more as a policy
11 or process, Marlene Miller suggested yesterday
12 that, when we approve or consider a measure,
13 the idea of linking that to a quality
14 improvement toolkit. I didn't know whether
15 NQF had considered as part of its process
16 making those available together with their
17 measures.

18 DR. BURSTIN: We haven't done that
19 to date, but we are moving towards trying to
20 create this relational database. We are
21 calling it MAPS, Measures and Practices. It
22 will try to package everything together saying

1 here's the measure; here's the practice;
2 here's related information. It is all sort of
3 developmental, but that is something we can
4 work on as well.

5 CO-CHAIR HOMER: So, Jay, there
6 were really two sets of questions that were
7 raised. One was the idea of linking across
8 institutions. So, a child gets operated on at
9 Boston Children's and shows up at some other
10 institution in town, for example. Is there
11 the capability or at least can you look during
12 the testing period at that potential to look
13 at? That was one of the questions.

14 DR. BERRY: I think we should
15 explore it. I am wondering, I think that AHRQ
16 may actually have more data that is just not
17 publicly available yet.

18 CO-CHAIR HOMER: Okay.

19 DR. BERRY: And I feel comfortable
20 talking with them and asking them if we could
21 do something like that through the state
22 inpatient databases and merging them together.

1 CO-CHAIR HOMER: And the other
2 question was, building on conversation we had
3 yesterday, was the desirability of linking
4 measures with quality improvement-related
5 toolkits. NQF is in the process of putting
6 together a database that you could just cue up
7 your issue and you would link a variety of
8 things. So, I think more expression of
9 interest in that toolkit being made broadly
10 available as the collaborative moves forward.

11 DR. BERRY: Sounds great.

12 CO-CHAIR HOMER: Did I capture
13 that, Donna?

14 MEMBER PERSUAD: Yes. Thank you.

15 CO-CHAIR HOMER: Good. All right,
16 thank you very much. That is really great.

17 MS. McELVEEN: Okay. Moving on to
18 our next measure, Measure 28, is the
19 standardized mortality ratio for neonates
20 undergoing non-cardiac surgery. This is the
21 ratio of observed-to-expected rate, observed
22 to -- yes, ratio of observed-to-expected rate

1 of in-hospital mortality following non-cardiac
2 surgery among infants less than 30 days of age
3 and risk-adjusted.

4 So, this is, again, under the same
5 group. We will open it up for importance.

6 CO-CHAIR HOMER: Or should we ask
7 the presenters --

8 MS. McELVEEN: Oh, sure. Yes.
9 Absolutely.

10 CO-CHAIR HOMER: -- to briefly
11 describe the measure?

12 Maybe also, Dr. Lillehei, having
13 heard the conversation before, maybe sort of
14 focusing some of your comments on some sort of
15 sequentially thinking about the importance of
16 the measure and then its scientific
17 credibility, et cetera, that would be great.

18 DR. LILLEHEI: Certainly. I can
19 try to do that.

20 CO-CHAIR HOMER: Thanks.

21 DR. LILLEHEI: Together with Kim
22 Gauvreau, the statistician, I am a pediatric

1 surgeon, and together developed this model.

2 One of the problems that we face
3 in surgery is, obviously, an ability to risk-
4 adjust, and that is particularly a problem in
5 pediatrics and pediatric surgery, where we
6 have a wide variety of different sort of
7 problems that present in children.

8 What we have done especially is
9 for a variety of different diseases, we will
10 pick a disease and then study that either in
11 a particular institution or across
12 institutions. But, again, it is limited to
13 that. Whether it is gastroschisis or
14 omphalocele or diaphragmatic hernia,
15 necrotizing enterocolitis, a variety of those
16 studies have been done.

17 We were looking for a broader
18 measure, and specifically a broader measure to
19 look at neonatal surgery. So that, as you see
20 in our measure, we are focusing on operations
21 that occur within the first 30 days of life.
22 Those are primarily congenital lesions, but,

1 again, they are infrequent. Surgery in
2 children is, fortunately, rare. In order to
3 develop a risk-adjustment method, we used a
4 strategy where we could combine procedures of
5 similar risk.

6 Now, in order to do that reliably,
7 first of all, we chose to use a large national
8 database. So, this is based on the KIDS 2000,
9 where we have developed the model. And within
10 that, we focused on procedures that had at
11 least 20 cases. In those circumstances where
12 there were just a handful of cases, we didn't
13 feel that that gave us a reliable tool for
14 assessing risk. So, they are limited to cases
15 that are greater than 20 cases.

16 Of those, there are 63 different
17 procedures that are included out of a total of
18 some 570, something like that. But, in fact,
19 those 63 cases account for almost 85 percent
20 of all the procedures done. So, we think it
21 is based on a large sample from that KIDS
22 database.

1 With that, then, to take you
2 through the rest of the model, we developed
3 risk categories based on that. Then, as a
4 measure, we thought the most reliable measure
5 and, in fact, in many ways the most important
6 measure for us was in-hospital mortality. So,
7 that was something that we could measure that
8 we felt was reliably reported, even within an
9 administrative database, and would allow us to
10 make assessments from institution to
11 institution and risk-adjust appropriately.

12 CO-CHAIR HOMER: Kim?

13 MS. GAUVREAU: I don't have
14 anything more to add at this time.

15 CO-CHAIR HOMER: Members of the
16 Work Group, questions? Again, probably start
17 with maybe first your observations and then
18 questions, starting on the importance first.

19 MEMBER RAO: Sure. I think that
20 my concerns and observations were actually the
21 second lengthy comment up there. It is just,
22 essentially, I am not sure how many children

1 actually undergo surgery in the neonatal
2 period. The incredible variety of procedures,
3 even 63 procedures, seems like it is too
4 heterogeneous to mix together.

5 And finally, just looking at the
6 data that you had, only one hospital had a
7 significantly different rate of neonatal
8 mortality listed there.

9 So, if you could address some of
10 those points?

11 DR. LILLEHEI: There's no question
12 that the heterogeneity of cases is a challenge
13 in making that assessment of neonatal surgery,
14 newborn surgery. But I think the most telling
15 thing about that is that, in fact, when we
16 made this analysis, we derived it in the KIDS
17 2000 base and then validated it in the 2003,
18 that our ROC curve, that it was actually quite
19 reliable, that 90, 92.92 was the -- they were
20 under the curve with the ROC curve. So, that
21 it showed that we really were able to reliably
22 risk-adjust in this population.

1 So, to be sure, it is a challenge,
2 and there is a considerable heterogeneity,
3 but, in fact, the results seem to underscore
4 that.

5 CO-CHAIR HOMER: When it comes to
6 the second question of the lack of variety,
7 can you describe the variety across sites?

8 DR. LILLEHEI: Yes. We presented
9 the table where you saw 15 different
10 institutions. I think what you could see
11 within that table is there was a considerable
12 variability from institution to institution.
13 However, you are quite correct that it was
14 only one in which that achieved statistical
15 significance. So, it may be that, by virtue
16 of the fact that we are dealing with
17 relatively small numbers, that we would need
18 a larger time period to accrue greater numbers
19 and highlight some of those differences from
20 institution to institution.

21 MS. GAUVREAU: Right. We were
22 only looking at one year of data in that case.

1 So, maybe something like we were talking about
2 with the previous measure, maybe it needs to
3 be a two-year measure or a three-year measure.

4 We have started looking at this
5 method a little bit in the PHIS database, and
6 in that case we were using three years of data
7 to look. The confidence intervals are
8 narrower in that case.

9 CO-CHAIR HOMER: Faye, please.

10 MEMBER GARY: I was wondering,
11 across the 15 different institutions and
12 collectively, do you have data about the
13 mortality for subgroups of populations,
14 African-Americans, American Indian, Hispanic,
15 et cetera? Do you have those data? And if
16 you do, could you share those with us
17 collectively? And if you see a variability
18 across the 15 different institutions?

19 DR. LILLEHEI: No, you've cut to
20 the core, but the exciting thing about this
21 method for us is the ability to look at that
22 administrative database, which will have

1 access to things like race, insurance, type of
2 hospital, those sorts of data. But I don't
3 have that data for you today, no.

4 MEMBER GARY: Those data are
5 forthcoming?

6 DR. LILLEHEI: Well, that is
7 something that we are working on right now.
8 We developed that model for just that reason,
9 to be able to look at those sorts of issues.
10 You bet.

11 CO-CHAIR HOMER: Tom?

12 MEMBER McINERNEY: I think we all
13 know that morbidity, I mean mortality in
14 children, even in neonates, is so rare that it
15 makes it difficult sometimes to come up with
16 significant differences. I wondered if you
17 have looked at, if you could take a
18 combination of morbidity and mortality, such
19 as needing a second operation or getting an
20 infection, and if you might, then, be able to
21 get a bit more variability in the data by
22 adding in morbidity to mortality?

1 DR. LILLEHEI: To be sure, the
2 more we know and understand of how that
3 surgery impacts on children, the more valuable
4 that becomes. The problem for us or the
5 challenge for us is that in administrative
6 databases they have certain limitations, of
7 which you are all quite aware. We really felt
8 that what we wanted to be able to generate is
9 a very reliable method for assessing that
10 risk. We thought that, as such, mortality is
11 the most reliable measure to do that.

12 CO-CHAIR HOMER: David?

13 MEMBER CLARKE: Yes, I certainly
14 agree with that. I have been there and tried
15 to do that, and it is tough.

16 The one thing on my first run-
17 through of the application that I came across
18 that I think is a fatal flaw, but it
19 apparently is not, potentially a fatal flaw,
20 is basing the total project on operative
21 cases. Cases don't die; patients do.

22 When you have patients who have

1 multiple procedures, particularly, this
2 becomes an extremely unreliable method of
3 measurement. But I was talking to Kim a
4 little earlier, and apparently this is not
5 exactly true.

6 DR. LILLEHEI: Yes, Dr. Clarke, we
7 perhaps didn't make that clear enough in our
8 application. But, in fact, no, it does refer
9 to specific patients. When a patient has more
10 than one procedure, which obviously is a not
11 uncommon occurrence, they are assigned to the
12 highest risk category associated with those
13 procedures.

14 MEMBER CLARKE: So, the mortality
15 is only attributed to one procedure? Because,
16 otherwise, you wouldn't know what you were
17 talking about.

18 DR. LILLEHEI: Correct.

19 MEMBER CLARKE: The other question
20 that I had was the ordinary criteria for
21 operative morality is either death during the
22 same hospital admission or death prior to 30

1 days. I am wondering whether your limitation
2 on data is the reason that that is not
3 included or whether it would just be so rare
4 in the neonatal population that a child would
5 die within 30 days of operation but after
6 hospital discharge, that it is probably
7 unnecessary to look at that. Any comment?

8 DR. LILLEHEI: Well, fortunately,
9 it is rare, but to be sure, in-hospital
10 mortality was once again what we felt was the
11 most reliable piece of data that we could gain
12 from that administrative database. So, that
13 is why it was chosen.

14 MS. GAUVREAU: And also because
15 the database we were using didn't allow us to
16 link multiple admissions on the same patient.
17 So, if a patient was discharged, was
18 readmitted, and died subsequently, we wouldn't
19 know that.

20 MEMBER DOCHERTY: My concerns were
21 similar to David's in that I was trying to
22 make sure I understood that the mortality

1 associated with these infants could be
2 directly related to the surgery and not other
3 things that happen, the other morbidity that
4 is associated with this age group being
5 hospitalized. But you are pretty certain that
6 you will be able to, that the database will be
7 able to link that mortality specifically to
8 their surgical outcomes and not iatrogenic
9 things for infants in hospitals?

10 DR. LILLEHEI: Yes, I think that
11 is a good question. A couple of different
12 things.

13 No. 1 was that we looked at a
14 variety of different clinical variables that
15 might impact on outcome, mortality in this
16 case, and there were only two that showed up
17 in that. That was serious respiratory
18 diseases and necrotizing enterocolitis. They
19 are included, those two clinical variables,
20 and only those two, are the ones that are
21 included in our model and are part of this
22 risk-adjustment method.

1 CO-CHAIR HOMER: So, just to focus
2 the conversation, this has been a fantastic
3 conversation, but, again, the first question
4 we want to ask is, is this important enough?
5 That is, either prevalent enough or for a
6 certain population important enough for us to
7 feel that it is worth proceeding with the
8 review of the other detailed attributes of the
9 measure.

10 MEMBER RAO: As the measure is
11 currently structured?

12 CO-CHAIR HOMER: As the measure is
13 currently structured, right.

14 MEMBER CLARKE: I have a question.

15 CO-CHAIR HOMER: David?

16 MEMBER CLARKE: Do we have to rely
17 on what's present in the application or do
18 their comments contribute? Because it changes
19 everything.

20 CO-CHAIR HOMER: The comments
21 count. I mean that is why they are here.

22 So, your main concern was this

1 issue of if there were multiple surgical
2 procedures done?

3 MEMBER CLARKE: Right, and using
4 procedures as your basis, and then you have
5 multiple procedures per patient. Then, you
6 try to attribute mortality to what procedure.
7 It was not clear how that was going to be
8 handled. But the way that it is being handled
9 I think is perfectly appropriate.

10 CO-CHAIR HOMER: So, going back to
11 this question of in-hospital mortality versus
12 a 30-day kind of mortality figure, have either
13 you or anyone else looked at basically a
14 survival curve post-surgery of when, for
15 children who do die post-surgical, when that
16 actually happens and how many or what
17 proportion of deaths might be the child is
18 home and an untoward event happened, and they
19 ended up being rehospitalized? Do you have
20 any sense, either from this analysis or from
21 Medicaid claims or other cohort studies, or
22 anything like that?

1 DR. LILLEHEI: No, Mr. Chairman, I
2 don't think we have it beyond my own
3 experience as a pediatric surgeon that, yes,
4 when children die of neonatal surgery, that is
5 typically they don't make it home, yes. Yes.

6 CO-CHAIR HOMER: That makes sense.
7 Nancy, please.

8 MEMBER FISHER: I think I just
9 need a little bit more clarification because
10 what I am trying to see is, first of all, my
11 understanding is that there is a small
12 percentage of kids that die from surgeries in
13 this age in pediatric hospitals, that we are
14 looking at a small number of people. Then,
15 you start talking about things like
16 gastroschisis, operating on neck, operating
17 on -- my question is, you have to operate on
18 those kids with gastroschisis or they will
19 die. So, my question is, what exactly are you
20 trying to get at to improve?

21 I am just sort of confused about
22 it because it is not like you have a choice.

1 I mean, have you run some data, and what you
2 are talking about is the kids that died from
3 the operation because it was the really the
4 infection; it wasn't the procedure? If you
5 don't have a choice about operating on
6 somebody, you have to operate.

7 DR. LILLEHEI: I think part of --
8 Kim, did you want to respond?

9 MS. GAUVREAU: I was just going to
10 add the piece of information that in the KID
11 database that we looked at to develop the
12 model, there were about more than 5,000
13 neonatal surgeries, and that does not
14 encompass all states. That is only an 80
15 percent sample of cases. So, we were able to
16 extrapolate that probably somewhere between 9
17 and 10 thousand surgeries happen in the United
18 States each year, just to put it into context.

19 CO-CHAIR HOMER: Nancy, if I could
20 answer just for a second?

21 MEMBER FISHER: Yes.

22 CO-CHAIR HOMER: I mean, if we

1 think of the last presentation on shunts, I
2 mean those children need their shunts, too.
3 So, the question is, is there variability?
4 Children will need surgery for their
5 gastroschisis or the other conditions. And
6 the question is, is there variability in
7 mortality rates across institutions that,
8 presumably, is attributable to some element of
9 the care that they are receiving in those
10 institutions? I think that fundamentally is,
11 is there improvability based on variability
12 across institutions for kids who need surgical
13 procedures?

14 MEMBER FISHER: I see this a
15 little bit different from the last one. I
16 just can't get my hands around -- you know, to
17 me, I don't know, I just can't seem to get my
18 hands around how you are going to improve it.
19 Maybe it is because the other ones had said
20 they had looked at it, and they said that,
21 when they did the procedure, it was the angle
22 at which they put the shunt in. I can see

1 that it is a device that you are putting in
2 someone, and the device could malfunction or
3 you could do something to the device. I am
4 not seeing that with these procedures. I
5 guess that is the difference.

6 CO-CHAIR HOMER: Okay. Dr.
7 Lillehei?

8 DR. LILLEHEI: Well, I think that
9 your point is well-taken that this is not a
10 specific surgical, telling an individual
11 surgeon or identifying even an individual
12 surgeon as to their specific outcomes, but we
13 are really looking at a broader level at an
14 institution, all of those things that impact
15 on successful surgery in neonates.

16 And what we anticipate is that, in
17 fact, we will see variability, whether it is
18 from institution to institution, whether it is
19 socioeconomic groups, whether it is regions.
20 To understand by identifying that variability,
21 then, hopefully, we can move to the next,
22 which is to say, how can we impact that; how

1 can we change that, whether it is access to
2 care, whatever that might be?

3 But you are right, what we are
4 looking at is for what that variability is and
5 then how we might use that to change practice.

6 CO-CHAIR HOMER: Thank you.

7 Faye?

8 MEMBER GARY: I just have a quick
9 question, please. That is, I know the study
10 involves 15 hospitals. Is that correct?

11 DR. LILLEHEI: No, no. Actually,
12 the study, we just gave you data, a table of
13 15 hospitals for the evaluation form. In
14 fact, we have applied it to the entire KIDS
15 database, which is surgery in -- what? -- 37
16 states that provide data to the KIDS. We have
17 actually applied it to the PHIS as well. So,
18 no, our intent, this is population-based.

19 MEMBER GARY: Well, then, I would
20 just amend my question just a little bit. I
21 was wondering if you also have any data, or
22 will have any data, about the basic

1 characteristics of the hospitals or the
2 populations that these hospitals serve.

3 Because I think that, based on the populations
4 that they serve, you will probably see some
5 influence with the outcome. How will you
6 address that issue?

7 DR. LILLEHEI: Absolutely. Those
8 are elements that are available in the KIDS
9 database. So, the nice thing about using this
10 database is it will allow us to interrogate
11 just those sorts of questions about what other
12 factors related to those patients.

13 CO-CHAIR HOMER: I have just one
14 more observation, and maybe the NQF staff can
15 help me on this. I see this as analogous to
16 the hospitalized standardized mortality rate
17 measure in adults. It is not precisely the
18 same because that is overall hospital.

19 I mean my understanding is you
20 probably do have on the adult side some
21 indicator of hospital-specific mortality rate
22 or standardized mortality rate that you use as

1 an overall performance measure, or not?

2 DR. WINKLER: Well, if you are
3 talking about a multiple-surgery, across-the-
4 board kind of measure -- is that what you are
5 talking about for adults in a surgical
6 measure?

7 CO-CHAIR HOMER: Well, I know,
8 again, at the IHI they certainly use as
9 quality improvement --

10 DR. BURSTIN: We have not brought
11 on any of the HSMR measures. I'm sorry. None
12 of the HSMR measures have come to NQF yet.
13 All of our mortality measures tend to be
14 procedure- or condition-specific, although we
15 do have composites of selected mortality for
16 certain procedures.

17 DR. WINKLER: In another part of
18 the project, the main Steering Committee is
19 reviewing surgical complications, which
20 includes mortality, but also other serious
21 morbidities for all of the age 65 patients,
22 but it encompasses a wide variety of

1 surgeries. So, we are getting there.

2 MEMBER McINERNEY: And, Charlie,
3 there is the NSQIP, the National Surgery
4 Quality Improvement Program.

5 CO-CHAIR HOMER: Right.

6 MEMBER McINERNEY: Which is for
7 adult surgeries. But there is now also a
8 pediatric NSQIP that is up and running. I
9 don't know if they reported any data yet. I
10 think they are still collecting it. So, this
11 would be similar.

12 CO-CHAIR HOMER: So, then, why
13 don't we vote on, if there are no questions
14 further, let's vote on the importance
15 question.

16 So, all those who feel -- again,
17 this is a dichotomous, yes, this is
18 sufficiently important based either on its
19 prevalence or within a narrower clinical area,
20 which this, presumably, isn't, but within a
21 narrow clinical area, whether it is an
22 important measure.

1 So, all those who feel this meets
2 the importance criteria raise your hand.

3 Good. Okay.

4 And all those who do not feel this
5 meets the criteria?

6 Good. Thanks.

7 I think we have already had a good
8 bit of discussion, but let's move on with any
9 additional questions or observations related
10 to the scientific acceptability of the
11 measure.

12 Are there further either
13 observations from the Work Group or questions
14 from any members of the Committee around the
15 scientific acceptability?

16 MEMBER LIEBERTHAL: Yes, I am
17 still having trouble with the risk-adjustment
18 model. There is such a broad variety and
19 there are so many underlying conditions that
20 affect it, that I don't know that the risk
21 adjustment is adequate to give good
22 information.

1 CO-CHAIR HOMER: So, Kim, could
2 you tell us about, first of all, how the risk
3 adjustment, how the panel created the risk-
4 adjustment measure, and then perhaps, for some
5 of us whose statistics are a little rusty,
6 describe what an ROC curve and the area under
7 the ROC curve means, and things like that?

8 MS. GAUVREAU: So, the risk
9 categories were derived primarily empirically
10 in that we looked in the dataset, the KID 2000
11 dataset, and looked at, for our procedures
12 that occurred at least 20 times in that
13 dataset, we looked at the in-hospital
14 mortality rates.

15 Then, we grouped procedures by
16 those rates. We started out with more than
17 four categories, so looking at lots of
18 possible different splits in the data, but
19 knowing that we somehow wanted to group
20 procedures by mortality rates.

21 We, then, sort of worked backwards
22 and looked at adjacent categories. If there

1 was not much overlap between them, we would
2 collapse them. We did that both looking at
3 actual mortality rates and by putting things
4 into logistic regression models and looking at
5 odds of in-hospital mortality relative to what
6 we considered to be the baseline group.

7 And for the baseline group, from
8 the very beginning, we said that we were going
9 to include procedures with a less than 2
10 percent mortality rate. There were a lot of
11 procedures that didn't have any mortality in
12 the database at all, but we would not be able
13 to fit our regression model if we had a
14 category with no deaths. So, we wanted to be
15 sure we would have at least some deaths, even
16 in our baseline risk category.

17 So, then, we looked at the various
18 cutpoints and found the one with the best
19 discrimination. That was measured by the C-
20 statistic or area under the ROC curve, which
21 basically is a measure of how well the model
22 is able to predict who dies and who doesn't

1 die.

2 Just with the four risk categories
3 that we ended up with alone, the area under
4 the ROC curve was, I believe, .87. In
5 general, anything over .8 is considered very
6 good. So, the model, the risk categories were
7 very highly discriminative about predicting
8 in-hospital mortality in this case.

9 CO-CHAIR HOMER: And then you
10 retest your validation?

11 MS. GAUVREAU: We validated that
12 in a second dataset, the KID 2003, and found
13 the area under the ROC curve to be, I believe
14 in that case it was .85 or .86. I mean just
15 only a little bit less.

16 I guess we haven't mentioned it.
17 On top of that, so in addition to the risk
18 categories, we did look at these other
19 clinical factors that might contribute and
20 help us to predict risk of in-hospital
21 mortality, even beyond the risk categories.
22 That was the necrotizing enterocolitis and

1 serious respiratory conditions. We considered
2 a list of about 10 or 15 other variables that
3 might help contribute to risk and found only
4 those two to be statistically-significant.

5 DR. BURSTIN: Just a quick
6 question, just because untested outcome
7 measures make people a little anxious. How
8 does this relate -- there's a reference you've
9 got at the bottom of 2a to an article that is
10 the Annals of Surgery in press. Is that the
11 risk model you are talking about with the
12 validation?

13 MS. GAUVREAU: Yes, it is.

14 DR. BURSTIN: Okay. Because I
15 think there is at least a comfort zone to know
16 the risk model used in this particular
17 measure --

18 MS. GAUVREAU: Yes.

19 DR. BURSTIN: -- has been
20 validated.

21 MS. GAUVREAU: Yes.

22 DR. LILLEHEI: Yes, it was just

1 published last month in the Annals of Surgery.

2 Yes. Sorry.

3 CO-CHAIR HOMER: Other questions
4 about the scientific acceptability of it or
5 comments from the Work Group members?

6 (No response.)

7 So, it sounds like some concern
8 about the risk-adjustment issue. Coding
9 issues, probably any sense of the validity of
10 coding? Any concerns? I mean death seems
11 like it is pretty reliably coded, and the
12 procedure itself seems like it is going to be
13 pretty reliably coded. That is basically all
14 you need or?

15 CO-CHAIR WEISS: I actually have a
16 question about that. I just wondered, aside
17 from factoring out the cardiac procedures, is
18 everything else in that bucket or did you make
19 some selections about what you included in the
20 non-cardiac surgery compendium or inventory?

21 DR. LILLEHEI: Yes, I don't know
22 that we have provided that table, but, yes,

1 there were procedures that we viewed as closed
2 procedures. So, I can list sort of a sample
3 of that for you here. But the excluded
4 procedures were any closed biopsies, closed
5 reductions, superficial lacerations,
6 catheterization, delutations, injections,
7 aspirations, radiologic procedures, dental
8 extractions, circumcision, and other
9 incidental procedures.

10 So, yes, you're right. Of those
11 procedures, there were certain ones that we
12 excluded because we didn't think that they
13 would really fit under the umbrella of
14 neonatal surgery as we were trying to
15 understand risk and mortality.

16 MS. RAUSCHER: We can provide a
17 copy of the article for the Committee, if you
18 would like that.

19 CO-CHAIR HOMER: That would be
20 great.

21 MS. RAUSCHER: Okay.

22 MEMBER LIEBERTHAL: I would like

1 to ask, since you excluded a number of very
2 minor procedures, why you included lingual
3 frenectomy as a significant condition.

4 DR. LILLEHEI: Fair enough. We
5 can talk through one of the others, but, in
6 fact, most of the time those procedures now
7 are actually done, unlike perhaps an earlier
8 era when they were done in the pediatrician's
9 office, kind of a clipping at the bedside, now
10 most often, in fact, they are done in the
11 hospital and usually in an ambulatory setting
12 with some element of anesthesia. Anesthesia
13 and a surgical team, we felt that was kind of
14 the bar that put us into this category, but
15 I am open to --

16 CO-CHAIR HOMER: I'm sorry, I
17 thought you said there actually did need to be
18 some deaths for it to be included in your
19 risk? No? I misheard that?

20 MS. GAUVREAU: So, we wanted our
21 lowest baseline risk category to at least have
22 some deaths, so that we could compare the

1 other categories to that one. In the end, the
2 mortality rate in that category 1 was .2
3 percent.

4 DR. LILLEHEI: No, but in answer
5 to your question --

6 CO-CHAIR HOMER: In individual
7 procedures --

8 DR. LILLEHEI: Yes, individual
9 procedures didn't need to have deaths, no.

10 MS. GAUVREAU: That's right, just
11 in the categories.

12 CO-CHAIR HOMER: Just in the
13 category?

14 DR. LILLEHEI: Yes.

15 CO-CHAIR HOMER: Okay. And again,
16 this issue of meaningful differences, so your
17 sense simply is, because you have only done it
18 one year and don't have multiple-year
19 averages, that your confidence intervals are
20 sufficiently --

21 MS. GAUVREAU: Are fairly wide.

22 CO-CHAIR HOMER: Are wide? So, if

1 this were trended over time, perhaps that
2 would result in significant narrowing.

3 All right. My next question will
4 be towards usability.

5 Any other questions on scientific
6 acceptability? Or we could move ahead and
7 vote on that. Or comments? Kathy, did you --

8 MEMBER JENKINS: Yes, may I make
9 one comment? Even in cardiac surgery where
10 there is twentyfold differences in the
11 country, it is extremely unusual in pediatric
12 sample sizes to find statistical differences.
13 I actually think it is extremely amazing that
14 in a single year of data we did find any
15 institution that was statistically different
16 with an area under the ROC curve of .9.

17 So, I think perhaps having looked
18 at rare pediatric procedures and outcomes more
19 than maybe people who do more work on more
20 common procedures, people may not be aware of
21 that.

22 MEMBER CLARKE: If I might

1 comment, I think that the kind of AUC numbers
2 that they are giving us are absolutely
3 incredible with the kind of broad
4 categorization that we see here. I am very,
5 very surprised at that, but that is really
6 excellent.

7 CO-CHAIR HOMER: All right. So,
8 why don't we go ahead and vote on the
9 scientific acceptability?

10 Those who would consider the
11 criteria completely met raise your hands.

12 DR. WINKLER: One.

13 CO-CHAIR HOMER: One. Okay.

14 Those who feel they are partially
15 met?

16 DR. WINKLER: Nine. Okay.

17 CO-CHAIR HOMER: And minimally?

18 Okay. That got everybody? Okay.

19 Usability. So, I think there one
20 question I would ask is, has there been
21 interest in the surgical community around this
22 measure? And how does it seem to be received?

1 And how understandable have there been --
2 again, comparing a little with the previous
3 conversation, as you have vetted this with
4 your colleagues at the hospital, as you
5 discussed it at CHCA meetings or NACHRI
6 meetings or Surgical Society meetings, what
7 kind of interest is there in this? What kind
8 of reactions are you getting? Just to get
9 some flavor for the usability of the measure.

10 DR. LILLEHEI: Well, in fairness
11 to you, we are pretty early on in that. In
12 fact, the surgical community, at least at
13 large, are only those who have read the last
14 month's Annals thus far perhaps.

15 (Laughter.)

16 But, in fact, within the surgical
17 community, and specifically the pediatric
18 surgical community, we are, as a group, very
19 interested in understanding reliable ways of
20 risk adjusting for what we do, and then making
21 things better accordingly.

22 Now, to date, we have done that

1 with specific diseases, like congenital
2 diaphragmatic hernia registries or necrotizing
3 enterocolitis working group, but there are
4 certainly limitations to that analysis and
5 questions that really don't lend themselves to
6 answering in that context.

7 There is the pediatric NSQIP that
8 was alluded to earlier that is being developed
9 in an effort to allow us to better understand
10 what we do and how we might change things
11 accordingly.

12 But, in fact, specifically, as
13 regards our measure, no, we are just in the
14 process of springing it on them, if you will,
15 yes.

16 CO-CHAIR HOMER: Ellen? Or you
17 weren't on the Work Group. Any other members
18 of the Work Group? No, go ahead, Lee.

19 MEMBER PARTRIDGE: If I am
20 understanding this correctly, and I am looking
21 at it from the consumer perspective primarily,
22 this has the potential to be a very powerful

1 measure in the sense that I believe what you
2 are trying to do is develop an overall measure
3 of predictability of mortality of children
4 prior to 30 days of age from non-cardiac
5 surgery.

6 It is perhaps one of the two or
7 three most powerful kinds of measures that
8 anybody wants to know about a hospital. I
9 guess it would be helpful to me if you would
10 just take a minute and explain how you would
11 explain this to a patient or a purchaser as a
12 good predictor of whether I should hospitalize
13 my child or have that hospital in my network.

14 Is that too tall an order?

15 DR. LILLEHEI: We do think that
16 this has the potential for a considerable
17 impact. Obviously, results of neonatal
18 surgery, for those of us who look after
19 neonates or have neonates, or whatever, is
20 exceedingly important.

21 We do think that with this tool we
22 will be able to dissect out whether it is

1 institution-specific, whether it is types of
2 institution, whether freestanding pediatric
3 hospitals do better or not, or whether a
4 children's hospital within a large general
5 hospital, a children's unit within that
6 neonatal surgery is the same, whether
7 anesthesiologists that have the ability to
8 have access to pediatric anesthesiologists
9 makes a difference versus not. I don't know
10 the answer to those questions.

11 We may be surprised by some of the
12 results, to be sure, but, yes, I think that is
13 why we are excited about this particular
14 study.

15 MEMBER McINERNY: Well, of course,
16 you know, for adult cardiac surgery, this kind
17 of reporting has been going on for at least a
18 decade. But my impression -- and correct me
19 if I am wrong -- is that, as far as either
20 purchasers or consumers are concerned, whether
21 they even know the data, No. 1, and whether it
22 makes any difference where they decide to go,

1 No. 2, I haven't seen a lot of evidence that
2 it has influenced that. Maybe I am wrong.

3 CO-CHAIR HOMER: The data on these
4 kinds of things tends to influence providers
5 a great deal. Because even though the
6 expectation, of course, was that consumers
7 would use it to drive, what frequently happens
8 is we, hospitals and physicians, are very
9 driven by comparative data. We all didn't
10 want to be in the bottom of our classes, and
11 therefore, we look at these data and it tends
12 to drive improvement through that strategy
13 more than --

14 MEMBER PARTRIDGE: I think we all
15 know that. Of course, you are in the State
16 that has been the leader in cardiac surgery
17 reporting. But I think, in fact, it has
18 impacted some of the purchasing patterns in
19 your State.

20 So, in my understanding also, we
21 haven't actually done a lot of testing of this
22 yet. So, we would be, presumably, talking

1 about this as a time-limited, yes, because I
2 would want to get a little better sense of how
3 much variability we are really turning up. I
4 know you have been working at that.

5 CO-CHAIR HOMER: Allan, did you
6 have a question?

7 MEMBER LIEBERTHAL: Yes, I did. I
8 am looking for the exact wording. But you
9 said something about, to be included, you
10 would have to have more than 20 procedures, is
11 that correct?

12 MS. GAUVREAU: That's right.

13 MEMBER LIEBERTHAL: Is that out of
14 20 individual procedures or 20 in a risk
15 category?

16 MS. GAUVREAU: Twenty in an
17 individual surgical procedure.

18 MEMBER LIEBERTHAL: Okay. One of
19 my concerns about usability is that, if there
20 are institutions that are doing fewer than 20,
21 and they are excluded from the data --

22 DR. LILLEHEI: No, let me clarify

1 because I think we are leading you in the
2 wrong direction. When we developed the model,
3 in order to develop the model, what we used
4 were procedures in the KIDS database that were
5 20 or more. Okay? Procedures in the KIDS
6 database that did not have 20 procedures, we
7 did not include in our risk category. We
8 didn't put them into a specific risk category.

9 So, do we, by that, do we omit
10 certain rare procedures? Indeed, we do, but
11 the fact of the matter is our analysis
12 encompassed about 85 percent of the types of
13 procedures being done. So, that was just to
14 develop the model.

15 MEMBER LIEBERTHAL: So, hospitals
16 that are doing fewer than 20 procedures still
17 would be part of this?

18 DR. LILLEHEI: Oh, absolutely.
19 Absolutely. Yes.

20 MS. GAUVREAU: Yes.

21 MEMBER LIEBERTHAL: That answers
22 my question then.

1 DR. LILLEHEI: Thank you.

2 CO-CHAIR HOMER: Faye?

3 MEMBER GARY: I just had a quick
4 question, and it is related to Lee's question.
5 Lee asked about how the data will impact
6 decisions, administrative decisions, et
7 cetera, et cetera.

8 And my question is, have you all
9 given any thought to how our outcome data can
10 be used or will be used when communicating
11 with consumers, i.e., parents and family
12 members? Could you just talk about the
13 usability of this data as it relates to I
14 think one of the most important groups, and
15 that is the parents of the child? I am trying
16 to get translation here to how it appears in
17 the clinical setting with the variety of
18 different kinds of parents and families who
19 might have this experience.

20 DR. LILLEHEI: Your point is well-
21 taken. Obviously, that is a decision that, as
22 a parent looking to a surgical procedure, that

1 is paramount in your mind.

2 This data is really, by virtue of
3 the fact that we are including a lot of
4 different types of procedures and combining
5 those risk categories, we are really not
6 looking at individual operations. So, I don't
7 think this is a tool for that individual
8 parent to decide whether I am going to have
9 Dr. Lillehei do my hernia repair or not, based
10 on that.

11 It is talking about institutions
12 as a whole, whether we think that institution
13 specifically or that type of institution or
14 that region of the country -- those are the
15 sorts of questions that we will be able to
16 answer about this, and not the specific one,
17 you know, where do I get my hernia fixed or
18 with whom?

19 So, I just wanted to underscore
20 that limitation of what we are going to be
21 able to answer.

22 MEMBER DOCHERTY: Yes, I think

1 what I like about it is that it reflects more
2 than just the procedure itself, but the post-
3 operative care that is given in a hospital.
4 So, it is nursing care. It is all the post-
5 surgical care, anesthesia, all of those
6 things.

7 DR. LILLEHEI: Absolutely.

8 CO-CHAIR HOMER: Nancy?

9 MEMBER FISHER: I just wanted to
10 make a comment in response to Tom's question.
11 Large purchasers are looking at things like
12 this. There is a large company that looks at
13 what you have done with Leapfrog, and they set
14 up their payment for you, so that if you are
15 at a hospital that they approve of, you get 90
16 percent reimbursement; if it is not, it is 80
17 percent reimbursement. There has been talk
18 about tiering hospitals, so putting them into
19 three different tiers and then shifting it
20 over.

21 So, there is all of this stuff
22 going on sort of coming out of value-based

1 purchasing that is looking at all of this.

2 So, yes, this is very important.

3 CO-CHAIR HOMER: So, I think we
4 are ready to vote on the usability criteria.

5 So, those who feel it fully meets
6 the usability, completely meets the usability
7 criteria?

8 All right. Those who feel it
9 partially meets the usability criteria?

10 DR. WINKLER: Ten.

11 CO-CHAIR HOMER: And those who
12 feel it minimally meets the usability
13 criteria?

14 All right, good.

15 And then, moving on to
16 feasibility, so that is how easy it is to
17 collect, report on issues, concerns about
18 exclusions, inaccuracies, and implementation
19 issues.

20 Seems like it is pretty
21 straightforward in that it comes from
22 administrative databases. That is where you

1 have validated it. It is not a narrow
2 dataset, that it is not PHIS, or it is
3 something that really can be used on any
4 standard set of discharge data. So, it seems
5 pretty straightforward.

6 Tom?

7 MEMBER McINERNY: Do you have any
8 idea, I mean, how much of the data-based
9 person time does it take to collect and sort
10 of analyze and report the data? Is this a 1.0
11 FTE for a full year or a .2, or do we know?

12 MS. GAUVREAU: Well, assuming the
13 data is coming from an electronic database or
14 an administrative dataset, it doesn't take
15 very long at all. So, it is not based on
16 primary data collection.

17 MEMBER McINERNY: So, you could
18 probably somehow program it once --

19 MS. GAUVREAU: Yes.

20 MEMBER McINERNY: -- and then it
21 becomes automatic?

22 MS. GAUVREAU: Yes. Right.

1 Exactly.

2 MEMBER McINERNEY: Okay.

3 MS. GAUVREAU: And we have the
4 program and documentation to do all that.

5 MEMBER McINERNEY: Okay. Thank
6 you.

7 CO-CHAIR HOMER: All right. So, I
8 think we could vote on the issue of
9 feasibility.

10 Those who feel it completely meets
11 the criteria for feasibility?

12 DR. WINKLER: I think it is
13 everybody.

14 CO-CHAIR HOMER: Very good.

15 All right. Then, we move on to
16 voting overall for the measure. Again, I
17 think because this measure has not been in
18 general use, this would be a time-limited
19 endorsement, presumably with the request for
20 specific testing about applicability and
21 usability, I think looking at the potential
22 for narrowing the confidence interval by

1 extending the data over periods of time, et
2 cetera.

3 So, those in favor of a time-
4 limited endorsement of the measure raise your
5 hand.

6 DR. WINKLER: I have got
7 everybody.

8 CO-CHAIR HOMER: Good. Okay.
9 We're done. Thank you very much.

10 All right. I think we will do one
11 more measure before our break on my 10:30
12 break time rule.

13 MS. McELVEEN: Okay. Our next
14 measure is Measure 29. This is the
15 standardized adverse event for children and
16 adults undergoing cardiac catheterization for
17 congenital heart disease. This is the ratio
18 of observed-to-expected clinically-important,
19 preventable, and possibly preventable adverse
20 events risk-adjusted.

21 DR. BERGERSEN: Hi. My name is
22 Lisa Bergersen again.

1 I want to thank you for the
2 opportunity to be at the table today from a
3 smaller community of physicians who perform
4 cardiac catheterization procedures on both
5 children and adults for congenital heart
6 disease.

7 Over the past 15 years, cardiac
8 catheterization has evolved from diagnostic
9 studies to primarily interventional studies
10 with not an insignificant amount of morbidity
11 associated with those procedures. So, as a
12 field, it has become very important for us to
13 understand the outcomes for these children
14 that can eventually have bad outcomes in the
15 catheterization lab.

16 We look at a lot of different
17 measures: overall event rates, clinically-
18 important event rates. But I chose this
19 outcome to share with you because it has some
20 face validity in its importance to us as a
21 community as a measure to track.

22 That being clinically-important

1 events, those events that are life-threatening
2 or potentially life-threatening to the child
3 and with a potential opportunity for
4 improvement in care. So, those that are
5 either possibly preventable or preventable.
6 As a community, we think that this is an
7 important measure and outcome for the
8 children.

9 CO-CHAIR HOMER: Terrific. So,
10 why don't I ask members of the Work Group to
11 comment and specifically, again, initially on
12 the area of importance? A request to raise
13 questions. Any comments from the Work Group?
14 And then open to comments and questions from
15 anybody else on the Committee.

16 David?

17 MEMBER CLARKE: Well, I think she
18 has adequately addressed the importance of
19 this. This is becoming a very strong
20 interventional type of a specialty as opposed
21 to diagnostic, as it was historically. This
22 brings on whole new implications.

1 Basically, now they are doing a
2 lot of cardiac surgery with a little, tiny
3 tube. So, I think looking at adverse events
4 and the things that can go wrong with that,
5 which are not inconsequential, is extremely
6 important as this specialty evolves.

7 CO-CHAIR HOMER: Any other
8 questions from the Work Group members or the
9 members of the Committee about the importance
10 of this?

11 DR. WINKLER: I just want to
12 follow up on one of the Committee's comments
13 about why we are including adults as part of
14 the measure. Can you give us some numbers?
15 Because I am assuming you are defining the
16 adults are probably young adults as opposed to
17 I don't see a lot of 65-year-olds, but maybe.

18 DR. BERGERSEN: Well, it is
19 congenital heart disease.

20 DR. WINKLER: Exactly. That is my
21 point.

22 DR. BERGERSEN: So, the measure

1 was developed to capture our entire
2 population. Depending on the physician, their
3 case mix can have a varied amount of adults.
4 So, it was developed to capture the entire
5 case mix for institutions performing these
6 procedures.

7 We could limit this outcome
8 measure to children less than 21 years of age
9 without losing validity, we believe.

10 CO-CHAIR HOMER: So, for example,
11 an adult with an anomalous coronary -- now I
12 am showing my clinical ignorance -- but, you
13 know, anomalous coronary artery, or something
14 like that, which is presumably a congenital
15 problem, you are not talking about that?

16 DR. BERGERSEN: Right. So, among
17 our six physicians who primarily do neonates,
18 the percentage of adults that we do ranges
19 from zero to 15 percent. So, it is a small
20 percentage.

21 MEMBER RAO: My concern in raising
22 that question was that, is there a significant

1 proportion of adults who are going through
2 revision surgeries, second or third surgeries
3 for their congenital heart disease, as opposed
4 to their first surgery? Because I assume if
5 you are 25 years old, somebody has picked up
6 on this at this point.

7 DR. BERGERSEN: Right. Exactly.

8 CO-CHAIR HOMER: But you still
9 might be catheterized, presumably, in your
10 pre-operative revision --

11 DR. BERGERSEN: Some of the adults
12 that we catheterize will be -- and again, this
13 depends on the case mix of the particular
14 interventionalist -- it may include late-
15 presentation ASDs, late-presentation PDAs,
16 pulmonary hypertension, or redo operations,
17 conduit revisions requiring human NMX pre-
18 operatively.

19 But, like I said, we could limit
20 this measure to less than 21 years of age.

21 MEMBER RAO: Yes, I just thought
22 that maybe somebody going through

1 catheterization as an adult probably had a
2 different morbidity or risk than somebody who
3 is younger.

4 DR. BURSTIN: Having spent a
5 decade practicing at the Brigham and taking
6 care of a lot of these adult cardiac
7 surgeries, I mean, literally, you have 30- and
8 40-year-olds who had tetralogy procedures a
9 decade ago who still go to Children's for cath
10 because they know that better than anybody
11 else does. So, the question would be, are
12 they really the same group or should you
13 really segregate it?

14 CO-CHAIR HOMER: Have you looked
15 at --

16 DR. BERGERSEN: We haven't looked
17 at these outcomes -- well, the risk-adjustment
18 method for this outcome was developed using it
19 with the adult population in it. We haven't
20 excluded them and gone through the same steps
21 to look at how the model performs, but I would
22 expect that it would perform at least equally

1 as well.

2 MS. GAUVREAU: But we also didn't
3 find age to be a statistically-significant
4 predictor of adverse events in our model.

5 DR. BERGERSEN: That's correct.

6 CO-CHAIR HOMER: Allan?

7 MEMBER LIEBERTHAL: Your
8 specification for numerator specifies a
9 pediatric cardiac catheterization lab. The
10 majority of hospitals that are not children's
11 hospitals use one cardiac catheterization lab
12 for both children and adults. Using your
13 definition, you would confine it to only
14 specialized pediatric cardiac catheterization
15 labs, which excludes a significant number of
16 cardiac cath.

17 Then, when you start including
18 stint placements in adults, you haven't really
19 specified congenital heart disease. So, I
20 think I understand what your intent is, but
21 your wording can lead to the measure being
22 applied differently than you intended.

1 DR. BERGERSEN: That is a good
2 point. I think, to be more precise, it would
3 be procedures done for congenital or acquired
4 heart disease, congenital heart disease in the
5 adult or child.

6 So, if you were doing, let's say
7 you were an institution that was not a
8 pediatric institution, but you were doing
9 procedures for congenital heart disease. You
10 could apply this measure.

11 Does that answer your question or
12 address it?

13 MEMBER LIEBERTHAL: Yes, it does.
14 I would just ask that, if we approve this,
15 that the conditions be a change in the
16 wording.

17 CO-CHAIR HOMER: Again, prevalence
18 is not an absolute requirement, but do you
19 have any sense of the number of procedures
20 done in a year that this would apply to?

21 DR. BERGERSEN: Yes. We estimate
22 that there's about 100 institutions across the

1 country that do regular cath procedures on
2 both adults and children with congenital heart
3 disease.

4 CO-CHAIR HOMER: And how many --

5 DR. BERGERSEN: And the volume
6 there, our institution probably performs more
7 than most at about 1200 a year.

8 CO-CHAIR HOMER: Yes.

9 DR. BERGERSEN: And then the other
10 institutions, about between 300 and 600, some
11 a little less. So, let's see --

12 CO-CHAIR HOMER: So, if you are
13 thinking about 500 per institution, then
14 you've got -- yes, okay, then you have about
15 1,000. So, 500; you said how many
16 institutions, 100?

17 DR. BERGERSEN: About 100, yes.

18 CO-CHAIR HOMER: So, 50,000.

19 Okay, good.

20 DR. BERGERSEN: Fifty thousand.

21 MEMBER McINERNEY: I wonder if we
22 could change the numerator to catheterization

1 cases performed by a pediatric interventional
2 cardiologist instead in a pediatric cardiac
3 cath lab. Because I know our institution, we
4 have an interventional cardiologist, but he
5 is, as Al describes, he does his in a general
6 cardiac cath lab, but there is a specialized,
7 sort of a specialized room where he does it,
8 but it is still considered an adult cardiac
9 cath lab.

10 DR. BERGERSEN: That would be
11 clearer, specifying it by the physician.

12 MEMBER LIEBERTHAL: I actually
13 disagree with the wording. I would just say
14 cardiac cath procedures done on congenital
15 heart disease. Because what worries me is
16 adult cardiologists who are doing procedures
17 on adults with congenital, oh, yes, congenital
18 heart disease. I think that quality measures
19 may, hopefully, put an end to that.

20 (Laughter.)

21 CO-CHAIR HOMER: Okay. So, on our
22 first criteria of importance -- and this is a

1 threshold criteria, so it would be either yes
2 or no -- the question is, how many believe
3 this meets the threshold criteria for
4 importance? Show of hands.

5 Okay. So, now we can move on,
6 which we have already been delving into, but
7 we can move on to the issues of the scientific
8 acceptability of the measure. So, why don't
9 delve more deeply into that?

10 Can you talk a little bit more
11 about how adverse events are defined, how
12 reliable, adverse events, preventable adverse
13 events, how reliable the identification of
14 those are? You had some data in the report.

15 DR. BERGERSEN: Yes.

16 CO-CHAIR HOMER: But if you could
17 talk more about that?

18 DR. BERGERSEN: Well, in 2003,
19 2004, reviewing the previous literature on
20 cardiac catheterization and how people were
21 reporting outcomes, most institutions would
22 report them as minor or major. We thought

1 that that didn't lend itself to -- could have
2 greater clarity by separating them out into
3 five categories.

4 So, we started collecting adverse
5 events at our institution using these five
6 categories of severity, one being an event
7 that happened, but there was really no
8 clinical consequence; two being a minor event;
9 three being something that was potentially
10 life-threatening, like a supraventricular
11 tachycardia that you had to cardio vert; four
12 being something that was clearly life-
13 threatening. You had to do CPR on a patient
14 because of an arrhythmia. And five being
15 death.

16 So, we started collecting our
17 adverse events using these definitions. Our
18 hospital later adopted them in other areas
19 across the entire hospital.

20 As a field, recently, we have
21 gotten together as a group and started to talk
22 about nomenclature and how we are going to

1 define both the procedures that we do and
2 complications, because the nomenclature just
3 didn't exist previously.

4 So, in the next year, our
5 definitions for severity will be adopted by
6 the International Pediatric Cardiac Code and
7 will be available to the community to use.
8 So, we will be publishing a complications list
9 that has qualifiers for severity and
10 definitions, as we have been collecting events
11 over the past six years.

12 Currently, there are eight other
13 institutions who are collecting data in a
14 similar fashion and coding their events using
15 our severity classifications. And I referred
16 to them in the background material.

17 This is the Congenital Cardiac
18 Catheterization outcomes Project. This group
19 of institutions started collecting data in
20 2007, and we now have a dataset using uniform
21 definitions since 2007. It includes now
22 13,000 cases.

1 CO-CHAIR HOMER: So, as I hear
2 these, I guess the reason I was asking about
3 it, but I think you have started to answer it
4 beautifully, so we know that voluntary
5 reporting of adverse events in hospitals is
6 miserable, to put it bluntly. And we know
7 that when people do audits using something
8 like a trigger tool, they vastly increase by
9 factors of five or ten the number of adverse
10 events that are identified.

11 But this seems different. This
12 you have got specific events that are defined
13 and typically recorded in a procedure anyway,
14 and you are capturing more routinely. So,
15 again, it is different than routine hospital
16 collection of adverse event data and more
17 valid and reliable?

18 DR. BERGERSEN: When we audited
19 the dataset that was in the paper for the
20 measure development, for Level 3, 4, and 5
21 events at our institution, we captured all of
22 them. In this group of institutions that have

1 been collecting data over three years, they do
2 pretty good with the 3's, 4's, and 5's. As
3 you would imagine, the 1's and 2's, there is
4 some variation in what people would consider
5 important enough to record.

6 But among the 4's and 5's, at
7 least in a 10 percent audit, they reported all
8 of them. And among the 3's, 4's, and 5's, it
9 was as high as 92 percent. So, there were a
10 few what we consider Level 3 events which were
11 primarily respiratory events even before the
12 procedure had started related to anesthesia.
13 So, because they are clinically important,
14 they tend to be captured.

15 CO-CHAIR HOMER: Okay. Thank you.

16 David?

17 MEMBER CLARKE: Well, I have, I
18 guess, a real problem with allowing so-called
19 non-preventable events to be excluded because
20 I think that, first of all, what might be
21 preventable by one person is non-preventable
22 by another. Second of all, you know, maybe it

1 is just because surgeons enjoy wearing hair
2 shirts, but, traditionally, when you are doing
3 surgery, if the patient dies within 30 days of
4 the operation, even being run over by a bus,
5 that is an operative mortality.

6 (Laughter.)

7 So, I really have a problem with
8 excluding these sort of big -- what is an
9 example of an unpreventable event?

10 DR. BERGERSEN: Yes, let me
11 explain to you why we did exclude it and why
12 it is important that we exclude preventable
13 events when looking at this outcome.

14 MEMBER CLARKE: You mean
15 unpreventable?

16 DR. BERGERSEN: Non-preventable.
17 And it actually goes towards the other
18 comment, which was the moderate events, as
19 defined -- let's see, how do you know that
20 they are not based on the patient's condition
21 rather than how the procedure was performed?

22 So, what we are trying to do here

1 is exclude those events that, because of the
2 patient's condition, that you could not have
3 avoided. So, for example, you get called in
4 the middle of the night to catheterize a
5 patient who is having ventricular tachycardia,
6 and there's a suspected anatomic problem. And
7 they are trying to manage them medically.

8 You bring them down to the
9 catheterization lab and they go into
10 ventricular tachycardia, and you have to do
11 CPR on that patient. There was no way as an
12 operator that you could have avoided that
13 event.

14 Whereas, I bring a patient to the
15 catheterization lab for an elective aortic
16 valvotomy. I cross the aortic valve and I jam
17 the catheter down in the LV, and the patient
18 goes into ventricular tachycardia. In that
19 case, maybe there was something that I could
20 possibly have done to have avoided that event.
21 And I want to make sure that I capture that.

22 MEMBER CLARKE: Right, and I am

1 not talking about events that occur and result
2 in maybe a patient's death just on the way to
3 the cath lab before you do a procedure.

4 DR. BERGERSEN: No, I am talking
5 about, if I bring a patient to the cath lab
6 and they have ventricular tachycardia, and I
7 put catheters in them, and I am doing a
8 diagnostic catheterization, and they go into
9 their fatal arrhythmia, and I can't get them
10 out of it, and it was a pre-existing condition
11 where there was nothing I could have done in
12 the cath lab to avoid it, then those are the
13 events that we're --

14 MEMBER CLARKE: So, if a patient
15 dies when you are opening the chest, it
16 doesn't count, and that just isn't right.

17 DR. BERGERSEN: Well, it depends
18 on what the outcome of interest is, I think.

19 MEMBER CLARKE: You know, I guess
20 I look at it this way, from a broader
21 perspective, and I said this earlier. If you
22 exclude things that are not preventable from

1 the collection of the data, they are never
2 going to be preventable because you won't
3 identify them. Okay?

4 And what you can do, and I think
5 it is very reasonable in some cases to do
6 this, we do it at the STS database, congenital
7 database in several instances, is you collect
8 the data and you exclude them from the
9 analysis, which means you exclude them from
10 both the numerator and the denominator.

11 CO-CHAIR HOMER: So, you would
12 have the data, but the measure, then, would
13 still not reflect those data?

14 MEMBER CLARKE: Right. You could
15 decide to exclude those from the analysis of
16 the data. Then, at some point, you might want
17 to change your mind and put them back in for
18 some various reason, some events or --

19 DR. BERGERSEN: Yes. So, we are
20 not proposing that people not collect data on
21 not preventable events. And we feel,
22 actually, quite strongly that any event should

1 be recorded in your database and looked at.

2 But for this particular metric, we wanted to
3 focus on events where there was a possibility
4 for improvement of care.

5 So, the problem with putting
6 preventable events in it, if you are going to
7 look at different institutions, is, well, it
8 wasn't the outcome that we were interested in.

9 CO-CHAIR HOMER: Can you remind me
10 how you are determining preventability? Is it
11 on the code or is it the judgment of the
12 person who is entering the data?

13 DR. BERGERSEN: Yes. At our
14 institution, we collect this data at a monthly
15 meeting or more often. We review all of the
16 events and, as a group, come to consensus on
17 both the severity and the preventability.

18 There are fairly precise
19 definitions. I think one thing that we would
20 need to do, if this metric went forward, is
21 look at within our dataset and the C3PO
22 dataset what were those events that were not

1 preventable, so that we can have clear
2 definitions for the community of what we would
3 consider, like I did with the v tac example.

4 CO-CHAIR HOMER: I love the name,
5 with your C3PO data.

6 (Laughter.)

7 That is just great.

8 Did the other sites do assessments
9 of preventability, and did you assess
10 comparability of the preventability
11 assessments across multiple institutions?

12 DR. BERGERSEN: You know, it is
13 really interesting. When we started this
14 project, many people said -- and it was part
15 of one of the comments about I think
16 feasibility -- "Oh, you're not going to get
17 the community to tell you about their bad
18 outcomes."

19 But, in fact, the project was met
20 with a lot of enthusiasm. We actually had to
21 limit the number of sites that could
22 participate.

1 Like I mentioned, the audit, they
2 report both their minor as well as their high-
3 severity events. Two cardiologists review all
4 of the events, and they have reported, similar
5 to our earlier data, about a 30 percent rate
6 of not preventables. So, they have not been
7 liberal with the definition and rarely
8 misapply it. So, we rarely change it when we
9 review their preliminary classifications.

10 Did I confuse it? I'm sorry.

11 MEMBER PERSUAD: I just have one
12 final comment about the issue of excluding
13 non-preventable cases, and there's probably
14 nothing to do about it now, but going forward
15 I think, when we began this discussion about
16 the overall importance, this is a ballooning
17 area.

18 (Laughter.)

19 And your example, the example you
20 described says to me really that you are doing
21 more and more non-surgical corrective
22 procedures on an increasing risk population,

1 is what it is. And that doesn't mean to me
2 necessarily that, when they carry higher risk,
3 it is non-preventable. It may mean that more
4 sensitivity in the procedure has to be
5 addressed for their risk to be lower because
6 they are carrying higher risk. So, I just
7 throw that out there.

8 DR. BERGERSEN: So, there is
9 -- I'm sorry.

10 MEMBER McINERNEY: No, no, finish.

11 DR. BERGERSEN: So, there is
12 variation in rates of these events among even
13 our practitioners at one institution. This
14 variation has to do with different populations
15 of patients being catheterized by different
16 interventionalists.

17 When we sat down to look at
18 procedures, we were able to identify 84
19 different types of procedures that we do with
20 varying frequency, from 1 percent of our cases
21 to maybe 20 percent of our cases. So, similar
22 to what Dr. Lillehei had explained, we

1 couldn't adjust just based on one procedure
2 type. So, what we did is we put all of those
3 different procedure types into different
4 procedure type risk groups, so then we could
5 adjust for the case-mix complexity of a
6 particular operator.

7 Then, this would apply an
8 institutional outcome. You could apply this
9 risk-adjustment model to an institution's
10 outcome.

11 We haven't compared adverse event
12 rates among institutions in cardiac
13 catheterization because for many years you
14 say, well, my case-mix complexity is more
15 complicated than yours. But what we have
16 shown by developing these models and looking
17 at this measure is that you can do it fairly.
18 You can do it fairly, and we should be looking
19 at these outcomes.

20 CO-CHAIR HOMER: Tom, did you have
21 a question?

22 MEMBER McINERNY: Yes. I, too, am

1 very concerned about putting some things in
2 the non-preventable category. I think 10
3 years ago many people would have said that a
4 central line infection was non-preventable.
5 We know that, in fact, they are preventable.

6 I just worry that, when you do
7 that, then it sort of becomes an accepted
8 complication, and, oh, well, you know, yeah,
9 we put a central line in and they get
10 infected. Oh, well, we do this particular
11 cardiac catheterization procedure and
12 something happens, but it is non-preventable.

13 And that worries me because I
14 think you stop thinking about, yes, well,
15 maybe it is preventable if we did something
16 else.

17 CO-CHAIR HOMER: So, maybe to
18 delve a little further into this, could you
19 walk through, because I am a little fuzzy on
20 this, just kind of the algorithm for what
21 actually happens in terms of the data
22 collection and the categorization of adverse

1 events, and then adverse events as preventable
2 or not?

3 So, I just don't understand the
4 process right now by who it is going through
5 and who is making which decision and judgment,
6 and how it is being based. So, if you could
7 just walk that process through, I think it
8 would help the Committee. It certainly would
9 help me.

10 MEMBER JENKINS: Can I say one
11 background thing?

12 CO-CHAIR HOMER: Good.

13 MEMBER JENKINS: I just want to
14 say that, as Lisa mentioned, we imposed these
15 categories at the entire institution of the
16 Children's Hospital, Boston, for all of our
17 adverse event reporting. One of the things,
18 the discussion is very important, and I don't
19 want to minimize it.

20 I just want to make this point:
21 one of the things that is the most difficult
22 barrier to overcome for clinicians to feel

1 good about measurement is feel like they are
2 being unfairly measured against something that
3 happened on the day they were there, that
4 there is absolutely nothing they could have
5 done to prevent it, like the v tac example.

6 And it has been comforting and
7 helped with our adoption of this concept to
8 include a way out for that. How exactly to
9 measure it or where the slippery slopes are is
10 a real issue, and I don't want to minimize
11 that.

12 One of the things that we have
13 done at Children's is, if someone says
14 something, we ask them to articulate what they
15 could have done differently to prevent it.
16 Okay? Because if there's absolutely nothing
17 that anybody can think of that they could have
18 possibly done differently to prevent it, it is
19 different. Okay?

20 So, I don't know if that helps,
21 but this is a field that is getting their
22 hands around some of those issues, around

1 infection and the rest of it.

2 So, I just want to state that
3 point, that in order to have clinicians adopt
4 these measures, they do have to believe that
5 it is fair.

6 CO-CHAIR HOMER: I agree fully
7 actually. I think it is totally on target.
8 I think the challenge comes in when you are
9 sort of doing this high-stakes, potentially
10 high-stakes measurement and wanting to be sure
11 that different institutions are using similar
12 criteria.

13 So, that is why really just I
14 think, at least for me, I am not completely
15 clear on the process that actually takes
16 place. So, just walk that through, how you
17 are proposing that it take place with the
18 measure that you are proposing.

19 Could she respond or --

20 MEMBER CLARKE: Oh, sure. I'm
21 sorry.

22 DR. BERGERSEN: I think I have

1 articulated that this is evolving and that
2 institutions, all institutions that perform
3 these procedures are collecting adverse
4 events. They are doing it in one way or
5 another.

6 So, to make the measure work, they
7 would need to collect their adverse events and
8 record them using the definitions that are
9 available through the International Pediatric
10 Cardiac Code, which will be published this
11 year.

12 They will have the severity as a
13 qualifier for an event. They will have clear
14 definitions attached to them, and institutions
15 would have to adopt those definitions into
16 their collection of their adverse events to be
17 able to apply the measure to their
18 institution.

19 There is a national registry that
20 is starting for congenital cardiac cath
21 through the ACC called IMPACT. That could
22 potentially be a way to centralize data

1 collection if they adopted the same strategy.

2 CO-CHAIR HOMER: So, again, the
3 event happens. The institution records it.
4 The institution categorizes it reliably, using
5 the 1-to-5 scale.

6 And again, really, just a process
7 question then: after that happens or before
8 that happens, when does that preventability
9 assessment take place and who is making that
10 judgment? I believe it is really a process
11 question.

12 DR. BERGERSEN: Well, I think
13 there's two that I would like to answer. One,
14 within C3PO, the registry of these eight
15 institutions, when the event happens, they
16 assign preliminary categories, and then those
17 are independently reviewed by two physicians.
18 Now that is a research project. So, that is
19 how that registry works.

20 So, what the individual
21 institutions would need to do is do what they
22 are already doing, record their adverse event

1 and assign a severity category and a
2 preventability category at the time of the
3 event, and all institutions also review events
4 as a group, I think in some format, whether
5 that is weekly or monthly or bimonthly. I
6 think it is pretty common in most institutions
7 to review their adverse outcomes.

8 So, then, they would have the
9 opportunity in that venue to come to consensus
10 and make sure that there is agreement and no
11 operator bias in the classification.

12 MEMBER CLARKE: I just want to
13 clarify that non-preventable adverse events
14 are all collected. There is not an option to
15 not report? Because, obviously, voluntary
16 adverse event reporting is a problem, and if
17 you give a provider a loophole, it is going to
18 take it. That is the thing I am most
19 concerned about.

20 But whether or not you determine
21 after careful analysis that this event should
22 not be included when we analyze the data and

1 present and report results, that is a totally
2 different matter and I fully understand that.
3 But you have to identify these adverse events
4 or nothing is ever going to be done about
5 them.

6 DR. BERGERSEN: I think in terms
7 of this metric and the usability by
8 institutions, I would like to just echo what
9 Kathy said in terms of physician buy-in and
10 feeling that they are fairly evaluated.

11 Also, I think we underestimate
12 sometimes physicians' willingness to be
13 transparent, especially when it comes to the
14 opportunity to improve their care. So, if you
15 collected your events and you had the
16 opportunity to apply this model to your
17 outcome and calculate your standard adverse
18 event ratio, and you looked in the literature
19 and you saw that Hospital X's rate was this,
20 and you were outside of the bar for
21 performance, you might try to do a little bit
22 better. That is the purpose of putting this

1 forward and sharing it with the community.

2 CO-CHAIR HOMER: I think we have
3 had a great discussion. I would like to move
4 -- one more question about scientific
5 acceptability? Because then we want to be
6 able to vote on it.

7 MEMBER McINERNEY: I think what
8 Charlie is trying to say is that, as long as
9 there is a standard criteria for what is
10 considered preventable that is applied across
11 the board uniformly to all institutions, then
12 that would go a long way to making us feel a
13 bit more comfortable. But what we would be
14 uncomfortable about is that Institution A
15 says, "Well, that was unpreventable," and
16 Institution B says, "Yes, it was preventable."
17 Then, you are not comparing equally.

18 CO-CHAIR HOMER: So, why don't we
19 vote on the scientific acceptability
20 criterion?

21 So, how many vote that it
22 completely meets the criteria for scientific

1 acceptability?

2 Okay. How many would vote that it
3 partially meets the criteria for scientific
4 acceptability?

5 Okay.

6 DR. WINKLER: Eight.

7 CO-CHAIR HOMER: And feel that it
8 minimally meets the criteria?

9 DR. WINKLER: I probably need to
10 check. Did Marlene Miller join us at all?

11 (No response.)

12 Okay.

13 CO-CHAIR HOMER: Okay. Did we get
14 everyone then?

15 DR. WINKLER: Yes.

16 CO-CHAIR HOMER: Okay. Good.

17 Then, on the usability, because I
18 think we have discussed the usability a fair
19 amount in the context of discussing the
20 scientific. So, this relates to the issue of
21 whether it is understandable, harmonization,
22 and there is another element to it, which is

1 whether it provides added value.

2 How many feel it completely meets
3 the criteria for usability?

4 Feel that it partially meets the
5 criteria for usability?

6 DR. WINKLER: Nine.

7 CO-CHAIR HOMER: Okay. How many
8 feel it minimally meets the criteria for
9 usability?

10 DR. WINKLER: Five.

11 CO-CHAIR HOMER: Okay. All right.
12 We got everyone?

13 Then, for feasibility, I guess
14 that is actually -- so, again, data being a
15 byproduct of care, available through
16 electronic mechanisms, exclusions
17 appropriately specified, not susceptible to
18 inaccuracies, and ease of implementation.

19 So, how many feel it completely
20 meets the criteria for feasibility?

21 Partially meets the criteria for
22 feasibility?

1 DR. WINKLER: Twelve.

2 CO-CHAIR HOMER: And minimally?

3 Two?

4 And then I think an overall vote.

5 And again, this one, again, I think would be,
6 the vote would be for time-limited endorsement
7 subject to conditions.

8 MEMBER LIEBERTHAL: With the
9 conditions on the wording changes.

10 CO-CHAIR HOMER: Conditions for
11 wording changes around setting and provider
12 and even age, potentially age restriction to
13 under -- age to be determined.

14 Okay, David, question?

15 MEMBER CLARKE: I would like to
16 see some testing of non-preventable adverse
17 events.

18 CO-CHAIR HOMER: I think, again,
19 the question there is, is that something where
20 we would want conditional approval for testing
21 or more recommendation or suggestion to the
22 developer that they sort of do further

1 evaluation and testing and come back at a
2 future date?

3 CO-CHAIR WEISS: And could we add
4 to that the objective being to standardize the
5 definition?

6 MEMBER CLARKE: Yes, I agree. I
7 think that the measure ought to be introduced
8 and used, but I think a lot of attention ought
9 to be paid to this non-preventable event
10 issue. That should be monitored and reported
11 back at a specific time in the future.

12 CO-CHAIR HOMER: I could repeat
13 what you said, but Helen?

14 DR. BURSTIN: Well, we were just
15 talking a little bit about there's enough
16 changes that you guys are recommending that
17 the question be, do you actually want to see
18 some analyses back before you make this
19 decision? I mean I don't know how much you
20 could look at these analyses.

21 I think one of my only concerns at
22 looking at this is, at least the way it is

1 written in the submission form, the
2 definitions of how anybody beyond your
3 institutions would use this measure would be
4 very difficult. This is intended to be a
5 measure of a national, that any hospital could
6 pick up and use, and at least what is in the
7 submission form is really fairly imprecise.

8 You may just have more of it that
9 we haven't seen, but I think, given the number
10 of conditions, I just sort of wonder whether
11 you actually want to take just a quick look-
12 back.

13 DR. BERGERSEN: Also, what I have
14 presented to you was based on a single
15 institution. As I mentioned, we now have
16 three years of multi-center data that we could
17 insert your questions with.

18 CO-CHAIR HOMER: You know, one of
19 my concerns is, again, my suspicion is that
20 the institutions you test this in are all very
21 high-performing, highly-competitive, academic
22 institutions, and that if we were to apply

1 this broadly to the many places that are doing
2 cardiac catheterizations, they may not all
3 share the values.

4 I mean we can't assume some of the
5 transparent orientation of some of those
6 institutions. So, that is partly why at least
7 I have questions about standardization and
8 consistency that would not be as dependent on
9 the goodwill of the participating
10 institutions, to put it bluntly.

11 So, that is why I am not sure some
12 of those questions would be fully addressed
13 within the context of the collaborative
14 among -- I just want to say C3PO again, since
15 I like that term -- institutions.

16 (Laughter.)

17 So, I don't know. My sense is
18 there's a lot of interest and excitement about
19 this measure and the desirability for further
20 testing of it before we are kind of on record
21 endorsing it even in a time-limited manner.
22 But we don't want to give the perception of

1 kind of going back to ground zero and come
2 back at some indefinite future date.

3 MEMBER CLARKE: It sounds like the
4 testing may have already been done, and we
5 could just table it and then consider it at a
6 phone conference call, or something.

7 CO-CHAIR HOMER: So, rather than
8 vote, a suggestion that we table this and that
9 you provide additional information on, first,
10 clarifying the definitions, looking at how
11 this would be affected if you limited the age
12 criteria, for example, and coming back with
13 some of that information.

14 MEMBER PARTRIDGE: And, Charlie, I
15 think there were several suggestions about
16 actually --

17 CO-CHAIR HOMER: Clarifying the
18 wording?

19 MEMBER PARTRIDGE: Specifications
20 for the numerator and denominator.

21 CO-CHAIR HOMER: Yes.

22 MEMBER PARTRIDGE: So, that should

1 be in here, too. I would kind of like to see
2 the actual text of what we are voting on.

3 CO-CHAIR HOMER: Okay. Good.

4 Was there a comment on the phone?
5 Did someone on the phone say anything?

6 DR. MAIN: No, this is Elliott
7 Main. I am waiting for the next measure.

8 CO-CHAIR HOMER: Oh, okay. Thank
9 you.

10 (Laughter.)

11 Thank you for your patience. We
12 are a little behind schedule, I am afraid.

13 DR. BURSTIN: And just one more
14 analysis, since it was brought up, since you
15 have the data, if there is any ability to look
16 at the number of events that weren't
17 classified as potentially preventable and
18 preventable? Just to kind of give a sum of
19 how many are actually being excluded might be
20 useful, given the number of comments.

21 DR. BERGERSEN: I would be happy
22 to provide additional analyses. It would be

1 helpful for me if all of the comments and
2 suggestions could be summarized in something.

3 CO-CHAIR HOMER: Okay.

4 DR. BERGERSEN: Great. Thank you
5 very much.

6 CO-CHAIR HOMER: So, I think, yes,
7 rather than calling a vote, why don't we
8 recommend that and revisit this on a phone
9 call?

10 Thank you very much. I think this
11 was great.

12 So, what I would like to do is
13 call for a 15-minute, well, I will say 10
14 minutes, but it will be 15 minutes, but a 10-
15 minute break. We will try to reconvene at
16 11:10. Okay?

17 With Elliott. So, Elliott, you
18 have a 10-minute break.

19 Thank you.

20 (Whereupon, the foregoing matter
21 went off the record at 10:57 a.m. and resumed
22 at 11:10 p.m.)

1 MS. McELVEEN: Let's go ahead and
2 get started. We are going to reconvene, if we
3 could have everyone come back to their seats.
4 I promise you will get a lunch break, so you
5 can chat then.

6 So, Elliott, are you still on the
7 line with us?

8 DR. MAIN: Yes, I am.

9 MS. McELVEEN: Okay. Great.

10 Our next measure we are going to
11 be reviewing is No. 31. This is the healthy
12 term newborn, is the title of this measure.
13 This is the percent of term singleton live
14 births, excluding those with diagnoses
15 originating in the fetal period, who do not
16 have significant complications during birth or
17 the nursery care.

18 I just want to also mention to the
19 group one of the attachments I sent out last
20 night was a visual diagram of this measure,
21 which may help as we discuss it.

22 Elliott, just so you know, I also

1 have it here, projecting it, so the group can
2 view it.

3 Elliott, did you want to take a
4 few minutes just to make a few comments about
5 the measure or introduce it any way? Or we
6 can just open it up for discussion.

7 DR. MAIN: Well, I would like to
8 say a few comments.

9 Thank you very much for allowing
10 me to speak from San Francisco. It is a long
11 trip back to D.C.

12 I am going to take you back to the
13 beginning to pediatric care. Instead of
14 looking at complications of sort of operations
15 or procedures, this is really a reflection of
16 both maternity, the summation, if you would,
17 of maternity care and newborn care or regular
18 nursery care.

19 A normal newborn is the most
20 important outcome for us as obstetricians. I
21 am perinatologist in the California Maternal
22 Quality Care Collaborative, which is the

1 sister organization for the Perinatal
2 Collaborative, led by Gould.

3 It actually serves as a balancing
4 measure for most of the other measures that we
5 have in the maternity realm. Ideally, you
6 would like an institution that has an average
7 or even a below-average maternity infection
8 rate and a good, healthy newborn outcome rate,
9 as opposed to a hospital that has a very high
10 C-section rate and also a low rate of healthy
11 term newborns. So, you really don't want to
12 be in the position of pushing in one direction
13 and having adverse outcomes in the other.

14 This is applicable to all
15 hospitals that do maternity care. We have
16 been working on it for over 10 years, tweaking
17 the codes, looking at ways of capturing data
18 in settings where people don't choose to code
19 diagnoses for medical legal reasons.

20 For example, a number of hospitals
21 in California have given up coding for
22 perinatal asphyxia because that is a marker

1 for plaintiff's attorney.

2 What we have learned over that
3 decade, though, is that they do code for
4 procedures because you get paid for
5 procedures. So, being on a ventilator, having
6 CT scans, et cetera, all get coded quite
7 accurately.

8 So, this measure is a mix of
9 diagnostics, diagnoses codes, procedure codes.
10 What we have had more recently as a failsafe
11 is a length-of-stay indicator.

12 To start it off, though, instead
13 of doing extensive risk adjustments, we did
14 exclusions from the denominator. The
15 denominator is chosen to reflect healthy baby
16 as the mother arrives to the hospital for
17 maternity care. So, we have excluded the
18 general anomalies, intrauterine growth
19 retardation, babies who have hemolytic disease
20 due to Rh, for example, or hydrox, or infants
21 of mothers who have drug addiction, for
22 example.

1 So, that is our starting point.
2 That actually accounts for over 3 million
3 babies in the United States. This is a very
4 high-volume measure, which is important
5 because bad outcomes in babies are still an
6 uncommon event. So, the infants that we are
7 looking at here are somewhere between 1 and 3
8 percent, is the range we see in the hospitals,
9 which makes it still a reasonable number,
10 given the maternity ward denominator.

11 The only other measurement in this
12 domain that has been approved is the AHRQ
13 measure, ES-17, for birth injury/birth trauma,
14 and a version of that was previously picked by
15 NQF to be a measure.

16 Unfortunately, that measure has
17 significant limitations. It is very low
18 incidence, about 2 to 3 per 1,000 births. It
19 is highly dependent on coding.

20 An article came out this last
21 month looking at the HCUP's experience with
22 that measure nationwide and found that 75

1 percent of all the kids that meet this
2 criteria for birth injury/birth trauma are
3 identified with two ICD-9 codes that both
4 begin with "other", other specified birth
5 injuries and other non-specified birth
6 injuries, which are very variable diagnoses.
7 That is probably the reason that that measure
8 was not picked up by the Joint Commission or
9 Leapfrog for their measure set.

10 This is really trying to fill a
11 void of a neonatal measure that would go into
12 the basket of measures to support maternity
13 care, and maternity care that includes nursery
14 care.

15 I would be glad to take any
16 questions or I will be available. Thank you.

17 CO-CHAIR HOMER: So, first, if I
18 could ask members of the Work Group if they
19 have questions. So, any questions? David?

20 MEMBER CLARKE: I would just like
21 to comment that I felt that this was the best
22 worked-out, most complete, and probably

1 easiest-to-evaluate measure that I reviewed.

2 I really don't have any thing wrong with it.

3 (Laughter.)

4 MEMBER RAO: Just a question,
5 Elliott. Could you comment on its use in
6 other environments? I understand it is being
7 used internationally in the UK and other
8 countries.

9 DR. MAIN: There is a normal birth
10 measure in the UK, but that actually is a
11 maternity measure rather than a newborn
12 measure. A normal birth there is one without
13 any interventions at all.

14 Everyone has been looking for this
15 kind of a measure for a long period of time.
16 This is the Holy Grail of what we are trying
17 to do. And it has taken a while to put
18 together the different pieces of the different
19 codes to do this.

20 One of the challenges is in past
21 measures the charts included codes from the
22 mother, codes from the baby, and that is very

1 hard to do on any kind of large scale because
2 those two charts don't intersect, don't relate
3 to each other, and no data assessment. So, we
4 had to take some extra time to focus only on
5 the codes that we could get from the newborn
6 codes.

7 So, there are flavors or
8 variations of this that have been tried
9 elsewhere. There is not one in the United
10 States that has gotten to this point.

11 CO-CHAIR HOMER: So, again, if you
12 were explaining this in words, and I know you
13 could do it either on the healthy side or on
14 the non-healthy side, but, basically, you are
15 saying this is a term infant who doesn't have
16 -- so, I am just trying to think how you are
17 explaining this to a consumer.

18 DR. MAIN: We wanted to frame it
19 specifically so it would be understandable by
20 the public. But it is the proportion of term
21 live births without a diagnosis, without a
22 complication prior to birth, who do not have

1 significant complications during the birth or
2 nursery care. In other words, this is a good
3 take-home baby.

4 CO-CHAIR HOMER: Well, I know
5 that, but I may be the only one on the
6 Committee who is having just a little trouble
7 understanding, but I am still unclear.
8 Because, again, if you are coming to the
9 hospital, actually, you don't know whether you
10 have a congenital anomaly or not.

11 DR. MAIN: In this day and age,
12 you often do with the advent of ultrasound,
13 but it is excluding diagnoses originating in
14 the fetal period, is the other way of
15 explaining it.

16 CO-CHAIR HOMER: Okay. So, you
17 are coming to the hospital. Presumably, you
18 have had an ultrasound or something like that.
19 So, you know if there is going to be a major
20 congenital anomaly. Then, you are saying you
21 know you have made it all the way to full
22 term. Then, you are saying, what's the

1 likelihood that everything is going to go okay
2 in the hospital and you will come home with a
3 healthy baby, excluding bilirubin issues and
4 excluding a few other --

5 DR. MAIN: Yes, there's a few
6 minor things like bilirubin, but things that
7 are clearly -- we also have excluded if we go
8 into details of social situations such as
9 babies being put up for foster care that may
10 have a long length of stay in the hospital,
11 babies that have drug withdrawal. Conditions
12 that originated before you enter the labor and
13 birth process, these are the ones that would
14 be excluded. Conditions that arise during or
15 after the birth process are the ones that are
16 included.

17 CO-CHAIR HOMER: Okay. Good.

18 All right. Any other questions
19 specifically on the importance? Then, we can
20 move to the others. Kathy?

21 MEMBER JENKINS: I was just
22 curious about the variation that has been

1 observed in the measure.

2 DR. MAIN: We field tested in a
3 large health system in northern California
4 with 25 maternity hospitals. We have seen
5 variations there. Of the full measure, almost
6 150 to 200 percent, a fair amount of
7 variation.

8 We have more limited detail on
9 subsets of the measure that we published in
10 the past which show actually quite large
11 variation looking at the State of California,
12 and, again, subsets of the adults where
13 there's probably three- to fourfold variation.

14 CO-CHAIR HOMER: Faye?

15 MEMBER GARY: I just wanted to ask
16 a quick question. I am not clear how you
17 would deal with low-birth-weight babies.

18 DR. MAIN: Those are not included
19 in this measure. This is 37 weeks or beyond,
20 because those, obviously, have a large number
21 of complications. You know, the mother's
22 expectations are quite different if you are

1 coming in in pre-term labor or premature.

2 We also do exclude term low-birth-
3 weight babies, which I mentioned before, those
4 with small birth weights or intrauterine
5 growth retardation. That, again, is a
6 condition that arises before the labor and
7 delivery process. So, that is a specific
8 exclusion.

9 MEMBER GARY: But you have here
10 that have not been -- these are morbidities
11 that may or may not be clearly related to
12 medical care. I was just thinking about all
13 of the conditions that might impact whether a
14 woman has a healthy baby or not, such as
15 nutrition, diet, where she lives, what kind of
16 support she has. There are just tons of data
17 that support that especially, let's say, with
18 African-American women that even healthy,
19 middle-class African-American women deliver
20 more low-birth-weight babies and have higher
21 mortality/morbidities than their Caucasian
22 counterparts.

1 So, I am not clear how these
2 measures will help us to get at disparities
3 among different groups who have had poor
4 outcomes for a very long time.

5 I was just commenting, well, Dr.
6 Zimmer just commented that, if you are poor,
7 then what happens if you need a sonogram, for
8 an example? Or what happens if you can't
9 afford your calcium and your milk, or
10 whatever?

11 I like what you have written, but
12 it seems like to me there's so many other
13 issues that revolve around what you are trying
14 to do here, and I don't see any discussion
15 about it or any acknowledgment of it.

16 So, would you just help me with my
17 confusion?

18 DR. MAIN: Okay. Of course. It
19 is very well-known that African-American
20 populations and other disadvantaged
21 populations have higher rates of pre-term
22 births and small birth weight babies. That

1 would be covered by other measures that
2 address our nationwide racially-associated
3 rate of low birth weight.

4 This is really focused on, once
5 the mother gets to term, what are the
6 complications that arise during the labor and
7 birth process, rather than the prenatal care,
8 which is a subject of a different type of
9 measure. This is, whether or not you have
10 ultrasound, if you end up with a birth defect,
11 you would be excluded from this measure.

12 So, this is really trying to set
13 up an apples-to-apples type of comparison. It
14 has been looked at in actually rural
15 hospitals, urban hospitals, and big and small,
16 that would compare really what happens in
17 labor and delivery as to the outcomes then in
18 the nursery.

19 So, this looks, for example, at --
20 the numerator, then, is full of the codes for
21 birth trauma/birth injury, including the ones,
22 actually, that were excluded from the AHRQ

1 measure, such as brachial plexus injuries and
2 clavicle fracture, the diagnosis and procedure
3 codes around hypoxia and asphyxia and
4 respiratory complications.

5 We have seen a rise in newborn
6 respiratory complications from the use of
7 elective recent C-sections at 37 and 38 weeks.
8 This is the measure that would identify those.

9 There is the partner in quality
10 improvement arm. That is one, for example.
11 The other partner in quality improvement arm
12 is the IHI safety for oxytocin, where this
13 would be the neonatal measure that would go
14 with that to identify babies that had
15 perinatal hypoxia or asphyxia related to
16 prolonged oxytocin use.

17 In terms of disparities per se,
18 though, it does not address the low-birth-
19 weight issue or any really of the prenatal
20 issues that occur in those types of
21 populations, but it is focused on how you
22 manage labor and delivery, which should be the

1 same for everyone.

2 CO-CHAIR WEISS: Elliott, this is
3 Marina Weiss.

4 I may just be reading this wrong,
5 but as I understood the measure, it was the
6 absence of conditions or procedures reflecting
7 morbidity, but you are going to the other side
8 and identifying the morbidities or the
9 procedural problems that may occur, is that
10 right?

11 DR. MAIN: It is either you get
12 the absence by identifying the presence and
13 subtracting it. It is a nice way of terming,
14 I think, for families, and that is why we
15 chose to do it that way, which is to focus on
16 a healthy baby outcome rather than an ill baby
17 outcome. The two are mirrors of each other.

18 MEMBER GARY: And the use, the
19 utility of this measure is stated in the
20 positive from your perspective? Suppose you
21 were able to say that at your institution 97.2
22 percent of the children are born healthy and

1 everything is fine, given the exclusions, and
2 so on. What have we learned?

3 DR. MAIN: Well, in comparison to
4 other measures, and alone this should be as
5 close to 100 percent as you can get. So, we
6 have worked with some focus groups on whether
7 it should be positively or negatively. People
8 are attracted to the positive nature of it.

9 When you get down to the exact
10 numbers of how it is presented, is 98
11 different than 97.5 percent? It gets a little
12 tricky.

13 As with a number of the measures
14 we've included, they end up with stars, based
15 on their quintile distribution and the
16 statistics that have been applied to them.
17 That is probably how it would be displayed in
18 a public release mode.

19 MEMBER GARY: So, would it be
20 fair --

21 DR. MAIN: It is better than
22 expected or worse than expected or average.

1 MEMBER GARY: So, would it be fair
2 to say, then, that what you are doing here is
3 attempting to think in terms of presentation
4 to the general public, but at the same time
5 you are capturing information that will be
6 relevant to clinicians who are providing care,
7 in that you are, in fact, keeping tabs on the
8 morbidities? Is that correct?

9 DR. MAIN: That is exactly
10 correct. We wanted to have something that
11 would be easy to use, and perhaps for
12 clinicians we might flip it and say, what is
13 the incidence of ill term infant outcomes,
14 which should give you, then, around 30 per
15 1,000 on average if it goes through the AHRQ
16 thing. As I said earlier, about 3 per 1,000,
17 and that allows you a lot more play in the
18 ability to statistically compare hospital to
19 hospital. It allows you to look at more
20 hospitals as well as bigger hospitals.

21 MEMBER GARY: And if you could
22 indulge me just one more minute here, and then

1 I will be quiet and let others interact with
2 you, you said in your opening description that
3 the purpose of this measure was to be a
4 neonatal measure to support maternity care.
5 Could you explain to me a little bit more --
6 maybe I am just not getting it here -- that
7 link?

8 I mean a healthy newborn is the
9 ultimate positive outcome. We all agree on
10 that. But how does that reflect on the care
11 that is given to the mom?

12 DR. MAIN: One of the major
13 concepts in maternity or elsewhere is that you
14 want to have balancing measures so that you
15 don't push too hard in one direction to the
16 detriment of another direction. And here, in
17 theory, you have two patients, the mother and
18 the baby. One of the concerns, for example,
19 with trying to reduce the various infection
20 rates is that you may end up with worse
21 babies. That is possible. Or any of the
22 other interventions that we do in obstetrics,

1 really we have our eye on what happens on the
2 fetus, and we haven't had an initiative to go
3 with that.

4 So, it is a balancing measure
5 where we do more or less things to the mother
6 that may advantage or disadvantage the baby.

7 CO-CHAIR HOMER: Nancy?

8 CO-CHAIR WEISS: I have a
9 question. Speaking about the caesarean rate,
10 we have a high incidence of caesarean. It
11 says in here that you see babies now at 38, 39
12 weeks that end up with respiratory problems
13 because of caesarean section. Okay, I
14 understand that. But according to this data,
15 if you come in and your baby gets a
16 respiratory problem, aren't they excluded?

17 DR. MAIN: No. That is one of the
18 numerators where there is both TTN and RDS and
19 all these procedures that go along with being
20 on a ventilator. A test tube, for example,
21 non-invasive ventilatory, those are also
22 included.

1 MEMBER FISHER: So, on 2a.3, all
2 of those are included?

3 DR. MAIN: Again, it is the
4 framing of whether it is healthy or, you know
5 -- so, those, if you go down to the measure
6 calculation, those are in the numerator, that
7 it excludes you from being healthy.

8 CO-CHAIR HOMER: So, basically,
9 what he is doing is he is identifying the
10 number of kids who have one of these
11 complications like TTN or respiratory disease,
12 and comes up with a number or a percent and
13 then subtracts that from 100 percent.

14 So, what is important is he comes
15 up with either half a percent or 2 percent or
16 3 percent of the population, but presents it
17 as 99.5 or 97 percent. But you still have the
18 challenges identifying that percentage, that
19 small percentage, and then it is a question of
20 marketing your presentation or what families
21 want to know as to whether you present it as
22 that 2 percent of kids have a problem or 98

1 percent of kids come out just fine.

2 Kathy?

3 MEMBER JENKINS: I just want to be
4 sure that I understand then. Everything that
5 you have basically included in the definition
6 of not a healthy newborn you believe is
7 preventable or avoidable by changes in
8 maternal care? Is that correct?

9 DR. MAIN: That is one of the
10 topics that is debated. The neonatal births
11 that we work with, the procedures, that is
12 basically an offshoot of Vermont Oxford, in
13 our group we looked at these very, very
14 carefully. One example that I said before was
15 brachial plexus injuries. You know, AHRQ
16 excludes that, though that is a major
17 morbidity for babies. It can be prevented if
18 you do a C-section. It does not mean that
19 this is malpractice though. That is why it is
20 excluded, because people thought, well, you
21 can do perfectly normal or perfectly adequate
22 obstetric care and still get brachial plexus

1 injuries.

2 From the patient's perspective,
3 though, that was an unexpected outcome, and it
4 is a significant outcome, that you don't have
5 a healthy term newborn if you have a baby with
6 brachial plexus injury. And that was the
7 philosophy that we ended up choosing to use in
8 those borderline cases, balanced by trying to
9 exclude as many diagnoses that were present in
10 fetal life before we get into the measure
11 itself by screening those from the
12 denominator.

13 CO-CHAIR HOMER: Do you have a
14 follow-up question?

15 MEMBER JENKINS: I asked that
16 question when you mentioned TTN. So, I assume
17 that there is a way that TTN can be avoided.

18 CO-CHAIR HOMER: Through a
19 C-section.

20 DR. MAIN: TTN, the most frequent
21 cause by far is C-section without labor. We
22 don't have the squeeze on the lungs, and you

1 have often a little bit of early gestation
2 involved at 37, 38 weeks as opposed to 40.
3 That has a three- to fourfold increase rate
4 just from that case alone.

5 Of course, our goal 100 percent.
6 But, no, there's no center that will get 100
7 percent from this measure. There will always
8 be something that gets through. But there is
9 big variation and big opportunities for
10 improvement here.

11 CO-CHAIR HOMER: If I could ask a
12 question, I had a question. I was a little
13 confused about your definition says that it is
14 identified term signals in infants, and yet
15 you said this would be sensitive to this issue
16 of, quote, "late pre-term" births, which is,
17 of course, the most important contribution to
18 the increase in pre-term.

19 DR. MAIN: The term is, the normal
20 is focused up the early problems at 37 to 39.
21 Actually, there is a big project we are doing
22 with the March of Dimes right now on

1 prevention of low-weight births, which we
2 think will sort of spill over into the late
3 pre-term population.

4 CO-CHAIR HOMER: So, I guess,
5 again, I agree that is a critical or the
6 critical thing to be addressing. It feels to
7 me there are more direct ways to address that,
8 like, you know, measuring the proportion of
9 infants that are born less than 38 weeks or
10 something like that. Do we have that measure
11 already? Okay.

12 Because I was going to say that
13 this seems like a rather broad brush to use to
14 attack that specific thing that should be
15 addressed. So, okay.

16 Allan?

17 MEMBER LIEBERTHAL: Yes, I have
18 two questions. One is how you deal with
19 intrapartum fever in the mother and whether
20 those are excluded or not. And the second is,
21 now that you have excluded so many of the
22 things that cause neonatal morbidity and

1 mortality, even 150 percent difference among
2 institutions, what is the effect size of that
3 difference? In other words, does 150 percent
4 really mean anything?

5 DR. MAIN: Sure. Let me do the
6 last one and then I will go back to
7 intrapartum fever.

8 We are talking the differences
9 between basically 1 percent and 3 percent or
10 a little over 1 percent or a little less than
11 3 percent of the population. So, that is
12 still a significant effect size. Yet, when we
13 get into term babies, the biggest proportion
14 of morbidity -- this is a general anomaly --
15 but there is still a fair amount of morbidity
16 of babies admitted to NICUs, which in a sense
17 this is a surrogate for, babies that go into
18 the NICU and have other morbidities that don't
19 quite get you to the NICU, but it still
20 accounts for a real number of cases.

21 The trouble with anomalies is that
22 there isn't really much we can do at this

1 point to prevent them once they occur. We are
2 all giving everybody a lot of folic acid and
3 taking that route, but prenatal diagnosis
4 doesn't actually cure your anomalies unless
5 the family should terminate. So, that is a
6 very different population, a very different
7 issue than what we are dealing with in birth
8 issues and counting managed labor and delivery
9 and its consequences for the baby.

10 In terms of fever, that is one
11 that the expert panel worked on a fair amount.
12 There is very large variation in how infants
13 are handled in all the nurseries around the
14 country, and we have most of them in
15 California, in terms of what kind of workup
16 the baby gets after the mother has had a fever
17 in labor. It goes from observation to IV
18 antibiotics.

19 It is quite interesting that there
20 is not a lot of difference in outcomes when we
21 look at those. So, we are looking at
22 encouraging mothers in labor with fever to get

1 aggressively treated in labor. That does
2 appear to prevent a lot of the neonatal
3 outcomes. So, there is the ability to affect
4 that.

5 Now what is included in our
6 numerator or in the, quote, "exclusion" set is
7 babies that actually have sepsis, not babies
8 who got antibiotics. So, that gives the
9 obstetrician the opportunity to have that
10 intervention. There will be some of the cases
11 where IV antibiotics with the mother actually
12 is significantly reducing sepsis rate in
13 infants.

14 CO-CHAIR HOMER: Tom?

15 MEMBER McINERNEY: I think if this
16 really becomes widespread, that it may be one
17 of the first things, if not the only thing,
18 that would reverse the trend in increased
19 caesarean section rates.

20 I don't know, do you anticipate
21 that or have you actually seen any evidence of
22 that since you have been using it?

1 DR. MAIN: Yes, that is one of my
2 directions; I will have to put that out.
3 Actually, what you would like to have is a
4 good rate of good babies and a reasonable rate
5 of C-sections. Right now, we have C-section
6 rates that range from 15 percent to 50 percent
7 in hospitals in California. There is not much
8 variation in there, and everybody wants to
9 have good babies. You don't get that much
10 additional benefit, if any, on the baby's side
11 for those kinds of variations in C-sections.

12 You may have been following in
13 Sutter Health, which is, again, 25 hospitals
14 in northern California, some variations of
15 this. That includes Apgar scores, for
16 example, 500 Apgar scores. That has elevated
17 our C-section rate quite significantly. So,
18 we are way below the State average and the
19 national average. It still has increased. I
20 can't say it is flat, and even though the
21 quality effort is there, but it is much below
22 the national and State rate.

1 I think you want to have data like
2 this to really show what your outcomes for
3 your babies are in your term babies. They
4 have focused a lot in outcomes on prematures
5 and survival rates for under 15000-gram kids,
6 and so forth, but we haven't really had much
7 attention looking at term babies, which this
8 will fill the gap for.

9 CO-CHAIR HOMER: Can I just ask
10 what the drivers are of these rates? I mean,
11 do you have -- no, not the C-section rates,
12 but this performance measure. You know,
13 again, you have got lots of different codes
14 that can get in there, but I am trying to see,
15 basically, is it the TTN for the 37- to 38-
16 weekers that is driving 80 percent of the
17 variance here or is it everything together?

18 DR. MAIN: When you look at
19 composite measures, you always have to look at
20 which component has the biggest frequency
21 within. I mean which drives the code.
22 Respiratory is the main one. Birth hypoxia

1 and asphyxia is probably second or third in
2 there. First would be respiratory. The
3 second would be infections. The third would
4 be hypoxia/asphyxia.

5 For more hospitals, it is
6 transferred for care, you know, where you
7 have to transfer the baby out to another
8 facility. That is Part B on this schema.
9 That is a major dissatisfier, a major negative
10 for families to be put in that position where
11 they are separated from their baby.

12 CO-CHAIR WEISS: Let me just
13 observe that that is very interesting in that
14 it correlates perfectly with the top
15 expenditure codes in the Medicaid program. I
16 mean there are four or five different
17 categories in which expenditures for these
18 kids fall that are pretty high, highest in the
19 respiratory distress arena.

20 CO-CHAIR HOMER: Nancy, I think
21 you had a question?

22 MEMBER FISHER: I had a comment.

1 I think you asked about -- I don't know about
2 since this measure has been out there, but
3 there are several studies across the United
4 States with people in hospitals reducing the
5 C-section rate. Especially I can think of
6 one; it was in Akron, Ohio, and they talk
7 about reducing the C-section rate by making
8 sure that you have a protocol for induction
9 and that the people buy into it and stuff like
10 that.

11 In Washington, we are also working
12 on that, but we are just taking that measure,
13 not something this big. I was wondering the
14 advantage over this because I believe Leapfrog
15 is now going to start collecting information,
16 too, on -- what do you call it? -- C-section
17 rates and in what we call late-term babies,
18 38, 39 weeks. I mean late C-section is what
19 they call it.

20 DR. MAIN: Yes, the risk adjuster
21 in the low-risk term C-section rate is
22 actually a measure from our institution. It

1 is an NQF measure. It is now a Joint
2 Commission measure.

3 If we use that and implement it
4 around both in systems and in states, the
5 obstetric pushback is, what about the baby?
6 You know, we may be high for C-sections, but
7 we want to make sure we have good babies at
8 the end. That is one of the drivers, to have
9 this as a balancing issue.

10 I think the effective measure that
11 you mentioned helped the elective delivery
12 prior to 39 weeks measure, a little bit by
13 C-section induction. It is a very important
14 measure and it will change some of the
15 practice. That is just measuring the
16 frequency of births at that time period. That
17 is going to be a very important measure, as I
18 have said. This will allow us to say that
19 this is actually includes outcomes for the
20 babies at the same time.

21 MEMBER FISHER: I was saying, yes,
22 we have the measure. What I am saying is that

1 we are doing something about the number of
2 C-sections. So, it is the same thing. We
3 have got a couple of hospitals that have a 50
4 percent rate for C-section. They are small
5 hospitals. The average rate in Washington is
6 33 percent. We know that, and we know we need
7 to reduce it.

8 So, we have five pilot projects
9 going about looking at babies born at 38, 37
10 weeks, and we do things about induction. So,
11 we have the numbers. We are implementing
12 something.

13 I guess what I am saying is, why
14 is this measure better than what is being
15 measured out already?

16 MEMBER PARTRIDGE: I don't want to
17 respond for Elliott, but I served on the
18 Perinatal Steering Committee, and we debated
19 the C-section rate measure endlessly.

20 (Laughter.)

21 I think that we need both. The
22 C-section rate tells you you've got a rate

1 that seems way out of line. As I understand
2 it, what Elliott is trying to say is people
3 advance in support of a high C-section the
4 danger of an unfortunate outcome for the baby.
5 This measure is designed to give you some
6 sense of, I think as Elliott said earlier on,
7 if you lower the C-section rate, your rate of
8 bad babies is going to go up.

9 Am I sort of right?

10 DR. MAIN: That is, well, there is
11 a legal risk, there's all kinds of risks out
12 there in terms of babies, but the reality is
13 that the C-section rate has gone up, but the
14 outcomes for babies has not changed. It has
15 not improved with the higher C-section rate.
16 But we don't have a measure to really show
17 that.

18 So, it is a complementary measure
19 that allows you to put it in the place of
20 projects on C-sections and have it be the
21 safety measure that shows that you are not
22 being harmed. In fact, you may be actually

1 improving neonatal care by having a more
2 moderate C-section rate.

3 CO-CHAIR HOMER: And this measure
4 doesn't weight different complications
5 differently, which is fine.

6 DR. MAIN: No, no, we decided not
7 to do that. That is inherently objective one
8 way or the other.

9 CO-CHAIR HOMER: Yes, I am not
10 arguing with that. I am just thinking of the
11 countervailing argument. When you reduce
12 C-section rates and reduce with them,
13 presumably, the respiratory complications,
14 there may or may not be, but probably there
15 won't be, there may or may not be some small
16 increase in some other kinds of complications,
17 which was the rationale for the C-section in
18 the first place.

19 I think we have actually had a
20 great conversation about this. I would
21 suggest we could probably move on to voting,
22 unless there are compelling questions. I

1 don't see any.

2 So, I would say the first
3 threshold question is whether this is
4 important enough for us to proceed.

5 So, why don't we have all those
6 who believe this is sufficiently important to
7 proceed, show of hands?

8 DR. WINKLER: Fourteen. That's
9 all we've got now.

10 CO-CHAIR HOMER: Okay. Good.
11 Great.

12 So, then, let's move on to the
13 discussion of scientific acceptability. We
14 have had a fair amount of conversation about
15 this, but I don't know, Elliott, if you have
16 any comments or there are questions from any
17 of the members about validity, reliability of
18 this measure and the various other elements of
19 scientific acceptability. Or do we feel that
20 it has adequately been addressed?

21 Some people do need lunch. Okay,
22 but we are not quite there yet.

1 Okay. Any questions about
2 scientific acceptability of the measure?

3 (No response.)

4 People feel good about it.

5 Okay. So, those who feel it
6 completely meets the criteria for scientific
7 acceptability show of hands.

8 And partially meets?

9 Good. Okay, that has got
10 everyone.

11 Next is the area of usability.
12 And again, you have said you have done a fair
13 amount of focus group work with this and
14 efforts to communicate it.

15 DR. MAIN: And also, if it is
16 straightforward administrative data, that
17 would probably be nice. So, that is the gun
18 I am under in California, is that it has to
19 be, new quality measures need to be using
20 administrative data as much as possible.

21 CO-CHAIR HOMER: And can you
22 describe any use in your Collaborative or at

1 Sutter or Kaiser or any of the other places in
2 terms of how providers have experienced this
3 measure and how it has contributed or not
4 contributed to quality improvement activities,
5 et cetera?

6 DR. MAIN: We used earlier
7 versions of this extensively in Sutter Health
8 as the parallel to our C-section quality
9 improvement effort and our oxytocin quality
10 improvement effort. We are starting the
11 elective delivery for 39 weeks, and we will
12 probably go with that, but it has been both a
13 source of reassurance and, you know, it
14 changes the focus of this to say, okay, what
15 could we do to optimize the baby outcomes that
16 is appropriate? So, it has been the patient
17 measure that goes along with the other quality
18 improvement measure.

19 CO-CHAIR HOMER: And is there any
20 evidence of improvability? That is, I know
21 there is variability across sites. Have you
22 seen within single sites any trend data on

1 that?

2 DR. MAIN: We have seen trend data
3 both for the components of respiratory and
4 infection. We have been pretty good on
5 hypoxia and asphyxia, the biggest categories.
6 That is a third the big three categories. So,
7 we haven't seen as much there.

8 But there are places around that
9 have higher rates. We don't have quality
10 improvement efforts that are just for show.
11 We have improvements for the respiratory
12 complications, for infection. So, there is
13 opportunity.

14 CO-CHAIR HOMER: All right. So,
15 in terms of usability criteria, those who feel
16 it completely meets the usability criteria?

17 DR. WINKLER: Eight.

18 CO-CHAIR HOMER: And partially
19 meets?

20 DR. WINKLER: Six.

21 CO-CHAIR HOMER: All right. So,
22 that's got everyone. Good.

1 And then, feasibility, which is
2 the one that does specifically get at the
3 issue of availability of administrative data
4 and ability to collect and generate reports,
5 and all that sort of stuff.

6 So, how many feel it completely
7 meets the criteria for feasibility?

8 DR. WINKLER: That's everybody.

9 CO-CHAIR HOMER: Okay. Good.

10 All right. So, I will call for a
11 measure to recommend endorsement of the
12 measure. This one would not be conditional or
13 time-limited. This would be endorsement of
14 the measure to go forward as a regular measure
15 within the NQF.

16 So, all in favor of recommending
17 endorsement?

18 DR. WINKLER: Fourteen.

19 CO-CHAIR HOMER: All right.

20 Congratulations. This is good.

21 DR. MAIN: Thank you.

22 CO-CHAIR HOMER: We've got two

1 more measures, guys.

2 (Laughter.)

3 DR. WINKLER: Thank you, Elliott,
4 very much.

5 DR. MAIN: Thank you very much.

6 CO-CHAIR HOMER: Thank you.

7 MS. McELVEEN: Okay. We are going
8 to move on to our next measure. It is Measure
9 48. I hope we still have folks from AMA PCPI
10 on the phone, who have been waiting for this
11 measure.

12 MS. FEI: Hi. This is Kerri Fei,
13 staff from the AMA PCPI, and we also have Dr.
14 Barbara Fivush, who is our Co-Chair.

15 MS. McELVEEN: Okay. So, again,
16 this is Measure 48. The title is plan of care
17 for hemodialysis. This is the percentage of
18 calendar months during the 12-month reporting
19 period in which patients age 17 years and
20 younger with a diagnosis of ESRD receiving
21 hemodialysis have a single-pool Kt/V greater
22 than -- yes, okay -- or have a single-pool

1 with a documented plan of care for inadequate
2 hemodialysis.

3 So, I will allow you guys to kind
4 of explain that. Sorry, I butchered the
5 description a little bit.

6 (Laughter.)

7 MS. FEI: Oh, no, you did fine.
8 Did you want me to give a little, brief
9 description or --

10 MS. McELVEEN: Sure, that would be
11 fine.

12 MS. FEI: Okay. So, we developed
13 this measure I think about two years ago,
14 after we had developed the same measure for
15 the adult population, which was actually
16 developed prior to this one, wanting to have
17 the same measure for the pediatric population
18 as well.

19 So, really, there's really not
20 much difference between this one, and the RB
21 panel did endorse the adult measure, which is
22 actually, we just gave testing results for.

1 I think we will be going to the CPAC sometime
2 next month for potential full endorsement.

3 We did provide the testing results
4 from the adult measure. We have not had the
5 uptake for the pediatric measure as of yet.

6 So, really, Dr. Fivush, was there
7 anything else you would like to add?

8 DR. FIVUSH: Yes, just because
9 this is a highly-specialized field within a
10 field, so we are really talking about a small
11 population of patients. Probably in our
12 country maybe 800 pediatric patients maintain
13 on chronic hemodialysis, but it is a very
14 vulnerable population in that it has a fairly
15 high mortality rate, which we are trying to
16 address in other ways.

17 But there is a gap in care here,
18 in that we think about 12 percent of patients
19 in previous datasets have not met what we
20 think is adequate dialysis. That is measured
21 by a Kt/V which looks at the way urea moves,
22 to simplify it.

1 So, we have good evidence that a
2 Kt/V of 1.2 is a dialysis prescription that is
3 adequate, and it is a really minimal
4 prescription. We have linked a low Kt/V to
5 poor outcomes. We have a high mortality rate,
6 and we think this is an easy-to-capture
7 measure.

8 It is reported on a monthly basis,
9 physicians have coverage. Doctors can easily
10 get to this number, and we will be able to
11 closely monitor how patients are getting
12 dialysis in the country that are pediatric.
13 Hopefully, we will be able to use this data
14 long-term to really link it to more long-term
15 outcomes. This is an intermediate outcome.

16 The measure is both a process and
17 an outcomes measure in that we are looking at
18 a standard of 1.2, but we are, additionally,
19 looking at a thought process that, if you do
20 not dialyze this patient well enough, what
21 would you do to change that? So, we think it
22 is a good combination measure that is going to

1 give us important information in a vulnerable
2 population that has a high mortality rate that
3 we think is easy to capture.

4 CO-CHAIR HOMER: This is Charlie
5 Homer.

6 Could you explain again why it is
7 an outcome measure rather than a process
8 measure?

9 DR. FIVUSH: Kerri may want to
10 help me.

11 It is an outcomes measure. It is
12 single-pool for a Kt/V of greater than 1.2.
13 So, we aren't looking at an outcome
14 specifically, but we are looking at this as
15 long-term.

16 Do you want to clarify that?

17 MS. FEI: Sure. The measure
18 actually is a combined process and outcome
19 measure. So, when the measure results get
20 reported out, you are going to know your
21 patients meet the outcome, and for the
22 patients who don't meet the outcome, that they

1 have a documented plan of care.

2 So, the users of the measure would
3 get all pieces of the measure reported back to
4 them. They would have patients with a single-
5 pool Kt/V greater than or equal to 1.2,
6 patients who have Kt/V less than 1.2 with a
7 documented plan of care, and have patients
8 with a single-pool Kt/V less than 1.2 who
9 don't have a documented plan of care, which
10 would be your measure failure.

11 CO-CHAIR HOMER: Could you explain
12 Kt? I mean it has been a long time since I
13 did dialysis or nephrology. Just in laymen's
14 terms, what Kt/V is?

15 MS. FEI: It is urea kinetic
16 modeling. As I briefly alluded to before, it
17 is really the movement of urea and how long
18 you are clearing it from the body over the
19 course of the dialysis procedure. We use that
20 as a measure of adequacy, with the idea that
21 if we are moving urea, we are moving any
22 pools, you know, through the process of

1 dialysis, and then if we are dilating someone
2 well, the movement of urea going through
3 results in a higher urea kinetic modeling. It
4 is going to result in a higher Kt/V than if we
5 do not.

6 So, higher would mean more
7 dialysis, either longer dialysis, a different
8 cartridge, higher blood flow, but it would
9 indicate with the Kt/V, the higher the number,
10 the more dialysis a patient is receiving by
11 measuring the way urea moves.

12 CO-CHAIR HOMER: Kathy?

13 MEMBER JENKINS: So, can you help
14 us understand why a patient would not have an
15 adequate Kt/V and why the measure wouldn't
16 just be having an adequate Kt/V as opposed to
17 if you didn't have the plan?

18 DR. FIVUSH: I think I don't feel
19 that it would be simple to just dial up the
20 dialysis or to make everybody have a Kt/V
21 greater than 1.2. It is hard for me to speak
22 to specifically why people wouldn't try to do

1 that, and my assumption is they would.

2 But there are patient
3 characteristics and catheter characteristics
4 that lead to the inability to dilate the
5 patient adequately. For example, in a
6 pediatrics population, one of the things we do
7 think is a problem is that most of our
8 patients we chronically dilate have external
9 catheters as opposed to internal fistulas or
10 grafts, and so they have a higher risk of
11 infection, will try to move in that direction.

12 But if you have a catheter, they
13 may not get the best blood flow. There may be
14 recirculation of blood within that catheter,
15 and you may not be able to adequately dialyze
16 this patient. So, there are some factors, and
17 then there are some patient factors about
18 their ability to tolerate how we dialyze them.
19 If we are dialyzing them three times a week
20 and trying low fluid, we may be unsuccessful;
21 they may get hypotensive during the procedure.
22 We may not be able to do what we would like to

1 prescribe.

2 So, maybe that patient would have
3 a Kt/V on a single session of less than 1.2,
4 but the nephrologist would be bringing them in
5 for a fourth treatment a week. And another
6 plan of care might be to change the access in
7 the patient. Another care plan might be to
8 try to change blood flow by changing the way
9 you actually expose the patient to sodium.

10 So, although it sounds that it
11 would be easy, in this many patients we can't
12 always get the blood flow rates we want. We
13 have recirculation. We have patients'
14 vulnerability. They can't tolerate how long
15 we want to dialyze them for.

16 So, sometimes, to get to that 1.2,
17 we have to be creative. We have to put
18 thought into, and we may have to change an
19 access. We may have to work with the family
20 and our surgeons to move towards a better
21 access. We may have to do dialysis more often
22 or differently.

1 And it actually is allowed in our
2 care plan to say, well, you know, we are going
3 to change this. We are going to change the
4 rate of flow. We are going to consider more
5 frequent dialysis. We are going to change to
6 a different dialysis. We are going to change
7 our modality.

8 It just gives us the ability to
9 address the fact that, although it sounds very
10 easy -- I would just use the example of when
11 we talk about target hemoglobins, and we say
12 they should be 10 in our patients, that we can
13 give them a lot of erythropoietin-simulating
14 agents. And many times, we can't reach that
15 10 anyway.

16 So, there are just patient
17 variables that prevent that from always
18 getting to be adequate, to what we think is
19 needed. The care plan will let us look to
20 make sure that physicians are addressing the
21 adequate Kt/V.

22 MEMBER RAO: I just wanted to echo

1 what Kathy's concern is. I think with only
2 800 children going through hemodialysis, I am
3 concerned that the numerator, the number of
4 patients who don't have a documented plan, is
5 going to be very, very small.

6 What constitutes a documented
7 plan? It sounds like it would be complete
8 lack of recognition that the Kt/V was less
9 than 1.2. I mean, if somebody wrote down,
10 well, increase frequency of dialysis, would
11 that be adequate?

12 If the standard of 1.2 is so well
13 accepted, it is hard to imagine too many
14 physicians not documenting something to that
15 effect.

16 DR. FIVUSH: I think until we look
17 at this -- I mean we have looked at Kt/V
18 through the KTM dataset. We have been
19 fortunate that the government -- because
20 overall the pediatric part of the this is not
21 in Medicare; the adult part is. So, we have
22 had scrutiny for a long time in data

1 collection, for a long time, and we know there
2 is a gap in care, you know, in terms of Kt/V.
3 I am not sure we know why yet. This measure
4 will allow us to better understand practice
5 around it.

6 MEMBER RAO: Right, and I
7 understand there is a gap in Kt/V. It is the
8 documentation of plans that I am not sure
9 there would be such a big gap for.

10 MEMBER DOCHERTY: I was wondering
11 what the evidence was of the relationship
12 between documented plan of care and better
13 outcomes for these patients.

14 DR. FIVUSH: Well, you know, as I
15 said, in the United States we have a very,
16 very high mortality rate in the first six
17 months of patients placed on hemodialysis. It
18 is about 22 percent. It is very high, and it
19 is high in pediatrics as well, and going up,
20 but probably not that high.

21 We have never really been able to
22 capture the data looking at individual

1 physician practice patterns. We have looked
2 at it in the CPM. It has been looked at more
3 as -- it is not being broken down regionally
4 because the cells are too small. But I think
5 it is important, you know, to really improve
6 care, to start looking at this as a physician
7 measure to see if there are practice patterns
8 that can change, because, clearly, there seems
9 to be in the literature the suggestion -- we
10 know we are looking at intermediate outcomes
11 in our patients. I mean a payment of a
12 dialysis prescription is an intermediate
13 outcome; it is not a true outcome.

14 But there is in the data evidence
15 to suggest that needing the intermediate
16 outcomes results in fatality and
17 hospitalization. So, it is a complex, it will
18 be a complex analysis because there are other
19 intermediate outcomes that we have to do as
20 well.

21 You know, I mentioned hemoglobin
22 before, but there are nutritional outcomes.

1 There are a lot of intermediate outcomes we
2 have to meet, but this is one that we thought
3 we could target, start educating physicians.
4 That will be important for this measure and
5 its linkage to mortality, and additionally, to
6 start having them submit their care plans
7 because I think that is critical to start
8 thinking about how people are addressing it.

9 MEMBER DOCHERTY: I think that is
10 just the piece that I am having a hard time
11 understanding, not the physiologic outcome,
12 but that a documented plan of care will lead
13 to that physiologic outcome.

14 DR. FIVUSH: Sometimes I guess I
15 think if a physician, because we get licensed
16 in the State of Maryland, certified for a
17 dialysis unit on a yearly basis here, we have
18 to write care plans. Most states do not have
19 yearly licensing of dialysis facilities as we
20 do. So, they may not be licensed or certified
21 for seven to ten years.

22 But we write down a care plan for

1 every patient that doesn't meet standard
2 targets here. And actually, I have found it
3 has -- and we have looked at our numbers over
4 time -- it has driven quality improvement.
5 Because if you continue to report that you
6 have 2 percent of your Kt/V's less than 1.2,
7 or 5 percent, you have to justify each six
8 months what you are doing. It has really
9 started to -- not just dialing it up in
10 dialysis; it is really pushing our unit toward
11 start using in-dwelling lines, to move away
12 from external catheters, which is critically
13 important.

14 So, I think, looking at your
15 numbers and reporting them, and looking at
16 your inadequacy in dialysis, and documenting
17 what you are doing about it, is going to be
18 very important for driving improvement.

19 CO-CHAIR HOMER: Kathy?

20 MEMBER JENKINS: I am sure that
21 that is correct. I guess the question I still
22 have is, first of all, there's general issues

1 about composite outcomes, but this is even
2 more complicated because it is a composite
3 outcome and a process outcome at the same
4 time.

5 So, just to state it in the
6 extreme, if there was one site that met the
7 outcome by having all the patients meet the
8 physiological outcome, and another center who
9 met the outcome by having none of the patients
10 meet the physiological outcome, but have all
11 of them have a documented plan, I do not
12 consider those two to be equivalent.

13 So, it almost feels to me like you
14 are trying to have all the sites like look
15 fine or be able to achieve 100 percent, and I
16 think it is the variation, and then, to your
17 point, you know, the steps they take to
18 achieve the 100 percent on the physiological
19 outcome which is actually the relevant
20 outcome.

21 And if there are intractable
22 patient factors that make it much harder to do

1 that, then that becomes a need for risk
2 adjustment for the outcome variable, as
3 opposed to adding in the process, at least the
4 way I am hearing this.

5 DR. FIVUSH: I think one of the
6 things that we can do, and we are moving
7 towards, when we have those types of patients,
8 it is to move to more frequent dialysis, which
9 is a move across the country. And again, I
10 think we will, you're right, the way they
11 state it clearly suggests that those outcomes
12 would be equal, but I think those outcomes are
13 not equal, and I agree they are not equal.
14 But the way they will be reporting back to the
15 physicians will include which of their
16 patients had what adequacies and how many were
17 over 1.2, but how many weren't over 1.2 and
18 had a care plan.

19 I think, clearly, having a care
20 plan and not having an adequate dialysis means
21 that that is something that needs to change
22 over time. You have to figure out a way to

1 have adequate dialysis. You can't just report
2 that you are trying. So, I think it is going
3 to be very valuable because it is reported
4 back to people, because they are going to see
5 those numbers and that detail.

6 If we just left it at greater than
7 1.2, I think as just an outcomes measure, I
8 think we wouldn't be giving an opportunity for
9 the kind of improvement we are hoping to see.
10 Because in many patients it is going to be
11 difficult to get to 1.2 because of the factors
12 we have discussed.

13 I think, again, when we started
14 the conversation, if it were easy to achieve
15 a 1.2 in everybody, I don't think we would
16 have a gap of 12 percent. So, I would agree
17 with your point that it is very important, but
18 it clearly is not the same to have 10 patients
19 who have met your Kt/V of 1.2 and another unit
20 has 10 patients who have not met any adequacy
21 measures but have a plan. Those would be very
22 different outcomes.

1 CO-CHAIR HOMER: Helen?

2 DR. BURSTIN: This is Helen
3 Burstin. I just want to weigh-in.

4 Having lived through the first
5 round of ESRD measures in 2007, this is
6 essentially -- just correct me if I am wrong
7 -- the same measure with a different level.
8 It was 1.7 for adults; it is 1.2 here. Yes?

9 MS. FEI: It is the past
10 hemodialysis measure that is 1.7. The adult
11 hemodialysis measure is also 1.2.

12 DR. FIVUSH: Right. So, we are
13 really aligned with that adult measure.

14 MS. FEI: And with this measure,
15 you can have a rate report out of patients
16 between 1.2 and 1.7. That is done through the
17 administrative coding for the adult measure as
18 well.

19 DR. BURSTIN: All right. I guess
20 my question was trying to understand, is there
21 any reason you couldn't potentially take the
22 initial measure that is already endorsed and

1 just extend the age down to children?

2 MS. FEI: Actually, we did talk
3 about that. However, the plan-of-care
4 definition for the pediatric measure is just
5 a little bit different than --

6 DR. BURSTIN: You could stratify
7 the measure and have that information in
8 there. It just doesn't necessarily seem like,
9 you know, if it is really very, very similar,
10 do we really need another measure in this
11 case?

12 My second point was just that,
13 when we went through this the first time, we
14 had a lot of discussion about this exact issue
15 that you are grappling with today of adequacy
16 of dialysis and plan of care. One of the
17 requirements that came out of that process was
18 that the expectation was the measure would
19 reported with two rates, so that you would be
20 able to see the adequacy of dialysis and,
21 then, you would be able to see, if not
22 adequacy of dialysis, is there a plan of care?

1 I just want to be sure that that
2 -- I mean, certainly, we would hope to be
3 internally consistent as best as we can at
4 NQF. So, that would certainly be the
5 expectation for this one as well. I just want
6 to make sure that that's your understanding as
7 well.

8 MS. FEI: Yes, and that is how we
9 have it set up.

10 CO-CHAIR HOMER: Okay. So, it
11 really is, in essence, two measures under one,
12 or at least reported as two linked, paired
13 measures in some sense.

14 And again, is there an assessment
15 of the adequacy of the plan or it is simply
16 they have a plan? Now how does that work?

17 DR. FIVUSH: I think we put down
18 in our description there are various plans
19 that we would consider acceptable, and we
20 listed examples of plans that we would say
21 were acceptable plans.

22 I think the level at this point

1 would reveal that there was a plan. This is
2 a little different than the adult language in
3 what is an acceptable plan.

4 CO-CHAIR HOMER: I am trying to be
5 a little consistent with some of our earlier
6 conversations when we gave another group a
7 very hard time about the categorization of
8 preventability or not, and things like that.

9 So, is the idea here that all the
10 plans would come to a single place? It would
11 make a judgment based on criteria as to
12 whether a plan is adequate or not? And again,
13 I may have missed it in the specifications.
14 So, how will you be judging the adequacy of
15 the plan?

16 MS. FEI: I don't think through
17 the use of the measure we would be able to
18 just have the adequacy of the plan.

19 CO-CHAIR HOMER: Okay.

20 MS. FEI: It would be that there
21 is a plan of care in place.

22 CO-CHAIR HOMER: Okay. So, any --

1 MS. FEI: In the definition, we
2 have a definition of what the documented plan
3 of care may include.

4 CO-CHAIR HOMER: It may include
5 any of those things, and if it doesn't include
6 any of those things, but says, you know, I
7 don't know, "I will see them back more
8 frequently" or "I will call the mother to make
9 sure he is doing okay," or something like
10 that, or less frequently? I mean, you know,
11 in asthma we talk about the importance of a
12 written care plan. So, maybe that is kind of
13 similar to what we are talking about here.
14 But, to be honest, there is also at least a
15 little bit of evidence in that case that --

16 MEMBER DOCHERTY: So, is it just a
17 dichotomous variable? Either it is there or
18 not?

19 Then, along with that, I was just
20 wondering about your Kappa statistic. Then,
21 it looked like it ranged from 42 percent all
22 the way to 93 percent. I guess it appears,

1 then, that there might be some differences in
2 definition of whether there is an adequate
3 plan of care.

4 MS. FEI: There is a lot of static
5 on the line. So, I am not sure --

6 CO-CHAIR HOMER: The question
7 really was what the reliability of the
8 assessment -- there was a Kappa statistic that
9 was presented that has a pretty low bottom
10 number of .4, you said, a pretty wide range,
11 and didn't know --

12 MS. FEI: Right, and the Kappa is
13 from the testing of the adult measure.

14 CO-CHAIR HOMER: Okay.

15 MS. FEI: And really, through that
16 experience, what they found was that at
17 different sites the manner in which the plan
18 of care was documented was different, found at
19 different places or not present at all. Or it
20 was either in the physician's office or at the
21 dialysis facility, depending upon where the
22 physician was seeing the patient.

1 CO-CHAIR HOMER: So, Ellen, you
2 had a question?

3 MEMBER SCHWALENSTOCKER: Yes. It
4 just relates to the plan-of-care
5 specification. I am drawing a parallel, as
6 you did, Charlie, to the children's asthma
7 care measures, which actually has components
8 of what should be in the plan of care.

9 That has problems of its own, but
10 I am wondering if you have looked at that, and
11 if it would be possible to get a little bit
12 more specific around what must be in the plan
13 of care in order for it to be adequate.

14 DR. FIVUSH: There's a difference
15 between what a documented plan of care may
16 include and what a documented plan of care
17 should include.

18 I think, looking at our plan of
19 care, I mean our measure, I know that the
20 reason we didn't say "should" is because, for
21 example, one of the things that could be in a
22 documented plan of care would be increasing

1 the blood flow or increasing the dial at the
2 site. That is not possible for some patients.
3 They may not tolerate that. So, if we say
4 "should" -- we can't say "should" because the
5 same "should", if the patient is big enough,
6 it should, but we can't say that in a patient
7 who is hyposensitive because that would make
8 the patient sick.

9 That is one of the problems we had
10 in creating the measure. You know, certainly
11 we should say it should include documenting
12 revisional renal function because that is
13 easy. But many of the things we can't say
14 that is the way to fix it. We can't say, for
15 example, changing the access because it is
16 possible that that patient isn't a surgical
17 candidate for better access.

18 So, I think there are things that
19 should be in a plan of care, but I don't think
20 we could standardly say they must have this in
21 a plan of care because it wouldn't allow for
22 any patient variability. Do you know what I

1 mean? The patient per se couldn't have a
2 better access because they had sort of used
3 all their blood vessels. The patient couldn't
4 tolerate a higher blood flow. Those are
5 really very real scenarios.

6 MEMBER RAO: Once again, in the
7 interest of simplicity, and I know you have
8 addressed this, if you just switched to a
9 simple Kt/V measure up and down, is there any
10 reason to think that some of those other
11 factors, children with poor access, are
12 distributed any differently across the country
13 among those 800 patients? I mean you are
14 going to get those people everywhere. So, as
15 a quality measure, wouldn't it be simpler just
16 to switch to the 1.2?

17 MS. FEI: The other thing that we
18 don't know precisely is this is a pediatric
19 measure we talked about, but we are not sure
20 how many pediatric patients are dialyzed as
21 adult. We know that we can tell something
22 about provider types, but in a study that we

1 did several years ago trying to figure out how
2 pediatric patients were dialyzed and where, we
3 think that at least one-third of children
4 under the age of 17 were dialyzed chronically
5 or dialyzed by an internal medicine
6 nephrologist.

7 So, we are not sure, as we go
8 forward, if practices are different
9 regionally, if they are different, say, in
10 provider type, if they are different based on
11 care as in a pediatric unit versus an adult
12 unit. I think we will find out some of that
13 information when we start looking at a
14 physician-level measure that we don't have
15 right now.

16 CO-CHAIR HOMER: Kathy?

17 MEMBER JENKINS: Can I just ask if
18 most of the issues of essentially patient
19 factors that make it impossible to achieve the
20 goal, is that only in the little babies? I
21 mean, is there a way that you could perhaps
22 not go down all the way to zero here and get

1 rid of some of the challenges? Or else, I
2 guess alternatively, create an age
3 stratification or a risk adjustment by age or
4 size?

5 DR. FIVUSH: Well, you know, one
6 of the things about this, we just haven't got
7 the simplicity. It is not a large population.
8 When you try to take out or look at the small
9 children, you end up going into more and more
10 subgroups and losing your ability to look at
11 children, although, clearly, the babies, the
12 infants, they are different than the
13 adolescents.

14 But I think that even knowing that
15 it is harder in an infant, it is probably more
16 important for the younger children to have the
17 dialysis, if we were to say, where is it more
18 important, because of issues in growth and
19 development.

20 So, I really don't want to take
21 out the infants, even though there aren't
22 many, and say, okay, we're not going to look

1 at how you dialyze babies. Because if people
2 are doing dialysis in young children, they
3 need to be very aware of their adequacy.

4 I agree it is hard. As in all
5 pediatrics, we are dealing with different
6 patient issues as children grow. And
7 certainly, there is an impact on growth in
8 terms of if we can use blood flows. But I
9 still think we need to look at the young
10 children because they probably are the most
11 vulnerable patients.

12 CO-CHAIR HOMER: The last comment
13 and then I think we could probably move
14 towards voting. Faye?

15 MEMBER GARY: I just wanted,
16 before I vote, to clarify that there will be
17 some determination about where the care takes
18 place, and thinking about university centers
19 and where they are all, let's say, intensive
20 research-oriented university center versus,
21 let's say, private facilities that might be in
22 rural areas, for an example.

1 DR. FIVUSH: I think, certainly,
2 because this is a physician measure, I will be
3 able to find out who is providing care for
4 these patients. I don't know that we will be
5 able to tease it out at this level yet.

6 Kerri, you can help be with that.

7 This will probably also go in, we
8 are hoping, as the facility-level measure, as
9 part of the clinical performance measures, but
10 they don't have physician-level measures
11 throughout. So, hopefully, if we can get
12 these measures in place, we will be able to
13 address that very important question: who is
14 the primary provider? Is it an internal
15 medicine, a pediatrician? That may really
16 have no difference; we don't know.

17 And where is that care being
18 provided? In a hospital unit? In a
19 freestanding pediatric unit? In an adult unit
20 that takes care of children? In a private
21 practice facility? I think those are very
22 important questions.

1 CO-CHAIR HOMER: All right. So, I
2 would suggest -- this has been very helpful --
3 that we move towards voting on the measure.

4 MEMBER LIEBERTHAL: Have we
5 decided whether this is, indeed, an outcome
6 measure or a process measure?

7 CO-CHAIR HOMER: I think my sense
8 is it is a combination, that the Kt/V is an
9 outcome measure, but it is a paired measure,
10 both outcome and process.

11 MEMBER LIEBERTHAL: So, it meets
12 our scope?

13 CO-CHAIR HOMER: I think it would
14 fit within our outcomes scope.

15 DR. BURSTIN: We have basically
16 been saying any composite measure that
17 included outcomes was in. So, I assume a
18 paired measure that included an outcome would
19 be within scope, too.

20 CO-CHAIR HOMER: Okay. So, voting
21 on the importance of the measure. Remind me
22 the criteria for importance? Okay. So,

1 clearly, in terms of relation to outcome, it
2 seems strong. For the Kt/V, it is challenging
3 because we've got one where I think we have a
4 lot of confidence in the relationship between
5 the intermediate and long-term outcomes.

6 But, okay, without more
7 editorializing, let's vote.

8 All those who believe it meets the
9 importance criteria?

10 DR. WINKLER: Eleven, 12.

11 CO-CHAIR HOMER: Okay. Those who
12 believe it does not meet the importance
13 criteria?

14 Two? Okay, good.

15 The next one is the scientific
16 acceptability of the measure. How many would
17 believe that it completely meets the criteria
18 for scientific acceptability?

19 How many feel it partially meets
20 the criteria for scientific acceptability?

21 DR. WINKLER: One, two, three,
22 four, five.

1 CO-CHAIR HOMER: How many believe
2 it minimally meets the criteria?

3 DR. WINKLER: One, two, three,
4 four, five, six, seven, eight.

5 CO-CHAIR HOMER: Has that got
6 everybody?

7 MEMBER PERSUAD: I'm a none.

8 DR. WINKLER: No, I am missing
9 one.

10 CO-CHAIR HOMER: Okay. Not at
11 all? All right.

12 The next one is the usability of
13 the measure. Does everyone remember the
14 criteria, the elements of usability?

15 So, again, understandable
16 harmonization and added value. From a
17 harmonization, just simply the point is there
18 is an adult measures that is almost precisely
19 the same. And understandable, I think we
20 should view this again as a paired measure.
21 That is, it is really reported as two
22 different components of the measure rather

1 than a single item.

2 So, how many believe that it
3 completely meets the criteria for usability?

4 None.

5 Believe it partially meets the
6 criteria for usability?

7 DR. WINKLER: Six.

8 CO-CHAIR HOMER: And minimally
9 meets the criteria for usability?

10 DR. WINKLER: One, two, three,
11 four, five.

12 CO-CHAIR HOMER: And then not at
13 all?

14 DR. WINKLER: One, two, three.

15 CO-CHAIR HOMER: Okay. All right.

16 And then, feasibility, which is, again, data
17 is a byproduct of care, electronic exclusions,
18 inaccuracies, and implementation.

19 How many believe it is completely
20 feasible?

21 One.

22 How many believe it is partially

1 feasible?

2 DR. WINKLER: One, two, three.

3 CO-CHAIR HOMER: How many would
4 say minimally feasible?

5 DR. WINKLER: Nine.

6 CO-CHAIR HOMER: Okay. And not at
7 all?

8 DR. WINKLER: One.

9 CO-CHAIR HOMER: Okay. Good.

10 All right. Then, why don't we
11 move to an overall recommendation? I think
12 this would a time-limited, given that the
13 adult measure is time-limited, and with
14 conditions that would relate to -- what
15 conditions would we want to put on it? Do we
16 need to?

17 DR. WINKLER: I don't remember any
18 conditions.

19 CO-CHAIR HOMER: Well, do we want
20 conditions related to --

21 MEMBER JENKINS: The two
22 conditions I heard, one had to do with age

1 stratification and one had to do with
2 specification of the elements of the plan in
3 more detail.

4 CO-CHAIR HOMER: Again, this is
5 where, just as a comment, it is not that we
6 would be dictating what the plan is, but that
7 it needed to address those elements.

8 MEMBER RAO: And I thought age
9 stratification wasn't possible because of the
10 small number. That is what she said.

11 CO-CHAIR HOMER: We want to see
12 the data reported, I would suggest we would
13 like to at least potentially look at that. It
14 may be impossible.

15 MEMBER JENKINS: What I heard her
16 say -- maybe she could say what she said
17 instead of what I heard -- is she did not want
18 to exclude the babies, but that is different
19 than reporting the results by age
20 stratification or risk adjustment by age of
21 baby.

22 DR. FIVUSH: Yes, and I'm the

1 "she".

2 (Laughter.)

3 I'm sorry, it is Barbara Fivush.

4 I think that is a very good
5 summary. Yes, I didn't want to exclude them
6 because I didn't want to lose the importance
7 of them, but was concerned about the numbers.
8 We could report it out that way and see how it
9 looks.

10 CO-CHAIR HOMER: Okay.

11 MEMBER FISHER: Can I ask --

12 CO-CHAIR HOMER: Yes, please.

13 MEMBER FISHER: There is no way
14 for us to do what was suggested, is extend the
15 age group under the adult endorsement?

16 DR. BURSTIN: It sounded like they
17 said the plan of care was different.

18 MEMBER FISHER: Oh.

19 DR. FIVUSH: The plan of care was
20 different, and the other thing is we really
21 have specified in our measure, our
22 numerator -- and please tell me -- I know I

1 have already had opportunity to speak, and I
2 know you all have been working hard.

3 I just will quickly say the other
4 difference is we want this to be a single-pool
5 Kt/V, which means it is precisely measured at
6 a certain time after the dialysis session, as
7 opposed to the adults who are less concerned
8 about when they measure that Kt/V. That has
9 to do with body size in pediatric patients and
10 the way things may rebound.

11 So, those were the two things that
12 came up about harmonization. I think the
13 measures are very close, though. It is
14 possible that over time, if we get time-
15 limited data on this, we could really think
16 about harmonization. So, I don't want to say
17 that is not close with the issue of
18 harmonization when it came up earlier, but
19 harmonization can be very valuable, if we can
20 do that.

21 CO-CHAIR HOMER: And my
22 understanding, so I am just thinking of

1 advantages or disadvantages to having this an
2 extension in age group. Dialysis is covered
3 through Medicare on the CMS side. So, one
4 reason we sometimes would like to be under the
5 common element would be because we want CMS to
6 use this. But in this case, we know CMS is
7 paying increasing attention to the Medicaid,
8 and this would be consistent with their
9 longstanding emphasis on Medicare quality.
10 So, by having it a separate measure does not
11 decrease the likelihood that CMS would use
12 this.

13 DR. FIVUSH: And I would just
14 point out that these patients are Medicare-
15 eligible, but one of our problems is that
16 often their parents may have other insurers.
17 So, they are not necessarily covered by
18 Medicare, even though they could be covered by
19 Medicare. That really ends up making it
20 difficult for us to just enter a Medicare
21 database and see claims and reporting. That
22 is why this is a great opportunity for an

1 additional reporting system that we can
2 perhaps see this information, with Medicare
3 supporting the concept.

4 CO-CHAIR HOMER: Okay. So, again,
5 I think the vote is for a time-limited
6 endorsement with the conditions that Kathy so
7 well articulated.

8 So, all those in favor of a time-
9 limited endorsement with the conditions that
10 were mentioned?

11 DR. WINKLER: Six.

12 CO-CHAIR HOMER: Okay. All those
13 opposed to a conditional endorsement?

14 DR. WINKLER: Eight.

15 CO-CHAIR HOMER: Okay. I think
16 the measure did not pass muster.

17 Anyone want to reconsider their
18 votes?

19 (Laughter.)

20 No, that's fine. No. So, okay,
21 the measure didn't go through as is.

22 I do want to thank the stewards

1 for presenting the measure, and I do look
2 forward to -- well, I would encourage you,
3 nonetheless, to continue to collect these
4 kinds of data and bring it back.

5 DR. BURSTIN: Great. I just want
6 to point out as well that we are planning a
7 ESRD/CKD project starting in the late summer
8 or early fall. So, if any of this input makes
9 you want to think about a new submission, that
10 would be a good time.

11 CO-CHAIR HOMER: Right.

12 DR. BURSTIN: With a committee
13 filled with nephrologists who understand all
14 this Kt/V stuff.

15 CO-CHAIR HOMER: I would love,
16 also, to see an ongoing learning collaborative
17 amongst these institutions that share these
18 patients. Then, we could actually see whether
19 you could refine further the issue of this
20 plan. But that would be outside the scope of
21 the current --

22 DR. FIVUSH: I want to thank you

1 for giving us the opportunity to present.

2 It is a moving target. I think we
3 are all trying to improve care, and we will
4 just keep these measures. Thank you.

5 CO-CHAIR HOMER: Thank you.

6 MS. McELVEEN: Okay. We are going
7 to go ahead and take a very brief break for
8 lunch. If you could take maybe 10 to 15
9 minutes and get your food and come back, and
10 we will have to reconvene.

11 We are adjourning around three
12 o'clock, and we have about six more measures
13 to go through.

14 (Whereupon, the foregoing matter
15 went off the record at 12:37 p.m. for lunch
16 and resumed at 1:02 p.m.)

17

18

19

20

21

22

1 A-F-T-E-R-N-O-O-N S-E-S-S-I-O-N

2 1:02 p.m.

3 CO-CHAIR HOMER: While Marina is
4 getting a little bit of food, I think we could
5 probably get started.

6 I would like to ask, the measure
7 that we are going to be addressing next is the
8 validated family-centered survey questionnaire
9 for parents' and patients' experiences during
10 inpatient hospital stay, if I got that
11 correct.

12 Nancy, are you okay?

13 She is still sitting upright,
14 seems to be breathing. I just wanted to make
15 sure you are okay.

16 MEMBER KIBORT: That is what I was
17 asking about.

18 MEMBER FISHER: I got this
19 horrible virus. I have had all my flu shots.
20 Okay? Then, after it -- I hadn't had this
21 happen to me since I was in medical school --
22 I got bronchitis with an asthmatic component.

1 Okay? Or some people say you have reactive
2 airway disease.

3 (Laughter.)

4 And then, I am getting better, and
5 something went down the wrong way, and then I
6 kept coughing.

7 CO-CHAIR HOMER: It triggered the
8 reactivity.

9 MEMBER FISHER: Yes.

10 CO-CHAIR HOMER: So, I wonder if I
11 could ask the stewards from Children's to tell
12 us about this measure, Boston Children's.
13 That would be wonderful, the developer. That
14 would be great. Not the steward, the
15 developer, yes.

16 DR. ZINIEL: Okay. Does that
17 work? I think so.

18 So, I am just going to give you a
19 brief overview over the measure. We have high
20 goals with this measure. We really hope that
21 this survey becomes, so to speak, the
22 pediatric H-CAHPS.

1 In the work I have done at
2 Children's Hospital, also in collaboration
3 with CHCA, I have seen the great heterogeneity
4 in patient experience or patient satisfaction
5 surveys, however you would like to call it.
6 And I have also seen the quality of these
7 surveys with regard to survey methodology
8 principle. I was quite appalled as the survey
9 methodology, what I have seen.

10 So, we basically did this project
11 to really get a set of survey items that could
12 be used like H-CAHPS as benchmarking across
13 institutions, across departments, within the
14 institution, for several dimensions of the
15 care of patients.

16 Due to the third-party involved in
17 pediatric settings, it is not really possible
18 to just rephrase the H-CAHPS questionnaire.
19 There are certain aspects that have to be
20 taken into account. So, we have several
21 dimensions that this instrument that we
22 propose addresses.

1 There are experiences that parents
2 report with regard to nurses, doctors,
3 admissions, discharge, care coordination,
4 medications, and there are, of course, a set
5 of demographic items in order to be able to
6 look at differences between ethnicity, et
7 cetera.

8 For all items, reliability and
9 validity data are available. So, we have
10 test/retest reliability. We have predictive
11 validity. We have validity for items within
12 a certain domain. We have calculated Cronbach
13 alpha to make sure that there are no redundant
14 items in there to minimize the respondent
15 burden.

16 We have validated, and I should
17 say that these are items are a subset of a
18 120-item questionnaire that we selected due to
19 their good performance with regard to missing
20 data, validity, ceiling effects, and
21 reliability.

22 The survey is validated for mail

1 and phone. We have also mode effects
2 calculated. The reason why we were able to do
3 that was because we had a very strict protocol
4 when we started with this project. So,
5 patients that were recruited were randomly
6 assigned to either mail or phone mode. So, on
7 average, we would really expect that the
8 differences we observe are due to the mode and
9 not to any other aspects of their care.

10 We also have really rich frame
11 information. We have kept data, processed
12 data, in order to be able to look at non-
13 response bias. We have medical record data,
14 so that we can stratify for different
15 categories in complexity of care.

16 So, we can relate it to clinical
17 outcomes. And what we are doing right now is
18 that we are proposing within the framework of
19 CHCA to field the survey at other institutions
20 in order to use their data to get the survey
21 down to about 30 questions.

22 We wanted to do this with other

1 institutions to make sure that the questions
2 that we select are really the ones that allow
3 good validity and reliability across national
4 institutions, and not just one hospital. So,
5 we basically used our hospital to get to the
6 62 items that really perform good in terms of
7 psychometric properties, and now going to go
8 and use other hospitals as well to sort of get
9 the survey shorter.

10 We also plan to have the survey in
11 other languages as well as an adolescent
12 version.

13 So, the sampling approach that we
14 proposed was a random sample of all patients
15 that were discharged within a certain time
16 period. It is, obviously, possible to
17 stratify for race and ethnicity.

18 We found, looking at the non-
19 response across the different modes, that it
20 is actually important to use a mixed-mode
21 approach for patient experience because
22 Hispanics and other minorities were

1 significantly more likely to answer the phone
2 survey than the mail survey.

3 So, I think we have enough data to
4 look at outcomes across race/ethnicity, if
5 this was the first hospital stay for that
6 child, if it was not the first hospital stay,
7 if it was medical/surgical, how complex the
8 procedure was.

9 So, based on the data in the
10 survey as well as frame data, we can evaluate
11 how the experiences of parents and patients
12 differ across these dimensions.

13 CO-CHAIR HOMER: Can you describe
14 the domains it mentions and the measures that
15 derive from the survey?

16 DR. ZINIEL: So, we have not
17 derived composite measures per se for the
18 domains. Also, it is possible. So, the
19 domains are experiences with nurses,
20 experiences with doctors, experiences with
21 regard to how they work together, if the
22 parent felt that there was communication.

1 We asked about the admission
2 process, about the discharge process, the care
3 coordination after the discharge, medications
4 during the hospital stay, as well as
5 medications that were provided when the child
6 or prescribed when the child was going home.
7 Then, we have about 12 items that are
8 demographic of nature.

9 CO-CHAIR HOMER: Again, so there
10 are composites that are calculated? It is
11 done as an item-by-item reporting?

12 DR. ZINIEL: It is an item-by-
13 item, but it is completely possible to
14 calculate composite scores.

15 CO-CHAIR HOMER: Okay.

16 DR. ZINIEL: Because the scales
17 are fairly similar. And there is, of course,
18 I forgot to say, an overall rating. There is
19 a section with a few overall ratings.

20 So, composite scores would be
21 added, summative scores. The scales are
22 usually from 1 to 5.

1 CO-CHAIR HOMER: And could you
2 compare and contrast with the H-CAHPS, I mean
3 realizing that H-CAHPS you would have to
4 either alter the questions, so it would be
5 your child rather than you, and things like
6 that, but as you look at the structure of this
7 compared to the H-CAHPS survey?

8 DR. ZINIEL: There are domains
9 that are the same where questions are very
10 similar. There are also domains that we
11 realized are more significant for the care.
12 So, for example, parents, with regard to how
13 they rate their experiences at the hospital,
14 are really, really -- or they feel it is very
15 important with regard to the communication.

16 So, the items that we have are
17 more in number or higher in number than with
18 regard to H-CAHPS just by the fact how
19 predictive they were with regard to how the
20 parent rates their experience in the hospital.

21 CO-CHAIR HOMER: I'm sorry. So,
22 there are more items because there was a more

1 diverse number of issues?

2 DR. ZINIEL: Right. There are
3 aspects, I think, in a pediatric setting that
4 are important to consider with regard to the
5 overall satisfaction. They were highly
6 predictive of overall satisfaction, but the
7 correlation among them was fairly low. So
8 that we can assume that they measure different
9 dimensions.

10 CO-CHAIR HOMER: Lee?

11 MEMBER PARTRIDGE: Could you just
12 tell us a little bit more about the domain?
13 You talked about care coordination after
14 discharge. Is that care coordination between
15 whom?

16 DR. ZINIEL: So, we have items in
17 there that ask if they have seen their primary
18 care physician right after they went home. I
19 mean that's, I think, one of the -- we also
20 ask about if they felt comfortable to go home
21 with regard to the information they had,
22 things like that.

1 MEMBER PARTRIDGE: In some of the
2 work that we have done, focus groups with
3 families across the country, the care
4 coordination element turns out to be very,
5 very important to them and a lot of the areas
6 in which they feel it doesn't work very well.

7 DR. ZINIEL: That's correct.

8 MEMBER PARTRIDGE: So, you are
9 going a little bit beyond the hospital here.

10 DR. ZINIEL: Right. So, the other
11 thing that one of the comments mention sort of
12 as a point was that we do not collect the data
13 sort of during the hospital stay. The reason
14 why we do not collect the data during the
15 hospital stay is that we also want their
16 experiences with regard to discharge and sort
17 of right after discharge. That is the reason
18 why we can't. I mean either we would then
19 have two surveys, but then it is really hard
20 to link them together and to get responses
21 from the parent in both. So, that is why we
22 are doing it after the child has left the

1 hospital.

2 CO-CHAIR HOMER: So, are there
3 questions from the Work Group. We had started
4 already, but other questions from the Work
5 Group that reviewed this?

6 DR. WINKLER: I just have one
7 question. Do we have a copy of the survey
8 tool?

9 DR. ZINIEL: Yes. I submitted it.

10 CO-CHAIR HOMER: It was filed in
11 the wrong -- no, maybe it was. Where was it?

12 DR. ZINIEL: Yes, we submitted the
13 current survey tool when we submitted the
14 measure.

15 MEMBER PARTRIDGE: Can I ask one
16 more question?

17 DR. ZINIEL: Yes.

18 MEMBER PARTRIDGE: You are talking
19 about developing an adolescent tool.

20 DR. ZINIEL: Yes.

21 MEMBER PARTRIDGE: And this is an
22 issue that came up frequently for those of us

1 who were on the stakeholder group way back
2 when H-CAHPS was being developed because we
3 were concerned particularly about the teenager
4 who was hospitalized, most often for maternity
5 care, but also for other reasons, you know,
6 like they skied downhill into a tree.

7 And we really wanted the
8 adolescent patient assessment of care rather
9 than the parents' assessment of care.

10 DR. ZINIEL: Yes.

11 MEMBER PARTRIDGE: And you don't
12 have that subset yet. So, you are putting
13 adolescents in here?

14 DR. ZINIEL: No. So, this survey
15 will be for parents 18 years and older of
16 their child. The reason why we did this is
17 because we really wanted to develop an extra
18 tool just for adolescents.

19 MEMBER PARTRIDGE: Right, but for
20 the interim, if my teenaged child is
21 discharged, you are going to ask me my opinion
22 of the experience and not that teenager?

1 DR. ZINIEL: Oh, sorry, I
2 misunderstood you. Yes. I mean we
3 definitely could go down to maybe 15, 16
4 years. I wouldn't go down to like, not that
5 I know how this happens, like 13 years,
6 because from a scientific point of view we
7 don't know enough about the response formation
8 process in adolescence, and there is a lot of
9 research to be done.

10 CO-CHAIR HOMER: So, just for the
11 members of the Committee who maybe hadn't seen
12 the survey, it was misfiled. It is under Work
13 Group 1, Measure 27, and it is a PDF document.
14 So, if you happen to have your flash drive,
15 that is where the item is.

16 I am still, I guess, a little
17 maybe -- your writeup, I guess more the
18 scientific characteristics, the writeup says
19 you describe things like Cronbach alpha and
20 dimensions and things like that, but I am
21 still asking the question of dimensions
22 because, typically, with the CAHPS survey that

1 is typically what people report out. At least
2 it used to be in the old days when I used to
3 work with surveys.

4 DR. ZINIEL: I mean the dimensions
5 are basically the headings in the survey. So,
6 we have a report about 300 pages long that
7 describes all of the results.

8 I was a little unclear how to sort
9 of attach that, or I mean not attach that, but
10 to describe that in the application. So, I am
11 definitely happy to submit that one.

12 So, we have done factor analysis,
13 et cetera, of the items that we had where we
14 selected these 62 from. It is nursing,
15 doctors, medications, admission, discharge.

16 CO-CHAIR HOMER: So, I think we
17 would want to see that, yes.

18 MS. RAUSCHER: Just from a
19 perspective of this tool, the possibility of
20 reporting out by composite score was able to
21 just --

22 DR. ZINIEL: Yes.

1 CO-CHAIR HOMER: Okay. Good.

2 So, Ellen?

3 MEMBER SCHWALENSTOCKER: I'm
4 sorry, I'm going to share the microphone with
5 you, even though I am sitting right next to
6 you.

7 I guess two questions. One, you
8 mention the importance of having both modes.
9 Have you found a difference in response in
10 mode influencing the response, whether it is
11 phone or mail?

12 DR. ZINIEL: So, there are some
13 differences with regard to distribution. So,
14 at Children's Hospital, Boston, we have the
15 problem that I think no national survey has,
16 that like everyone is always super-satisfied.
17 So you have like this ceiling effect, and it
18 is really hard to track something over time if
19 everyone is always satisfied.

20 So, we try to extend the scale in
21 a way, based on focus groups, and during the
22 survey what people actually reported, in order

1 to get sort of the differences.

2 In the telephone survey, which is
3 known from a scientific point of view, people
4 are more likely on average to rate it higher.
5 However, the items that had significant
6 differences, and I think there is only one
7 item left in the set of 62. So, the reason
8 why we started out with 120 was really to
9 figure out what are the items that have high
10 percentages of missing data, that have a great
11 ceiling effect, where tracking change is hard,
12 that have low test/retest reliability. And
13 that is exactly why we excluded them.

14 So, another factor was, if the
15 mode effect was very strong, we also
16 considered the item to be excluded in order to
17 minimize that exact problem.

18 MEMBER SCHWALENSTOCKER: Then, the
19 only other question I had is it sounded like,
20 I think you mentioned earlier, that you are
21 hoping to reduce the number of items in the
22 survey?

1 DR. ZINIEL: Yes. Yes.

2 MEMBER SCHWALENSTOCKER: So, kind
3 of what is the plan going forward, the
4 timeline for doing that?

5 DR. ZINIEL: So, we are right now
6 talking with CHCA about how to set all of this
7 up. We had talked with CHCA about a year ago,
8 and there are a number of hospitals that are
9 interested in fielding this survey to compare
10 it to the current survey that they have. So,
11 there is interest there.

12 I think the steps forward that
13 have to be figured out is from a
14 methodological point of view what I would
15 really like is I would also get data that is
16 at the same time collected using the current
17 tool from the hospital as well as the scores.
18 It would have to be randomly selected, what
19 patient gets what tool, or what parent gets
20 what tool. So, that we really can assess if
21 there are differences across hospital with
22 regard to the validity of items, how these

1 items fall within a dimension.

2 So, just really we didn't do that
3 for the current version. Because of the
4 importance to really look at several
5 institutions and see if we want to use this
6 nationally, then we really should use items
7 that are applicable to all institutions and
8 not just to the Children's Hospital, Boston.

9 MEMBER SCHWALENSTOCKER: Right.

10 DR. ZINIEL: So, that is why we
11 felt, okay, we start out with 120. We get the
12 items out that perform badly from a
13 psychometric point of view and from a survey
14 methods point of view. Then, we basically go
15 national and say, okay, let's collect data;
16 let's collect data to compare it at the same
17 time. So that we can really make sure that
18 the ultimate tool with about 30 items, that
19 the measures that are in there are really the
20 ones that are applicable and good for every
21 institution, if I can say it like that.

22 MEMBER DOCHERTY: That was sort of

1 my question, but your factor analysis, you
2 have done more limited factor analysis? And
3 you are going to do more later?

4 DR. ZINIEL: Correct.

5 MEMBER DOCHERTY: Okay. That
6 makes sense.

7 DR. ZINIEL: Yes. I want to get
8 the data and figure out, you know, is there an
9 item that is really important? Or, based on
10 the current analysis, seems to be really
11 important for our situation, but that might
12 not be that important if I take other data
13 into account.

14 CO-CHAIR HOMER: Allan?

15 MEMBER LIEBERTHAL: You mentioned
16 the H-CAHPS before. Who is the owner of
17 H-CAHPS, and have you talked with them about
18 an H-CAHPS version that would be for children
19 and one for adolescents, so that non-
20 children's hospitals would be dealing with one
21 organization or one set of questionnaires?

22 DR. ZINIEL: So, the measurement

1 owner or developer is AHRQ. We have not been
2 in contact with them yet. The last thing that
3 I have heard, based on their statement on
4 their website, is that they are not currently
5 working at a pediatric version.

6 I am not quite sure if behind the
7 curtain, so to speak, there is something going
8 on.

9 (Laughter.)

10 This survey will, nevertheless, be
11 able to be used in hospitals that just have
12 sort of a pediatric department and are not
13 freestanding.

14 So, the way we phrased the
15 question was that we really wanted to make
16 sure that it would be applicable for all
17 situations.

18 MEMBER LIEBERTHAL: Maybe the "not
19 created here" wouldn't apply and AHRQ might
20 welcome working with you.

21 CO-CHAIR HOMER: Bonnie?

22 MEMBER ZIMA: I probably have a

1 less interesting question than Marina.

2 (Laughter.)

3 But I was wondering in sort of
4 your preliminary analyses whether you explored
5 the impact of variable length of stay.

6 DR. ZINIEL: Yes. So, length of
7 stay, we explored length of stay,
8 medical/surgical, if this is the first time
9 they are at the hospital or not.

10 So, generally, I mean it depends
11 on the item, but overall I can say that people
12 where this not the first hospital stay are
13 overall less satisfied. The people who have
14 like a longer length of stay are less
15 satisfied. Minorities overall seem to be less
16 satisfied, and surgical, no, medical are less
17 satisfied as well.

18 MEMBER ZIMA: How did you think
19 about the impact of the severity of the
20 illness and the child's prognosis?

21 DR. ZINIEL: This is a really good
22 question. The problem with surveys in general

1 is that they are measuring something that
2 usually cannot be measured otherwise. So,
3 from a provider perspective, we would hope
4 that -- I mean they should be satisfied, no
5 matter how they go through the hospital, no
6 matter how long they stay, no matter how often
7 they have to come back. The service that we
8 provide should be satisfactory.

9 The other thing is it is always
10 based on expectations. So, parents that, for
11 example, have been in the hospital previously
12 have other expectations than parents that have
13 been there the first time.

14 So, there will always be a
15 subjective, based on just the experience that
16 you had, there will always be sort of an
17 influence of expectations. That is what
18 surveys basically measure.

19 It is really hard to sort of get
20 people to set to an expectation. They come in
21 with an expectation, and these expectations
22 vary, but I think from a hospital point of

1 view, no matter what these expectations are,
2 our goal is that parents have a good
3 experience.

4 MEMBER ZIMA: I just have one more
5 question. That was, with a response rate of
6 25-35 percent -- I know this is kind of
7 generic question.

8 DR. ZINIEL: That is actually a
9 comment.

10 MEMBER ZIMA: Oh, okay.

11 DR. ZINIEL: Yes, go ahead.
12 Sorry.

13 MEMBER ZIMA: How are you thinking
14 about the selection bias? How do you avoid
15 overrepresenting happy campers?

16 DR. ZINIEL: So, this is a common
17 phenomenon in satisfaction surveys. The
18 concerns are that happy campers and really,
19 really unhappy campers do not answer.

20 So, what we found is that, on
21 average, in this survey it equals out. So, it
22 doesn't really affect the score. We can say

1 that because we have frame data. So, if you
2 have frame data, you can actually adjust for
3 it. So, you can use non-response weighting,
4 which that is another part of this project, to
5 calculate non-response rate to see how that
6 affects, actually, the differences of the
7 scores.

8 You need a really good protocol to
9 make them participate. The unfortunate thing
10 is that the survey climate nowadays, I mean
11 everyone is completely oversurveyed. You
12 really have to write a letter that convinces
13 the participant or the parent to participate.

14 CO-CHAIR HOMER: Marina?

15 MEMBER ZIMA: Just one more issue,
16 and that is you only have your English
17 speakers, as you had said. So, I was
18 wondering if you could speak a little bit
19 more. Particularly something like this could
20 not be used in California.

21 DR. ZINIEL: And that is where,
22 basically, the plan is so we started out with

1 the English version. We plan to develop this
2 into other languages. I mean that is one
3 goal, to be able to use it as a sort, if I can
4 frame it like that, pediatric H-CAHPS tools.

5 CO-CHAIR WEISS: Okay. We may not
6 have caught some of the questions that are
7 intended to get to this, but going back to
8 Lee's point about care coordination, and
9 particularly the handoff from the inpatient to
10 the outpatient setting, this is a really
11 sensitive area, and an area that gets a lot of
12 attention from the consumer community. But I
13 don't see, as Reva and I have been scrolling
14 through your questions here, the questions
15 appear to be more oriented toward parent
16 satisfaction that they understood --

17 DR. ZINIEL: Right.

18 CO-CHAIR WEISS: -- something
19 about medication, and so on, but not
20 specifically toward the issue of did they get
21 adequate instruction about what to do with the
22 child once they left the hospital. How do

1 they hand off from the main, as you call them,
2 the main physician in the hospital to the
3 office-based practice? Is there a different
4 instrument that does that or do you just
5 presume that every child who leaves your
6 institution has a care plan, so that is not
7 even a question that should be asked?

8 DR. ZINIEL: No. So, if you are
9 sort of really interested in that domain, I
10 refer you to Jay Berry, who is actually
11 working on that right now.

12 (Laughter.)

13 So, I have the honor to work with
14 him on that as well with regard to the survey.

15 So, this is really an experience
16 survey. While I completely agree with you
17 that that might not be the case for every
18 child, what we are really trying to measure is
19 the satisfaction. If parents see that the
20 care, that there is something that they are
21 missing or it is difficult, and the left hand
22 doesn't know what the right is doing, they

1 will express that in dissatisfaction.

2 So, it is really to measure the
3 subjective view of the process. So, patients
4 can be really, really satisfied or parents can
5 be really satisfied, even though the medical
6 care itself might not have been optimal. But
7 it is hard for a parent to judge that because
8 the parent doesn't know the standards. So,
9 this is really to get at the subjective
10 opinions of the parents.

11 CO-CHAIR WEISS: Okay. I would
12 just say that, particularly with parents who
13 have children with chronic conditions, and who
14 are in and out of the hospital on a regular
15 basis, a part of satisfaction is going to be
16 feeling confident that they know what to do
17 once they leave the institution, who to call,
18 where to go.

19 MS. RAUSCHER: That is a very
20 important piece of the. This is more general.
21 As Dr. Ziniel said, Dr. Berry is working on
22 one for complex care.

1 I just wanted to add another bit
2 of a detail about how we got into this
3 process, which was that we always intended to
4 do this, but about two years ago one of our
5 payers came to the table and said, "You will
6 do H-CAHPS for a p-for-p contract," a huge
7 piece of it. We said to them, "There is no
8 pediatric H-CAHPS."

9 So, that has been the impetus for
10 this, of trying to develop something that
11 could be used across the country, and would
12 carefully reflect the domains specific, not
13 just changing from you to your child, a lot of
14 rigor into that measurement process. That is
15 what we have been doing.

16 CO-CHAIR HOMER: Tom, did you
17 first have a question? And then, Ellen and
18 Faye.

19 MEMBER McINERNY: Yes. You know,
20 our hospital has been doing the Press-Ganey
21 surveys for years. Obviously, it crosses over
22 to the children that get care in our hospital,

1 and I suspect other hospitals do that. I
2 don't know whether you have taken a look at
3 your survey versus the Press-Ganey survey. I
4 suspect there may be some overlaps, and there
5 may be a way of sort of trying to help form
6 which of your questions are the ones that are
7 most important, based on Press-Ganey as well.

8 DR. ZINIEL: Yes. I mean that is
9 one reason why we planned the multi-center.
10 So, we are not using Press-Ganey. It is
11 really hard to get data from hospitals, you
12 know, to basically say we would love to have
13 your data to be able to analyze it with regard
14 to patient satisfaction. That is one of sort
15 of the conditions I would like to put on this
16 sort of more national project, to say I really
17 would like to see the data that you currently
18 collect during the same timespan with your
19 instrument, to be able to see how they
20 actually correlate.

21 CO-CHAIR HOMER: Ellen, and then
22 Faye.

1 MEMBER SCHWALENSTOCKER: Oops,
2 sorry, I hope I didn't just turn someone's
3 computer off.

4 So, I just wanted to make the
5 point, first, I really want to applaud you for
6 this work because I think it is a huge gap
7 that we don't have a pediatric H-CAHPS. I
8 think the survey, Marina, to your question, in
9 my view, it goes beyond satisfaction. It
10 includes parent reports on how well-prepared
11 they were. So, it may be perceptions of care,
12 but, in my view, it is more than satisfaction.

13 What I am struggling with a bit is
14 it sounds like it is still being developed.
15 I guess I need to understand a little bit from
16 the NQF staff perspective, you know, what the
17 implications of endorsing this are, given that
18 you are looking to maybe reduce the number of
19 items.

20 Then, kind of knowing a little bit
21 about the history of H-CAHPS and the vendor
22 involvement in that, I am struggling a bit

1 with, well, you know, nobody has stepped to do
2 that, although there are instruments out
3 there. I guess I am struggling with kind of
4 what the path forward in terms of process
5 needs to be, but I also feel like this is the
6 first opportunity we have had to really look
7 at a great step in the direction of developing
8 a survey.

9 CO-CHAIR HOMER: Helen, do you
10 want to respond to that? Then, we have Faye.

11 DR. BURSTIN: Sure. I will just
12 respond briefly.

13 I mean, certainly, the group would
14 have to decide if they feel like it is ready
15 for primetime. That is sort of the issue.

16 We do routinely get measures that
17 get updated. We have a three-year maintenance
18 policy. So, that if you made a significant
19 change to the survey, you would have to bring
20 it back to us for our re-review.

21 DR. ZINIEL: Yes, we know that.

22 DR. BURSTIN: So, that is fine.

1 DR. BURSTIN: I mean I don't see
2 that as a problem. My major question was
3 actually more about harmonization, and I know
4 you can't harmonize completely with a CAHPS
5 tool.

6 DR. ZINIEL: Right.

7 DR. BURSTIN: And I give my bias
8 here as an adult-only doc, but a whole lot of
9 these items look really similar to H-CAHPS.

10 DR. ZINIEL: Yes.

11 DR. BURSTIN: I am imagining
12 myself in my old days that I used to run
13 quality measure for a hospital. If I had to
14 look at the H-CAHPS responses on some of
15 these, and then look at these, the response
16 categories aren't aligned. You have five;
17 they have gone to three.

18 I am just trying to think about
19 what a hospital who is not a freestanding
20 children's hospital would have to sort of
21 think through to make it work, if you had an
22 adult survey. I mean we used to try to parse

1 it by adult surgery and OB. We didn't have
2 kids at the Brigham.

3 But how do you imagine this kind
4 of working in the real world, I guess?

5 DR. ZINIEL: So, the problem with
6 the response category, where from a scientific
7 point of view sort of what you would really
8 like to measure is with a three-category
9 scale, based on the ceilings effect that we
10 just observed in our hospital, there is no way
11 you would be able to really measure a change.

12 I mean, if 85 percent are in the
13 top category, how would you measure change?
14 So, I mean, this tool is basically really to
15 be able to measure change. Not that I was in
16 the AHRQ group and want to criticize their
17 work, but when I looked at H-CAHPS, I didn't
18 understand why they have three. I mean three
19 is really limited.

20 So, the problem that we have seen
21 in the focus groups is it is really hard to
22 get someone who is almost always satisfied to

1 completely satisfied.

2 DR. BURSTIN: I think some of this
3 actually truly is the nature of adult care
4 versus kids care. I mean I have seen H-CAHPS
5 scores, and it is remarkable how much of a
6 splay there is between those categories. It
7 may just be that maybe kids truly -- Lisa
8 Simpson always told me, "They're not just
9 little adults." Maybe they are really
10 different.

11 (Laughter.)

12 And maybe those parents have very
13 different perspectives on their care. Your
14 kid is sick; everything is great.

15 DR. ZINIEL: Right. I mean that
16 is why we, for example, selected the five-
17 point scale because with a three-point scale,
18 I mean there would be no chance --

19 DR. BURSTIN: That is very
20 helpful. Right. Maybe just some of those
21 responses back formally, if we put this out --

22 DR. ZINIEL: I mean the other

1 thing is what I just don't know is on a
2 national level, when we give this instrument
3 to other hospitals, what the range is that is
4 there.

5 With regard to what you report, I
6 mean boards usually like to see the percentage
7 where everyone is super-satisfied. From an
8 improvement point of view, I want to see the
9 percentage that has really problems because
10 that is where you actually can do something
11 about it.

12 DR. BURSTIN: I'm with you. What
13 I will tell you, though, is H-CAHPS actually
14 shows that, only because you would be amazed
15 at how poor this is when patients report on
16 their care.

17 DR. ZINIEL: Right.

18 DR. BURSTIN: It is not
19 satisfaction. There is only one satisfaction
20 item on CAHPS. It is really the very similar
21 patient reports of care. "Did somebody
22 explain your medications to you in a way you

1 can understand?" "Did somebody explain your
2 discharge instructions?"

3 DR. ZINIEL: Yes.

4 DR. BURSTIN: That
5 always/sometimes, those categories remarkably
6 show lots of dissatisfaction.

7 CO-CHAIR HOMER: Because it is the
8 percent always that -- and it is hard to
9 get --

10 DR. ZINIEL: I mean, you know,
11 based on the data that we have, I can tell
12 you, I mean we have items that have like 85
13 percent always, very satisfied, extremely. I
14 mean that's where we started developing the
15 survey. So, how do you measure something if
16 you have 85 percent?

17 DR. BURSTIN: I think you just
18 justified it, but I think those are probably
19 some of the explanations we would need when
20 this would go forward.

21 DR. ZINIEL: Okay.

22 DR. BURSTIN: Otherwise, people

1 will look at this, particularly people who
2 know CAHPS well, and --

3 MS. RAUSCHER: We also wanted to
4 just share that we did do an assessment of the
5 freestanding hospitals. One-third used
6 Picker, one-third used Press-Ganey, and
7 actually one-third have a hybrid, which makes
8 it very interesting.

9 CO-CHAIR HOMER: So, there were
10 some other --

11 MS. RAUSCHER: Or some other --

12 CO-CHAIR HOMER: I think, Faye,
13 you were up next.

14 MEMBER GARY: I just have several
15 quick questions. No. 1, how do you explain to
16 the parent who the physician is or who the
17 nurse is, and how are they going to use that
18 as the base to make the decision about their
19 satisfaction, especially in a teaching
20 hospital?

21 DR. ZINIEL: So, we actually had
22 items, well -- sorry. Go ahead.

1 MS. RAUSCHER: So, originally,
2 what we did when we planned this out was hold
3 focus groups. When we asked the question
4 about satisfaction with your physician, the
5 very first thing they asked was, "Which one?"
6 because we are in an academic medical center.

7 So, the team put together a whole
8 battery of test questions specific to three --

9 DR. ZINIEL: If it is a resident
10 or if it is the attending.

11 MS. RAUSCHER: And now you can
12 tell what the results were.

13 DR. ZINIEL: So, the results were
14 interesting because, if it is the first
15 hospital stay, about 80 percent, or I think it
16 was 80 or 85 people could not tell the
17 difference. So, it was like I don't know what
18 the difference is. So, they said, like I
19 didn't have a resident or a fellow. I mean
20 this is a teaching hospital, like there is no
21 child that goes through there that doesn't see
22 someone who is in teaching. So, we knew that

1 they didn't -- it's all doctors, all white
2 coats. However, in the people that are
3 frequent flyers and are there more often, they
4 can make the difference.

5 So, now, if I can sort of take a
6 step back, that is why we didn't include it
7 here, but we at Children's would like to go to
8 a modular system to have this as a core and
9 add on modular questions that like rotate
10 throughout the year that will allow us to get
11 to certain areas and have, for example, 10
12 questions. So, there will be surgery, ER,
13 ICU. And one of these modules will be the
14 question with regard to the difference of
15 attendings and fellows.

16 So, kind of the criteria would be
17 that it would not be a person who was staying
18 there the first time because they can't -- it
19 is really the people that have been there
20 before know the difference; the other people
21 don't.

22 MEMBER GARY: Well, yes, I think

1 that to determine the difference sometimes can
2 be quite a struggle for even seasoned
3 people --

4 DR. ZINIEL: Correct. Yes.

5 MEMBER GARY: -- in hospital
6 settings.

7 The same question could be also
8 related to nurses. What nurses are you
9 talking about? Because they have three shifts
10 or two shifts --

11 DR. ZINIEL: Yes.

12 MEMBER GARY: -- and many people
13 who provide many different services. How do
14 you differentiate them from the people who
15 come up to do the x-rays, to take the blood,
16 the respiratory therapists? Because in a care
17 mode, that is a lot to ask people to separate
18 and to understand conceptually what the
19 difference is.

20 DR. ZINIEL: That is correct. And
21 we had items like that in there, too, and they
22 have really high missing value rates because

1 people just cannot -- it is one of these
2 things that I think surveys have to deal with
3 because you can only ask questions where
4 people know something about it. If they don't
5 know the difference, there is no point in
6 asking a question. And people really have
7 difficulties. I think it is just sort of how
8 compressed everything is, too. You know, they
9 go from one department to the other. It is
10 like they can't remember who was what and who
11 had what title and what procedure they got.

12 MEMBER GARY: Absolutely.

13 MS. RAUSCHER: But we are not
14 saying that that is not important. It was an
15 "aha" moment for us.

16 DR. ZINIEL: It was an "aha"
17 because we had this in there, and we asked
18 them, how did these technicians do and those
19 technicians. And I mean people sometimes,
20 they had procedures and the parent would
21 indicate they didn't.

22 MEMBER GARY: The other follow-up

1 question to that is this is about
2 satisfaction. The way I am looking at it, it
3 is about the child, big children, because they
4 are over 13, so they are big children.

5 CO-CHAIR HOMER: No.

6 DR. ZINIEL: No. It is all
7 children.

8 MEMBER GARY: You said you are not
9 asking anyone who is younger than --

10 CO-CHAIR HOMER: No.

11 DR. ZINIEL: No. So, the question
12 that came up here was if we should give these
13 surveys to parents that are teenaged parents.

14 MEMBER GARY: Okay.

15 DR. ZINIEL: So, this survey is
16 for parents of all ages of children that are
17 at the hospital.

18 MEMBER GARY: Okay.

19 DR. ZINIEL: We would like to
20 develop a version for adolescents for the
21 patient itself.

22 MEMBER GARY: Yes.

1 DR. ZINIEL: But I think that this
2 instrument is completely feasible for, for
3 example, 15 years, a parent of 15 years and
4 older.

5 MEMBER GARY: Yes. Okay. That
6 clarifies one part of the question. But the
7 other part of the question is that it seems to
8 me in many ways for the older children, at
9 least it is a proxy measure, and have you
10 thought through what happens when the parent
11 wants to participate and the child does not?
12 Or is that a problem, that you ask them, the
13 parent, about the child, and the child would
14 prefer not to have parents respond on his or
15 her behalf about the care?

16 DR. ZINIEL: So, I don't think
17 that we have like clearly thought through, and
18 I think this is a great opportunity for a
19 scientific study with regard to proxy
20 measures.

21 I have looked at other data from
22 -- let me phrase it like that. There are

1 areas where the parent is much better as a
2 reporter than the child. There are also areas
3 where the child is a better reporter than the
4 parent.

5 So, if I construct this sort of
6 adolescent survey, I am pretty sure that one
7 of the items for the adolescents would be,
8 "Was I able to sleep in?", has a clear impact
9 on satisfaction for an adolescent in the
10 hospital, which we would consider as fairly
11 unimportant in the grand scheme of things.

12 Like I have never encountered that
13 an adolescent was not happy because the parent
14 rated on their part. I mean the survey was
15 never introduced that way. It was really,
16 what were your experiences in the hospital?

17 MEMBER GARY: What was the
18 parent's experiences in the hospital?

19 DR. ZINIEL: Correct.

20 MEMBER GARY: Not the child's
21 experiences?

22 DR. ZINIEL: Correct.

1 MEMBER GARY: Okay.

2 CO-CHAIR HOMER: So, we could talk
3 at great length about the survey.

4 (Laughter.)

5 Go ahead.

6 CO-CHAIR WEISS: Just a very quick
7 question. Are you planning to make available
8 to the public the results of the surveys on a
9 regular basis?

10 DR. ZINIEL: Yes.

11 CO-CHAIR WEISS: And how do you do
12 that? Do you do that in each of the question
13 categories or is it just selected questions?
14 Or how do you handle that?

15 DR. ZINIEL: I mean,
16 theoretically, it is possible to display every
17 question.

18 CO-CHAIR WEISS: But what have you
19 done with CAHPS, for example?

20 DR. ZINIEL: Well, we don't have
21 CAHPS.

22 CO-CHAIR WEISS: Well, you don't,

1 but have you discussed how you intend to make
2 the information available to the public?

3 DR. ZINIEL: So, I definitely
4 think that it would be on the web page. The
5 other thing --

6 MS. RAUSCHER: Excuse me. I think
7 it is just a little bit of a different
8 question. You are talking about, if I am
9 understanding you correctly, the question is,
10 how would this be available to everybody?

11 CO-CHAIR WEISS: Right. If I am a
12 parent considering your institution, and I
13 went on your website, would I be able to find
14 the answers to these questions?

15 CO-CHAIR HOMER: Or could you go
16 to any website and find out comparative data
17 on, should I go to --

18 CO-CHAIR WEISS: Across
19 institutions?

20 CO-CHAIR HOMER: -- Boston
21 Children's compared to --

22 MS. RAUSCHER: Our goal is

1 definitely to try to make this the pediatric
2 H-CAHPS. At that point, it would be available
3 in the public domain to whomever.

4 DR. ZINIEL: Yes.

5 MS. RAUSCHER: At that time, and
6 your question about contacting AHRQ, it would
7 also be about contacting the individual
8 vendors who are going to basically be able to
9 pick this up and move ahead with it.

10 DR. ZINIEL: Right.

11 MS. RAUSCHER: But from a
12 perspective of maybe you could just share the
13 experience that we have done with the
14 children's hospitals based on whole system
15 measures, which is our first step of taking a
16 high-level measure and agreeing that we are
17 going to look at it together.

18 DR. ZINIEL: Do you mean with
19 regard to the differences and --

20 MS. RAUSCHER: Well, just the
21 process of trying to get people to accept the
22 measure.

1 DR. ZINIEL: Oh. So, CHCA has
2 this initiative about whole system measures.
3 I don't know if you know about it or not. So,
4 there was a group formed about service
5 excellence, and we had, I think, 15
6 representatives of hospital in there. We were
7 trying to figure out what question to use to
8 be able to compare across these 15 hospitals.

9 It was a rather difficult
10 discussion because people do not want to
11 change their measure because they always
12 measured it that way, and like how could you
13 compare it if you changed it? And just
14 administering the two-service profile at the
15 same time to be able -- how to sort of
16 recalculate one score or the other didn't seem
17 as a valid option for them, either.

18 The questions are sometimes very
19 different. There are sometimes, if I might
20 say from a scientific point of view, some are
21 horrible. I mean, how likely or unlikely
22 would you be to recommend this hospital to

1 families and friends? And the answer
2 categories are poor. Poor? Yes, I mean
3 hello.

4 (Laughter.)

5 Anyhow, so it was a real battle to
6 get 15 hospitals to agree to choose the
7 question, how satisfied or unsatisfied are you
8 with the quality of care at this hospital? We
9 discussed this for over a year.

10 MS. RAUSCHER: But it is being
11 trained.

12 DR. ZINIEL: It is being trained,
13 exactly.

14 MS. RAUSCHER: The thing rolls out
15 and it is finally accepted. So, that we
16 anticipate is going to be part of moving us
17 forward.

18 DR. ZINIEL: But we really hope, I
19 mean based on this experience, what we really
20 hope is that there will be a national measure
21 that everyone will use, and that really allows
22 us to compare across hospitals and states.

1 I mean right now it is really hard
2 because the questions are different, the modes
3 are different. There are not adjustments
4 recommended whatsoever.

5 CO-CHAIR HOMER: So, I am going to
6 take the Chair's prerogative here and first
7 tell a brief story, and then move this along.

8 So, the brief story is I was
9 involved, as you may know, and I guess it is
10 disclosure, in developing the previous
11 iteration of the Boston Children's Picker
12 hospital survey. My first presentation at
13 Children's Hospital in 1991 as a presenter
14 was, "Do you know who your child's doctor is?"
15 And the answer was, of course, no --
16 (laughter) -- very consistent with what you
17 were reporting. So, it is interesting how
18 some things change and some things don't,
19 because it is hard in a complex institution.

20 So, having said that, we do need
21 to sort of wrap this conversation and come to
22 a decision about where we are going to go with

1 this survey. We have the process we need to
2 go through. So, the first would be we need a
3 series of votes on these.

4 So, the first one is, is this
5 concept or construct or measure sufficiently
6 important for us to proceed? And I would like
7 to call the vote.

8 All those who believe this is
9 sufficiently important show your hands.

10 Good. Everybody.

11 So, everyone, they were all yeses?

12 Okay.

13 DR. WINKLER: They were all yeses
14 except Tom.

15 CO-CHAIR HOMER: Who is crawling
16 under the table.

17 (Laughter.)

18 MEMBER McINERNY: Sorry.

19 CO-CHAIR HOMER: So, the next
20 question is scientific acceptability of the
21 measure. To be honest, I would contend that
22 we haven't, because the developers didn't know

1 how to send us the information, were concerned
2 we would be overwhelmed by a 300-page
3 document. I am a little concerned we don't
4 have sufficient information to actually make
5 that judgment.

6 So, I guess I need to call for a
7 vote as to whether it is -- I guess, really,
8 where I am going on this is, rather than
9 proceed with the next series of votes on this,
10 do we want to, again, request the developer to
11 provide us some of that additional
12 information?

13 MEMBER DOCHERTY: Charlie, I just
14 have a question. You know, in methods
15 measurement, with a new scale, we tend to
16 accept indices that are slightly less than our
17 older, well-established scale. Could that
18 also be true for our assessment here, that we
19 recognize that it is a very new scale, and it
20 is under development, and that the author or
21 the developer is willing to continue to
22 provide us with reliability and validity in

1 development --

2 CO-CHAIR HOMER: The caveat is, as
3 Helen pointed out earlier, if we endorse or
4 recommend endorsement, that would be basically
5 anybody else can pick this item up and use it,
6 and that we would have some assumption of
7 comparability across institutions.

8 DR. BURSTIN: Charlie, it might
9 just be that we would ask you to actually
10 submit that document, and perhaps just give a
11 brief summary of the reliability and validity
12 based on the statistics that are in there.
13 And you could vote on it today, conditional
14 upon approval of that plan, just so you don't
15 have to get into yet another spinning game.

16 CO-CHAIR HOMER: Okay. So, should
17 we proceed, then, with the different votes on
18 the different elements, and then come back?
19 Okay.

20 So, in terms of scientific
21 acceptability, then, how many would feel this
22 is completely meets the criteria for

1 scientific acceptability?

2 I see none.

3 How many feel this partially meets
4 the criteria for scientific acceptability?

5 All right. So, then I will move
6 to minimally meets the criteria. I guess we
7 would say minimally. Okay.

8 Okay. Good.

9 So, then, the next one is
10 usability, which is how interpretable are the
11 results, as well as -- why can't I ever
12 remember the other elements? How
13 understandable they are, whether they are
14 harmonized.

15 And again, we have got this issue
16 of comparability with CAHPS and where it is
17 and isn't, and the added value again. And
18 there is no H-CAHPS for pediatric, but there
19 are different scales and things like that.

20 So, how many would vote that it
21 completely meets the criteria for usability?

22 Okay. How many would say it

1 partially meets the criteria for usability?

2 And how many believe it minimally
3 meets the criteria for usability?

4 Has that got everybody?

5 Or not at all? Because we don't
6 have any comparative data and things like
7 that, and English only.

8 Okay. Good.

9 And then, for feasibility, again,
10 data clearly are not a byproduct of care. This
11 needs to be just a survey. But it is
12 feasible, electronic, exclusions, potential
13 for inaccuracies, and experience with or
14 capability for widespread implementation.

15 MEMBER GARY: I wanted to ask one
16 point before --

17 CO-CHAIR HOMER: Related to
18 feasibility? Sure.

19 MEMBER GARY: I think it was
20 Marina who asked about how this data might be
21 used by consumers. But I wanted to also know,
22 have you all thought through in your focus

1 groups, or whatever, how this data would be
2 used at the hospitals among the providers to
3 improve care? That is No. 1.

4 And No. 2, do you have a standard
5 definition that you share with people who
6 participate about what quality of care means?
7 Because that, even providers, don't have any
8 clear idea about the qualities. How do you
9 grapple with that? Do you give us a scenario?
10 Or how are you going to do that?

11 DR. ZINIEL: So, from a
12 standardized interview point, my answer to
13 your question would be whatever means to you.
14 It is really hard to give definitions for a
15 concept because, once you give a definition --
16 I mean, how complicated would that definition
17 be? Would people understand it?

18 And with regard to scenarios,
19 there is enough scientific evidence that
20 scenarios actually bias the way you answer
21 because people will only think about the
22 scenarios you provide.

1 So, it is really what the parent
2 encompasses in that quality of care for
3 themselves, as subjective as satisfaction.

4 Your first question, can you
5 repeat your first question? Or go ahead.

6 MEMBER GARY: I am just concerned
7 that people in general without literacy
8 issues, many, many people will not have an
9 understanding for quality-of-care use. So, I
10 am wondering if it is quality of care you are
11 measuring, that one's own experience in terms
12 of interactions with staff --

13 CO-CHAIR HOMER: I do think that
14 test, that question has been subject to very
15 extensive -- I mean there have been a lot of
16 focus groups, there have been a lot of
17 cognitive interviews across a variety of
18 socioeconomic -- even though the term is very
19 abstract, people are able to make judgments
20 with this poor-to-exceptional or 1-to-10 scale
21 around rating quality of care.

22 DR. ZINIEL: I mean, you know,

1 sort of my "rebuttal", quote/unquote, would
2 be, if the providers can't decide what's
3 quality of care, like how should we explain it
4 to a parent? I mean, if you, you know --

5 CO-CHAIR HOMER: I think it is the
6 first line, actually, of "Zen and the Art of
7 Motorcycle Maintenance".

8 (Laughter.)

9 It's exactly about that term
10 "quality".

11 MEMBER GARY: The other question
12 is, how you are getting the agreements among
13 the professionals --

14 DR. ZINIEL: Oh, right.

15 MEMBER GARY: -- to improve the
16 care?

17 DR. ZINIEL: So, I mean,
18 definitely, there is a long-term monitoring of
19 how rates change. The other thing that I
20 would personally like to see with this
21 instrument is that there is a clear linkage to
22 data with regard to department. So, that if

1 the percentage of people that say they really
2 had a problem, you know, sort of below the
3 standard, like poor to excellent, where people
4 say poor to average, that the department sort
5 of really has to address if that percentage,
6 for example, goes up.

7 I think that that tool is really
8 to monitor how it goes overall, and that if
9 this percentage increases or the percent of
10 satisfied/very satisfied drops, that that is
11 really the point where the department, or
12 whatever area it is that shows these changes,
13 has to start investigating what is going on.

14 CO-CHAIR HOMER: Thank you for the
15 question and the response.

16 I am going to go back to voting on
17 the feasibility question.

18 How many believe that this
19 completely meets the criteria for feasibility?

20 Again, the components of
21 feasibility are, they don't -- again, it is a
22 little challenging because the data is not big

1 because it is a survey. But, basically, how
2 feasible is this to implement? What is the
3 burden, the hassle? How well-specified is it?
4 How easily could this be picked up and done in
5 a consistent manner?

6 So, how many believe this
7 completely meets the criteria for feasibility?

8 We said that?

9 How many believe it partially
10 meets the criteria for feasibility?

11 How many believe this minimally
12 meets the criteria for feasibility?

13 Anyone in the not at all?

14 Okay. All right. Now I think
15 again comes the question whether we move to
16 endorse it or not. So, I think there are
17 several options that we have on the table.

18 One is, as we did I think in one
19 of the early ones, is not move that question,
20 but, rather, recommend or request that we have
21 additional data provided to the Committee.
22 Isn't that what you were basically suggesting?

1 DR. BURSTIN: Oh, no, no, no. You
2 could just move it with conditions, if you
3 would like.

4 CO-CHAIR HOMER: So, we could --

5 DR. BURSTIN: Conditions on the
6 satisfactory analysis of the tome.

7 CO-CHAIR HOMER: Okay. So, we
8 could do one of three things, but really one
9 of two things, in my view.

10 One is not vote and request
11 further information. Second is vote
12 conditionally, and I would still say vote for
13 time-limited because, again, this is only in
14 English. This hasn't been applied across in
15 one institution. We haven't been presented
16 with domain scores or mechanisms really for
17 reporting out.

18 So, we could either make it
19 conditional -- we could either request more
20 information or we could vote a conditional,
21 time-limited endorsement. I think those are
22 really the options.

1 Lee?

2 MEMBER PARTRIDGE: I think
3 probably several of us are struggling with the
4 problem that the work has been largely done in
5 cooperation with children's hospitals.

6 I think I heard Allan say that --

7 CO-CHAIR HOMER: With just one
8 children's hospital.

9 MS. RAUSCHER: Just one children's
10 hospital.

11 MEMBER PARTRIDGE: But you also
12 had conversations with other children's
13 hospitals.

14 DR. ZINIEL: Correct.

15 CO-CHAIR HOMER: But that is, yes,
16 only one question really, that satisfaction
17 dimension.

18 MEMBER PARTRIDGE: Right. I think
19 my basic dilemma is I want an H-CAHPS for
20 pediatrics.

21 CO-CHAIR HOMER: Right.

22 MEMBER PARTRIDGE: What I don't

1 feel comfortable with, as we have it in front
2 of us today, how well it would also work in
3 Kaiser's hospitals or in community hospitals
4 in more rural areas. I don't know whether we
5 can get that in a reasonable period of time.
6 I think it is difficult to get it through the
7 NQF process without having a little better
8 sense of how it would work outside the
9 children's hospital.

10 MEMBER LIEBERTHAL: I didn't speak
11 directly to Kaiser, but knowing how it works,
12 I think that they would respond better to a
13 pediatric questionnaire that was under the
14 H-CAHPS title, which they already use, than a
15 totally new questionnaire.

16 And also, the issue of similar
17 rollups, so they could have some comparison of
18 their pediatric services to their adult
19 services, recognizing the differences.

20 And I am usually not one who
21 advocates that children are small adults.

22 (Laughter.)

1 DR. BURSTIN: I did just email the
2 CAHPS team. It helps that I spent seven years
3 there. I can do that stuff.

4 So, they wrote me back. "The
5 CAHPS team acknowledges the importance of this
6 population, but they have limited resources to
7 do it at this time."

8 So, I think the reality is it is
9 not there now. There you go.

10 MEMBER PARTRIDGE: And we all are
11 very aware of that. Therefore, you don't want
12 to stifle progress.

13 DR. BURSTIN: And at some point,
14 if a pediatric H-CAHPS came in, those measures
15 could be harmonized or one would be determined
16 to be best in class. But, at this point,
17 there's not a competing measure on the table.
18 There is a theoretical one on the table, but
19 it doesn't exist.

20 CO-CHAIR HOMER: But I also know
21 what was required of the CAHPS team to get
22 through both NQCA approval and then NQF

1 approval, which was vastly more data --

2 DR. BURSTIN: The first time. It
3 hasn't been that way since, and the first
4 time -- I was at AHRQ at the time.

5 CO-CHAIR HOMER: Yes.

6 DR. BURSTIN: I mean H-CAHPS was
7 more of a political battle than anything else.
8 Getting it through NQF actually wasn't the
9 problem.

10 CO-CHAIR HOMER: But I did sit, I
11 sat, as you know, on the Hospital Review
12 Committee, and there was a lot more data
13 presented. So, I am just a little worried
14 that we haven't yet seen comparative data. We
15 don't have domain scores. But that is my own
16 stick.

17 DR. BURSTIN: So, why don't you
18 just defer the vote until you have set a time?
19 That is fine.

20 CO-CHAIR HOMER: I am just
21 speaking --

22 MEMBER JENKINS: I would just like

1 to say, if anyone here has any suggestions or
2 advice for us, we would more than entertain
3 them. Because we started by having the adult
4 measure tried to be stuffed down on us, which
5 is how we got this far, and you guys are
6 seeing exactly how far we have gotten.

7 MEMBER LIEBERTHAL: Recognizing
8 that H-CAHPS doesn't have the resources to
9 start from scratch and write a pediatric
10 questionnaire, they might welcome working with
11 you and merge the two. It would require much
12 reduced resources on their part and
13 acknowledge the extensive work that you have
14 done. So, I think that might be a compromise
15 that would be more satisfactory to many
16 people.

17 CO-CHAIR HOMER: But I don't want
18 to put on the team -- they are not in control
19 of whether the H-CAHPS people will work with
20 them or not. So, that seems, it is a
21 wonderful suggestion, but, you know --

22 DR. BURSTIN: But, Charlie, to

1 your point, I think based on what you just
2 said that the discomfort is, I think we should
3 actually wait and get the methods piece back
4 to assess reliability and validity, and just
5 vote on another conference call. I think
6 doing it now would feel premature, it sounds
7 like, for too many folks here.

8 CO-CHAIR HOMER: Well, it would be
9 for me. I am just speaking more as an
10 individual than as the Chair.

11 So, my motion would be that we
12 request additional information specifically on
13 the domain score issue and really I think even
14 crisper specifications, then, tied to what the
15 reporting would look like, and then bring that
16 back for a vote for time-limited endorsement,
17 based on that.

18 Then, I think the conditions
19 probably at the time of the time-limited
20 endorsement would be application across
21 multiple institutions to look at the
22 feasibility of use.

1 DR. BURSTIN: Right. Which is in
2 the works. Yes.

3 CO-CHAIR HOMER: Then, that would
4 be the criteria for coming back within 12
5 months, more or less, after we do the time-
6 limited endorsement.

7 So, that is my motion, is that we
8 defer a vote, pending additional information.

9 Do I have general agreement? I am
10 seeing a lot of heads shaking that we do that.
11 Okay. Good.

12 All right. So, why don't we go
13 forward with that?

14 DR. BURSTIN: And I am also happy
15 to play the matchmaking role, if you would
16 like, with AHRQ.

17 CO-CHAIR HOMER: Well, I guess I
18 would be specifically interested in AHRQ, in
19 where there are disparities in scales, in
20 particular, like, again, you've got this
21 different five-point scale than the standard
22 CAHPS 10-point overall rating scale, which I

1 know was a very intensely-researched topic.
2 I would at least like to hear a little bit
3 more -- this is probably my old survey
4 researcher coming out -- on some of those
5 items.

6 DR. ZINIEL: Yes, I am happy to do
7 that.

8 CO-CHAIR HOMER: Good. Great.
9 Thank you very much. Wonderful
10 discussion. Wonderful work.

11 Also, I guess, on behalf of the
12 child health community, I express my
13 appreciation to Boston Children's for
14 investing in developing and moving this
15 measure forward.

16 DR. ZINIEL: Thank you.

17 CO-CHAIR HOMER: That is great, as
18 well as the other one.

19 MS. RAUSCHER: Thank you.

20 MS. McELVEEN: Okay. We have five
21 measures left and about 50 minutes.

22 CO-CHAIR HOMER: So, 10 minutes

1 each.

2 MS. McELVEEN: Yes, I think we all
3 know that that's probably not going to happen.
4 This is my suggestion: the five measures left
5 are the individual metrics that are, again,
6 part of this larger survey measure submitted
7 by CAHMI. My suggestion is, either out of the
8 five, if we could quickly look through them
9 just based on maybe title description and the
10 reviewers who looked at it and do a scope
11 call. Because I know a lot of the other
12 individual metrics we viewed them as out of
13 scope for various reasons.

14 And also, taking up the first
15 measure to look through more in-depth, if it
16 does get that far, is the one on measure of a
17 medical home for children and adolescents,
18 only because I think that one will probably
19 have a little more discussion than the others.

20 Is that okay with the group to do
21 that first and go from there? Any objections?
22 None. Okay.

1 So, the first out of the five is
2 41. And again, this is a brief, you know
3 -- I'm sorry. This is Work Group 4.

4 Sorry. I apologize. I am just
5 trying to get through these. I am probably
6 talking, working faster than I should.

7 So, this is Group 4.
8 Unfortunately, Tom had to leave early, but he
9 did provide his feedback. So, that is
10 probably what you see up on the screen, is
11 mainly his comments and ratings.

12 But, first, Measure 41 is children
13 who attend schools perceived as safe. This
14 measure ascertains the perceived safety of the
15 child's school. So, again, just looking at
16 that description, and based on the reviewers
17 who did look at the measure more in-depth, if
18 we could kind of give a call as far as
19 importance and scope, whether it fits within
20 scope of the project.

21 MEMBER PARTRIDGE: I was on Work
22 Group 4, and I was a negative on this one,

1 primarily because I had difficulty with
2 evidence of relationship to child health.

3 We had a long discussion about
4 this issue in the context of Measure 2 above,
5 which is children who live in communities
6 perceived as safe. So, I guess from my point
7 of view right now, I would still consider this
8 one out of the scope, but I am willing to be
9 convinced.

10 MEMBER PERSUAD: I was on the
11 subgroup that reviewed this. I would concur
12 with that. This is a single item on a larger
13 questionnaire. It is a single item. It is
14 very general.

15 The only thing I could think of
16 that would be of interest in this would be
17 bullying, and I don't think that the statement
18 on linked to outcomes was strong enough as is
19 written here. I am not sure that it is not,
20 actually, because it is a child's school.

21 But I would be fine if it is out
22 of scope. It is a single item, and it is very

1 general.

2 CO-CHAIR HOMER: Ellen?

3 MEMBER SCHWALENSTOCKER: I was not
4 part of that Work Group. So, I hope I am not
5 out of turn speaking.

6 CO-CHAIR HOMER: No, that is fine.

7 MEMBER SCHWALENSTOCKER: I agree
8 with what has been said, but, then, it seems
9 inconsistent to me that we would endorse the
10 safe community and not endorse the safe
11 school.

12 CO-CHAIR HOMER: The amenities was
13 out, but we did -- the safety was in.

14 MEMBER PERSUAD: Which is one
15 thing I was thinking about. I did want to ask
16 us to review maybe a little bit of the
17 discussion about the safety in neighborhoods.
18 Right? That was a safety in neighborhoods.
19 Communities, safety in communities.

20 CO-CHAIR HOMER: We felt that the
21 experience of being safe in your community was
22 an important stressor, health-related

1 stressor. So, the question is whether we feel
2 that the perception of safety in the school
3 is --

4 MEMBER JENKINS: There is the link
5 to physical functioning and obesity --

6 CO-CHAIR HOMER: Yes.

7 MEMBER JENKINS: -- because of
8 safety --

9 MEMBER PERSUAD: In this document,
10 the summary of evidence for linkage was that
11 children who attend schools that are usually
12 or always felt as safe are much more likely to
13 be in better overall health than those who
14 attend schools which are never safe, 85
15 percent to 59 percent. That is the only piece
16 of evidence that we have in this document that
17 they listed.

18 MEMBER KIBORT: Charlie, when you
19 made the comment that for the communities it
20 seemed to correlate, their sense of safety
21 correlated with their health, but since the
22 child spends so much time in school, wouldn't

1 it sort be the same logic?

2 CO-CHAIR HOMER: You could make
3 that argument.

4 MEMBER FISHER: Why isn't the
5 school part of your community?

6 MEMBER KIBORT: It is.

7 CO-CHAIR HOMER: So, Faye?

8 MEMBER GARY: One of the --

9 MR. STUMBO: This is Scott Stumbo
10 on the call.

11 CO-CHAIR HOMER: Oh, good.

12 Faye, I'm sorry. Please.

13 MEMBER GARY: That is okay.

14 One of the struggles I had is that
15 some schools are in very blighted
16 neighborhoods, and children feel very unsafe
17 when they are walking from home to the
18 schools. When they get to the schools, they
19 may feel relatively safe in the schools, but
20 when they walk out on the sidewalk and head
21 home, they don't feel safe. Lots of things
22 happen between school and home.

1 MEMBER KIBORT: Faye, it may be
2 the opposite, too, though, right?

3 MEMBER GARY: Yes, it might be the
4 opposite.

5 MEMBER KIBORT: That the community
6 is safe, but the school is not.

7 MEMBER GARY: Well, then, in some
8 of the schools they have police in the schools
9 and there are surveillance secret men in the
10 school to make the children feel safe.

11 And those neighborhoods, I would
12 suggest, are relatively unsafe. So, in my
13 mind, it is hard for me to separate out a safe
14 school and not a safe neighborhood, and no
15 information about how a child feels safe in
16 the neighborhood. Then, conflicts in the
17 school just spill over in the neighborhood.

18 So, I am having difficulty with
19 this.

20 CO-CHAIR HOMER: Scott, have they
21 looked, have you looked at the correlation
22 between these two items?

1 MR. STUMBO: They are highly
2 correlated, yes.

3 CO-CHAIR HOMER: Okay. Is there
4 additional information in one compared to the
5 other or they so highly correlated that they
6 are really no added value?

7 MR. STUMBO: That I don't know. I
8 am not sure.

9 CO-CHAIR HOMER: So, I guess for
10 consistency -- I mean I am not going to
11 revisit yesterday's vote -- for consistency's
12 sake, it is hard, I guess in light of this
13 conversation, for us to view this out of
14 scope. Is that an accurate -- so, it is
15 within scope. So, that means, how do you want
16 to deal with that? Do you want to go to the
17 other ones that we think maybe are out of
18 scope?

19 MS. McELVEEN: Yes.

20 CO-CHAIR HOMER: Then, we will
21 either come back to this one now or come back
22 to it in a conference call.

1 MS. McELVEEN: Yes. Okay.

2 Okay. The next one on the list is
3 42. It is children who receive the mental
4 health care they need, and this is the
5 percentage of children age 2 to 17 who have an
6 ongoing condition which requires mental
7 healthcare who actually have seen a mental
8 healthcare professional in the past 12 months.

9 CO-CHAIR HOMER: So, I guess the
10 question would be, is this a process measure
11 or an outcome measure?

12 MEMBER PERSUAD: I was two minds
13 about this. I think it is at face value is a
14 process measure, but, as a general
15 pediatrician, I know that that is such a
16 critical early make-or-break, and that is
17 really the thing that we are dealing with that
18 I was trying to figure out if it moves over to
19 being somewhat of a proxy measure.

20 CO-CHAIR HOMER: Bonnie?

21 MEMBER ZIMA: I had some concerns.
22 But my initial impression was that there was

1 too much diversity on what a mental health
2 professional was, and I could not link sort of
3 whether the condition that child had connected
4 with the right provider.

5 CO-CHAIR HOMER: Could we confine
6 the responses to this issue of whether we
7 consider it a process or -- because that is
8 really going to be a question of whether we
9 consider this in scope or out of scope, as
10 opposed to the validity of the measure.

11 MEMBER LIEBERTHAL: Seeing a
12 mental health professional may lead to better
13 outcome or may not. So, I see it as a process
14 measure. It is just one step on the path. It
15 may lead to better outcome.

16 CO-CHAIR HOMER: Lee?

17 MEMBER FISHER: I felt it was
18 partially important. I am perfectly happy
19 ruling it out as a process measure.

20 CO-CHAIR HOMER: Okay. So, all
21 that means is it just goes to our meeting in
22 July, you know.

1 (Laughter.)

2 So, I think this one is considered
3 a process.

4 MR. STUMBO: Can I ask a question?

5 CO-CHAIR HOMER: Yes.

6 MR. STUMBO: So, it is not purely
7 based on an item saying did you or did you not
8 see a mental health professional. There is an
9 identified need. So, this I would think it
10 would fall under the same category as any
11 other unmet need for access to healthcare, and
12 so in my mindset, makes it much more in the
13 realm of outcome. If it was just did you or
14 did you not see a mental health professional,
15 but it is clearly based on a two-item measure,
16 and based on the first item, the child has
17 been identified as having an ongoing need, not
18 just a crisis, but an ongoing need for mental
19 health care.

20 And then, completely unrelated to
21 a different part of the survey, it says, by
22 the way, did you happen to see a mental health

1 professional? It does define what could be
2 included as a mental health professional.

3 So, those who said no have somehow
4 indicated earlier that their child did,
5 indeed, have a need. That is the risk --

6 MEMBER ZIMA: Certainly in the
7 title we see that there is a need. In the
8 title it implies appropriateness.

9 CO-CHAIR HOMER: Certainly, that
10 was a good point, but I think I am still in
11 the category, I think, that it is a process.

12 So, the first question is, is
13 there a need? To some extent, that is a
14 health status indicator. That is an unmet
15 need, it is a combination of a process and an
16 outcome.

17 MEMBER PARTRIDGE: I assume if we
18 deal with this later on as a process measure,
19 we are not totally precluded from identifying
20 some element of it as also an outcome measure.
21 Just as we have talked to the payers here, I
22 think we all feel there needs to be something

1 that addresses the question of assessing the
2 unmet need.

3 MEMBER FISHER: Of mental health
4 problems.

5 MEMBER PARTRIDGE: Of mental
6 health, yes.

7 MEMBER ZIMA: It mirrors a little
8 bit of the discussion we had yesterday with
9 Dr. Murphy around the pediatric symptom
10 checklist.

11 CO-CHAIR HOMER: But at least the
12 pediatric symptom checklist was a direct
13 indicator, at least intended to be a direct
14 indicator of the health status, you know,
15 whether you had symptomology that you had
16 indicated you had --

17 MEMBER FISHER: But this says that
18 you have a diagnosis, you have a need, so you
19 have a diagnosis.

20 CO-CHAIR WEISS: It also says they
21 received the care.

22 MEMBER FISHER: And so, to me, if

1 you didn't receive the care, that is pretty
2 bad. I just think that we are so used to
3 taking mental health and taking it away from
4 physical health, that we forget you get bad
5 outcomes if you don't get to see -- if you
6 don't see the cardiologist about your
7 arrhythmia, you know, you get into problems.

8 So, I am thinking if you don't see
9 a mental health person about your, let's say,
10 bipolar disease, you can get into problems.
11 Of course, it might be fun to go out and spend
12 a lot of money, but you know what I am trying
13 to say. If there is a problem there --

14 CO-CHAIR HOMER: Yes, Donna?

15 MEMBER PERSUAD: I guess one thing
16 is, I notice in the measure specification it
17 is children who have a mental health condition
18 and saw a mental health professional in the
19 last 12 months. I guess I didn't see that as
20 meaning necessarily that they got the total
21 cure for their condition or the level of care
22 they needed. I saw it more as process on that

1 point. They just got there.

2 MEMBER RAO: And there is the
3 other issue that I think a significant
4 proportion of mental illness is treated by
5 primary care physicians, too, and it is
6 ongoing as well.

7 CO-CHAIR HOMER: So, are we,
8 again, are we deferring this, then, to our
9 process conversations in a couple of months?
10 Okay.

11 CO-CHAIR WEISS: On the basis that
12 one would expect that most mental health care
13 is going to be given over time, I think
14 process makes -- I mean I think there are
15 elements of both, but I would put it in the
16 60/40 process basket.

17 CO-CHAIR HOMER: So, let's defer
18 this until our next long meeting and
19 conversation. Good.

20 MS. McELVEEN: Okay. The next one
21 up is No. 44, and this is children who have an
22 adequate insurance coverage for optimal

1 health. The measure is designed to ascertain
2 whether or not current insurance program
3 coverage is adequate for the child's health
4 needs, whether the out-of-pocket expenses are
5 reasonable, whether the child is limited or
6 not in choice of doctors, and whether the
7 benefits meet the children's healthcare needs.
8 So, it is a lot of components.

9 CO-CHAIR WEISS: Let me just say
10 that I think this one needs to be thought
11 about in context of health reform, and health
12 reform is going to phase in over time. So, I
13 think we should be thinking about a broader
14 timeframe than just the year 2010.

15 But I do believe that this
16 particular set of questions needs to be
17 measured. It just really important,
18 particularly for people who will be getting
19 their health insurance coverage through the
20 exchanges and for adolescents and others who
21 will be getting the stripped-down, Spartan
22 healthcare plans. It is just very important

1 to monitor whether those plans have an
2 adequate scope of coverage. So, whether
3 outcome or process, this is super-important,
4 in my mind.

5 CO-CHAIR HOMER: Lee?

6 MEMBER PARTRIDGE: I think you can
7 tell by the scores up here that we had some
8 unanimity on the importance of this measure.
9 I would argue that it is not a process
10 measure. I would argue it is an outcome
11 measure because the flip side is you cannot
12 have access to your healthcare in many
13 instances if you don't have the capacity to
14 pay for it. So, I put it in the outcome
15 bucket comfortably. Probably on a slippery
16 slope, but --

17 MEMBER FISHER: Also, because you
18 have insurance doesn't mean you have access.
19 I am just adding that --

20 MEMBER PARTRIDGE: I am well aware
21 of that.

22 MEMBER FISHER: Okay. I am just

1 adding that to what you said. I am not
2 arguing this.

3 MEMBER PARTRIDGE: You are talking
4 about mental health?

5 MEMBER FISHER: Talking about any
6 kind of insurance, health insurance.

7 CO-CHAIR HOMER: So, we think this
8 is in scope. That seems to be -- I think this
9 is definitely in scope.

10 So, all of our efforts to expedite
11 this conversation are not really being very
12 productive, but that's all right.

13 (Laughter.)

14 So, that is in scope.

15 And then, the last one?

16 MS. McELVEEN: That one is in
17 scope.

18 CO-CHAIR HOMER: The measure --

19 MS. McELVEEN: Medical homes. So,
20 the next one -- and we probably could take
21 some time to discuss this one a little more
22 in-depth -- is around the medical home. This

1 is the measure of the medical home for
2 children and adolescents.

3 It is basically a composite
4 measure that assesses whether children and
5 adolescents receive healthcare within their
6 medical care. This is according to the survey
7 respondent. Then, it looks like there the
8 measure is based on six of seven components
9 that are proposed by the American Academy of
10 Pediatrics, I think, it looks like defining
11 what the medical home is.

12 CO-CHAIR HOMER: So, again, I
13 think the key question is, is this in scope,
14 first. Is that what you wanted?

15 MS. McELVEEN: Yes.

16 CO-CHAIR HOMER: And then we are
17 going to have to prioritize which of these
18 various ones we are going to cover during our
19 discussion.

20 So, the first question is, do
21 people feel this is an outcome measure within
22 the scope of our deliberations?

1 DR. BURSTIN: I don't see it as
2 out of scope, but I am not sure I see it as in
3 scope. I mean, when we put it together at the
4 start of the Outcomes Project, we explicitly
5 put patient self-report on the list of
6 outcomes. So, from that perspective, I think
7 it is potentially in.

8 CO-CHAIR HOMER: Yes.

9 CO-CHAIR WEISS: Could I weigh-in
10 with maybe a different way of looking at it?
11 That is, it seems to me that currently it is
12 an outcome because not every child has a
13 medical home, and we are driving in that
14 direction.

15 There will come a point in time
16 where every child does have a medical home, at
17 which point it becomes a process.

18 MEMBER FISHER: I like that, yes.
19 And I think, also, it is that we have got to
20 think differently about medical care, and that
21 is the problem; this is different.

22 MEMBER JENKINS: Or maybe another

1 way of saying it is it is an intermediate
2 outcome.

3 CO-CHAIR HOMER: Yes, I am just
4 wondering about our consistency with our unmet
5 mental health need and whether that would also
6 fit the same criteria, but let's not go there.

7 So, this is also, clearly, within
8 scope.

9 MEMBER FISHER: Remember it when
10 it comes up again.

11 CO-CHAIR HOMER: And then the last
12 one for us to decide if it is in or out of
13 scope would be Measure 50. So, then, who
14 receives standardized developmental -- yes.

15 MEMBER LIEBERTHAL: Yes, that is
16 clearly a process.

17 CO-CHAIR HOMER: Okay. We took
18 care of two, one.

19 So, I think the question is, which
20 one do we want to pick up and which ones do we
21 think that we have a reasonable likelihood of
22 being able to complete within a half-hour

1 conversation? Do you think we can medical
2 home and insurance?

3 DR. BURSTIN: Go for it.

4 CO-CHAIR HOMER: Okay.

5 MS. McELVEEN: I won't object to
6 that, of course.

7 (Laughter.)

8 CO-CHAIR HOMER: So, let's do the
9 insurance one first. Since there was a lot of
10 enthusiasm that I saw around the room, maybe
11 that will be an expeditious measure.

12 CO-CHAIR WEISS: Shall we time it?

13 (Laughter.)

14 CO-CHAIR HOMER: So, the insurance
15 item is item 44.

16 Again, either does the steward,
17 the way we were doing it today, want to make
18 a brief, any brief introductory comments about
19 this item?

20 MR. STUMBO: Sure. Well, this is
21 one that we are particularly fond of.

22 This is a national survey, first

1 of all. This is being used by the Maternal
2 and Child Health Bureau for quite a while. It
3 is a relatively-new measure. It was
4 introduced into the 2007 survey, but we are
5 still getting publications out about it.

6 Like a commenter on your panel, we
7 believe very strongly that saying whether a
8 child has coverage or not is actually not the
9 whole picture. It is when you actually start
10 to dive a little deeper, we do find that, even
11 among children who are reporting or their
12 parents are reporting that they are in current
13 coverage, 15 or more percent, and it is
14 actually much worse among the private, are
15 stating that they do not have adequate
16 coverage, based on whether they have
17 unreasonable out-of-pocket expenses, not able
18 to see all the providers they need, and/or the
19 benefit does not talk to the child's needs.

20 So, we think that's a really
21 important story to tell.

22 CO-CHAIR HOMER: Great.

1 So, any other questions about
2 importance issues on this particular question?

3 (No response.)

4 Okay. So, let's vote.

5 How many believe this is an
6 important item sufficient to proceed?

7 DR. WINKLER: Eleven.

8 CO-CHAIR HOMER: Good. There were
9 none opposed. Good.

10 All right. So, then, the
11 scientific validity of the items, again, I
12 think we reviewed the characteristics of the
13 survey overall quite a bit.

14 Any comments on the testing, the
15 questions themselves, the cognitive interview,
16 the testings, and also, any assessment of
17 these items and how they fit together, how
18 well the algorithm works?

19 MEMBER LIEBERTHAL: The questions
20 are very subjective. This is parents'
21 perception of their insurance plan. As being
22 subjective, it can be all over the place as to

1 what is adequate coverage. Again, somebody
2 may perceive adequate coverage as no out-of-
3 pocket expense; whereas, somebody else may be
4 happy with some out-of-pocket expense. I
5 don't know how to draw conclusions on that as
6 to whether a child has adequate insurance.

7 It also depends so much on the
8 family's inherent finances and socioeconomic
9 status.

10 CO-CHAIR HOMER: Okay.

11 CO-CHAIR WEISS: Let me just say
12 that that is a point that is debated and has
13 been for many, many years. Five percent of
14 adjusted gross income is one measure that has
15 been used. Of course, you know, the Internal
16 Revenue Service has used different measures.
17 So, I don't know that we are going to be able
18 to even come close to settling that issue. It
19 is a subjective judgment.

20 MEMBER PERSUAD: I guess the
21 measure steward can comment on this. They do
22 recommend stratification based on

1 vulnerability. So, that may be a way to get
2 at the issue of whether there's comparative
3 relationship between what they would think is
4 unreasonable and what they really have.

5 I would actually argue that what
6 the parents' perception is of unreasonable is
7 unreasonable. That is face validity to me.

8 MR. STUMBO: Right. In fact, this
9 measure has so much face validity. Basically,
10 it is an incredibly low bar. In fact, I think
11 you guys were discussing the previous measure
12 prior to our measure. There is an immense
13 positive bias on all these questions. So, all
14 they have to do is there are these three
15 components: whether or not the out-of-pocket
16 costs are unreasonable, whether the plan
17 provides for everything the child needs, you
18 know, that the benefits provide for the
19 child's need, and it never, sometimes,
20 usually, always -- this is a usually-and-
21 always measure on all of them. So, all you
22 have to do is fall into the sometimes or never

1 on one and you become adequate, which is
2 actually a relative low bar.

3 Of the three domains, it is the
4 out-of-pocket expenses which drive a bit of
5 it. To give a little flavor on the
6 stratification of the face validity, it is the
7 private insurance which is actually doing
8 much, much worse on the overall measure and on
9 that component. You know, public-insured kids
10 are actually doing better.

11 And when you stratify by income,
12 it is not related to income the way you might
13 think it is. In fact, the people doing the
14 worse are the folks in the 200 to 400 percent
15 poverty rate, which often fall outside of that
16 SCHIP. And the lowest under poverty and the
17 highest 400 percent above are equal on whether
18 or not the insurance is adequate. So, it is
19 not being driven entirely by the out-of-pocket
20 expenses, but can be for the privately-insured
21 kids.

22 CO-CHAIR HOMER: So, Kathy,

1 please.

2 MEMBER JENKINS: I thought what
3 you just said was that any of those needed to
4 be usually or always, but the way it is
5 written, it is a series of "and" statements.
6 You actually have to meet all the criteria.
7 Isn't that true?

8 MR. STUMBO: Yes, in order to have
9 adequate coverage, you have to be usually or
10 always in all three of the components. And
11 nationally, without any stratification, 15
12 percent of kids are not usually or always
13 meeting those criteria.

14 When I have talked to both the
15 National Caucus of State Legislators, and we
16 have brought these numbers for a lot of other
17 folks, the preschool and regional, they can't
18 believe that it is not significantly higher
19 than that. Most people's personal experience
20 is that they can't believe everyone says they
21 don't have adequate coverage.

22 MEMBER ZIMA: This is probably a

1 fine point, but I am looking at the 2a.21
2 calculation algorithm, and it looks to me like
3 it is needed to see the healthcare provider.
4 How are you handling mental health?

5 MR. STUMBO: I'm sorry, I don't
6 actually have the form, submission form, in
7 front of me. Can you explain a little bit
8 further?

9 MEMBER ZIMA: Yes. It says,
10 "Current insurance offers benefits or covers
11 services that meet the child's needs. Current
12 insurance allows the child to see needed
13 healthcare providers."

14 Does healthcare provider include
15 mental health or not?

16 MR. STUMBO: Objective to parent
17 interpretation.

18 CO-CHAIR HOMER: I'm sorry, what
19 was the --

20 MR. STUMBO: If the coverage does
21 not cover mental health coverage and the
22 parent thinks it should, then maybe, like we

1 said, they were not happy with that.

2 CO-CHAIR HOMER: Okay. All right.

3 Do we have sufficient information to move on
4 the scientific validity, scientific
5 acceptability of the measure? I think so.

6 So, how many --

7 MEMBER JENKINS: Can I ask one
8 more question?

9 CO-CHAIR HOMER: Yes, of course,
10 Kathy.

11 MEMBER JENKINS: Could I ask you,
12 then, what I heard you say is that there is
13 this positive response bias, and that people
14 are shocked that the measure does as well as
15 it does. Is there a potential unintended
16 consequence that the problem with the positive
17 response bias could be misleading in the
18 opposite direction?

19 MR. STUMBO: I'm not sure I could
20 comment on that. We do find that, in general,
21 parents tend to be positive on everything.
22 How well are your kids doing? If anything --

1 I have three.

2 (Laughter.)

3 Yes, I was surprised on the
4 positive bias myself.

5 MEMBER JENKINS: So, you are
6 saying you are not worried about that, that
7 families are inaccurate and that could be an
8 unintended consequence? Because what you are
9 really saying is you are not sure they are
10 accurate.

11 MR. STUMBO: I cannot reach inside
12 a parent's brain and understand if they are
13 confused by the question or the world around
14 them.

15 CO-CHAIR HOMER: But you said 85
16 percent of parents report that their child has
17 adequate insurance, meaning they meet all five
18 of those criteria, that it covers their needs
19 and that they don't have too high out-of-
20 pocket expenses, et cetera?

21 MR. STUMBO: Right.

22 CO-CHAIR HOMER: Okay. And that

1 includes people who have no insurance at all?

2 MR. STUMBO: No, it does not.

3 This is all children who have current
4 insurance, regardless of the type of
5 insurance.

6 MEMBER JENKINS: That is actually
7 a question. It is one of the five criteria.

8 CO-CHAIR HOMER: Yes.

9 MEMBER JENKINS: So, I assume that
10 if they said they don't have insurance, then
11 they are not excluded, I don't think.

12 MR. STUMBO: I'm not sure they
13 have that, but --

14 MEMBER JENKINS: You are just not
15 in the numerator.

16 MR. STUMBO: -- but it is just
17 children with insurance.

18 CO-CHAIR HOMER: Now I'm sorry,
19 are they in the -- I am still confused. I'm
20 sorry. Are they included or not included?

21 MR. STUMBO: They are not included
22 in the denominator. It is of children with

1 insurance --

2 CO-CHAIR HOMER: Okay.

3 MR. STUMBO: -- how many have
4 adequate or inadequate --

5 MEMBER JENKINS: Well, for a child
6 to be included in the numerator of having
7 adequate insurance, criteria from the
8 following five questions must be met. Child
9 has current health insurance coverage.

10 CO-CHAIR HOMER: But, then, the
11 denominator excludes -- so, if you have 5
12 percent uninsured in your community and you
13 then have 15 percent who say they have
14 inadequate insurance, so the total would be 20
15 percent if you were speaking to the
16 legislature, how many children are, quote,
17 "underinsured" in your community, you would
18 say that would include the 15 plus 5. Right?
19 Okay, that would be the way to interpret it.
20 Okay.

21 Okay, scientific validity then or
22 scientific acceptability, how many feel this

1 completely meets the criteria for scientific
2 acceptability?

3 Pretty good, actually.

4 How many feel it partially meets
5 the criteria?

6 Good. Did that catch everybody?

7 DR. WINKLER: No.

8 CO-CHAIR HOMER: No?

9 How many believe this is minimal?

10 Okay. All right. I think from
11 the usability, which is how understandable
12 this is as well as issues of harmonization
13 with other measures, and whatever the third
14 one is which -- added value.

15 So, any questions about this?

16 (No response.)

17 If not, we will move on to voting.

18 To what extent does it completely
19 meet the criteria for usability? Yes?

20 How many believe it partially
21 meets?

22 Okay. That is a lot of other

1 people.

2 DR. WINKLER: Okay, that is
3 everybody.

4 CO-CHAIR HOMER: That's everybody.
5 Okay.

6 And then, feasibility as part of
7 the national survey.

8 So, how many feel it completely
9 meets?

10 DR. WINKLER: Nine.

11 CO-CHAIR HOMER: Okay. And how
12 many feel it partially meets?

13 Good.

14 All right. Then, to move the
15 question, recommend endorsement of this
16 measure?

17 DR. WINKLER: That's everybody.

18 CO-CHAIR HOMER: Good. So, we got
19 one.

20 Now we have 14 minutes to do
21 medical home, which I think is going to be
22 pretty hard because that is a very complicated

1 measure.

2 (Laughter.)

3 I don't think --

4 MEMBER PARTRIDGE: I wonder if I
5 could raise an issue.

6 CO-CHAIR HOMER: I would rather
7 not, actually.

8 MEMBER PARTRIDGE: Yes, I would
9 like to raise an issue here that might make
10 our discussions a little shorter. That is,
11 and these were my comments on the measure.

12 CO-CHAIR HOMER: The medical home
13 measure?

14 MEMBER PARTRIDGE: The medical
15 home measure. Since this survey was developed
16 and used in the field, the definition of
17 medical home has become multiple definitions.
18 I am not sure, therefore, that this question
19 in quite this form with these characteristics
20 is as timely today as it ought to be. I don't
21 quite know how to deal with that on a
22 procedural basis because CAHMI can't go back

1 and rewrite their survey.

2 But if you put this out as the
3 standalone survey and a practice was graded
4 very highly against this definition, it would
5 not be consistent probably with the Minnesota
6 definition of a medical home or health home.
7 It might not be consistent with the definition
8 that comes out of NCQA, PPC-PCMH, which the
9 revisions will go public next week.

10 CO-CHAIR HOMER: But isn't that a
11 harmonization question?

12 MEMBER PARTRIDGE: It is a
13 harmonization question, and I don't know
14 quite, from a procedural point of view, how to
15 deal with it. I guess maybe we discuss it and
16 deal with it in the harmonization context.

17 CO-CHAIR HOMER: I think we would
18 have to discuss it in the harmonization
19 context.

20 MEMBER PARTRIDGE: And maybe,
21 since we are not going to get to it today --

22 CO-CHAIR HOMER: I just don't

1 think, in fairness --

2 MEMBER PARTRIDGE: No.

3 CO-CHAIR HOMER: -- to the
4 complexity of this measure --

5 MEMBER PARTRIDGE: Right. I
6 wonder if our measure developer might want to
7 look at that issue a little bit and give us
8 any further guidance about how completely this
9 really would be consistent. I don't know.

10 I just worry about conflicting
11 standards out there.

12 CO-CHAIR HOMER: There are really
13 different definitions of what a medical home
14 is.

15 MEMBER PARTRIDGE: There are quite
16 different definitions, yes.

17 CO-CHAIR HOMER: So, the question
18 might be how well this concept maps to the
19 joint principles --

20 MEMBER PARTRIDGE: Yes.

21 CO-CHAIR HOMER: -- that have been
22 adopted by the primary care associations.

1 MEMBER PARTRIDGE: Yes.

2 CO-CHAIR HOMER: As part of that
3 presentation.

4 MR. STUMBO: We are submitting the
5 measure because we would like to create a
6 national standard based on the American
7 Academy of Pediatrics. So, especially in
8 regard to the question of, does Minnesota or
9 Oregon or California, different communities'
10 definitions -- we would actually say that that
11 is the whole reason why the national survey
12 was revised, to measure it across states in a
13 systematic way.

14 CO-CHAIR HOMER: Well, I am quite
15 sympathetic to that, but I do think we need to
16 have a longer conversation. So, I don't think
17 it is fair to do that in 10 minutes.

18 I think I might actually suggest
19 we adjourn 10 minutes early rather than rush
20 through another one in the last --

21 DR. BURSTIN: Right, and it just
22 might be helpful, if you are going to do this

1 measure on a subsequent phone call, perhaps
2 for the measure developer to specifically look
3 towards the updated medical home survey and
4 come back with some responses around
5 harmonization, so we are that much closer.

6 CO-CHAIR WEISS: Right, and as
7 long as we have the measure developer
8 listening, are there any other things, aside
9 from the issue that Lee raised, that we want
10 to put on the table right now for the measure
11 developer to think about?

12 MR. STUMBO: I'm sorry, was that a
13 question?

14 CO-CHAIR WEISS: To this group.

15 CO-CHAIR HOMER: I, for example,
16 would be interested in knowing from the
17 members who sat on the SNAC CHIPRA Committee
18 why this measure basically, which was
19 recommended by me to the Committee to be
20 adopted, why it was turned down, and whether
21 there is anything that the steward could do
22 that would help address any of the concerns

1 that that Committee had. I realize that is a
2 different process and it was using different
3 criteria, but I don't know if there were any
4 specific issues raised that would inform our
5 further conversations.

6 CO-CHAIR WEISS: Well, I think one
7 of the issues that colored all of the
8 conversations had to do with how widely the
9 concept is used in the Medicaid and the CHIP
10 programs currently, and the ease with which
11 states could move to universal application in
12 those programs.

13 CO-CHAIR HOMER: So, the context
14 of the recommendation here, by the way, for
15 the medical home measure is not that these
16 items would be used in a different context,
17 but, really, again, this is more in the
18 context of using the national survey in the
19 way that we are using it on all the other.
20 So, as a measure of population health, okay.

21 MEMBER PARTRIDGE: Yes, it is a
22 population health measure.

1 CO-CHAIR HOMER: It is a
2 population health measure. Okay.

3 MS. McELVEEN: Okay. Well, thank
4 you all for plowing through as much as we
5 could to get the day completed.

6 I can say we certainly
7 accomplished a lot in the past few days. We
8 definitely got through a lot of these
9 measures. Many of them were different
10 measures than what NQF is traditionally
11 considered to be looking at. So, applause and
12 hats off to you all for getting through that
13 information.

14 And also, thank you to Charlie and
15 Marina for leading the discussion over the
16 past few days.

17 So, quickly, next steps: I did a
18 quick count on the tabled measures. There's
19 about seven of them, which in my mind and
20 experience I don't think we can do that on one
21 conference call, even if it is for two hours.
22 So, just thinking out loud right now, I

1 suspect we could possibly have two conference
2 calls coming up.

3 Again, we are going to work really
4 closely with the measure developers to try to
5 really narrow down and get down the exact
6 items and information that you all would need
7 to inform your decision and to expedite the
8 process, of course. But I just want to put
9 that on your radar.

10 Again, we will be following up
11 with a summary from this meeting and get your
12 feedback on that to make sure we have captured
13 your thoughts accurately.

14 Also, following up on your
15 involvement and participation with the CHIPER
16 project.

17 MEMBER JENKINS: What about scope,
18 the unmet needs part?

19 MS. McELVEEN: I'm sorry.

20 MEMBER JENKINS: That part about
21 the unmet, the gaps.

22 MS. McELVEEN: Oh, the gaps, yes,

1 that is a specific deliverable as part of this
2 project. So, we will set aside time to
3 identify gaps as well.

4 DR. WINKLER: We are having the
5 same issue in other parts of the project,
6 getting the measures done. So, a lot of what
7 you talked about, we are capturing and we will
8 probably start drafting some things for you to
9 review and add to, and all of that, as we go
10 along. But our first priority is getting
11 through the measures.

12 DR. BURSTIN: But, as long as it
13 is fresh in your mind, on your plane rides
14 home, or whatever, feel free to write them
15 down and send it to us.

16 DR. WINKLER: Yes, if you've got
17 anything, yes, send them in.

18 DR. BURSTIN: We will start
19 compiling them.

20 DR. WINKLER: Yes, compiling them.

21 MEMBER PARTRIDGE: Nicole, have
22 you got any sense of the timeframe for the

1 conference calls and when you want to get this
2 part completed before we start phase 2?

3 MS. McELVEEN: That is a good
4 question. I was looking at my calendar. I
5 think that, well, probably we will give the
6 measure developers at least two weeks to get
7 this information together and work with them.

8 So, looking at probably the last
9 week of May, first week of June -- this is
10 just, again, off the top of my head -- for a
11 call, factoring in vacation time and then
12 holidays and that sort of thing.

13 So, we will have to really talk
14 about it internally because, on our timeline,
15 we are trying to go out for comment in June.
16 So, we will have to figure out the best way to
17 adjust our timeline and, obviously, meet the
18 needs of the project.

19 CO-CHAIR HOMER: I just wanted to
20 express my appreciation to staff, to Nicole
21 and Reva and your teams, for all the hard work
22 that you did. The materials were excellently

1 presented. You did a superb job. On behalf
2 of the Committee, I want to thank you. We
3 couldn't have gotten as far as we have without
4 all of your hard work and the excellent
5 preparation. So, thank you.

6 (Applause.)

7 All right.

8 MEMBER PERSUAD: I have a
9 housekeeping question. Where do our receipts
10 go again?

11 (Laughter.)

12 MS. McELVEEN: The receipts are
13 sent to Leslie Reader-Thompson. I can forward
14 you her information, yes. The receipts, and
15 I believe there is a form that has to be
16 filled out for reimbursibles.

17 CO-CHAIR HOMER: Thank you very
18 much.

19 (Whereupon, at 2:54 p.m., the
20 proceedings in the above-entitled matter were
21 adjourned.)
22

A				
abdomen 18:22 21:2	5:11,12 6:3,14 7:13 34:16 48:18 86:10,15 91:4	active 26:21 activities 191:4	213:22 214:15 215:14,18 223:3	admissions 28:10 28:13,16 74:16 240:3
ability 29:9 41:8 65:3 70:21 100:7 151:15 170:18 180:3 193:4 201:18 203:8 222:10	95:6 96:9 121:8 143:5,19 144:1,4 189:13,19 190:2,7 226:16,18,20 288:20 290:21 291:1,4 336:5 339:22 340:2	actual 20:21 29:22 33:4 88:3 151:2 acute 27:15 AC/PC 2:4 add 67:14 79:10 147:3 196:7 265:1 276:9 350:9 added 49:5 145:1 227:16 244:21 291:17 314:6 340:14 addiction 156:21 adding 50:16 71:22 210:3 323:19 324:1 addition 23:6 36:9 89:17 additional 15:9 21:21 58:8,13 86:9 150:9 151:22 181:10 234:1 289:11 297:21 304:12 305:8 314:4 additionally 197:18 207:5 address 20:4 68:9 83:6 118:12 166:2 167:18 177:7 196:16 203:9 224:13 230:7 296:5 346:22 addressed 32:16 48:14 51:19 112:18 133:5 149:12 177:15 189:20 220:8 addresses 239:22 319:1 addressing 177:6 203:20 207:8 237:7 adequacies 210:16 adequacy 199:20 211:20 213:15,20	adequate 86:21 174:21 196:20 197:3 200:15,16 203:18,21 204:11 210:20 211:1 215:12 217:2 218:13 262:21 321:22 322:3 323:2 329:15 331:1,2,6 333:1 333:18 334:9,21 337:17 339:4,7 adequately 112:18 189:20 201:5,15 adjacent 87:22 adjourn 345:19 adjourned 352:21 adjourning 236:11 adjust 45:17 65:4 134:1,5 261:2 351:17 adjusted 37:2 331:14 adjuster 184:20 adjusting 97:20 adjustment 18:12 86:21 87:3,4 210:2 222:3 230:20 adjustments 156:13 287:3 admin 52:9,13 administering 285:14 administrative 18:7 38:10,17 47:19 53:13,21 55:20 57:10 67:9 70:22 72:5 74:12 104:6 107:22 108:14 190:16,20 193:3 212:17 admission 35:2 52:10 53:6 73:22 244:1 251:15	admitted 39:21 178:16 admitting 49:22 adolescence 250:8 adolescent 242:11 248:19 249:8 281:6,9,13 adolescents 7:5 222:13 249:13,18 256:19 279:20 281:7 307:17 322:20 325:2,5 adopt 138:3 139:15 adopted 122:18 123:5 140:1 344:22 346:20 adoption 137:7 adult 83:20 85:7 100:16 114:11 116:1,6,19 118:5 120:8,16 195:15 195:21 196:4 204:21 212:10,13 212:17 215:2 217:13 220:21 221:11 224:19 227:18 229:13 231:15 269:22 270:1 271:3 300:18 303:3 adults 4:14 83:17 84:5 110:16 111:5 113:13,16,16 114:3,18 115:1,11 117:12,18 119:2 120:17 163:12 212:8 232:7 271:9 300:21 adult-only 269:8 advance 187:3 advantage 172:6 184:14 advantages 233:1 advent 161:12
abdomen 18:22 21:2				
able 24:11 28:7 55:11 57:8 68:21 71:9,20 72:8 75:6 75:7 79:15 88:12 88:22 99:22 105:15,21 133:18 139:17 143:6 168:21 197:10,13 201:15,22 205:21 209:15 213:20,21 215:17 224:3,5,12 240:5 241:2,12 251:20 257:11 262:3 266:13,19 270:11,15 281:8 283:13 284:8 285:8,15 294:19 327:22 329:17 331:17	acceptable 214:19 214:21 215:3 acceptance 17:22 accepted 19:4 135:7 204:13 286:15 access 71:1 82:1 100:8 202:6,19,21 219:15,17 220:2 220:11 317:11 323:12,18 accomplished 348:7 account 66:19 239:20 256:13 accounts 157:2 178:20 accrue 69:18 accurate 31:10 53:18 314:14 337:10 accurately 156:7 349:13 achieve 209:15,18 211:14 221:19 achieved 69:14 acid 179:2 acknowledge 303:13 acknowledges 301:5 acknowledgment 165:15 acquired 118:3 across-the 84:3 acted 42:13 actionability 43:17			
above-entitled 352:20				
absence 60:19 168:6,12				
absolute 118:18 absolutely 57:12 64:9 83:7 96:2 103:18,19 106:7 137:4,16 278:12				
abstract 294:19 academic 43:11 148:21 275:6 Academy 325:9 345:7 ACC 139:21 accept 284:21 289:16 acceptability 3:13 3:14 4:4,5,21,22				

adverse 4:13 110:15,19 113:3 117:4 121:11,12 121:12 122:4,17 124:5,9,16 134:11 135:22 136:1,17 139:3,7,16 140:22 141:7,13,16 142:3 142:17 146:16 155:13	agreeing 284:16 agreement 141:10 305:9 agreements 295:12 aha 278:15,16 ahead 16:13 26:17 95:6 96:8 98:18 153:1 236:7 260:11 274:22 282:5 284:9 294:5 AHRQ 28:8 41:5,7 41:14,19 62:15 157:12 166:22 170:15 174:15 257:1,19 270:16 284:6 302:4 305:16,18 airway 238:2 Akron 184:6 Al 120:5 algorithm 135:20 330:18 335:2 aligned 212:13 269:16 Allan 2:6 11:2 102:5 117:6 177:16 256:14 299:6 allow 11:20 13:7 14:17 53:8 67:9 74:15 83:10 98:9 185:18 195:3 205:4 219:21 242:2 276:10 allowed 203:1 allowing 41:13 125:18 154:9 allows 170:17,19 187:19 286:21 335:12 alluded 98:8 199:16 alpha 240:13 250:19 alter 245:4 alternatively 222:2 always/sometimes	273:5 AMA 13:16 194:9 194:13 amazed 272:14 amazing 95:13 ambulatory 47:12 93:11 amenable 45:14 amend 82:20 amenities 310:12 American 13:3 70:14 325:9 345:6 amount 50:6 111:10 114:3 144:19 163:6 178:15 179:11 189:14 190:13 analogous 83:15 analyses 45:1 147:18,20 151:22 258:4 analysis 29:6 35:17 68:16 77:20 98:4 103:11 129:9,15 141:21 151:14 206:18 251:12 256:1,2,10 298:6 analyze 108:10 141:22 266:13 anatomic 127:6 and/or 329:18 anesthesia 93:12 93:12 106:5 125:12 anesthesiologists 100:7,8 angle 20:22 80:21 Annals 90:10 91:1 97:14 annually 28:15 anomalies 156:18 178:21 179:4 anomalous 114:11 114:13 anomaly 161:10,20 178:14 answer 79:20 94:4	100:10 105:16,21 118:11 124:3 140:13 243:1 260:19 286:1 287:15 293:12,20 answered 56:19 answering 98:6 answers 103:21 283:14 antibiotics 21:11 22:21 179:18 180:8,11 anticipate 81:16 180:20 286:16 Antman 2:10 13:15 13:15 anxious 90:7 anybody 13:17 99:8 112:15 116:10 137:17 148:2 290:5 anyway 124:13 203:15 aortic 127:15,16 Apgar 181:15,16 apologize 308:4 appalled 239:8 apparently 72:19 73:4 appear 180:2 262:15 appears 104:16 216:22 appendectomies 55:10 appendectomy 55:11 applaud 267:5 applause 348:11 352:6 apples-to-apples 166:13 applicability 47:20 109:20 applicable 155:14 255:7,20 257:16 application 72:17	73:8 76:17 251:10 304:20 347:11 applied 35:15 40:19 52:3 82:14 82:17 117:22 143:10 169:16 298:14 apply 35:3 43:8 118:10,20 134:7,8 139:17 142:16 148:22 257:19 appreciation 306:13 351:20 approach 19:6 30:4 242:13,21 appropriate 14:3 15:20 37:9 77:9 191:16 appropriately 41:22 47:9 67:11 145:17 appropriateness 318:8 approval 58:8 59:1 59:2 146:20 290:14 301:22 302:1 approve 19:14 61:12 106:15 118:14 approved 157:12 area 19:19 31:6 40:8 85:19,21 87:6 88:20 89:3 89:13 95:16 112:12 132:17 190:11 262:11,11 296:12 areas 19:11,12 58:12 122:18 223:22 247:5 276:11 281:1,2 300:4 arena 183:19 argue 323:9,10 332:5 argued 25:17
---	--	--	--	---

beautifully 124:4	Berry 2:12 3:9	biggest 178:13	223:8 277:15	brings 112:22
becoming 112:19	11:22,22 17:3,6	182:20 192:5	bluntly 124:6	broad 30:9 31:11
bedside 93:9	19:16 20:5 22:6	bilirubin 162:3,6	149:10	32:2,2,11 86:18
began 132:15	24:20 25:16 27:21	bill 52:12	board 11:11 84:4	96:3 177:13
beginning 88:8	29:10,14 30:3	billing 53:21	143:11	broadcast 15:4
154:13	32:16 33:1,18	bimonthly 141:5	boards 272:6	broader 65:17,18
behalf 280:15	35:21 37:19,21	biopsies 92:4	body 199:18 232:9	81:13 128:20
306:11 352:1	38:8 40:1,17 41:3	biostatistician 12:5	Bonnie 2:10 10:14	322:13
behavioral 7:8	42:6 43:4,14	bipolar 320:10	257:21 315:20	broadly 32:12 43:9
believe 21:7 26:21	44:22 45:20 49:14	birth 153:16	borderline 175:8	63:9 149:1
56:21 89:4,13	52:4,21 53:15,20	157:13 158:2,4,5	born 168:22 177:9	broken 21:4 206:3
99:1 114:9 121:2	54:9 57:11 59:5	159:9,12 160:22	186:9	bronchitis 237:22
138:4 140:10	62:14,19 63:11	161:1 162:13,15	Bossley 2:18 11:15	brought 17:18
174:6 184:14	263:10 264:21	164:4 165:22	11:15 46:2	84:10 151:14
189:6 226:8,12,17	best 18:10 37:3	166:3,7,10,21	Boston 9:22 12:2,4	334:16
227:1 228:2,5,19	45:8 88:18 158:21	179:7 182:22	12:8,11,16,19	brush 177:13
228:22 288:8	201:13 214:3	births 153:14	24:18 25:2 62:9	bucket 91:18
292:2 296:18	301:16 351:16	157:18 160:21	136:16 238:12	323:15
297:6,9,11 322:15	bet 71:10	165:22 174:10	252:14 255:8	building 1:20 63:2
329:7 330:5	better 33:16 36:14	176:16 177:1	283:20 287:11	built 18:16
334:18,20 340:9	43:19 44:4 61:2	185:16	306:13	bullying 309:17
340:20 352:15	97:21 98:9 100:3	bit 16:9 18:19	bottom 90:9 101:10	burden 240:15
below-average	102:2 116:10	21:15,20 23:18	217:9	297:3
155:7	142:22 169:21	24:11 26:2 70:5	bought 39:2	Bureau 329:2
benchmarked	186:14 202:20	71:21 78:9 80:15	boy 57:11	Burstin 2:19 11:7,7
42:11	205:4,12 219:17	82:20 86:8 89:15	brachial 167:1	16:6 31:21 48:1
benchmarking	220:2 238:4 281:1	121:10 142:21	174:15,22 175:6	58:19 61:18 84:10
29:7 52:7 239:12	281:3 300:7,12	143:13 147:15	brain 21:1 22:15	90:5,14,19 116:4
benefit 181:10	311:13 316:12,15	171:5 176:1	28:5 337:12	147:14 151:13
329:19	333:10	185:12 195:5	bread-and-butter	212:2,3,19 213:6
benefits 322:7	beyond 20:15 41:4	213:5 216:15	17:11	225:15 231:16
332:18 335:10	57:12 58:11 78:2	218:11 237:4	break 110:11,12	235:5,12 268:11
Bergersen 2:11	89:21 148:2	246:12 247:9	152:15,18 153:4	268:22 269:1,7,11
4:16 12:9,9	163:19 247:9	261:18 265:1	236:7	271:2,19 272:12
110:21,22 113:18	267:9	267:13,15,20,22	breathing 237:14	272:18 273:4,17
113:22 114:16	bias 141:11 241:13	283:7 306:2	brief 195:8 236:7	273:22 290:8
115:7,11 116:16	260:14 269:7	310:16 319:8	238:19 287:7,8	298:1,5 301:1,13
117:5 118:1,21	293:20 332:13	330:13 333:4	290:11 308:2	302:2,6,17 303:22
119:5,9,17,20	336:13,17 337:4	335:7 344:7	328:18,18	305:1,14 326:1
120:10 121:15,18	bifida 18:20 35:8	bivariate 45:1	briefly 11:21 64:10	328:3 345:21
124:18 126:10,16	36:20 37:1,5,18	Blacks 45:2	199:16 268:12	350:12,18
128:4,17 129:19	big 23:4 32:3 126:8	blah 50:2,2,2	Brigham 116:5	bus 126:4
130:13 131:12	166:15 176:9,9,21	blanked 59:17	270:2	butchered 195:4
133:8,11 138:22	184:13 192:6	blighted 312:15	bring 127:8,14	buy 184:9
140:12 142:6	205:9 219:5 279:3	blood 200:8 201:13	128:5 235:4	buy-in 142:9
148:13 151:21	279:4 296:22	201:14 202:8,12	268:19 304:15	buzz 50:3
152:4	bigger 170:20	219:1 220:3,4	bringing 202:4	byproduct 145:15

228:17 292:10	292:14	195:1 196:17	129:5 132:13	Caucus 334:15
C	capacity 323:13	199:1,7,9 202:6,7	133:20,21 175:8	caught 262:6
C 88:19	capture 13:22	203:2,19 205:2,12	178:20 180:10	cause 22:1 175:21
caesarean 172:9,10	39:20 63:12 114:1	206:6 207:6,12,18	case-mix 18:12	177:22
172:13 180:19	114:4 127:21	207:22 210:18,19	134:5,14	caveat 290:2
CAHMI 14:20,21	198:3 205:22	213:16,22 215:21	catch 340:6	ceiling 240:20
307:7 342:22	captured 124:21	216:3,12 217:3,18	categories 67:3	252:17 253:11
CAHPS 250:22	125:14 349:12	218:7,8,13,15,16	87:9,17,22 89:2,6	ceilings 270:9
269:4 272:20	captures 40:3	218:19,22 219:19	89:18,21 94:1,11	cells 206:4
274:2 282:19,21	capturing 124:14	219:21 221:11	105:5 122:3,6	center 9:8 10:22
291:16 301:2,5,21	155:17 170:5	223:17 224:3,17	136:15 140:16	13:2 40:11 176:6
305:22	350:7	224:20 228:17	183:17 192:5,6	209:8 223:20
calcium 165:9	cardiac 4:14 9:18	231:17,19 236:3	241:15 269:16	275:6
calculate 142:17	33:15,20 91:17	239:15 240:3	271:6 273:5	centers 223:18
244:14 261:5	95:9 100:16	241:9,15 244:2	282:13 286:2	central 24:12,14
calculated 240:12	101:16 110:16	245:11 246:13,14	categorization 96:4	135:4,9
241:2 244:10	111:4,7 113:2	246:18 247:3	135:22 215:7	centralize 139:22
calculation 173:6	116:6 117:9,11,14	249:5,8,9 262:8	categorizes 140:4	CEO 8:19
335:2	117:16 120:2,6,8	263:6,20 264:6,22	category 73:12	cerebral 21:6
calendar 194:18	120:14 121:20	265:22 267:11	88:14,16 93:14,21	certain 42:14 72:6
351:4	123:6,17 134:12	271:3,4,13 272:16	94:2,13 102:15	75:5 76:6 84:16
California 11:4	135:11 139:10,20	272:21 277:16	103:7,8 135:2	92:11 103:10
154:21 155:21	149:2	280:15 286:8	141:1,2 270:6,13	232:6 239:19
163:3,11 179:15	cardio 122:11	292:10 293:3,6	317:10 318:11	240:12 242:15
181:7,14 190:18	cardiologist 9:21	294:2,10,21 295:3	cath 116:9 119:1	276:11
261:20 345:9	120:2,4 320:6	295:16 315:4	120:3,6,9,14	certainly 45:13
call 3:2 14:2,6 51:7	cardiologists	317:19 319:21	128:3,5,12 139:20	47:10 64:18 72:13
57:21 58:5 150:6	120:16 132:3	320:1,21 321:5,12	catheter 127:17	84:8 98:4 136:8
152:9,13 184:16	cardiology 55:8	325:6 326:20	201:3,12,14	214:2,4 219:10
184:17,19 193:10	cardiovascular	327:18 344:22	catheterization	223:7 224:1
216:8 239:5 263:1	55:7	careful 141:21	4:14 92:6 110:16	268:13 318:6,9
264:17 288:7	care 5:21 6:25 9:14	carefully 174:14	111:4,8,15 116:1	348:6
289:6 304:5	19:5 22:3 27:5	265:12	117:9,11,14	certified 207:16,20
307:11 308:18	29:17 40:10 43:19	carry 133:2	119:22 121:20	cetera 21:12 38:6
312:10 314:22	44:7 54:18 80:9	carrying 133:6	123:18 127:9,15	39:9 42:20 53:8
346:1 348:21	82:2 106:3,4,5	cartridge 200:8	128:8 134:13	64:17 70:15 104:7
351:11	112:4 116:6 130:4	case 10:12 69:22	135:11	104:7 110:2 156:6
called 13:8,13	142:14 145:15	70:6,8 75:16 89:8	catheterizations	191:5 240:7
127:3 139:21	153:17 154:13,17	89:14 114:3,5	149:2	251:13 337:20
calling 15:2 61:21	154:17,18,22	115:13 127:19	catheterize 115:12	Chair 304:10
152:7	155:15 156:17	176:4 213:11	127:4	Chairman 78:1
calls 349:2 351:1	158:13,13,14	216:15 233:6	catheterized 115:9	Chair's 287:6
campers 260:15,18	161:2 162:9	263:17	133:15	challenge 18:5
260:19	164:12 166:7	cases 66:11,12,14	catheters 128:7	60:12 68:12 69:1
candidate 219:17	170:6 171:4,10	66:15,19 68:12	201:9 208:12	72:5 138:8
capability 62:11	174:8,22 183:6	72:21,21 79:15	caths 117:16	challenges 159:20
	188:1 194:16	120:1 123:22	Caucasian 164:21	173:18 222:1

challenging 226:2 296:22	24:21 25:3	313:10 315:3,5 320:17 321:21 325:2,4 329:11 338:3,17,22 339:16	City 11:3 claims 77:21 233:21 clarification 78:9 clarifications 14:18 clarifies 280:6 clarify 102:22 141:13 198:16 223:16 clarifying 150:10 150:17 clarity 122:2 Clarke 2:3 9:17,17 27:11 34:19 43:6 54:5 72:13 73:6 73:14,19 76:14,16 77:3 95:22 112:17 125:17 126:14 127:22 128:14,19 129:14 138:20 141:12 146:15 147:6 150:3 158:20 class 301:16 classes 101:10 classification 141:11 classifications 123:15 132:9 classified 151:17 Claudia 41:14 clavicle 167:2 cleaner 60:1 clear 73:7 77:7 131:1 138:15 139:13 163:16 165:1 281:8 293:8 295:21 clearer 120:11 clearing 199:18 clearly 122:12 162:7 164:11 206:8 210:11,19 211:18 222:11 226:1 280:17 292:10 317:15 327:7,16	chest 128:15 Chief 9:13,22 child 1:7 10:12,15 15:17 22:18 23:16 24:1,2 35:21 39:21 50:17 62:8 74:4 77:17 99:13 104:15 112:2 118:5 243:6 244:5 244:6 245:5 247:22 249:16,20 262:22 263:5,18 265:13 275:21 279:3 280:11,13 280:13 281:2,3 306:12 309:2 311:22 313:15 316:3 317:16 318:4 322:5 326:12,16 329:2,8 331:6 332:17 335:12 337:16 339:5,8 children 3:8 4:14 6:22,25 7:2,5,7,9 14:11,12,13 15:21 17:14,17 22:4 23:21 24:5 28:12 35:6,7 37:5,17 40:22 59:18 65:7 66:2 67:22 71:14 72:3 77:15 78:4 80:2,4 99:3 110:15 111:5,13 112:8 114:8 117:12 119:2 168:22 204:2 213:1 220:11 221:3 222:9,11,16 223:2,6,10 224:20 256:18 264:13 265:22 279:3,4,7 279:16 280:8 300:21 307:17 308:12 309:5 311:11 312:16	children's 8:20 9:7 9:10,18,22 10:22 12:1,4,7,10,16,19 17:9 26:21 41:1 48:3 53:1 62:9 100:4,5 116:9 117:10 136:16 137:13 218:6 238:11,12 239:2 252:14 255:8 256:20 269:20 276:7 283:21 284:14 287:11,13 299:5,8,9,12 300:9 306:13 322:7 child's 258:20 281:20 287:14 308:15 309:20 322:3 329:19 332:19 335:11 CHIP 347:9 CHIPER 349:15 CHIPRA 346:17 choice 78:22 79:5 322:6 choose 155:18 286:6 choosing 175:7 chose 30:6 66:7 111:18 168:15 chosen 74:13 156:15 chronic 196:13 264:13 chronically 201:8 221:4 circle 37:4 circumcision 92:8 circumscribed 39:6 circumstances 66:11	Cleveland 10:13 climate 261:10 climb 20:16 clinic 17:13 clinical 12:15 16:8 21:15 28:21 57:13 57:16 75:14,19 85:19,21 89:19 104:17 114:12 122:8 224:9 241:16 clinically 18:6 19:19 31:6,9,15 111:17 125:13 clinically-import... 110:18 111:22 clinicians 136:22 138:3 170:6,12 clipping 93:9 close 169:5 232:13 232:17 331:18 closed 92:1,4,4 closely 197:11 349:4 closer 25:20 48:2 346:5 CMS 233:3,5,6,11 coats 276:2 code 39:4,7 123:6 130:11 139:10 155:18 156:3 182:21 coded 91:11,13 156:6 codes 18:9 39:3,8 39:11,12 41:5,22 57:13 155:17 156:9,9 158:3 159:19,21,22 160:5,6 166:20 167:3 182:13 183:15 coding 42:20 53:22 91:8,10 123:14 155:21 157:19 212:17 cognitive 294:17
------------------------------------	------------	--	---	---	---	--

330:15	153:3 162:2	330:14 342:11	245:2 254:9	complicated 36:10
cohort 37:1 41:20	172:15 174:1	Commission 158:8	255:16 285:8,13	134:15 209:2
44:4 77:21	215:10 236:9	185:2	286:22	293:16 341:22
collaboration	259:7,20 277:15	committee 1:7,17	compared 38:4	complication 135:8
239:2	287:21 290:18	8:8,16,22 13:12	43:2 45:3 52:18	160:22
collaborative 54:12	314:21,21 326:15	14:2 15:19 16:15	134:11 245:7	complications 22:1
57:1 60:7,9 61:1	331:18 346:4	27:12 34:7,17	283:21 314:4	84:19 123:2,8
63:10 149:13	comes 69:5 107:21	47:12 84:18 86:14	comparing 97:2	153:16 154:14
154:22 155:2	138:8 142:13	92:17 112:15	143:17	161:1 163:21
190:22 235:16	173:12,14 297:15	113:9 136:8 161:6	comparison 166:13	166:6 167:4,6
collaboratives 55:5	327:10 343:8	186:18 235:12	169:3 300:17	173:11 188:4,13
collaborators	comfort 90:15	250:11 297:21	compelling 188:22	188:16 192:12
54:14	comfortable 23:14	302:12 346:17,19	compendium 91:20	component 182:20
collapse 88:2	38:19 62:19	347:1 352:2	competency 50:9	237:22 333:9
colleagues 97:4	143:13 246:20	Committee's	competing 301:17	components 192:3
collect 29:12	300:1	113:12	compiled 16:14	218:7 227:22
107:17 108:9	comfortably	common 19:20	compiling 350:19	296:20 322:8
129:7,20 130:14	323:15	95:20 141:6 233:5	350:20	325:8 332:15
139:7 193:4 235:3	comforting 137:6	260:16	complementary	334:10
247:12,14 255:15	coming 8:8 40:14	commonality 20:6	187:18	composite 182:19
255:16 266:18	106:22 108:13	communicate	complete 51:15	209:1,2 225:16
collected 141:14	150:12 161:8,17	190:14	158:22 204:7	243:17 244:14,20
142:15 254:16	164:1 305:4 306:4	communicating	327:22	251:20 325:3
collecting 38:13	349:2	104:10	completed 348:5	composites 84:15
56:5 85:10 122:4	comment 27:20	communication	351:2	244:10
122:16 123:10,13	31:21 35:6,20	243:22 245:15	completely 30:7	compressed 278:8
123:19 125:1	55:4 67:21 74:7	communities 14:14	31:5,20 48:19	compromise
139:3 184:15	95:9 96:1 106:10	309:5 310:19,19	51:8 57:22 96:11	303:14
collection 54:17	112:11 126:18	311:19 345:9	107:6 109:10	computer 16:13
56:8 108:16	132:12 151:4	community 33:9	138:14 143:22	267:3
124:16 129:1	158:21 159:5	41:20 96:21 97:12	145:2,19 190:6	concept 47:20
135:22 139:16	183:22 223:12	97:17,18 111:3,21	192:16 193:6	137:7 234:3 288:5
140:1 205:1	230:5 260:9	112:6 123:7 131:2	226:17 228:3,19	293:15 344:18
collectively 70:12	311:19 331:21	131:17 143:1	244:13 261:11	347:9
70:17	336:20 351:15	262:12 300:3	263:16 269:4	concepts 171:13
colored 347:7	commented 165:6	306:12 310:10,21	271:1 280:2	conceptually
combination 71:18	commenter 329:6	312:5 313:5	290:22 291:21	277:18
197:22 225:8	commenting 165:5	339:12,17	296:19 297:7	concern 32:15
318:15	comments 16:5,15	company 106:12	317:20 340:1,18	35:10 76:22 91:7
combine 66:4	19:10 34:18 49:6	comparability	341:8 344:8	114:21 204:1
combined 198:18	59:8 64:14 76:18	131:10 290:7	completion 23:11	concerned 30:19
combining 105:4	76:20 91:5 95:7	291:16	complex 206:17,18	100:20 135:1
come 29:5 39:19	112:13,14 113:12	comparative 101:9	243:7 264:22	141:19 204:3
40:3,10,16 46:18	131:15 151:20	283:16 292:6	287:19	231:7 232:7 249:3
61:2,8 71:15	152:1 154:4,8	302:14 332:2	complexity 134:5	289:1,3 294:6
84:12 130:16	189:16 247:11	compare 93:22	134:14 241:15	concerns 29:3
141:9 147:1 150:1	308:11 328:18	166:16 170:18	344:4	67:20 74:20 91:10

102:19 107:17 147:21 148:19 171:18 260:18 315:21 346:22 conclusions 331:5 concur 26:19 309:11 condition 15:22 93:3 126:20 127:2 128:10 164:6 315:6 316:3 320:17,21 conditional 59:1 146:20 193:12 234:13 290:13 298:19,20 conditionally 298:12 conditions 31:11 80:5 86:19 90:1 118:15 146:7,9,10 148:10 162:11,14 164:13 168:6 229:14,15,18,20 229:22 234:6,9 264:13 266:15 298:2,5 304:18 condition-specific 84:14 conducting 29:6 conduit 115:17 conference 13:7 14:1 150:6 304:5 314:22 348:21 349:1 351:1 confidence 8:10 29:15 50:22 70:7 94:19 109:22 226:4 confident 264:16 confine 117:13 316:5 conflicting 344:10 conflicts 313:16 confuse 132:10 confused 78:21 176:13 337:13	338:19 confusing 30:22 31:2 confusion 165:17 congenital 4:14 65:22 98:1 110:17 111:5 113:19 114:14 115:3 117:19 118:3,4,9 119:2 120:14,17 120:17 123:17 129:6 139:20 161:10,20 Congratulations 193:20 connected 316:3 consensus 1:3 130:16 141:9 consequence 122:8 336:16 337:8 consequences 179:9 consider 18:3 24:13 61:12 96:10 125:4,10 131:3 150:5 203:4 209:12 214:19 246:4 281:10 309:7 316:7,9 considerable 69:2 69:11 99:16 considered 15:13 27:22 30:14 33:7 35:10 61:15 88:6 89:5 90:1 120:8 143:10 253:16 317:2 348:11 considering 26:11 283:12 consistency 149:8 314:10 327:4 consistency's 314:11 consistent 214:3 215:5 233:8 287:16 297:5 343:5,7 344:9	constitutes 204:6 construct 281:5 288:5 consult 24:4 consumer 98:21 160:17 262:12 consumers 100:20 101:6 104:11 292:21 contact 257:2 contacting 284:6,7 contend 288:21 context 79:18 98:6 144:19 149:13 309:4 322:11 343:16,19 347:13 347:16,18 continue 208:5 235:3 289:21 continued 4:17 5:14 31:18 contract 265:6 contrast 245:2 contribute 76:18 89:19 90:3 contributed 191:3 191:4 contribution 176:17 control 303:18 controlling 45:5 Cont'd 4:1 5:1 6:1 7:1 convened 1:17 conversation 63:2 64:13 76:2,3 97:3 188:20 189:14 211:14 287:21 314:13 321:19 324:11 328:1 345:16 conversations 215:6 299:12 321:9 347:5,8 convinced 309:9 convince 261:12 cooperation 299:5	coordinated 54:3 coordination 240:3 244:3 246:13,14 247:4 262:8 copy 92:17 248:7 core 50:9 55:18 70:20 276:8 coronary 114:11 114:13 correct 52:3,4 53:14,15 69:13 73:18 82:10 100:18 102:11 117:5 170:8,10 174:8 208:21 212:6 237:11 247:7 256:4 277:4 277:20 281:19,22 299:14 corrective 132:21 correctly 24:15 98:20 283:9 correlate 266:20 311:20 correlated 38:17 311:21 314:2,5 correlates 183:14 correlation 246:7 313:21 cost 27:18 28:12 costs 332:16 coughing 238:6 count 76:21 128:16 348:18 counted 36:3 counterparts 164:22 countervailing 188:11 counting 179:8 countries 159:8 country 18:1 33:6 36:7 41:6 52:9 53:2 95:11 105:14 119:1 179:14 196:12 197:12 210:9 220:12	247:3 265:11 couple 19:17 24:17 34:19 75:11 186:3 321:9 course 22:21 100:15 101:6,15 165:18 176:5,17 199:19 240:4 244:17 287:15 320:11 328:6 331:15 336:9 349:8 cover 8:6 54:7 325:18 335:21 coverage 7:3,10 197:9 321:22 322:3,19 323:2 329:8,13,16 331:1 331:2 334:9,21 335:20,21 339:9 covered 166:1 233:2,17,18 covers 335:10 337:18 co-chair 2:2,2 3:3 8:3,21 15:1 17:1,4 19:8 21:17 24:7 26:13 27:10 28:17 29:13 30:2,16 33:12,22 34:14 38:2 39:13 40:15 40:18 42:1,22 43:5 44:16 45:15 45:21 47:8 48:10 51:4,17 54:22 57:2,19 58:14,17 58:22 59:10,15 60:6,11 61:4,9 62:5,18 63:1,12 63:15 64:6,10,20 67:12,15 69:5 70:9 71:11 72:12 76:1,12,15,20 77:10 78:6 79:19 79:22 81:6 82:6 83:13 84:7 85:5 85:12 87:1 89:9
---	--	--	---	---

91:3,15 92:19	236:5 237:3 238:7	Co-Chairs 1:22	207:7 315:16	D
93:16 94:6,12,15	238:10 243:13	co-management	critically 208:12	
94:22 96:7,13,17	244:9,15 245:1,21	23:5,18	criticize 270:16	daily 15:22
98:16 101:3 102:5	246:10 248:2,10	CPAC 196:1	Cronbach 240:12	Dallas 9:5
104:2 106:8 107:3	250:10 251:16	CPM 206:2	250:19	dance 26:3
107:11 109:7,14	252:1 256:14	CPNP 2:4	cross 127:16	danger 187:4
110:8 112:9 113:7	257:21 261:14	CPR 122:13 127:11	crosses 27:8 265:21	data 18:7 26:22
114:10 115:8	262:5,18 264:11	Craig 2:14 3:23	CT 156:6	28:8,19 30:18,18
116:14 117:6	265:16 266:21	12:6	cue 63:6	33:2,3 35:16 38:5
118:17 119:4,8,12	268:9 273:7 274:9	crawling 288:15	cull 45:8	38:5,10,17,22
119:18 120:21	274:12 279:5,10	create 61:20 222:2	cure 179:4 320:21	40:2,16,20 41:5,7
121:16 124:1	282:2,6,11,18,22	345:5	curious 162:22	41:16,19 42:13
125:15 129:11	283:11,15,18,20	created 36:22 50:3	current 235:21	43:2,7,16,17,22
130:9 131:4	287:5 288:15,19	87:3 257:19	248:13 254:10,16	44:1 47:15,19
134:20 135:17	290:2,16 292:17	creating 219:10	255:3 256:10	52:5,10,13 53:9
136:12 138:6	294:13 295:5	creation 54:11	322:2 329:12	53:13,18 54:17,20
140:2 143:2,18	296:14 298:4,7	creative 202:17	335:10,11 338:3	55:20,21 56:5,7
144:7,13,16 145:7	299:7,15,21	credibility 64:17	339:9	56:16,18,20 57:9
145:11 146:2,10	301:20 302:5,10	credit 42:5	currently 76:11,13	57:10 60:5 62:16
146:18 147:3,12	302:20 303:17	crisis 317:18	123:12 257:4	68:6 69:22 70:6
148:18 150:7,17	304:8 305:3,17	crisper 304:14	266:17 326:11	70:12,15 71:2,3,4
150:21 151:3,8	306:8,17,22 310:2	criteria 19:13	347:10	71:21 74:2,11
152:3,6 158:17	310:6,12,20 311:6	31:22 34:8,15	curtain 257:7	79:1 82:12,16,21
160:11 161:4,16	312:2,7,11 313:20	46:5 47:10 48:11	curve 32:9 68:18	82:22 85:9 87:18
162:17 163:14	314:3,9,20 315:9	48:19,21 51:9	68:20,20 77:14	95:14 100:21
168:2 172:7,8	315:20 316:5,16	58:1 73:20 86:2,5	87:6,7 88:20 89:4	101:3,9,11 102:21
173:8 175:13,18	316:20 317:5	96:11 107:4,7,9	89:13 95:16	104:5,9,13 105:2
176:11 177:4	318:9 319:11,20	107:13 109:11	cut 70:19	108:4,10,13,16
180:14 182:9	320:14 321:7,11	120:22 121:1,3	cutpoints 88:18	110:1 121:14
183:12,20 188:3,9	321:17 322:9	138:12 143:9,22	C-O-N-T-E-N-T-S	123:13,19 124:16
189:10 190:21	323:5 324:7,18	144:3,8 145:3,5,8	3:1 4:1 5:1 6:1	125:1 129:1,8,12
191:19 192:14,18	325:12,16 326:8,9	145:20,21 150:12	7:1	129:13,16,20
192:21 193:9,19	327:3,11,17 328:4	158:2 190:6	C-section 155:10	130:12,14 131:5
193:22 194:6,14	328:8,12,14	192:15,16 193:7	174:18 175:19,21	132:5 135:21
198:4 199:11	329:22 330:8	215:11 225:22	181:5,17 182:11	139:22 141:22
200:12 208:19	331:10,11 333:22	226:9,13,17,20	184:5,7,16,18,21	145:14 148:16
212:1 214:10	335:18 336:2,9	227:2,14 228:3,6	185:13 186:4,19	151:15 155:17
215:4,19,22 216:4	337:15,22 338:8	228:9 276:16	186:22 187:3,7,13	160:3 164:16
217:6,14 218:1	338:18 339:2,10	290:22 291:4,6,21	187:15 188:2,12	172:14 182:1
221:16 223:12	340:8 341:4,11,18	292:1,3 296:19	188:17 191:8	190:16,20 191:22
225:1,7,13,20	342:6,12 343:10	297:7,10,12 305:4	C-sections 167:7	192:2 193:3
226:11 227:1,5,10	343:17,22 344:3	327:6 334:6,13	181:5,11 185:6	197:13 204:22
228:8,12,15 229:3	344:12,17,21	337:18 338:7	186:2 187:20	205:22 206:14
229:6,9,19 230:4	345:2,14 346:6,14	339:7 340:1,5,19	C3PO 130:21	228:16 230:12
230:11 231:10,12	346:15 347:6,13	347:3	131:5 140:14	232:15 235:4
232:21 234:4,12	348:1 351:19	criterion 143:20	149:14	240:9,20 241:11
234:15 235:11,15	352:17	critical 177:5,6		241:12,13,20
				243:3,9,10 247:12

247:14 253:10	36:17 64:2 65:21	deferring 321:8	296:4,11	developed 65:1
254:15 255:15,16	74:1,5 99:4 126:3	define 123:1 318:1	departments	66:9 67:2 71:8
256:8,12 261:1,2	251:2 269:12	defined 121:11	239:13	98:8 103:2 114:1
266:11,13,17	348:7,16	124:12 126:19	dependent 149:8	114:4 116:18
273:11 280:21	Day's 3:5	defining 113:15	157:19	195:12,14,16
283:16 292:6,10	DDS 2:10	325:10	depending 114:2	249:2 267:14
292:20 293:1	deal 15:4 22:22	definitely 250:3	217:21	342:15
295:22 296:22	23:4 26:16 101:5	251:11 283:3	depends 43:15	developer 10:4
297:21 302:1,12	163:17 177:18	284:1 295:18	115:13 128:17	14:17,20 61:8
302:14	278:2 314:16	324:9 348:8	258:10 331:7	146:22 238:13,15
database 35:15	318:18 342:21	definition 117:13	derive 243:15	257:1 289:10,21
40:16 41:2 51:21	343:15,16	132:7 147:5 174:5	derived 68:16 87:9	344:6 346:2,7,11
52:20,21,22 53:21	dealing 69:16	176:13 213:4	243:17	developers 13:13
54:7 59:22 60:13	179:7 223:5	216:1,2 217:2	describe 40:18	16:18 19:11
61:20 63:6 66:8	256:20 315:17	293:5,15,16	64:11 69:7 87:6	288:22 349:4
66:22 67:9 70:5	death 28:2,2 73:21	342:16 343:4,6,7	190:22 243:13	351:6
70:22 74:12,15	73:22 91:10	definitions 122:17	250:19 251:10	developing 17:20
75:6 79:11 82:15	122:15 128:2	123:5,10,21	described 132:20	134:16 248:19
83:9,10 88:12	deaths 77:17 88:14	130:19 131:2	describes 120:5	268:7 273:14
103:4,6 108:13	88:15 93:18,22	139:8,14,15 148:2	251:7	287:10 306:14
129:6,7 130:1	94:9	150:10 293:14	description 29:2	development
233:21	debated 174:10	342:17 344:13,16	171:2 195:5,9	124:20 222:19
databases 52:16	186:18 331:12	345:10	214:18 307:9	289:20 290:1
53:18 62:22 72:6	decade 100:18	degree 32:17	308:16	developmental 7:8
107:22	116:5,9 156:3	deliberations 3:5	designed 187:5	23:19 62:3 327:14
dataset 45:19 54:4	decide 46:13	13:20 325:22	322:1	device 81:1,2,3
58:12 87:10,11,13	100:22 105:8	deliver 164:19	desirability 63:3	diagnoses 52:11
89:12 108:2,14	129:15 268:14	deliverable 350:1	149:19	53:7 153:14
123:20 124:19	295:2 327:12	delivery 164:7	detail 57:13 163:8	155:19 156:9
130:21,22 204:18	decided 188:6	166:17 167:22	211:5 230:3 265:2	158:6 161:13
datasets 196:19	225:5	179:8 185:11	detailed 76:8	175:9
data-based 108:8	decision 104:21	191:11	details 57:16 162:8	diagnosis 160:21
data-gathering	136:5 147:19	delutations 92:6	determination	167:2 179:3
34:22	274:18 287:22	delve 121:9 135:18	223:17	194:20 319:18,19
date 61:19 97:22	349:7	delving 121:6	determine 23:22	diagnostic 111:8
147:2 150:2	decisions 104:6,6	demographic 240:5	24:5 35:18 52:17	112:21 128:8
David 2:3 9:17	decrease 50:13	244:8	141:20 277:1	diagnostics 156:9
27:10 28:18 72:12	51:2 233:11	demographics 53:8	determined 146:13	diagram 153:20
76:15 112:16	decreases 50:20	denominator	301:15	dial 200:19 219:1
125:16 146:14	decreasing 43:20	129:10 150:20	determining	dialing 208:9
158:19	deep 47:21	156:14,15 157:10	130:10	dialysis 196:20
David's 74:21	deeper 329:10	175:12 338:22	detriment 171:16	197:2,12 199:13
day 57:18 137:3	deeply 121:9	339:11	develop 17:8 66:3	199:19 200:1,7,7
161:11 348:5	defect 166:10	dental 92:7	79:11 99:2 103:3	200:10,20 202:21
days 14:11 20:9,15	defer 302:18 305:8	Denver 9:18	103:14 249:17	203:5,6 204:10
25:10,11,15,22	321:17	department 257:12	262:1 265:10	206:12 207:17,19
26:9 32:10 36:1,2	deferred 6:21	278:9 295:22	279:20	208:10,16 210:8

210:20 211:1	104:18 105:4	dimensions 239:14	34:16 37:2,8	322:6
213:16,20,22	106:19 111:16	239:21 243:12	59:17 86:8 132:15	document 250:13
217:21 222:17	116:2 124:11,15	246:9 250:20,21	136:18 143:3	289:3 290:10
223:2 232:6 233:2	130:7 133:14,15	251:4	154:6 165:14	311:9,16
dialyze 197:20	133:19 134:3,3	Dimes 176:22	189:13 213:14	documentation
201:15,18 202:15	137:19 138:11	direct 22:15 177:7	285:10 306:10	109:4 205:8
223:1	142:2 159:18,18	319:12,13	307:19 309:3	documented 195:1
dialyzed 220:20	163:22 165:3	direction 103:2	310:17 319:8	199:1,7,9 204:4,6
221:2,4,5	166:8 169:11	155:12 171:15,16	325:19 348:15	205:12 207:12
dialyzing 201:19	179:6,6 182:13	201:11 268:7	discussions 342:10	209:11 216:2
diaphragmatic	183:16 188:4	326:14 336:18	disease 4:15 65:10	217:18 218:15,16
65:14 98:2	200:7 203:6	directions 181:2	110:17 111:6	218:22
dichotomous 85:17	211:22 212:7	directly 75:2	113:19 115:3	documenting
216:17	213:5 215:2	300:11	117:19 118:4,4,9	204:14 208:16
dictating 230:6	217:17,18,19	Director 11:16	119:3 120:15,18	219:11
die 72:21 74:5	221:8,9,10 222:12	12:20	156:19 173:11	doing 24:19 29:18
77:15 78:4,12,19	223:5 227:22	disadvantage 172:6	238:2 320:10	42:4 44:4,5,15
89:1	230:18 231:17,20	disadvantaged	diseases 65:9 75:18	45:14 52:17 55:5
died 74:18 79:2	241:14 242:19	165:20	98:1	102:20 103:16
dies 88:22 126:3	246:8 263:3	disadvantages	disparities 44:19	113:1 118:6,8
128:15	271:10,13 277:13	233:1	165:2 167:17	120:16 126:2
diet 164:15	283:7 285:19	disagree 120:13	305:19	128:7 132:20
differ 243:12	287:2,3 290:17,18	discharge 40:20	display 282:16	138:9 139:4
difference 20:12	291:19 305:21	74:6 108:4 240:3	displayed 169:17	140:22 149:1
23:15 50:19 81:5	317:21 326:10,21	244:2,3 246:14	dissatisfaction	156:13 170:2
100:9,22 178:1,3	331:16 344:13,16	247:16,17 251:15	264:1 273:6	173:9 176:21
179:20 195:20	345:9 347:2,2,16	273:2	dissatisfier 183:9	186:1 208:8,17
218:14 224:16	348:9	discharged 74:17	dissect 99:22	216:9 223:2
232:4 252:9	differentiate	242:15 249:21	distress 183:19	241:17 247:22
275:17,18 276:4	277:14	disclosure 287:10	distributed 220:12	254:4 263:22
276:14,20 277:1	differently 117:22	discomfort 304:2	distribution 169:15	265:15,20 304:6
277:19 278:5	137:15,18 188:5	discrimination	252:13	328:17 333:7,10
differences 69:19	202:22 220:12	88:19	dive 329:10	333:13 336:22
71:16 94:16 95:10	326:20	discriminative 89:7	diverse 246:1	domain 157:12
95:12 178:8 217:1	difficult 71:15	discuss 34:4 153:21	diversity 316:1	240:12 246:12
240:6 241:8	136:21 148:4	324:21 343:15,18	doable 60:5	263:9 284:3
252:13 253:1,6	211:11 233:20	discussed 15:14	doc 269:8	298:16 302:15
254:21 261:6	263:21 285:9	97:5 144:18	Docherty 2:4 10:16	304:13
284:19 300:19	300:6	211:12 283:1	10:17 32:8 48:5	domains 243:14,18
different 27:8,8	difficulties 278:7	286:9	74:20 105:22	243:19 245:8,10
30:22 32:21 39:14	difficulty 309:1	discussing 144:19	205:10 207:9	265:12 333:3
39:21 44:20 45:12	313:18	332:11	216:16 255:22	Donna 2:8 9:3
45:16 56:12 59:18	dilate 201:4,8	discussion 3:10,13	256:5 289:13	59:11 63:13
65:6,9 66:16 68:7	dilating 200:1	3:15,17 4:2,4,6,9	doctor 287:14	320:14
69:9 70:11,18	dilemma 299:19	4:18,21,23 5:2,9	doctors 197:9	double-gloving
75:11,14 80:15	dimension 255:1	5:11,13,17,24	240:2 243:20	21:11
87:18 95:15	299:17	6:12,17,19 10:6	251:15 276:1	downhill 249:6

Dr 3:9,23 4:16 5:8 5:23 6:11 9:1,15 11:7,22 12:6,9,12 13:15 16:6 17:3,6 19:16 20:5 22:6 24:7,20 25:1,16 27:21 29:10,14 30:3 31:21 32:16 33:1,18 34:10 35:21 37:19,21 38:8 40:1,17 41:3 42:6 43:4,14 44:22 45:20 48:1 49:14 51:11 52:4 52:21 53:15,20 54:9 57:11 58:19 59:5 61:18 62:14 62:19 63:11 64:12 64:18,21 68:11 69:8 70:19 71:6 72:1 73:6,6,18 74:8 75:10 78:1 79:7 81:6,8 82:11 83:7 84:2,10,17 90:5,14,19,22 91:21 93:4 94:4,8 94:14 96:12,16 97:10 99:15 102:22 103:18 104:1,20 105:9 106:7 107:10 109:12 110:6,21 113:11,18,20,22 114:16 115:7,11 116:4,16 117:5 118:1,21 119:5,9 119:17,20 120:10 121:15,18 124:18 126:10,16 128:4 128:17 129:19 130:13 131:12 133:8,11,22 138:22 140:12 142:6 144:6,9,15 145:6,10 146:1 147:14 148:13 151:6,13,21 152:4	153:8 154:7 159:9 160:18 161:11 162:5 163:2,18 165:5,18 168:11 169:3,21 170:9 171:12 172:17 173:3 174:9 175:20 176:19 178:5 181:1 182:18 184:20 187:10 188:6 189:8 190:15 191:6 192:2,17,20 193:8,18,21 194:3 194:5,13 196:6,8 198:9 200:18 204:16 205:14 207:14 210:5 212:2,12,19 213:6 214:17 218:14 222:5 224:1 225:15 226:10,21 227:3,8 228:7,10 228:14 229:2,5,8 229:17 230:22 231:16,19 233:13 234:11,14 235:5 235:12,22 238:16 243:16 244:12,16 245:8 246:2,16 247:7,10 248:6,9 248:12,17,20 249:10,14 250:1 251:4,22 252:12 254:1,5 255:10 256:4,7,22 258:6 258:21 260:8,11 260:16 261:21 262:17 263:8 264:21,21 266:8 268:11,21,22 269:1,6,7,10,11 270:5 271:2,15,19 271:22 272:12,17 272:18 273:3,4,10 273:17,21,22 274:21 275:9,13	277:4,11,20 278:16 279:6,11 279:15,19 280:1 280:16 281:19,22 282:10,15,20 283:3 284:4,10,18 285:1 286:12,18 288:13 290:8 293:11 294:22 295:14,17 298:1,5 299:14 301:1,13 302:2,6,17 303:22 305:1,14 306:6,16 319:9 326:1 328:3 330:7 340:7 341:2 341:10,17 345:21 350:4,12,16,18,20 drafting 350:8 draw 25:14 37:3 331:5 drawing 218:5 drive 101:7,12 250:14 333:4 driven 101:9 208:4 333:19 drivers 182:10 185:8 drives 182:21 driving 182:16 208:18 326:13 drops 296:10 drug 156:21 162:11 due 14:11,17 20:1 20:21 21:8 44:13 156:20 239:16 240:18 241:8 Duke 10:17 D.C 1:21 154:11	176:20 235:8 297:19 308:8 315:16 345:19 ease 145:18 347:10 easiest-to-evaluate 159:1 easily 197:9 297:4 easy 107:16 170:11 198:3 202:11 203:10 211:14 219:13 easy-to-capture 197:6 echo 142:8 203:22 economic 28:6 EdD 2:5 editorializing 226:7 educating 207:3 effect 45:6 49:16 178:2,12 204:15 252:17 253:11,15 270:9 effective 185:10 effects 15:21 240:20 241:1 efficiency 21:10 effort 98:9 181:21 191:9,10 efforts 190:14 192:10 324:10 eight 123:12 140:14 144:6 192:17 227:4 234:14 either 15:13 16:12 19:10 32:1 65:10 73:21 76:5 77:12 77:20 85:18 86:12 100:19 112:5 121:1 160:13 168:11 173:15 200:7 216:17 217:20 241:6 245:4 247:18 285:17 298:18,19 307:7 314:21	328:16 elective 127:15 167:7 185:11 191:11 electronic 57:5 108:13 145:16 228:17 292:12 element 80:8 93:12 144:22 233:5 247:4 318:20 elements 34:5 83:8 189:18 227:14 230:2,7 290:18 291:12 321:15 elevated 181:16 Eleven 226:10 330:7 eligible 233:15 eliminate 55:15 Ellen 2:9 39:15 51:12,14 98:16 218:1 252:2 265:17 266:21 310:2 Elliott 2:14 5:8 151:6 152:17,17 153:6,22 154:3 159:5 168:2 186:17 187:2,6 189:15 194:3 email 301:1 emerged 54:10 emergencies 27:19 28:1 emerging 33:18,20 emphasis 233:9 empirically 87:9 encompass 79:14 encompassed 103:12 encompasses 84:22 294:2 encountered 281:12 encounters 53:4 encourage 60:16 235:2
--	---	---	--	---

encouraging 179:22	ER 276:12	125:10,11,19	174:14 181:16	Executive 12:20
ended 18:18 26:9 77:19 89:3 175:7	era 93:8	126:13,18 127:1	201:5 203:10	exist 123:3 301:19
endlessly 186:19	erythropoietin-si... 203:13	128:1,13 129:18	218:21 219:15	exists 54:6
endorse 195:21 290:3 297:16 310:9,10	especially 17:15,17 65:8 142:13 164:17 184:5 274:19 345:7	129:21 130:3,6,16 130:22 132:3,4 133:12 136:1,1 139:4,7,16 141:3 141:13 142:3,15 146:17 151:16	223:22 245:12 259:11 271:16 276:11 280:3 282:19 296:6 346:15	expand 20:15 25:22
endorsed 212:22	ESRD 194:20 212:5	eventually 111:14	examples 214:20	expanding 41:15
endorsement 14:3 14:5,10 15:20 46:15 109:19 110:4 146:6 193:11,13,17 196:2 231:15 234:6,9,13 290:4 298:21 304:16,20 305:6 341:15	ESRD/CKD 235:7	everybody 8:7 9:1 9:16 48:22 51:10 96:18 109:13 110:7 179:2 181:8 193:8 200:20 211:15 227:6 283:10 288:10 292:4 340:6 341:3 341:4,17	exceedingly 99:20	expansion 58:11
endorsements 47:6	essence 214:11	9:16 48:22 51:10	excellence 285:5	expect 116:22 241:7 321:12
endorsing 149:21 267:17	essentially 22:16 25:7 28:3 67:22 212:6 221:18	110:7 179:2 181:8	excellent 96:6 296:3 352:4	expectation 101:6 213:18 214:5 259:20,21
endoscopic 36:11	establish 52:6	193:8 200:20	excellently 351:22	expectations 163:22 259:10,12 259:17,21 260:1
ends 233:19	estimate 118:21	211:15 227:6	exchanges 322:20	expected 169:22,22
English 261:16 262:1 292:7 298:14	estimated 28:9	283:10 288:10	excited 100:13	expedite 324:10 349:7
enjoy 126:1	ES-17 157:13	292:4 340:6 341:3 341:4,17	excitement 149:18	expeditious 328:11
enter 162:12 233:20	et 21:12 38:5 39:9 42:20 53:8 64:17 70:15 104:6,7 110:1 156:6 191:5 240:6 251:13 337:20	everybody's 56:19	exciting 55:1 70:20	expenditure 183:15
entering 130:12	ethnicity 240:6 242:17	evidence 25:10 101:1 180:21 191:20 197:1 205:11 206:14 216:15 293:19 309:2 311:10,16	exclude 18:14 36:19 37:4,15 126:11,12 127:1 128:22 129:8,9,15 164:2 175:9 230:18 231:5	expenditures 183:17
enterocolitis 65:15 75:18 89:22 98:3	evaluate 15:10 243:10	evolved 111:8	excluded 18:20 35:17 92:3,12 93:1 102:21 116:20 125:19 151:19 156:17 162:7,14 166:11 166:22 172:16 174:20 177:20,21 253:13,16 338:11	expense 331:3,4
entertain 303:2	evaluated 142:10	evolves 113:6	excludes 117:15 173:7 174:16 339:11	expenses 322:4 329:17 333:4,20 337:20
enthusiasm 131:20 328:10	evaluation 46:4 82:13 147:1	evolving 139:1	excluding 18:18 126:8 132:12 153:14 161:13 162:3,4	experience 8:9 25:11 78:3 104:19 157:21 217:16 239:4 242:21 245:20 249:22 259:15 260:3 263:15 284:13 286:19 292:13 294:11 310:21 334:19 348:20
entire 43:10 82:14 114:1,4 122:19 136:15	event 4:13 77:18 110:15 111:17,18 122:6,8 124:16 126:9 127:13,20 129:22 134:11 136:17 139:13 140:3,15,22 141:3 141:16,21 142:18 147:9 157:6	exact 102:8 169:9 213:14 253:17 349:5	exclusion 35:6 164:8 180:6	experienced 191:2
entirely 333:19	events 110:20 112:1,1 113:3 117:4 121:11,12 121:13 122:5,17 123:10,14 124:5 124:10,12,21	exactly 23:13 35:18 37:6 42:7 43:4 52:19 73:5 78:19 109:1 113:20 115:7 137:8 170:9 253:13 286:13 295:9 303:6	excludes 117:15 173:7 174:16 339:11	experiences 6:9 237:9 240:1 243:11,19,20,20 245:13 247:16 281:16,18,21
environments 159:6		example 35:15 38:4 62:10 114:10 126:9 127:3 131:3 132:19,19 137:5 150:12 155:20 156:20,22 165:8 166:19 167:10 171:18 172:20	exclusion 35:6 164:8 180:6	expert 179:11
equal 199:5 210:12 210:13,13 333:17			exclusions 107:18 145:16 156:14 169:1 228:17 292:12	explain 99:10,11 126:11 171:5 195:4 198:6 199:11 272:22
equally 116:22 143:17			Excuse 283:6	
equals 260:21				
equivalent 209:12				

273:1 274:15 295:3 335:7 explained 133:22 explaining 160:12 160:17 161:15 explanations 273:19 explicitly 326:4 explore 62:15 explored 258:4,7 expose 202:9 express 264:1 306:12 351:20 expression 63:8 extend 25:15 213:1 231:14 252:20 extending 110:1 extension 233:2 extensive 156:13 294:15 303:13 extensively 191:7 extent 42:14 47:2 318:13 340:18 external 201:8 208:12 externalizing 22:21 extra 160:4 249:17 extracting 55:21 extractions 92:8 extrapolate 79:16 extreme 209:6 extremely 73:2 95:11,13 113:5 273:13 eye 172:1	fact 42:3 66:18 67:5 68:15 69:3 69:16 73:8 81:17 82:14 93:6,10 97:12,16 98:12 101:17 103:11 105:3 131:19 135:5 170:7 187:22 203:9 245:18 332:8,10 333:13 factor 251:12 253:14 256:1,2 factoring 91:17 351:11 factors 83:12 89:19 124:9 201:16,17 209:22 211:11 220:11 221:19 fail 29:1 failsafe 156:10 failure 27:15,16 35:9 199:10 failures 33:17 fair 21:8 93:4 138:5 144:18 163:6 169:20 170:1 178:15 179:11 189:14 190:12 345:17 fairly 94:21 130:18 134:17,18 142:10 148:7 196:14 244:17 246:7 281:10 fairness 97:10 344:1 fall 183:18 235:8 255:1 317:10 332:22 333:15 familiar 19:19 families 10:10 104:18 168:14 173:20 183:10 247:3 286:1 337:7 family 104:11 179:5 202:19	family's 331:8 family-centered 6:8 237:8 fantastic 49:17 57:12 76:2 far 30:7,9 97:14 100:19 175:21 303:5,6 307:16 308:18 352:3 fashion 123:14 faster 308:6 fatal 72:18,19 128:9 fatality 206:16 favor 34:9 59:1 110:3 193:16 234:8 Faye 2:5 10:11 21:17 70:9 82:7 104:2 163:14 223:14 265:18 266:22 268:10 274:12 312:7,12 313:1 feasibility 3:17,18 4:9,10 5:2,4,17,18 6:5,17,18 7:16 39:17 51:18 57:20 58:1 107:16 109:9 109:11 131:16 145:13,20,22 193:1,7 228:16 292:9,18 296:17 296:19,21 297:7 297:10,12 304:22 341:6 feasible 45:19 51:20,21 228:20 229:1,4 280:2 292:12 297:2 feedback 22:4 308:9 349:12 feel 14:3 18:1 19:4 20:19 21:13,14 23:7 37:10 39:2 40:12 46:14 48:18 48:20 50:15 51:8	57:22 62:19 66:13 76:7 85:16 86:1,4 96:14 107:5,8,12 109:10 129:21 136:22 137:1 143:12 144:7 145:2,4,8,19 189:19 190:4,5 192:15 193:6 200:18 226:19 245:14 247:6 268:5,14 290:21 291:3 300:1 304:6 311:1 312:16,19 312:21 313:10 318:22 325:21 339:22 340:4 341:8,12 350:14 feeling 142:10 264:16 feels 177:6 209:13 313:15 Fei 2:12 5:22 194:12,12 195:7 195:12 198:17 199:15 212:9,14 213:2 214:8 215:16,20 216:1 217:4,12,15 220:17 fellow 13:1 275:19 fellows 276:15 felt 26:5 36:14 45:8 50:5 67:8 72:7 74:10 93:13 158:21 243:22 246:20 255:11 310:20 311:12 316:17 fetal 153:15 161:14 175:10 fetus 172:2 fever 177:19 178:7 179:10,16,22 fewer 102:20 103:16 field 111:12 122:20	137:21 163:2 196:9,10 241:19 342:16 fielding 254:9 Fifty 119:20 figure 18:13 77:12 210:22 221:1 253:9 256:8 285:7 315:18 351:16 figured 254:13 figuring 18:9 28:19 filed 248:10 fill 158:10 182:8 filled 235:13 352:16 final 59:8 132:12 finally 68:5 286:15 finances 331:8 financial 30:18 find 95:12,14 117:3 221:12 224:3 283:13,16 329:10 336:20 fine 44:1 169:1 174:1 188:5 195:7 195:11 209:15 234:20 268:22 302:19 309:21 310:6 335:1 finish 133:10 first 8:15 16:17 19:14 34:1,4 38:8 38:9,18 40:11 49:15 56:3,17 65:21 66:7 67:17 67:18 72:16 76:3 78:10 87:2 115:4 120:22 125:20 150:9 158:17 180:17 183:2 188:18 189:2 205:16 208:22 212:4 213:13 243:5,6 258:8,12 259:13 265:17 267:5 268:6 275:5 275:14 276:18
F				
FAAN 2:5 FAAP 2:6 face 39:12 65:2 111:20 315:13 332:7,9 333:6 facilities 207:19 223:21 facility 183:8 217:21 224:21 facility-level 224:8				

284:15 287:6,12 288:2,4 294:4,5 295:6 302:2,3 307:14,21 308:1 308:12 317:16 318:12 325:14,20 328:9,22 350:10 351:9	flat 181:20 flavor 97:9 333:5 flavors 160:7 flaw 72:18,19 flip 170:12 323:11 flow 21:5 200:8 201:13 202:8,12 203:4 219:1 220:4 flows 223:8 flu 237:19 fluid 21:6 201:20 flyers 276:3 focus 76:1 130:3 160:4 168:15 169:6 190:13 191:14 247:2 252:21 270:21 275:3 292:22 294:16 focused 26:15 66:10 166:4 167:21 176:20 182:4 focusing 64:14 65:20 folic 179:2 folks 16:19 194:9 304:7 333:14 334:17 follow 113:12 following 34:1 64:1 181:12 339:8 349:10,14 follow-up 59:20 175:14 278:22 fond 328:21 food 236:9 237:4 foregoing 152:20 236:14 foresee 57:7 forget 320:4 forgot 48:16 244:18 form 82:13 148:1,7 266:5 335:6,6 342:19 352:15 formal 48:8	formally 271:21 format 141:4 formation 250:7 formed 285:4 forth 182:6 forthcoming 71:5 fortunate 204:19 fortunately 66:2 74:8 FORUM 1:1 forward 14:9 37:13 63:10 130:20 132:14 143:1 193:14 221:8 235:2 254:3,12 268:4 273:20 286:17 305:13 306:15 352:13 foster 162:9 found 45:1,2 55:18 56:10,12 88:18 89:12 90:3 157:22 208:2 217:16,18 242:18 252:9 260:20 four 20:12 87:17 89:2 122:11 183:16 226:22 227:4 228:11 fourfold 163:13 176:3 Fourteen 189:8 193:18 fourth 202:5 fracture 167:2 frame 160:18 241:10 243:10 261:1,2 262:4 framework 241:18 framing 173:4 Francisco 154:10 free 350:14 freestanding 53:1 100:2 224:19 257:13 269:19 274:5 frenectomy 93:3	frequency 28:22 29:8 133:20 182:20 185:16 204:10 frequent 175:20 203:5 210:8 276:3 frequently 101:7 216:8,10 248:22 fresh 350:13 friends 286:1 front 300:1 335:7 FTE 108:11 full 17:13 108:11 161:21 163:5 166:20 196:2 fully 15:10 107:5 138:6 142:2 149:12 fun 17:20 320:11 function 219:12 functioning 311:5 fundamentally 80:10 further 14:18 26:6 26:12 51:4 85:14 86:12 135:18 146:22 149:19 235:19 298:11 335:8 344:8 347:5 future 14:1 57:8 147:2,11 150:2 fuzzy 135:19	168:18 169:19 170:1,21 223:15 274:14 276:22 277:5,12 278:12 278:22 279:8,14 279:18,22 280:5 281:17,20 282:1 292:15,19 294:6 295:11,15 312:8 312:13 313:3,7 gastroschisis 65:13 78:16,18 80:5 gather 15:8 Gauvreau 2:13 3:25 12:3,3 64:22 67:13 69:21 74:14 79:9 87:8 89:11 90:13,18,21 93:20 94:10,21 102:12 102:16 103:20 108:12,19,22 109:3 117:2 general 12:1 23:19 89:5 100:4 109:18 120:5 156:18 170:4 178:14 208:22 258:22 264:20 294:7 305:9 309:14 310:1 315:14 336:20 generally 58:18,19 258:10 generate 72:8 193:4 generic 260:7 gestation 176:1 getting 22:13 43:19 47:21 60:1 71:19 85:1 97:8 137:21 171:6 197:11 203:18 237:4 238:4 295:12 302:8 322:18,21 329:5 348:12 350:6,10 give 86:21 113:14
---	--	--	--	---

141:17 149:22	350:9 351:15	286:16 287:5,22	grafts 201:10	groups 45:13 81:19
151:18 170:14	352:10	289:8 293:10	Grail 159:16	104:14 134:4
187:5 195:8 198:1	goal 176:5 221:20	296:13,16 307:3	grand 281:11	165:3 169:6 247:2
203:13 238:18	260:2 262:3	314:10 316:8	grapple 293:9	252:21 270:21
269:7 272:2	283:22	321:13 322:12	grappling 213:15	275:3 293:1
279:12 290:10	goals 238:20	325:17,18 331:17	great 17:5,7 25:16	294:16
293:9,14,15	goes 23:18 46:22	341:21 343:21	38:11 43:14 60:16	grow 223:6
308:18 333:5	126:17 127:18	345:22 349:3	63:11,16 64:17	grows 41:16
344:7 351:5	170:15 179:17	gold 42:15	92:20 101:5 131:7	growth 156:18
given 104:9 106:3	191:17 267:9	Golisano 9:7	143:3 152:4,11	164:5 222:18
148:9 151:20	275:21 296:6,8	good 8:7 11:17 15:3	153:9 188:20	223:7
155:21 157:10	316:21	23:18 39:2 42:6	189:11 233:22	guarantee 25:8
169:1 171:11	going 14:21 16:8	47:14 49:1 51:13	235:5 238:14	guess 35:9 48:10
229:12 267:17	20:14 22:9 23:13	54:16 56:10 58:3	239:3 253:10	60:9,12 61:1 81:5
321:13	25:13,22 26:6,11	60:11 63:15 75:11	268:7 271:14	89:16 99:9 124:2
gives 180:8 203:8	31:11 33:2,17	86:3,6,7,21 89:6	280:18 282:3	125:18 128:19
giving 96:2 179:2	34:20 36:6,15	99:12 107:14	306:8,17 329:22	145:13 177:4
211:8 236:1	37:6 42:16 43:16	109:14 110:8	greater 36:2 66:15	186:13 207:14
glad 56:16 158:15	46:4 48:6 49:16	118:1 119:19	69:18 122:2	208:21 212:19
go 8:14 16:13 18:22	52:5 55:19 57:1	125:2 136:12	194:21 198:12	216:22 222:2
19:11 26:17,17	57:16 77:7,10	137:1 144:16	199:5 200:21	250:16,17 252:7
28:7 34:4 40:7	79:9 80:18 88:8	151:3 155:8 161:2	211:6	267:15 268:3
42:17 44:14 48:11	91:12 100:17	162:17 181:4,4,9	greatest 47:2	270:4 287:9 289:6
48:12 56:11 96:8	105:8,20 106:22	185:7 189:10	gross 331:14	289:7 291:6
98:18 100:22	115:1,22 122:22	190:4,9 192:4,22	ground 150:1	305:17 306:11
113:4 116:9 127:9	129:2 130:6	193:9,20 197:1,22	group 12:19 16:2	309:6 314:9,12
128:8 143:12	131:16 132:14	226:14 229:9	16:11 19:9 26:12	315:9 320:15,19
153:1 158:11	136:4 141:17	231:4 235:10	30:6 32:14 34:18	331:20 343:15
162:1,7 167:13	142:4 150:1 153:2	240:19 242:3,6	37:14 43:10 49:6	guests 8:13,16
172:2,19 173:5	153:10 154:12	252:1 255:20	50:9 60:20 64:5	11:21
178:6,17 187:8	161:19 162:1	258:21 260:2	67:16 75:4 86:13	guidance 344:8
191:12 193:14	168:7 177:12	261:8 288:10	87:19 88:6,7 91:5	gun 190:17
221:7,22 224:7	184:15 185:17	291:8 292:8	97:18 98:3,17,18	guys 17:19 147:16
234:21 236:7,13	186:9 187:8 194:7	305:11 306:8	112:10,13 113:8	194:1 195:3 303:5
242:7 246:20	196:1 197:22	312:11 318:10	116:12 122:21	332:11
250:3,4 255:14	198:20 200:2,4	321:19 330:8,9	123:18 124:22	
259:5 260:11	203:2,3,4,5,6	340:3,6 341:13,18	130:16 141:4	H
264:18 273:20	204:2,5 205:19	351:3	153:19 154:1	hair 126:1
274:22 276:7	208:17 211:2,4,10	goodwill 149:9	158:18 174:13	half 173:15
278:9 282:5	220:14 222:9,22	gotten 122:21	190:13 215:6	half-hour 327:22
283:15,17 287:22	236:6 237:7	160:10 303:6	231:15 233:2	hand 34:9 86:2
288:2 294:5	238:18 242:7	352:3	248:3,5 249:1	110:5 263:1,21
296:16 301:9	244:6 247:9	Gould 155:2	250:13 268:13	handful 32:19
305:12 307:21	249:21 252:4	Goutham 2:9 10:20	270:16 285:4	66:12
314:16 320:11	254:3 256:3 257:7	government 30:10	307:20 308:3,7,22	handle 282:14
327:6 328:3	262:7 264:15	204:19	310:4 346:14	handled 77:8,8
342:22 343:9	274:17 284:8,17	graded 343:3	grouped 87:15	179:13

handling 335:4	343:11,13,16,18	heard 32:5 64:13	194:12	342:17 343:6,6
handoff 262:9	346:5	229:22 230:15,17	high 28:2 37:7	344:13 346:3
hands 80:16,18	harmonize 269:4	257:3 299:6	125:9 132:2 155:9	347:15 350:14
96:11 121:4	harmonized 49:4	336:12	172:10 183:18	Homer 1:19,21 2:2
137:22 189:7	291:14 301:15	hearing 15:3 56:18	185:6 187:3	3:3 8:3,19 15:1
190:7 288:9	harvested 35:16	58:6 210:4	196:15 197:5	17:1,4 19:8 21:17
happen 75:3 79:17	hassle 297:3	heart 4:15 110:17	198:2 205:16,18	24:7 26:13 27:10
237:21 250:14	hats 348:12	111:5 113:19	205:19,20 238:19	28:17 29:13 30:2
307:3 312:22	Hawthorne 49:16	115:3 117:19	253:9 277:22	30:16 33:12,22
317:22	HCUP 28:8 33:2	118:4,4,9 119:2	337:19	34:14 38:2 39:13
happened 20:3	41:5	120:15,18	higher 20:16 45:2	40:15,18 42:1,22
49:11,12,15 50:4	HCUP's 157:21	heavy 23:7	133:2,6 164:20	43:5 44:16 45:15
55:17 77:18 122:7	head 312:20 351:10	Heidi 2:18 11:15	165:21 187:15	45:21 47:8 48:10
137:3	headings 251:5	46:2	192:9 200:3,4,6,8	51:4,17 54:22
happening 24:6	heads 305:10	Helen 2:19 11:7	200:9 201:10	57:2,19 58:17,22
happenings 21:15	health 1:7 6:25 7:3	16:5 61:5 147:13	220:4 245:17	59:10,15 60:6,11
happens 77:16	7:10 9:4,14 10:8	212:1,2 268:9	253:4 334:18	61:4,9 62:5,18
101:7 135:12,21	15:17 163:3	290:3	highest 73:12	63:1,12,15 64:6
140:3,7,8,15	181:13 191:7	hello 286:3	183:18 333:17	64:10,20 67:12,15
165:7,8 166:16	306:12 309:2	help 17:19 22:3	highlight 69:19	69:5 70:9 71:11
172:1 250:5	311:13,21 315:4	23:20 25:6 83:15	highly 24:6 89:7	72:12 76:1,12,15
280:10	316:1,12 317:8,14	89:20 90:3 136:8	157:19 246:5	76:20 77:10 78:6
happy 8:21 56:22	317:19,22 318:2	136:9 153:21	314:1,5 343:4	79:19,22 81:6
151:21 251:11	318:14 319:3,6,14	165:2,16 198:10	highly-competitive	82:6 83:13 84:7
260:15,18 281:13	320:3,4,9,17,18	200:13 224:6	148:21	85:5,12 87:1 89:9
305:14 306:6	321:12 322:1,3,11	266:5 346:22	highly-specialized	91:3 92:19 93:16
316:18 331:4	322:11,19 324:4,6	helped 19:5 137:7	196:9	94:6,12,15,22
336:1	327:5 329:2 335:4	185:11	high-level 284:16	96:7,13,17 98:16
hard 11:12 160:1	335:15,21 339:9	helpful 28:18 99:9	high-performing	101:3 102:5 104:2
171:15 200:21	343:6 347:20,22	152:1 225:2	148:21	106:8 107:3,11
204:13 207:10	348:2	271:20 345:22	high-stakes 138:9	109:7,14 110:8
215:7 223:4 232:2	healthcare 8:20	helps 137:20 301:2	138:10	112:9 113:7
247:19 252:18	17:14 22:2 315:7	hemodialysis 5:21	high-volume 157:4	114:10 115:8
253:11 259:19	315:8 317:11	194:17,21 195:2	Hispanic 70:14	116:14 117:6
264:7 266:11	322:7,22 323:12	196:13 204:2	Hispanics 242:22	118:17 119:4,8,12
270:21 273:8	325:5 335:3,13,14	205:17 212:10,11	historically 112:21	119:18 120:21
287:1,19 293:14	healthy 5:6 153:11	hemoglobin 206:21	history 267:21	121:16 124:1
313:13 314:12	155:8,10 156:15	hemoglobins	hold 275:2	125:15 129:11
341:22 351:21	160:13 162:3	203:11	holidays 351:12	130:9 131:4
352:4	164:14,18 168:16	hemolytic 156:19	Holy 159:16	134:20 135:17
harder 23:22 32:20	168:22 171:8	hernia 65:14 98:2	home 7:5 77:18	136:12 138:6
209:22 222:15	173:4,7 174:6	105:9,17	78:5 162:2 244:6	140:2 143:2,18
harmed 187:22	175:5	heterogeneity	246:18,20 307:17	144:7,13,16 145:7
harmonization	health-related	68:12 69:2 239:3	312:17,21,22	145:11 146:2,10
144:21 227:16,17	310:22	heterogeneous 68:4	324:22 325:1,11	146:18 147:12
232:12,16,18,19	hear 56:22 124:1	Hi 9:1 11:7,13,22	326:13,16 328:2	148:18 150:7,17
269:3 340:12	306:2	12:12 110:21	341:21 342:12,15	150:21 151:3,8

152:3,6 158:17	315:20 316:5,16	73:22 74:6 83:18	155:15,20 157:8	ICD-9 158:3
160:11 161:4,16	316:20 317:5	93:11 97:4 99:8	163:4 166:15,15	ICU 276:13
162:17 163:14	318:9 319:11	99:13 100:4,5	170:20,20 181:7	idea 24:10 47:14
172:7 173:8	320:14 321:7,17	106:3,15 122:18	181:13 183:5	52:1 58:9 61:13
175:13,18 176:11	323:5 324:7,18	122:19 124:15	184:4 186:3,5	62:7 108:8 199:20
177:4 180:14	325:12,16 326:8	136:16 142:19	242:8 254:8	215:9 293:8
182:9 183:20	327:3,11,17 328:4	148:5 155:9	256:20 257:11	Ideally 155:5
188:3,9 189:10	328:8,14 329:22	156:16 161:9,17	266:1,11 272:3	identification
190:21 191:19	330:8 331:10	162:2,10 170:18	274:5 284:14	121:13
192:14,18,21	333:22 335:18	170:19 224:18	285:8 286:6,22	identified 35:13
193:9,19,22 194:6	336:2,9 337:15,22	237:10 239:2	293:2 299:5,13	124:10 158:3
198:4,5 199:11	338:8,18 339:2,10	242:4,5 243:5,6	300:3,3	176:14 317:9,17
200:12 208:19	340:8 341:4,11,18	244:4 245:13,20	hospital-specific	identify 129:3
212:1 214:10	342:6,12 343:10	247:9,13,15 248:1	83:21	133:18 142:3
215:4,19,22 216:4	343:17,22 344:3	252:14 254:17,21	hours 348:21	167:8,14 350:3
217:6,14 218:1	344:12,17,21	255:8 258:9,12	housekeeping	identifying 81:11
221:16 223:12	345:2,14 346:15	259:5,11,22	352:9	81:20 168:8,12
225:1,7,13,20	347:13 348:1	262:22 263:2	HSMR 84:11,12	173:9,18 318:19
226:11 227:1,5,10	351:19 352:17	264:14 265:20,22	huge 265:6 267:6	ignorance 114:12
228:8,12,15 229:3	homes 324:19	269:13,19,20	human 115:17	IHI 84:8 167:12
229:6,9,19 230:4	homogenize 18:18	270:10 274:20	hybrid 274:7	ill 168:16 170:13
230:11 231:10,12	homogenous 36:19	275:15,20 277:5	hydrocephalus	illness 14:11 15:21
232:21 234:4,12	honest 216:14	279:17 281:10,16	36:7 54:12	258:20 321:4
234:15 235:11,15	288:21	281:18 285:6,22	hydrox 156:20	imagine 40:8 125:3
236:5 237:3 238:7	honor 263:13	286:8 287:12,13	hypertension	204:13 270:3
238:10 243:13	hope 41:15 52:8	299:8,10 300:9	115:16	imagining 269:11
244:9,15 245:1,21	194:9 214:2	302:11	hyposensitive	immense 332:12
246:10 248:2,10	238:20 259:3	hospitalists 27:5,7	219:7	impact 28:6 30:8
250:10 251:16	267:2 286:18,20	49:21	hypotensive 201:21	30:15 31:12,18
252:1 256:14	310:4	hospitalization	hypoxia 167:3,15	32:1,2,4,6,12
257:21 261:14	hopefully 14:22	206:17	182:22 192:5	75:15 81:14,22
265:16 266:21	54:19 81:21	hospitalizations	hypoxia/asphyxia	99:17 104:5
268:9 273:7 274:9	120:19 197:13	41:9 52:22	183:4	139:21 164:13
274:12 279:5,10	224:11	hospitalize 99:12	H-CAHPS 238:22	223:7 258:5,19
282:2 283:15,20	hoping 211:9 224:8	hospitalized 53:6	239:12,18 245:2,3	281:8
287:5 288:15,19	253:21	75:5 83:16 249:4	245:7,18 249:2	impacted 101:18
290:2,16 292:17	horrible 237:19	hospitals 20:11	256:16,17,18	impacts 72:3
294:13 295:5	285:21	26:21 27:4 32:19	262:4 265:6,8	impede 21:5
296:14 298:4,7	hospital 6:10 9:4,7	33:5,8,9 36:19	267:7,21 269:9,14	impetus 265:9
299:7,15,21	9:19,22 10:22	41:1 42:12 44:4	270:17 271:4	implement 185:3
301:20 302:5,10	12:1,4,8,11,16,19	52:9,18 53:1,12	272:13 284:2	297:2
302:20 303:17	19:3 23:17 35:2	55:22 56:12 57:5	291:18 299:19	implementation
304:8 305:3,17	36:1 38:18 39:20	75:9 78:13 82:10	300:14 301:14	107:18 145:18
306:8,17,22 310:2	39:22 40:4,14	82:13 83:1,2	302:6 303:8,19	228:18 292:14
310:6,12,20 311:6	41:20 42:9 44:10	100:3 101:8		implementing 43:9
312:2,7,11 313:20	44:11 53:22 54:2	103:15 106:18	I	186:11
314:3,9,20 315:9	60:3 68:6 71:2	117:10,11 124:5	iatrogenic 75:8	implications 27:14

29:7 112:22 267:17 implies 318:8 importance 3:10 3:12 4:2,3,18,19 5:9,10,24 6:2,13 7:12 19:15 26:15 26:20 27:13 28:20 28:22 34:2,3,8 64:5,15 67:18 85:14 86:2 111:20 112:12,18 113:9 120:22 121:4 132:16 162:19 216:11 225:21,22 226:9,12 231:6 252:8 255:4 301:5 308:19 323:8 330:2 important 17:13 19:21 26:12 27:3 30:12 31:15 37:11 40:2 45:11,22 67:5 76:4,6 85:18 85:22 99:20 104:14 107:2 111:12,18 112:7 113:6 125:5,13 126:12 136:18 154:20 157:4 173:14 176:17 185:13,17 189:4,6 198:1 206:5 207:4 208:13,18 211:17 222:16,18 224:13 224:22 242:20 245:15 246:4 247:5 256:9,11,12 264:20 266:7 278:14 288:6,9 310:22 316:18 322:17,22 329:21 330:6 imposed 136:14 impossible 221:19 230:14 imprecise 148:7	impression 27:18 100:18 315:22 improvability 30:20 80:11 191:20 improve 78:20 80:18 142:14 206:5 236:3 293:3 295:15 improved 187:15 improvement 61:14 84:9 85:4 101:12 112:4 130:4 167:10,11 176:10 191:4,9,10 191:18 192:10 208:4,18 211:9 272:8 improvements 192:11 improvement-rel... 63:4 improving 188:1 inability 201:4 inaccuracies 107:18 145:18 228:18 292:13 inaccurate 337:7 inadequacy 208:16 inadequate 5:21 7:2,9 195:1 339:4 339:14 incidence 157:18 170:13 172:10 incidental 92:9 include 88:9 103:7 115:14 137:8 210:15 216:3,4,5 218:16,17 219:11 276:6 335:14 339:18 included 36:22 41:20 66:17 74:3 75:19,21 91:19 93:2,18 102:9 141:22 159:21 162:16 163:18	169:14 172:22 173:2 174:5 180:5 225:17,18 318:2 338:20,20,21 339:6 includes 84:20 123:21 158:13 181:15 185:19 267:10 338:1 including 55:7 105:3 113:13 117:17 166:21 income 331:14 333:11,12 inconsequential 113:5 inconsistent 310:9 incorporate 44:8 increase 21:10 50:17 124:8 176:3 176:18 188:16 204:10 increased 180:18 181:19 increases 296:9 increasing 132:22 218:22 219:1 233:7 incredible 68:2 96:3 incredibly 332:10 indefinite 150:2 independently 140:17 Indian 70:14 indicate 200:9 278:21 indicated 318:4 319:16 indicator 19:14 83:21 156:11 318:14 319:13,14 indicators 20:20 indices 289:16 individual 81:10,11 94:6,8 102:14,17 105:6,7 140:20	205:22 284:7 304:10 307:5,12 individuals 52:2 60:14 induction 184:8 185:13 186:10 indulge 170:22 infant 160:15 170:13 222:15 infants 64:2 75:1,9 156:20 157:6 176:14 177:9 179:12 180:13 222:12,21 infected 22:17 135:10 infection 21:9,20 21:22 22:7,7,10 22:12 23:3 50:18 71:20 79:4 135:4 138:1 155:7 171:19 192:4,12 201:11 infections 24:12 183:3 influence 83:5 101:4 259:17 influenced 101:2 influencing 252:10 inform 347:4 349:7 informant 40:5 information 16:2 46:18 62:2 79:10 86:22 150:9,13 170:5 184:15 198:1 213:7 221:13 234:2 241:11 246:21 283:2 289:1,4,12 298:11,20 304:12 305:8 313:15 314:4 336:3 348:13 349:6 351:7 352:14 infrequent 66:1 inherent 331:8 inherently 188:7	initial 16:15 35:22 212:22 315:22 initially 18:17 19:10 33:11 35:17 36:22 50:7 112:11 initiative 8:20 172:2 285:2 injections 92:6 injuries 158:5,6 167:1 174:15 175:1 injury 166:21 175:6 injury/birth 157:13 158:2 inpatient 6:9 52:22 62:22 237:10 262:9 inpatients 57:6 input 235:8 insert 148:17 insertion 21:1 inside 22:14 337:11 insignificant 111:10 instances 129:7 323:13 institute 43:1 institution 43:3 49:10 60:2 62:10 65:11 67:10,11 69:12,12,20,20 81:14,18,18 95:15 100:2 105:12,13 118:7,8 119:6,13 120:3 122:5 124:21 130:14 133:13 136:15 139:18 140:3,4 143:14,16 148:15 155:6 168:21 184:22 239:14 255:21 263:6 264:17 283:12 287:19 298:15 institutional 42:18 134:8
--	---	---	---	---

institutions 43:8,11 43:11 58:11 59:19 60:14 62:8 65:12 69:10 70:11,18 80:7,10,12 102:20 105:11 114:5 118:22 119:10,16 121:21 123:13,19 124:22 130:7 131:11 134:12 138:11 139:2,2,14 140:15,21 141:3,6 142:8 143:11 148:3,20,22 149:6 149:10,15 178:2 235:17 239:13 241:19 242:1,4 255:5,7 283:19 290:7 304:21	interact 171:1 interactions 294:12 interest 63:9 96:21 97:7 128:18 149:18 220:7 254:11 309:16 interested 97:19 130:8 254:9 263:9 305:18 346:16 interesting 131:13 179:19 183:13 258:1 274:8 275:14 287:17 interim 249:20 intermediate 197:15 206:10,12 206:15,19 207:1 226:5 327:1 internal 52:13 201:9 221:5 224:14 331:15 internally 214:3 351:14 International 123:6 139:9 internationally 159:7 interpret 339:19 interpretable 291:10 interpretation 335:17 interrogate 83:10 intersect 160:2 interval 109:22 intervals 29:15 50:22 70:7 94:19 intervention 180:10 interventional 111:9 112:20 120:1,4 interventionalist 12:10 115:14 interventionalists 133:16 interventions	159:13 171:22 interview 293:12 330:15 interviews 40:6 294:17 intractable 209:21 intrapartum 177:19 178:7 intrauterine 156:18 164:4 introduce 8:15 11:21 13:9 154:5 introduced 147:7 281:15 329:4 Introductions 3:4 introductory 328:18 inventory 91:20 investigating 296:13 investing 31:17 306:14 invite 19:9 involved 176:2 239:16 287:9 involvement 267:22 349:15 involves 82:10 in-depth 307:15 308:17 324:22 in-dwelling 208:11 in-hospital 64:1 67:6 74:9 77:11 87:13 88:5 89:8 89:20 issue 22:2 27:11 34:21 54:7 60:20 63:7 77:1 83:6 91:8 94:16 109:8 132:12 137:10 144:20 147:10 167:19 176:15 179:7 185:9 193:3 213:14 232:17 235:19 248:22 261:15 262:20 268:15 291:15	300:16 304:13 309:4 316:6 321:3 331:18 332:2 342:5,9 344:7 346:9 350:5 issues 18:12 20:2 26:17 44:19 71:9 91:9 107:17,19 121:7 137:22 162:3 165:13 167:20 179:8 208:22 221:18 222:18 223:6 246:1 294:8 330:2 340:12 347:4,7 item 228:1 244:13 250:15 253:7,16 256:9 258:11 272:20 290:5 309:12,13,22 317:7,16 328:15 328:15,19 330:6 items 239:11 240:5 240:8,11,14,17 242:6 244:7 245:16,22 246:16 251:13 253:5,9,21 254:22 255:1,6,12 255:18 267:19 269:9 273:12 274:22 277:21 281:7 306:5 313:22 330:11,17 347:16 349:6 item-by 244:12 item-by-item 244:11 iteration 287:11 IV 179:17 180:11 i.e 104:11	62:5 263:10 JD 2:25 Jenkins 2:5 9:20,21 95:8 136:10,13 162:21 174:3 175:15 200:13 208:20 221:17 229:21 230:15 302:22 311:4,7 326:22 334:2 336:7,11 337:5 338:6,9,14 339:5 349:17,20 job 39:10 352:1 John 54:13 join 144:10 joint 158:8 185:1 344:19 judge 264:7 judging 215:14 judgment 130:11 136:5 140:10 215:11 289:5 331:19 judgments 294:19 July 316:22 jump 46:3 June 351:9,15 justified 273:18 justify 208:7
<hr/> K <hr/>				
Kaiser 11:3 191:1 300:11 Kaiser's 300:3 Kappa 216:20 217:8,12 Kathy 2:5 9:20 95:7 142:9 162:20 174:2 200:12 208:19 221:16 234:6 333:22 336:10 Kathy's 204:1 keep 236:4 keeping 170:7 kept 238:6 241:11				

Kerri 2:12 5:22 194:12 198:9 224:6	kinetic 199:15 200:3	276:20 278:4,5,8 285:3,3 287:9,14 288:22 289:14 292:21 294:22 295:4 296:2 300:4 301:20 302:11 303:21 306:1 307:3,11 308:2 314:7 315:15 316:22 319:14 320:7,12 331:5,15 331:17 332:18 333:9 342:21 343:13 344:9 347:3	languages 242:11 262:2	leaves 263:5
Kestle 54:13	kinked 21:4		large 66:7,21 97:13 100:4 106:11,12 160:1 163:3,10,20 179:12 222:7	led 155:2
key 40:5 46:6,19 56:13 325:13	knew 275:22		largely 299:4	Lee 2:8 10:7 98:18 104:5 246:10 299:1 316:16 323:5 346:9
Kibort 2:6 9:9,9 26:18 237:16 311:18 312:6 313:1,5	know 24:4,12,14 25:12 30:13 33:19 36:13 37:17 41:4 47:3,11,18 49:10 50:2 57:15 61:14 71:13 72:2 73:16 74:19 80:16,17 82:9 84:7 85:9 86:20 90:15 91:21 99:8 100:9,16,21 101:15 102:4 105:17 108:11 114:13 116:10 120:3 124:4,6 125:22 126:19 128:19 131:12 135:5,8 137:20 147:19 148:18 149:17 153:22 160:12 161:4,9,19 161:21 163:21 173:4,21 174:15 177:8 180:20 182:12 183:6 184:1 185:6 186:6 186:6 189:15 191:13,20 198:20 199:22 203:2 205:1,2,3,14 206:5,10,21 209:17 213:9 216:6,7,10 217:11 218:19 219:10,22 220:7,18,21 222:5 224:4,16 231:22 232:2 233:6 249:5 250:5,7 256:8 260:6 263:22 264:8,16 265:19 266:2,12 267:16 268:1,21 269:3 272:1 273:10 274:2 275:17		larger 69:18 307:6 309:12	Lee's 104:4 262:8
kid 23:2 40:8 50:1 79:10 87:10 89:12 271:14		knowing 87:19 222:14 267:20 300:11 346:16	larger-serving 14:19 15:8	left 211:6 247:22 253:7 262:22 263:21 306:21 307:4
kids 36:8,16,17 37:10 40:3,7,13 66:8,21 68:16 78:12,18 79:2 80:12 82:14,16 83:8 103:4,5 158:1 173:10,22 174:1 182:5 183:18 270:2 271:4,7 333:9,21 334:12 336:22		known 35:8 253:3	largest 20:20	legal 155:19 187:11
Kim 12:3 64:21 67:12 73:3 79:8 87:1		Kt 199:12	late 115:14 176:16 177:2 184:18 235:7	Legislators 334:15
Kimberlee 2:13 3:25		KTM 204:18	late-presentation 115:15	legislature 339:16
kind 11:11 28:18 47:13 77:12 84:4 93:9,13 96:1,3 97:7,7 100:16 135:20 149:20 150:1 151:1,18 159:15 160:1 164:15 179:15 195:3 211:9 216:12 254:2 260:6 267:20 268:3 270:3 276:16 308:18 324:6		Kt/V 194:21 196:21 197:2,4 198:12 199:5,6,8 199:14 200:4,9,15 200:16,20 202:3 203:21 204:8,17 205:2,7 211:19 220:9 225:8 226:2 232:5,8 235:14	late-term 184:17	lend 98:5 122:1
kinds 21:22 35:12 99:7 101:4 104:18 181:11 187:11 188:16 235:4		Kt/V's 208:6	laughter 8:11 38:12 47:12 97:15 120:20 126:6 131:6 132:18 149:16 151:10 159:3 186:20 194:2 195:6 231:2 234:19 238:3 257:9 258:2 263:12 271:11 282:4 286:4 287:16 288:17 295:8 300:22 317:1 324:13 328:7,13 337:2 342:2 352:11	length 162:10 258:5,6,7,14 282:3
		L	laymen's 199:13	lengthy 67:21
		L 1:21 2:2,4	lead 117:21 201:4 207:12 316:12,15	length-of-stay 156:11
		lab 111:15 117:9,11 120:3,6,9 127:9 127:15 128:3,5,12	leader 101:16	lesions 65:22
		labeled 47:5	leading 103:1 348:15	Leslie 352:13
		labor 162:12 164:1 164:6 166:6,17 167:22 175:21 179:8,17,22 180:1	Leapfrog 106:13 158:9 184:14	letter 261:12
		labs 117:15	learned 156:2 169:2	let's 34:15 48:13 51:18 85:14 86:8 118:6 119:11 126:19 153:1 164:17 189:12 223:19,21 226:7 255:15,16 320:9 321:17 327:6 328:8 330:4
		lacerations 92:5	learning 32:9 235:16	level 43:18 81:13 124:20 125:10 212:7 214:22 224:5 272:2 320:21
		lack 30:20 69:6 204:8	leave 264:17 308:8	liberal 132:7
		language 215:2		licensed 207:15,20
				licensing 207:19
				lie 36:8
				Lieberthal 2:6 11:2 11:3 30:5 52:19 53:10,16 86:16 92:22 102:7,13,18 103:15,21 117:7

118:13 120:12 146:8 177:17 225:4,11 256:15 257:18 300:10 303:7 316:11 327:15 330:19 life 15:22 65:21 122:12 175:10 life-threatening 112:1,2 122:10 light 314:12 likelihood 162:1 233:11 327:21 Lillehei 2:14 3:23 12:6,7 25:1 64:12 64:18,21 68:11 69:8 70:19 71:6 72:1 73:6,18 74:8 75:10 78:1 79:7 81:7,8 82:11 83:7 90:22 91:21 93:4 94:4,8,14 97:10 99:15 102:22 103:18 104:1,20 105:9 106:7 133:22 limit 58:15 114:7 115:19 131:21 limitation 74:1 105:20 limitations 72:6 98:4 157:17 limited 46:15 65:12 66:14 110:4 150:11 163:8 232:15 234:9 256:2 270:19 301:6 305:6 322:5 line 13:7 24:12 25:14 135:4,9 153:7 187:1 217:5 295:6 lined 38:16 lines 13:10 24:14 208:11 lingual 93:2 lining 41:22	link 41:8 63:7 74:16 75:7 171:7 197:14 247:20 311:4 316:2 linkage 207:5 295:21 311:10 linked 53:3 197:4 214:12 309:18 linker 41:12 linking 61:13 62:7 63:3 Lisa 2:11 4:16 12:9 110:22 136:14 271:7 list 14:15 90:2 92:2 123:8 315:2 326:5 listed 68:8 214:20 311:17 listen 13:14 listening 346:8 literacy 294:7 literally 116:7 literature 121:19 142:18 206:9 litmus 39:1 little 16:9 18:19 24:11 26:2 31:7 38:3 46:17 49:16 51:2 58:20 70:5 73:4 78:9 80:15 82:20 87:5 89:15 90:7 97:2 102:2 113:2 119:11 121:10 135:18,19 142:21 147:15 151:12 161:6 169:11 171:5 176:1,12 178:10 178:10 185:12 195:5,8 213:5 215:2,5 216:15 218:11 221:20 237:4 246:12 247:9 250:16 251:8 261:18 267:15,20 271:9 283:7 289:3	296:22 300:7 302:13 306:2 307:19 310:16 319:7 324:21 329:10 333:5 335:7 342:10 344:7 live 14:14 153:13 160:21 309:5 lived 212:4 lives 40:8 164:15 living 15:21 located 1:20 logic 312:1 logistic 88:4 long 108:15 143:8 143:12 154:10 159:15 162:10 165:4 199:12,17 202:14 204:22 205:1 251:6 259:6 309:3 321:18 346:7 350:12 longer 46:17 200:7 258:14 345:16 longitudinal 41:16 longstanding 233:9 long-term 197:14 197:14 198:15 226:5 295:18 look 15:7 20:13 28:7 41:18 44:3 44:11 45:19 46:10 48:2 50:21 56:1 60:16 62:11,12 65:19 70:7,21 71:9 74:7 89:18 99:18 101:11 111:16 116:21 128:20 130:7,21 133:17 147:20 148:11 151:15 170:19 179:21 182:18,19 203:19 204:16 209:14 222:8,10,22 223:9 230:13 235:1	240:6 241:12 243:4 245:6 255:4 266:2 268:6 269:9 269:14,15 274:1 284:17 304:15,21 307:8,15 308:17 344:7 346:2 looked 29:19 42:11 44:19,19 45:18 56:7 71:17 75:13 77:13 79:11 80:20 87:10,11,13,22 88:17 95:17 116:14,16 130:1 142:18 166:14 174:13 204:17 206:1,2 208:3 216:21 218:10 270:17 280:21 307:10 313:21,21 looking 13:21 18:11 20:7 22:20 28:3,14,19 37:22 43:18 51:12 52:15 54:17 55:19 58:10 65:17 68:5 69:22 70:4 78:14 81:13 82:4 87:17 88:2,4 98:20 102:8 104:22 105:6 106:11 107:1 109:21 113:3 126:13 134:16,18 147:22 150:10 154:14 155:17 157:7,21 159:14 163:11 179:21 182:7 186:9 197:17,19 198:13 198:14 205:22 206:6,10 208:14 208:15 218:18 221:13 242:18 267:18 279:2 308:15 326:10 335:1 348:11 351:4,8	looks 15:18 106:12 166:19 196:21 231:9 325:7,10 335:2 loophole 141:17 lose 231:6 losing 114:9 222:10 lot 8:5 17:16 28:4 32:21 33:10 36:6 37:13 39:6 42:19 50:3 57:13 88:10 101:1,21 105:3 111:16 113:2,17 116:6 131:20 147:8 149:18 170:17 179:2,20 180:2 182:4 203:13 207:1 213:14 217:4 226:4 247:5 250:8 262:11 265:13 269:8 277:17 294:15,16 302:12 305:10 307:11 320:12 322:8 328:9 334:16 340:22 348:7,8 350:6 lots 87:17 182:13 273:6 312:21 loud 348:22 love 131:4 235:15 266:12 lovely 16:19 low 155:10 157:17 166:3 197:4 201:20 217:9 246:7 253:12 332:10 333:2 lower 133:5 187:7 lowest 93:21 333:16 low-birth 164:2 167:18 low-birth-weight 163:17 164:20 low-prevalence
---	---	---	---	--

31:10	malfunction 3:8	260:1 352:20	251:4,9 258:10	76:9,10,12 83:17
low-risk 184:21	18:2 19:20 20:1	MBA 2:6,9,18	259:4 261:10	84:1,4,6 85:22
low-weight 177:1	21:16 22:8 28:11	McELVEEN 2:19	262:2 266:8	86:11 87:4 88:21
Luckily 38:13	28:15 36:2 37:7	3:6 11:17,19 13:6	268:13 269:1,22	90:17 96:22 97:9
lunch 153:4 189:21	40:9 43:20 44:10	13:11,17 15:7	270:12,14,18	98:13 99:1,2
236:8,15	45:3 49:18,20	16:7 63:17 64:8	271:4,15,18,22	109:16,17 110:4
lungs 175:22	50:2 60:4 81:2	110:13 153:1,9	272:6 273:10,12	110:11,14,14
LV 127:17	malfunctioning	194:7,15 195:10	273:14 275:19	111:21 112:7
	20:9 22:11 24:2	236:6 306:20	278:19 281:14	113:14,22 114:8
M	malfunctions 17:18	307:2 314:19	282:15 284:18	115:20 117:21
mail 240:22 241:6	21:8 25:20	315:1 321:20	285:21 286:2,19	118:10 121:8
243:2 252:11	malpractice 174:19	324:16,19 325:15	287:1 293:16	124:20 129:12
main 2:14 5:8	manage 23:20 36:7	328:5 348:3	294:15,22 295:4	134:17 137:9
76:22 84:18 151:6	127:7 167:22	349:19,22 351:3	295:17 302:6	138:18 139:6,17
151:7 153:8 154:7	managed 179:8	352:12	314:10 321:14	147:7 148:3,5
159:9 160:18	manner 149:21	McINERNY 2:7	323:18 326:3	149:19 151:7
161:11 162:5	217:17 297:5	9:6,6 24:7,9 25:5	meaning 320:20	153:10,12,20
163:2,18 165:18	maps 61:21 344:18	33:13 57:3 71:12	337:17	154:5 155:4 156:8
168:11 169:3,21	March 176:22	85:2,6 100:15	meaningful 94:16	157:4,13,15,16,22
170:9 171:12	Marina 1:21 2:2	108:7,17,20 109:2	means 22:12 46:15	158:7,9,11 159:1
172:17 173:3	8:21 168:3 237:3	109:5 119:21	87:7 129:9 210:20	159:10,11,12,15
174:9 175:20	258:1 261:14	133:10 134:22	232:5 293:6,13	163:1,5,9,19
176:19 178:5	267:8 292:20	143:7 180:15	314:15 316:21	166:9,11 167:1,8
181:1 182:18,22	348:15	265:19 288:18	meant 42:8	167:13 168:5,19
184:20 187:10	Mark 2:10 13:15	MD 2:2,3,4,5,6,6,7	measure 3:7,19,21	171:3,4 172:4
188:6 190:15	marker 155:22	2:8,9,10,11,12,13	4:11,13,17 5:6,14	173:5 175:10
191:6 192:2	marketing 173:20	2:14,14,16,19,22	5:19,20 6:6,8,20	176:7 177:10
193:21 194:5	Marlene 34:10	MDA 2:10	6:22,24 7:2,4,5,6	182:12 184:2,12
263:1,2	60:19 61:6,11	mean 19:17 20:22	7:9,19 10:4 13:13	184:22 185:1,2,10
maintain 196:12	144:10	28:12 39:4 42:8	14:17,19 15:14,19	185:12,14,17,22
maintaining 31:17	Maryland 207:16	42:14 45:15 49:20	16:16,17,18 17:2	186:14,19 187:5
maintenance	matchmaking	52:8 56:15 57:12	17:8,10,21 18:6,8	187:16,18,21
268:17 295:7	305:15	71:13 76:21 79:1	18:16,19 19:2	188:3 189:18
major 26:22	material 123:16	79:22 80:2 83:19	27:14 29:2,21	190:2 191:3,17,18
121:22 161:19	materials 15:10	89:14 91:10 108:8	30:12,13,20 32:13	193:11,12,14,14
171:12 174:16	16:12 351:22	116:7 126:14	34:5,7 35:11,19	194:8,8,11,16
183:9,9 269:2	maternal 154:21	133:1,3 147:19	36:18,22 37:4,10	195:13,14,17,21
majority 25:19	174:8 329:1	149:4 171:8	37:12 38:7 41:21	196:4,5 197:7,16
32:18 40:13	maternity 154:16	174:18 178:4	42:2 44:9 45:9,12	197:17,22 198:7,8
117:10	154:17 155:5,7,15	182:10,21 183:16	46:13,20 47:4	198:11,17,19,19
make-or-break	156:17 157:10	184:18 199:12	48:8 49:11,15	199:2,3,10,20
315:16	158:12,13 159:11	200:6 204:9,17	51:3 58:5 59:8	200:15 205:3
making 23:13 44:9	163:4 171:4,13	206:11 214:2	60:21 61:8,12	206:7 207:4 211:7
61:16 68:13 97:20	249:4	216:10 218:19	62:1 63:18,18	212:7,10,11,13,14
136:5 140:9	matter 103:11	220:1,13 221:21	64:11,16 65:18,18	212:17,22 213:4,7
143:12 184:7	142:2 152:20	245:2 246:19	65:20 67:4,4,6,7	213:10,18 215:17
233:19	236:14 259:5,6,6	247:18 250:2	70:2,3,3 72:11	217:13 218:19

219:10 220:9,15 220:19 221:14 224:2,8 225:3,6,6 225:9,9,16,18,21 226:16 227:13,20 227:22 229:13 231:21 232:8 233:10 234:16,21 235:1 237:6 238:12,19,20 246:8 248:14 250:13 259:18 263:18 264:2 269:13 270:8,11 270:13,15 273:15 280:9 284:16,22 285:11 286:20 288:5,21 301:17 303:4 306:15 307:6,15,16 308:12,14,17 309:4 315:10,11 315:14,19 316:10 316:14,19 317:15 318:18,20 320:16 322:1 323:8,10,11 324:18 325:1,4,8 325:21 327:13 328:11 329:3 331:14,21 332:9 332:11,12,21 333:8 336:5,14 341:16 342:1,11 342:13,15 344:4,6 345:5,12 346:1,2 346:7,10,18 347:15,20,22 348:2 349:4 351:6 measured 88:19 137:2 186:15 196:20 232:5 259:2 285:12 322:17 measurement 43:12 73:3 137:1 138:10 157:11 256:22 265:14	289:15 measures 11:9,16 13:21 14:4,8,16 14:20 15:8,12,16 16:9,20 21:13 30:9 31:8 46:6 47:11 49:4 61:17 61:21 63:4 84:11 84:12,13 90:7 99:7 111:17 120:18 138:4 155:4 158:12 159:21 165:2 166:1 169:4,13 171:14 182:19 190:19 194:1 211:21 212:5 214:11,13 218:7 224:9,10,12 227:18 232:13 236:4,12 243:14 243:17 255:19 268:16 280:20 284:15 285:2 301:14 306:21 307:4 331:16 340:13 348:9,10 348:18 350:6,11 measuring 177:8 185:15 200:11 259:1 294:11 mechanisms 145:16 298:16 median 29:21 Medicaid 77:21 183:15 233:7 347:9 medical 7:5 9:8,10 9:13 57:5 155:19 164:12 237:21 241:13 258:16 264:5 275:6 307:17 324:19,22 325:1,6,11 326:13 326:16,20 328:1 341:21 342:12,14 342:17 343:6	344:13 346:3 347:15 medically 127:7 medical/surgical 243:7 258:8 Medicare 60:13 204:21 233:3,9,14 233:18,19,20 234:2 medication 262:19 medications 240:4 244:3,5 251:15 272:22 medicine 221:5 224:15 meet 158:1 198:21 198:22 207:2 208:1 209:7,10 226:12 322:7 334:6 335:11 337:17 340:19 351:17 meeting 11:11 13:14 16:3 30:14 130:15 316:21 321:18 334:13 349:11 meetings 97:5,6,6 meets 34:8,15 48:19,21 51:8 58:1 86:1,5 107:5 107:6,9,12 109:10 121:3 143:22 144:3,8 145:2,4,8 145:20,21 190:6,8 192:16,19 193:7 225:11 226:8,17 226:19 227:2 228:3,5,9 290:22 291:3,6,21 292:1 292:3 296:19 297:7,10,12 340:1 340:4,21 341:9,12 MEMBER 2:3,4,4 2:5,5,6,6,7,8,8,9,9 2:10,25 9:3,6,9,12 9:17,20 10:7,11	10:14,16,20 11:2 19:16 21:19 24:9 25:5 26:18 27:11 30:5 32:8,15 33:13 34:19 37:16 37:20 39:16 43:6 48:5 49:8 51:14 51:16 52:19 53:10 53:16 54:5 55:3 57:3 59:7,13,16 60:8,18 63:14 67:19 70:10 71:4 71:12 72:13 73:14 73:19 74:20 76:10 76:14,16 77:3 78:8 79:21 80:14 82:8,19 85:2,6 86:16 92:22 95:8 95:22 98:19 100:15 101:14 102:7,13,18 103:15,21 104:3 105:22 106:9 108:7,17,20 109:2 109:5 112:17 114:21 115:21 117:7 118:13 119:21 120:12 125:17 126:14 127:22 128:14,19 129:14 132:11 133:10 134:22 136:10,13 138:20 141:12 143:7 146:8,15 147:6 150:3,14,19,22 158:20 159:4 162:21 163:15 164:9 168:18 169:19 170:1,21 173:1 174:3 175:15 177:17 180:15 183:22 185:21 186:16 200:13 203:22 205:6,10 207:9 208:20 216:16	218:3 220:6 221:17 223:15 225:4,11 227:7 229:21 230:8,15 231:11,13,18 237:16,18 238:9 246:11 247:1,8 248:15,18,21 249:11,19 252:3 253:18 254:2 255:9,22 256:5,15 257:18,22 258:18 260:4,10,13 261:15 265:19 267:1 274:14 276:22 277:5,12 278:12,22 279:8 279:14,18,22 280:5 281:17,20 282:1 288:18 289:13 292:15,19 294:6 295:11,15 299:2,11,18,22 300:10 301:10 302:22 303:7 308:21 309:10 310:3,7,14 311:4 311:7,9,18 312:4 312:6,8,13 313:1 313:3,5,7 315:12 315:21 316:11,17 318:6,17 319:3,5 319:7,17,22 320:15 321:2 323:6,17,20,22 324:3,5 326:18,22 327:9,15 330:19 331:20 334:2,22 335:9 336:7,11 337:5 338:6,9,14 339:5 342:4,8,14 343:12,20 344:2,5 344:15,20 345:1 347:21 349:17,20 350:21 352:8 members 2:17 8:8 8:12,16,17 13:5
--	---	---	---	--

13:12,13 19:9 30:6 34:17 46:1 67:15 86:14 91:5 98:17 104:12 112:10 113:8,9 158:18 189:17 250:11 346:17	microphones 9:16 middle 44:5 127:4 middle-class 164:19 migrate 57:5 milk 165:9 Miller 61:11 144:10 million 28:15 157:2 mind 105:1 129:17 313:13 323:4 348:19 350:13 minds 315:12 mindset 317:12 minimal 197:3 340:9 minimally 26:11 49:1 96:17 107:12 144:8 145:8 146:2 227:2 228:8 229:4 291:6,7 292:2 297:11 minimize 136:19 137:10 240:14 253:17 Minnesota 9:11 343:5 345:8 minor 93:2 121:22 122:8 132:2 162:6 minorities 242:22 258:15 minute 99:10 152:15 170:22 minutes 8:4 152:14 152:14 154:4 236:9 306:21,22 341:20 345:17,19 mirrors 168:17 319:7 misapply 132:8 miserable 124:6 misfiled 250:12 misheard 93:19 misleading 336:17 missed 14:11 215:13 missing 227:8	240:19 253:10 263:21 277:22 misunderstood 250:2 mix 68:4 114:3,5 115:13 156:8 mixed-mode 242:20 modalities 36:8,16 modality 203:7 mode 169:18 241:1 241:6,8 252:10 253:15 277:17 model 45:5 65:1 66:9 67:2 71:8 75:21 79:12 86:18 88:13,21 89:6 90:11,16 103:2,3 103:14 116:21 117:4 134:9 142:16 modeling 199:16 200:3 models 88:4 134:16 moderate 126:18 188:2 modes 242:19 252:8 287:2 modify 43:13 modular 276:8,9 modules 276:13 mom 171:11 moment 41:9 278:15 money 320:12 monitor 197:11 296:8 323:1 monitored 147:10 monitoring 295:18 month 25:12 36:5 91:1 157:21 196:2 monthly 130:14 141:5 197:8 months 41:12 46:16 58:17,20 194:18 205:17 208:8 305:5 315:8	320:19 321:9 month's 97:14 morality 73:21 morbidity 84:21 164:10 168:8 170:8 178:18 morbidity 71:13,18 71:22 75:3 111:10 116:2 168:7 174:17 177:22 178:14,15 morbidity/morta... 27:17 morning 8:7 11:17 Morsell 2:20 11:5,5 mortality 3:21 63:19 64:1 67:6 68:8 70:13 71:13 71:18,22 72:10 73:14 74:10,22 75:7,15 77:6,11 77:12 80:7 83:16 83:21,22 84:13,15 84:20 87:14,20 88:3,5,10,11 89:8 89:21 92:15 94:2 99:3 126:5 178:1 196:15 197:5 198:2 205:16 207:5 mortality/morbi... 164:21 mother 156:16 159:22 166:5 171:17 172:5 177:19 179:16 180:11 216:8 mothers 156:21 179:22 mother's 163:21 motion 304:11 305:7 Motorcycle 295:7 move 14:9 34:15 37:12 48:13 51:18 57:12,13 59:11,14 81:21 86:8 95:6	109:15 121:5,7 143:3 162:20 188:21 189:12 194:8 201:11 202:20 208:11 210:8,9 223:13 225:3 229:11 284:9 287:7 291:5 297:15,19 298:2 336:3 340:17 341:14 347:11 movement 199:17 200:2 moves 63:10 196:21 200:11 315:18 moving 15:16 49:2 61:19 63:17 107:15 199:21,21 210:6 236:2 286:16 306:14 MPD 2:12 MPH 2:4,5,10,19 2:19,22,25 MSN 2:12,18 multi 42:17 multiple 47:17 53:3 58:10 73:1 74:16 77:1,5 131:11 304:21 342:17 multiple-surgery 84:3 multiple-year 94:18 multivariate 45:4 multi-center 148:16 266:9 multi-institutional 54:11 Munley 12:22 Murphy 319:9 muster 234:16 mute 15:3
<hr/> N <hr/>				
NACHRI 33:8 97:5 NALINI 2:21				

name 8:18 12:12 110:21 131:4	223:3,9 229:16 261:8 267:15	235:13	non-invasive 172:21	186:1 197:10 200:9 204:3
Nancy 2:4 9:12 55:2 78:7 79:19 106:8 172:7 183:20 237:12	273:19 287:20 288:1,2 289:6 315:4 317:9,11,17 317:18 318:5,7,13 318:15 319:2,18 327:5 329:18 332:19 345:15 349:6	nephrology 199:13 network 99:13 neurologic 28:4 neurosurgeons 17:9,12,21 18:1 19:4 23:7 26:3 36:13 38:9 39:1 40:5 50:5 Neurosurgical 54:6	non-neurosurgeo... 49:19 non-preventable 35:10 125:19,21 126:16 132:13 133:3 135:2,4,12 141:13 146:16 147:9	245:17,17 246:1 253:21 254:8 267:18
narrow 85:21 108:1 349:5	needed 14:13 50:6 50:8 203:19 230:7 320:22 334:3 335:3,12	never 35:12 129:1 205:21 281:12,15 311:14 332:19,22	non-response 261:3,5 non-specified 158:5 non-surgical 132:21	numbers 29:12 32:3 69:17,18 96:1 113:14 169:10 186:11 208:3,15 211:5 231:7 334:16
narrower 70:8 85:19	needing 47:6 71:19 206:15	nevertheless 257:10	normal 154:19 159:9,12 174:21 176:19	numerator 117:8 119:22 129:10 150:20 166:20 173:6 180:6 204:3 231:22 338:15 339:6
narrowing 95:2 109:22	needs 17:14 46:14 70:2 210:21 268:5 292:11 318:22 322:4,7,10,16 329:19 332:17 335:11 337:18 349:18 351:18	new 8:12,13 112:22 190:19 235:9 289:15,19 300:15	North 1:19 northern 163:3 181:14	numerators 172:18
national 1:1,3 8:19 10:9,18 13:2 52:16 66:7 85:3 139:19 148:5 181:19,22 242:3 252:15 255:15 266:16 272:2 286:20 328:22 334:15 341:7 345:6,11 347:18	negative 183:9 308:22	newborn 5:6 68:14 153:12 154:17,19 155:8 159:11 160:5 167:5 171:8 174:6 175:5	notice 320:16 nowadays 261:10 NQCA 301:22 NQF 2:17,18,19,19 2:20,21,21,22 9:2 11:6,9,14,16,19 13:4 14:21 31:8 45:15,22 47:8 61:15 63:5 83:14 84:12 157:15 185:1 193:15 214:4 267:16 300:7 301:22 302:8 348:10	nurse 10:12,19 27:7 274:17
nationally 41:6 255:6 334:11	negatively 169:7	newborns 155:11	North 1:19 northern 163:3 181:14	nurseries 179:13
nationally-weigh... 33:3	negotiate 46:16	nice 37:3 38:15 39:10 83:9 168:13 190:17	notice 320:16 nowadays 261:10 NQCA 301:22 NQF 2:17,18,19,19 2:20,21,21,22 9:2 11:6,9,14,16,19 13:4 14:21 31:8 45:15,22 47:8 61:15 63:5 83:14 84:12 157:15 185:1 193:15 214:4 267:16 300:7 301:22 302:8 348:10	nursery 153:17 154:18 158:13 161:2 166:18
nationwide 157:22 166:2	negotiated 26:9	Nicole 2:19 3:6 11:19 350:21 351:20	notice 320:16 nowadays 261:10 NQCA 301:22 NQF 2:17,18,19,19 2:20,21,21,22 9:2 11:6,9,14,16,19 13:4 14:21 31:8 45:15,22 47:8 61:15 63:5 83:14 84:12 157:15 185:1 193:15 214:4 267:16 300:7 301:22 302:8 348:10	nurses 13:3 240:2 243:19 277:8,8
nature 169:8 244:8 271:3	neighborhood 313:14,16,17	NICU 2:19 3:6 11:19 350:21 351:20	notice 320:16 nowadays 261:10 NQCA 301:22 NQF 2:17,18,19,19 2:20,21,21,22 9:2 11:6,9,14,16,19 13:4 14:21 31:8 45:15,22 47:8 61:15 63:5 83:14 84:12 157:15 185:1 193:15 214:4 267:16 300:7 301:22 302:8 348:10	nursing 10:18 13:2 13:5 106:4 251:14
NCQA 343:8	neighborhoods 310:17,18 312:16 313:11	NICUs 178:18,19 178:16	notice 320:16 nowadays 261:10 NQCA 301:22 NQF 2:17,18,19,19 2:20,21,21,22 9:2 11:6,9,14,16,19 13:4 14:21 31:8 45:15,22 47:8 61:15 63:5 83:14 84:12 157:15 185:1 193:15 214:4 267:16 300:7 301:22 302:8 348:10	nutrition 164:15 nutritional 206:22 N.W 1:20
necessarily 133:2 213:8 233:17 320:20	neonatal 27:6 65:19 68:1,7,13 74:4 78:4 79:13 92:14 99:17 100:6 158:11 167:13 171:4 174:10 177:22 180:2 188:1	night 127:4 153:20	notice 320:16 nowadays 261:10 NQCA 301:22 NQF 2:17,18,19,19 2:20,21,21,22 9:2 11:6,9,14,16,19 13:4 14:21 31:8 45:15,22 47:8 61:15 63:5 83:14 84:12 157:15 185:1 193:15 214:4 267:16 300:7 301:22 302:8 348:10	N
neck 78:16	neonates 3:22 63:19 71:14 81:15 99:19,19 114:17	Nina 2:15 12:20	notice 320:16 nowadays 261:10 NQCA 301:22 NQF 2:17,18,19,19 2:20,21,21,22 9:2 11:6,9,14,16,19 13:4 14:21 31:8 45:15,22 47:8 61:15 63:5 83:14 84:12 157:15 185:1 193:15 214:4 267:16 300:7 301:22 302:8 348:10	OB 270:1
necrotizing 65:15 75:18 89:22 98:2	nephrologist 202:4 221:6	Nine 96:16 145:6 229:5 341:10	notice 320:16 nowadays 261:10 NQCA 301:22 NQF 2:17,18,19,19 2:20,21,21,22 9:2 11:6,9,14,16,19 13:4 14:21 31:8 45:15,22 47:8 61:15 63:5 83:14 84:12 157:15 185:1 193:15 214:4 267:16 300:7 301:22 302:8 348:10	obesity 10:22 311:5
need 6:25 15:10 19:13 34:2 43:13 43:21 44:6 52:6 69:17 78:9 80:2,4 80:12 91:14 93:17 94:9 130:20 139:7 140:21 144:9 165:7 186:6,21 189:21 190:19 210:1 213:10	nephrologists	NMX 115:17	notice 320:16 nowadays 261:10 NQCA 301:22 NQF 2:17,18,19,19 2:20,21,21,22 9:2 11:6,9,14,16,19 13:4 14:21 31:8 45:15,22 47:8 61:15 63:5 83:14 84:12 157:15 185:1 193:15 214:4 267:16 300:7 301:22 302:8 348:10	object 328:5 objections 307:21 objective 147:4 188:7 335:16 observation 83:14 179:17 observations 67:17 67:20 86:9,13 observe 183:13 241:8 observed 63:21

163:1 270:10	59:15 60:15 62:18	old 115:5 251:2	115:16 154:14	orientation 149:5
observed-to-expe...	63:17 81:6 86:3	269:12 306:3	operative 72:20	oriented 262:15
63:21,22 110:18	90:14 92:21 94:15	older 249:15 280:4	73:21 106:3 126:5	originally 275:1
obstetric 174:22	96:13,16,18,18	280:8 289:17	operatively 115:18	originated 162:12
185:5	102:18 103:5	omit 103:9	operator 13:6,10	originating 153:15
obstetrician 180:9	109:2,5 110:8,13	omphalocele 65:14	127:12 134:6	161:13
obstetricians	119:14,19 120:21	onboard 23:12	141:11	OT3-029 4:13,17
154:20	121:5 125:15	51:3	opinion 249:21	OT3-031 5:6,14
obstetrics 171:22	129:3 137:16,19	once 74:10 108:18	opinions 264:10	OT3-041 6:22
obtaining 14:12	144:2,5,12,13,16	166:4 179:1 220:6	opportunities	OT3-042 6:24
obviously 65:3	145:7,11 146:14	262:22 264:17	176:9	OT3-044 7:2,9,19
73:10 99:17	151:3,8 152:3,16	293:15	opportunity 17:8	OT3-045 7:4
104:21 141:15	153:9 161:16	ones 22:11 51:22	111:2 112:3 141:9	OT3-050 7:6
163:20 242:16	162:1,17 165:18	75:20 80:19 92:11	142:14,16 180:9	OT3-27 3:7,19
265:21 351:17	172:13 177:11,15	162:13,15 166:21	192:13 211:8	OT3-28 3:21 4:11
occlude 27:19	189:10,21 190:1,5	242:2 255:20	232:1 233:22	6:20
occur 28:3 41:13	190:9 191:14	266:6 297:19	236:1 268:6	OT3-29 5:19
52:11 65:21 128:1	193:9 194:7,15,22	314:17 325:18	280:18	OT3-46 6:8
167:20 168:9	195:12 214:10	327:20	opposed 20:2	OT3-48 5:20 6:6
179:1	215:19,22 216:9	one's 294:11	112:20 113:16	ought 55:10 147:7
occurred 53:7	217:14 222:22	one-month 35:7	115:3 155:9 176:2	147:8 342:20
87:12	225:20,22 226:6	one-third 221:3	200:16 201:9	outcome 18:3
occurrence 73:11	226:11,14 227:10	274:5,6,7	210:3 232:7	21:13 26:5 30:13
occurring 25:20	228:15 229:6,9	ongoing 235:16	234:13 316:10	75:15 83:5 90:6
odds 88:5	231:10 234:4,12	315:6 317:17,18	330:9	104:9 111:19
offers 335:10	234:15,20 236:6	321:6	opposite 313:2,4	112:7 114:7
office 93:9 217:20	237:12,15,20	Oops 267:1	336:18	116:18 126:13
Officer 9:13 10:1	238:1,16 244:15	open 13:7,10 64:5	optimal 7:3,10	128:18 130:8
office-based 263:3	252:1 255:11,15	93:15 112:14	264:6 321:22	134:8,10 142:17
offshoot 174:12	256:5 260:10	154:6	optimize 191:15	154:20 155:8
oftentimes 24:3	262:5 264:11	opening 128:15	option 141:14	168:16,17 171:9
oh 57:11 64:8	273:21 279:14,18	171:2	285:17	175:3,4 187:4
103:18 120:17	280:5 282:1	operate 78:17 79:6	options 297:17	197:15 198:7,13
131:16 135:8,10	288:12 290:16,19	operated 40:11	298:22	198:18,21,22
138:20 151:8	291:7,8,22 292:8	62:8	order 3:2 18:7	206:13,13 207:11
195:7 231:18	297:14 298:7	operating 21:9	19:13 29:12 52:12	207:13 209:3,3,7
250:1 260:10	305:11 306:20	23:6,10,17 25:2	66:2,6 99:14	209:8,9,10,19,20
285:1 295:14	307:20,22 312:13	31:7 57:15 78:16	103:3 138:3	210:2 225:5,9,10
298:1 312:11	314:3 315:1,2	78:16 79:5	218:13 240:5	225:18 226:1
349:22	316:20 321:10,20	operation 19:6	241:12,20 252:22	315:11 316:13,15
Ohio 10:13 184:6	323:22 327:17	20:18 21:10 25:21	253:16 334:8	317:13 318:16,20
okay 13:19 16:7	328:4 330:4	26:4,8 27:3 50:10	ordinary 73:20	323:3,10,14
25:5 29:13 30:2	331:10 336:2	50:14 71:19 74:5	Oregon 345:9	325:21 326:12
39:3 43:5 45:17	337:22 339:2,19	79:3 126:4	organization 155:1	327:2
46:13 48:16,22	339:20,21 340:10	operational 30:11	256:21	outcomes 1:4 20:19
49:1 51:13,13,17	340:22 341:2,5,11	operations 50:7	organizational	75:8 81:12 95:18
52:17 58:3,22	347:20 348:2,3	65:20 105:6	13:5	111:13,14 116:17

121:21 123:18 131:18 134:19 141:7 155:13 157:5 165:4 166:17 170:13 179:20 180:3 182:2,4 185:19 187:14 191:15 197:5,15,17 198:11 205:13 206:10,16,19,22 207:1 209:1 210:11,12 211:7 211:22 225:14,17 226:5 241:17 243:4 309:18 320:5 326:4,6 outpatient 262:10 outpatients 57:7 outside 142:20 235:20 300:8 333:15 out-of 331:2 337:19 out-of-pocket 322:4 329:17 331:4 332:15 333:4,19 overall 3:19 4:11 5:19 6:6,20 7:19 20:7 35:19 58:5 83:18 84:1 99:2 109:16 111:17 132:16 146:4 204:20 229:11 244:18,19 246:5,6 258:11,13,15 296:8 305:22 311:13 330:13 333:8 overcome 136:22 overlap 88:1 overlaps 266:4 overrepresenting 260:15 oversurveyed 261:11 overview 238:19	overwhelmed 289:2 owner 256:16 257:1 Oxford 174:12 oxytoxin 167:12,16 191:9 o'clock 236:12 <hr/> P <hr/> package 61:22 page 283:4 pages 251:6 paid 147:9 156:4 paired 214:12 225:9,18 227:20 PANDE 2:21 panel 87:3 179:11 195:21 329:6 Panorama 11:3 paper 124:19 parallel 191:8 218:5 paramount 105:1 parent 104:22 105:8 243:22 245:20 247:21 254:19 261:13 262:15 264:7,8 267:10 274:16 278:20 280:3,10 280:13 281:1,4,13 283:12 294:1 295:4 335:16,22 parents 6:9 104:11 104:15,18 233:16 237:9 240:1 243:11 245:12 249:9,15 259:10 259:12 260:2 263:19 264:4,10 264:12 271:12 279:13,13,16 280:14 329:12 330:20 332:6 336:21 337:16 parent's 281:18	337:12 Parkland 9:4 parse 269:22 part 10:5 24:13 25:3,4 32:4 61:15 75:21 79:7 84:17 103:17 113:13 131:14 183:8 204:20,21 224:9 261:4 264:15 280:6,7 281:14 286:16 303:12 307:6 310:4 312:5 317:21 341:6 345:2 349:18,20 350:1 351:2 partial 51:11,13,15 51:16 partially 30:7,14 31:5,20 48:20 58:2 96:14 107:9 144:3 145:4,21 190:8 192:18 226:19 228:5,22 291:3 292:1 297:9 316:18 340:4,20 341:12 participant 261:13 participants 13:8 participate 131:22 261:9,13 280:11 293:6 participating 43:12 149:9 participation 349:15 particular 16:16 65:11 90:16 100:13 115:13 130:2 134:6 135:10 305:20 322:16 330:2 particularly 26:16 27:15,19 58:9 65:4 73:1 249:3 261:19 262:9 264:12 274:1	322:18 328:21 partly 149:6 partner 167:9,11 Partnership 10:9 Partridge 2:8 10:7 10:8 98:19 101:14 150:14,19,22 186:16 246:11 247:1,8 248:15,18 248:21 249:11,19 299:2,11,18,22 301:10 308:21 318:17 319:5 323:6,20 324:3 342:4,8,14 343:12 343:20 344:2,5,15 344:20 345:1 347:21 350:21 parts 18:15 350:5 pass 11:12 59:9,11 234:16 passed 13:22 path 268:4 316:14 patience 151:11 patient 1:4 10:3 12:14,21 27:17 41:12 53:4 73:9 74:16,17 77:5 99:11 122:13 126:3 127:5,11,14 127:17 128:5,14 191:16 197:20 200:10,14 201:2,5 201:16,17 202:2,7 202:9 203:16 208:1 209:22 217:22 219:5,6,8 219:16,22 220:1,3 221:18 223:6 239:4,4 242:21 249:8 254:19 266:14 272:21 279:21 326:5 patients 6:9 27:5 38:16,20 41:8 53:3,11 72:21,22 73:9 83:12 84:21	133:15 171:17 194:19 196:11,12 196:18 197:11 198:21,22 199:4,6 199:7 201:8 202:11,13 203:12 204:4 205:13,17 206:11 209:7,9 210:7,16 211:10 211:18,20 212:15 219:2 220:13,20 221:2 223:11 224:4 232:9 233:14 235:18 237:9 239:15 241:5 242:14 243:11 264:3 272:15 patient's 126:20 127:2 128:2 175:2 patterns 101:18 206:1,7 pay 323:14 payers 265:5 318:21 paying 233:7 payment 106:14 206:11 PCI 55:8 PCPI 13:16 194:9 194:13 PDA's 115:15 PDF 250:13 pediatric 9:18,21 10:19,21 12:7,10 17:9,11 27:6 33:5 33:15 64:22 65:5 78:3,13 85:8 95:11,18 97:17 98:7 100:2,8 117:9,14 118:8 120:1,2 123:6 139:9 154:13 195:17 196:5,12 197:12 204:20 213:4 220:18,20 221:2,11 224:19
--	--	---	---	--

232:9 238:22	14:14 308:13,14	240:19	352:8	327:20
239:17 246:3	309:6	performed 21:11	phase 15:17 322:12	picked 115:5
257:5,12 262:4	percent 20:8,14	42:21 43:1 120:1	351:2	157:14 158:8
265:8 267:7 284:1	27:1,2 33:7,9	126:21	PhD 2:2,4,9	297:4
291:18 300:13,18	37:22,22 66:19	performing 32:22	phenomenon	Picker 274:6
301:14 303:9	79:15 88:10 94:3	33:6 114:5	260:17	287:11
319:9,12	103:12 106:16,17	performs 116:21	Phil 9:9 26:13	picture 329:9
pediatrician 12:1	114:19 125:7,9	119:6	PHILLIP 2:6	piece 46:7,19 74:11
224:15 315:15	132:5 133:20,21	perinatal 155:1,22	philosophy 175:7	79:10 207:10
pediatricians 23:20	153:13 157:8	167:15 186:18	PHIS 38:5 40:16	264:20 265:7
pediatrician's 93:8	158:1 163:6	perinatologist	41:2,4 42:10	304:3 311:15
pediatrics 9:5 65:5	168:22 169:5,11	154:21	51:21 52:20,21	pieces 159:18 199:3
201:6 205:19	173:12,13,15,15	period 59:20 60:15	54:1 59:21,22	pilot 186:8
223:5 299:20	173:16,17,22	62:12 68:2 69:18	70:5 82:17 108:2	pinged 56:6,9
325:10 345:7	174:1 176:5,7	153:15 159:15	phone 15:2,3 34:11	Pittsburgh 10:21
pending 58:8 305:8	178:1,3,9,9,10,11	161:14 185:16	150:6 151:4,5	11:1
people 30:14 45:10	181:6,6 182:16	194:19 242:16	152:8 194:10	place 138:16,17
48:9 49:18,21	186:4,6 196:18	300:5	241:1,6 243:1	140:9 187:19
50:15 51:12 55:15	205:18 208:6,7	periods 110:1	252:11 346:1	188:18 215:10,21
55:20,22 56:4,18	209:15,18 211:16	PERKINS 2:25	phrase 280:22	223:18 224:12
78:14 90:7 95:19	216:21,22 260:6	permanent 28:4	phrased 257:14	330:22
95:20 121:20	270:12 273:8,13	Permanente 11:3	physical 311:5	placed 18:22 20:9
124:7 125:4	273:16 275:15	Persaud 2:8 9:3	320:4	21:5 32:18 37:17
129:20 131:14	296:9 311:15,15	person 15:2 50:16	physically 50:14	37:18 57:14
135:3 155:18	329:13 331:13	108:9 125:21	physician 56:13	205:17
169:7 174:20	333:14,17 334:12	130:12 276:17	114:2 120:11	placement 20:21
184:4,9 187:2	337:16 339:12,13	320:9	142:9 206:1,6	placements 117:18
189:21 190:4	339:15	personal 31:19	207:15 217:22	places 19:1 32:21
200:22 207:8	percentage 37:16	334:19	224:2 246:18	149:1 191:1 192:8
211:4 220:14	78:12 114:18,20	personally 295:20	263:2 274:16	217:19
223:1 238:1 251:1	173:18,19 194:17	personnel 50:13	275:4	plaintiff's 156:1
252:22 253:3	272:6,9 296:1,5,9	perspective 26:19	physicians 101:8	plan 5:21 43:7
258:11,13 259:20	315:5	45:22 98:21	111:3 114:17	194:16 195:1
273:22 274:1	percentages 253:10	128:21 168:20	140:17 142:12	199:1,7,9 200:17
275:16 276:2,19	perception 149:22	175:2 251:19	197:9 203:20	202:6,7 203:2,19
276:20 277:3,12	311:2 330:21	259:3 267:16	204:14 207:3	204:4,7 205:12
277:14,17 278:1,4	332:6	284:12 326:6	210:15 321:5	207:12,22 209:11
278:6,19 284:21	perceptions 267:11	perspectives	physician's 217:20	210:18,20 211:21
285:10 293:5,17	perfectly 77:9	271:13	physician-level	213:16,22 214:15
293:21 294:7,8,19	174:21,21 183:14	PERSUAD 9:3	221:14 224:10	214:16 215:1,3,12
296:1,3 303:16,19	316:18	37:16,20 49:8	physiologic 207:11	215:15,18,21
322:18 325:21	perform 50:7 111:3	51:14 59:7,13,16	207:13	216:2,12 217:3,17
333:13 336:13	116:22 139:2	60:8,18 63:14	physiological 209:8	218:8,12,15,16,18
338:1 341:1	242:6 255:12	132:11 227:7	209:10,18	218:22 219:19,21
people's 334:19	performance 11:8	309:10 310:14	pick 25:9 26:1	230:2,6 231:17,19
perceive 331:2	11:16 84:1 142:21	311:9 315:12	32:20 65:10 148:6	235:20 242:10
perceived 6:23	182:12 224:9	320:15 331:20	284:9 290:5	254:3 261:22

262:1 263:6	293:12 296:11	251:19	precluded 318:19	274:6
290:14 330:21	301:13,16 304:1	possible 47:2 59:19	predict 88:22 89:20	presumably 80:8
332:16	309:6 318:10	87:18 171:21	predictability 99:3	85:20 101:22
plane 350:13	321:1 326:15,17	190:20 218:11	predicting 89:7	109:19 114:14
planned 266:9	331:12 335:1	219:2,16 230:9	predictive 240:10	115:9 161:17
275:2	343:14	232:14 239:17	245:19 246:6	188:13
planning 235:6	pointed 290:3	242:16 243:18	predictor 99:12	presume 263:5
282:7	points 34:20,22	244:13 282:16	117:4	pretty 75:5 91:11
plans 205:8 207:6	35:20 68:10	possibly 15:15	prefer 280:14	91:13 97:11
207:18 214:18,20	police 313:8	110:19 112:5	preliminary 132:9	107:20 108:5
214:21 215:10	policy 10:8 13:1	127:20 137:18	140:16 258:4	125:2 141:6
322:22 323:1	61:10 268:18	349:1	premature 164:1	183:18 192:4
plan-of-care 213:3	political 302:7	post 106:2,4	304:6	217:9,10 281:6
218:4	polled 40:4	post-op 27:6	prematures 182:4	320:1 340:3
play 23:7 170:17	pool 199:5	post-surgery 77:14	prenatal 166:7	341:22
305:15	pools 199:22	post-surgical 77:15	167:19 179:3	prevalence 22:7
please 9:16 21:17	poor 165:3,6 197:5	potential 62:12	preparation 352:5	30:17 85:19
21:18 31:2 39:15	220:11 272:15	98:22 99:16	prerogative 287:6	118:17
59:10 70:9 78:7	286:2,2 296:3,4	109:21 112:3	preschool 334:17	prevalent 76:5
82:9 231:12,22	poor-to-exceptio...	196:2 292:12	prescribe 202:1	prevent 137:5,15
312:12 334:1	294:20	336:15	prescribed 244:6	137:18 179:1
plexus 167:1	population 18:20	potentially 58:11	prescription 197:2	180:2 203:17
174:15,22 175:6	30:17 32:2,3,6,11	72:19 112:2 122:9	197:4 206:12	preventability
plowing 348:4	43:18,22 68:22	138:9 139:22	presence 168:12	130:10,17 131:9
plug 18:6	74:4 76:6 114:2	146:12 151:17	present 2:1,17,23	131:10 140:8
plugged 42:10	116:19 132:22	212:21 230:13	17:2 45:11 65:7	141:2 215:8
plus 339:18	173:16 177:3	326:7	76:17 142:1	preventable 35:12
pocket 331:3	178:11 179:6	poverty 333:15,16	173:21 175:9	110:19,19 112:5,5
337:20	195:15,17 196:11	powerful 98:22	217:19 236:1	121:12 125:21
point 28:18 36:21	196:14 198:2	99:7	presentation 80:1	126:12 128:22
45:7,18 81:9	201:6 222:7 301:6	PPC-PCMH 343:8	115:15 170:3	129:2,21 130:6
104:20 113:21	347:20,22 348:2	practice 62:1 82:5	173:20 287:12	131:1 135:5,15
115:6 118:2	populations 18:11	185:15 205:4	345:3	136:1 143:10,16
129:16 136:20	30:10 44:21 45:17	206:1,7 224:21	presented 69:8	151:17,18 174:7
138:3 157:1	70:13 83:2,3	263:3 343:3	148:14 169:10	preventables 132:6
160:10 179:1	133:14 165:20,21	practices 61:21	217:9 298:15	prevented 174:17
209:17 211:17	167:21	221:8	302:13 352:1	prevention 177:1
213:12 214:22	population-based	practicing 116:5	presenter 287:13	previous 3:5 26:7
227:17 233:14	82:18	practitioner 27:7	presenters 64:7	70:2 97:2 121:19
235:6 247:12	position 155:12	practitioners 10:19	presenting 235:1	196:19 287:10
250:6 253:3	183:10	133:13	presents 173:16	332:11
254:14 255:13,14	positive 168:20	pre 115:17	President 9:10 11:8	previously 123:3
259:22 262:8	169:8 171:9	precise 118:2	presiding 1:22	157:14 259:11
267:5 270:7	332:13 336:13,16	130:18	press 90:10	pre-existing 128:10
271:17 272:8	336:21 337:4	precisely 83:17	pressure 23:1 28:5	pre-operative
278:5 284:2	positively 169:7	220:18 227:18	Press-Ganey	115:10
285:20 292:16	possibility 130:3	232:5	265:20 266:3,7,10	pre-term 164:1

165:21 176:16,18 177:3	26:22 41:7 56:21 65:4 72:4 114:15	103:6,10,13,16 105:4 111:4,11	prognosis 258:20	provider 141:17
primarily 65:22	125:18 126:7	114:6 116:8 118:3	program 10:3	146:11 220:22
87:9 98:21 111:9	127:6 130:5	118:9,19 119:1	12:14,15,21 85:4	221:10 224:14
114:17 125:11	141:16 172:16	120:14,16 123:1	108:18 109:4	259:3 316:4 335:3
309:1	173:22 201:7	132:22 133:18,19	183:15 322:2	335:14
primary 108:16	252:15 253:17	139:3 154:15	programs 347:10	providers 22:3
224:14 246:17	258:22 269:2	156:4,5 168:6	347:12	101:4 191:2 293:2
321:5 344:22	270:5,20 280:12	172:19 174:11	progress 301:12	293:7 295:2
primetime 268:15	296:2 299:4 302:9	278:20	project 15:17 72:20	329:18 335:13
principle 239:8	320:13 326:21	proceed 189:4,7	84:18 123:18	provides 145:1
principles 344:19	336:16	288:6 289:9	131:14,19 140:18	332:17
printed 16:13	problems 14:12	290:17 330:6	176:21 235:7	providing 25:8
prior 73:22 99:4	55:15 65:2,7	proceeding 76:7	239:10 241:4	170:6 224:3
160:22 185:12	168:9 172:12	proceedings 352:20	261:4 266:16	proxy 280:9,19
195:16 332:12	176:20 218:9	process 15:14	308:20 326:4	315:19
prioritize 325:17	219:9 233:15	21:12 23:8 38:11	349:16 350:2,5	psychiatric 10:12
priority 350:10	272:9 319:4 320:7	41:13 42:19 45:16	351:18	psychiatry 10:15
private 223:21	320:10	61:11,15 63:5	projecting 154:1	psychometric
224:20 329:14	procedural 20:1	98:14 136:4,7	projects 186:8	242:7 255:13
333:7	168:9 342:22	138:15 140:6,10	187:20	public 8:17 46:21
privately-insured	343:14	162:13,15 164:7	prolonged 167:16	160:20 169:18
333:20	procedure 17:11	166:7 197:16,19	promise 153:4	170:4 282:8 283:2
privilege 12:18	21:12 23:10,14	198:7,18 199:22	promptly 28:1	284:3 343:9
13:4	32:22 34:1 53:11	209:3 210:3	properties 242:7	publications 329:5
probably 14:1 20:7	54:19 73:10,15	213:17 225:6,10	proportion 77:17	publicly 62:17
22:8 28:10 44:18	77:6 79:4 80:21	244:2,2 250:8	115:1 160:20	public-insured
47:21 61:2 67:16	84:14 91:12	264:3 265:3,14	177:8 178:13	333:9
74:6 79:16 83:4	102:17 104:22	268:4 284:21	321:4	published 28:9
83:20 91:9 108:18	106:2 124:13	288:1 300:7	propose 239:22	60:22 91:1 139:10
113:16 116:1	125:12 126:21	315:10,14 316:7	proposed 242:14	163:9
119:6 132:13	128:3 133:4 134:1	316:13,19 317:3	325:9	publishing 123:8
144:9 158:7,22	134:3,4 135:11	318:11,15,18	proposing 129:20	pull 16:13 18:7
163:13 169:17	156:9 167:2	320:22 321:9,14	138:17,18 241:18	47:14 52:14 53:8
183:1 188:14,21	199:19 201:21	321:16 323:3,9	prospective 54:17	53:18
190:17 191:12	243:8 278:11	326:17 327:16	protocol 184:8	pulling 54:1
196:11 205:20	procedures 40:22	347:2 349:8	241:3 261:8	pulmonary 115:16
222:15 223:10,13	52:11 53:7 55:9	processed 241:11	proud 19:6	purchaser 99:11
224:7 237:5	66:4,10,17,20	product 54:9	provide 14:18	purchasers 100:20
257:22 273:18	68:2,3 73:1,13	productive 324:12	46:18 47:1 49:5	106:11
299:3 304:19	77:2,4,5 80:13	professional 22:2	82:16 92:16 150:9	purchasing 101:18
306:3 307:3,18	81:4 84:16 87:11	315:8 316:2,12	151:22 196:3	107:1
308:5,10 323:15	87:15,20 88:9,11	317:8,14 318:1,2	259:8 277:13	purely 317:6
324:20 334:22	91:17 92:1,2,4,7,9	320:18	289:11,22 293:22	purpose 142:22
343:5 350:8 351:5	92:11 93:2,6 94:7	professionals 27:9	308:9 332:18	171:3
351:8	94:9 95:18,20	295:13	provided 91:22	pursue 36:14
problem 22:19	102:10,14 103:4,5	profile 285:14	224:18 244:5	push 171:15
			297:21	pushback 185:5

pushing 155:12 208:10	293:6 294:2,10,21 295:3,10	318:12 319:1 325:13,20 327:19 330:2 336:8 337:13 338:7 341:15 342:18 343:11,13 344:17 345:8 346:13 351:4 352:9	quiet 171:1 quintile 169:15 quite 32:6 47:9,20 55:12 68:18 69:13 72:7 129:22 156:6 163:10,22 178:19 179:19 181:17 189:22 239:8 257:6 277:2 329:2 330:13 342:19,21 343:14 344:15 345:14 quote 176:16 180:6 339:16 quote/unquote 295:1	103:10 rarely 132:7,8 rate 3:8 39:20 63:21,22 68:7 83:16,21,22 88:10 94:2 132:5 142:19 155:8,8,10,10 166:3 172:9 176:3 180:12 181:4,4,17 181:22 184:5,7,21 186:4,5,19,22,22 187:7,7,13,15 188:2 196:15 197:5 198:2 203:4 205:16 212:15 245:13 253:4 260:5 261:5 333:15 rated 46:8 281:14 rates 17:16 20:13 20:15 21:16,22 22:7,8 29:5 37:7 42:11 43:20 44:10 44:20 45:3,12 49:12 50:21 52:14 61:3 80:7 87:14 87:16,20 88:3 111:17,18 133:12 134:12 165:21 171:20 180:19 181:6 182:5,10,11 184:17 188:12 192:9 202:12 213:19 245:20 277:22 295:19 rating 46:6 244:18 294:21 305:22 ratings 244:19 308:11 ratio 3:21 4:13 63:19,21,22 110:17 142:18 rationale 188:17 Rauscher 2:15 12:17,20 61:7 92:16,21 251:18 264:19 274:3,11
put 15:3 23:3 29:1 31:4 45:8 46:21 51:3 56:9 79:18 80:22 93:14 103:8 120:19 124:6 128:7 129:17 134:2 135:9 149:10 159:17 162:9 181:2 183:10 187:19 202:17 214:17 229:15 266:15 271:21 275:7 303:18 321:15 323:14 326:3,5 343:2 346:10 349:8	quality-of-care 294:9 quarter 22:9 29:19 question 19:21 25:17 26:15 33:14 39:17,18 40:2 42:7 43:6,15 44:17 57:4 60:12 61:5 63:2 68:11 69:6 73:19 75:11 76:3,14 77:11 78:17,19 80:3,6 82:9,20 85:15 90:6 91:16 94:5 95:3 96:20 102:6 103:22 104:4,4,8 106:10 114:22 116:11 118:11 121:2 134:21 140:7,11 143:4 146:14,19 147:17 159:4 163:16 172:9 173:19 175:14,16 176:12 176:12 183:21 189:3 208:21 212:20 217:6 218:2 224:13 248:7,16 250:21 253:19 256:1 257:15 258:1,22 260:5,7 263:7 265:17 267:8 269:2 275:3 276:14 277:7 278:6 279:1,11 280:6,7 282:7,12 282:17 283:8,9 284:6 285:7 286:7 288:20 289:14 293:13 294:4,5,14 295:11 296:15,17 297:15,19 299:16 311:1 315:10 316:8 317:4	19:17,18 24:17 26:14 39:14 51:5 51:20 56:20 62:6 62:13 67:16,18 83:11 85:13 86:9 86:13 91:3 95:5 98:5 100:10 105:15 112:13,14 113:8 148:17 149:7,12 158:16 158:19,19 162:18 177:18 188:22 189:16 190:1 224:22 241:21 242:1 245:4,9 248:3,4 252:7 262:6,14,14 266:6 274:15 275:8 276:9,12 278:3 282:13 283:14 285:18 287:2 322:16 330:1,15 330:19 332:13 339:8 340:15 quick 16:4 33:14 57:3 82:8 90:5 104:3 148:11 163:16 274:15 282:6 348:18 quickly 13:19 232:3 307:8 348:17	R R 2:3 race 71:1 242:17 race/ethnicity 45:13 243:4 racially-associated 166:2 radar 18:2 349:9 radiologic 92:7 raise 34:9 86:2 96:11 110:4 112:12 342:5,9 raised 62:7 346:9 347:4 raising 114:21 random 242:14 randomly 241:5 254:18 range 157:8 181:6 217:10 272:3 ranged 216:21 ranges 114:18 Rao 2:9 10:20,20 19:16 32:15 67:19 76:10 114:21 115:21 159:4 203:22 205:6 220:6 230:8 321:2 rare 66:2 71:14 74:3,9 95:18	
<hr/> Q <hr/> qualifier 139:13 qualifiers 123:9 qualities 293:8 quality 1:1 8:20 10:1,3 12:14,21 13:2 20:17 26:4 29:17 54:18 61:13 63:4 84:9 85:4 120:18 154:22 167:9,11 181:21 190:19 191:4,8,9 191:17 192:9 208:4 220:15 233:9 239:6 269:13 286:8				

275:1,11 278:13 283:6,22 284:5,11 284:20 286:10,14 299:9 306:19 RB 195:20 RDS 172:18 reach 203:14 337:11 reactions 97:8 reactive 238:1 reactivity 238:8 read 31:22 97:13 Reader-Thompson 352:13 reading 168:4 readmission 17:16 readmit 60:3 readmitted 50:1 59:18 74:18 ready 107:4 268:14 real 125:18 137:10 178:20 220:5 270:4 286:5 reality 187:12 301:8 realize 56:16 347:1 realized 245:11 realizing 32:12 245:3 really 13:22 23:9 25:17 27:13 29:8 32:9 42:16,22 43:3 46:14 47:5 47:20 50:5,8,18 52:6 54:16 56:22 62:6 63:16 68:21 72:7 79:3 81:13 92:13 96:5 98:5 102:3 105:2,5 108:3 116:12,13 117:18 122:7 126:7 131:13 132:20 138:13 140:6,10 148:7 154:15 155:11 158:10 159:2 166:4,12,16	167:19 172:1 178:4,22 180:16 182:2,6 187:16 195:19,19 196:6 196:10 197:3,14 199:17 205:21 206:5 208:8,10 212:13 213:9,10 214:11 217:7,15 220:5 222:20 224:15 227:21 231:20 232:15 233:19 238:20 239:11,17 241:7 241:10 242:2,6 245:14,14 247:19 249:7,17 252:18 253:8 254:15,20 255:2,4,6,17,19 256:9,10 257:15 258:21 259:19 260:18,19,22 261:8,12 262:10 263:9,15,18 264:2 264:4,4,5,9 266:11,16 267:5 268:6 269:9 270:7 270:11,14,19,21 271:9 272:9,20 276:19 277:22 278:6 281:15 286:18,19,21 287:1 289:7 293:14 294:1 296:1,5,7,11 298:8,16,22 299:16 304:13 314:6 315:17 316:8 322:17 324:11 329:20 332:4 337:9 344:9 344:12 347:17 349:3,5 351:13 realm 155:5 317:13 reason 31:19 71:8 74:2 124:2 129:18 158:7 212:21	218:20 220:10 233:4 241:2 247:13,17 249:16 253:7 266:9 345:11 reasonable 32:7 129:5 157:9 181:4 300:5 322:5 327:21 reasons 155:19 249:5 307:13 reassurance 191:13 rebound 232:10 rebuttal 295:1 recalculate 285:16 recap 3:5 13:20 16:4 receipts 352:9,12 352:14 receive 6:25 7:7 53:11 315:3 320:1 325:5 received 96:22 319:21 receives 35:22 327:14 receiving 80:9 194:20 200:10 recirculation 201:14 202:13 recognition 204:8 recognize 289:19 recognizing 300:19 303:7 recommend 14:5 152:8 193:11 285:22 290:4 297:20 331:22 341:15 recommendation 58:6 146:21 229:11 347:14 recommended 58:7 287:4 346:19 recommending 147:16 193:16 reconsider 234:17	reconvene 152:15 153:2 236:10 record 125:5 139:8 140:22 149:20 152:21 236:15 241:13 recorded 124:13 130:1 records 57:6 140:3 recruited 241:5 recusing 10:5 redo 115:16 reduce 171:19 186:7 188:11,12 253:21 267:18 reduced 303:12 reducing 180:12 184:4,7 reductions 92:5 redundant 240:13 refer 73:8 263:10 reference 90:8 referrals 14:13 referred 123:15 refine 235:19 reflect 129:13 156:15 171:10 265:12 reflecting 168:6 reflection 154:15 reflects 17:10 106:1 reform 322:11,12 regard 26:8 239:7 240:2,19 243:21 245:12,15,18,19 246:4,21 247:16 252:13 254:22 263:14 266:13 272:5 276:14 280:19 284:19 293:18 295:22 345:8 regarding 59:17 regardless 338:4 regards 98:13 region 105:14	regional 334:17 regionally 206:3 221:9 regions 81:19 registries 98:2 registry 38:14 43:2 139:19 140:14,19 regression 88:4,13 regular 119:1 154:17 193:14 264:14 282:9 rehospitalized 77:19 reimbursement 106:16,17 reimbursibles 352:16 relate 21:13 90:8 160:2 229:14 241:16 related 26:4 27:13 62:2 75:2 83:12 86:9 104:4 125:12 164:11 167:15 229:20 277:8 292:17 333:12 relates 104:13 144:20 218:4 relation 226:1 relational 61:20 relationship 33:19 35:18 205:11 226:4 309:2 332:3 relative 43:7 88:5 333:2 relatively 31:10 69:17 312:19 313:12 relatively-new 329:3 release 169:18 released 41:11 relevant 170:6 209:19 reliability 46:9 48:7 189:17 217:7 240:8,10,21 242:3
--	--	---	---	--

253:12 289:22	136:17 141:16	response 13:18	121:19 153:11	291:5 295:14
290:11 304:4	194:18 208:15	14:7 34:12 51:6	revised 345:12	297:14 299:18,21
reliable 66:13 67:4	210:14 230:19	91:6 106:10	revision 39:9 115:2	305:1,12 309:7
68:19 72:9,11	233:21 234:1	144:11 190:3	115:10	310:18 313:2
74:11 97:19	244:11 251:20	241:13 242:19	revisional 219:12	316:4 324:12
121:12,13 124:17	287:17 298:17	250:7 252:9,10	revisions 115:17	330:10 332:8
reliably 66:6 67:8	304:15 329:11,12	260:5 269:15	343:9	336:2 337:21
68:21 91:11,13	reports 193:4	270:6 296:15	revisit 152:8	339:18 340:10
140:4	267:10 272:21	330:3 336:13,17	314:11	341:14 344:5
rely 76:16	representatives	340:16	revolve 165:13	345:21 346:6,10
remains 35:22	285:6	responses 247:20	rewrite 343:1	348:22 352:7
remarkable 271:5	representing 10:18	269:14 271:21	re-review 268:20	rigor 265:14
remarkably 273:5	request 109:19	316:6 346:4	Rh 156:20	rise 167:5
remember 59:21	112:12 289:10	rest 67:2 138:1	rich 241:10	risk 18:11 21:3
227:13 229:17	297:20 298:10,19	restriction 146:12	rid 57:9 222:1	28:2 37:1 50:17
278:10 291:12	304:12	result 95:2 128:1	rides 350:13	65:3 66:5,14 67:3
327:9	require 303:11	200:4	right 20:5 26:14,18	72:10 73:12 86:20
remind 9:15 130:9	required 25:3	results 45:16 69:3	33:1 40:17 41:3,4	87:2,3,8 88:16
225:21	301:21	99:17 100:12	43:4 49:2 50:11	89:2,6,17,20,21
reminds 24:10	requirement	142:1 195:22	51:7,10,17 57:19	90:3,11,16 92:15
removal 39:9	118:18	196:3 198:19	58:4,15 59:3	93:19,21 97:20
removed 23:1	requirements	200:3 206:16	63:15 69:21 71:7	102:14 103:7,8
renal 219:12	213:17	230:19 251:7	76:13 77:3 82:3	105:5 116:2
reoperation 35:1	requires 29:3 315:6	275:12,13 282:8	85:5 92:10 94:10	132:22 133:2,5,6
repair 105:9	requiring 115:17	291:11	95:3 96:7 102:12	134:4 156:13
repeat 147:12	research 12:15	resumed 152:21	107:8,14 108:22	184:20 187:11
294:5	140:18 250:9	236:16	109:7,15 110:10	201:10 210:1
rephrase 239:18	researcher 306:4	retardation 156:19	114:16 115:7	222:3 230:20
replicated 47:2	research-oriented	164:5	127:22 128:16	318:5
report 107:17	223:20	retest 89:10	129:14 136:4	risks 35:8 187:11
108:10 121:14,22	Reserve 10:12	retired 9:19	145:11 162:18	risk-adjust 18:13
132:2 141:15	reservoir 36:12	Reva 2:22 9:2	168:10 176:22	67:11 68:22
142:1 208:5 211:1	resident 275:9,19	262:13 351:21	181:5 187:9	risk-adjusted 64:3
212:15 231:8	resources 31:17	reveal 215:1	192:14,21 193:10	110:20
240:2 251:1,6	301:6 303:8,12	Revenue 331:16	193:19 205:6	risk-adjustment
272:5,15 337:16	respiratory 75:17	reverse 180:18	210:10 212:12,19	18:17 66:3 75:22
reported 67:8 85:9	90:1 125:11 167:4	review 14:1,9 38:5	217:12 221:15	86:17 91:8 116:17
125:7 132:4	167:6 172:12,16	42:10,18 76:8	225:1 227:11	134:9
147:10 197:8	173:11 182:22	130:15 132:3,9	228:15 229:10	Rita 12:22
198:20 199:3	183:2,19 188:13	141:3,7 302:11	235:11 241:17	RN 2:5,15
211:3 213:19	192:3,11 277:16	310:16 350:9	246:2,18 247:10	ROC 68:18,20 87:6
214:12 227:21	respond 79:8	reviewed 140:17	247:17 249:19	87:7 88:20 89:4
230:12 252:22	138:19 186:17	159:1 248:5	252:5 254:5 255:9	89:13 95:16
reporter 281:2,3	268:10,12 280:14	309:11 330:12	262:17 263:11,22	Rochester 9:8
reporting 46:21	300:12	reviewers 16:15	269:6 271:15,20	role 23:8 305:15
100:17 101:17	respondent 240:14	307:10 308:16	272:17 283:11	rolling 43:7,21
121:21 124:5	325:7	reviewing 84:19	284:10 287:1	55:14

rolls 286:14	264:15 266:14	237:21 308:15	Scott 2:15 7:11	320:5,6,8,19
rollups 300:17	267:9,12 272:19	309:20 310:11	312:9 313:20	326:1,2 329:18
room 8:14 21:9	272:19 274:19	311:2,22 312:5,22	scratch 303:9	335:3,12
23:10,17 25:2	275:4 279:2 281:9	313:6,10,14,17	screen 308:10	seeing 17:16 81:4
50:14 57:15 58:20	294:3 299:16	schools 6:22 308:13	screening 7:8	217:22 303:6
120:7 328:10	satisfactory 259:8	311:11,14 312:15	175:11	305:10 316:11
rotate 276:9	298:6 303:15	312:18,18,19	scrolling 262:13	seen 50:20 51:1
round 212:5	satisfied 252:19	313:8,8	scrutiny 204:22	101:1 148:9 163:4
route 22:15 179:3	258:13,15,16,17	SCHWALENST...	se 167:17 220:1	167:5 180:21
routed 21:3	259:4 264:4,5	2:9 39:16 51:16	243:17	191:22 192:2,7
routine 124:15	270:22 271:1	218:3 252:3	searching 18:9	239:3,6,9 246:17
routinely 124:14	273:13 286:7	253:18 254:2	seasoned 277:2	250:11 270:20
268:16	296:10	255:9 267:1 310:3	seats 153:3	271:4 302:14
rule 35:3 110:12	satisfied/very	310:7	second 15:16 50:4	315:7
ruling 316:19	296:10	scientific 3:13,14	67:21 69:6 71:19	segregate 116:13
run 10:21 72:16	saw 38:19 69:9	4:4,5,21,22 5:11	79:20 89:12 115:2	select 242:2
79:1 126:4 269:12	142:19 320:18,22	5:12 6:3,14 7:13	125:22 177:20	selected 84:15
running 29:4,11	328:10	34:16 48:18 64:16	183:1,3 213:12	240:18 251:14
85:8	saying 56:11 61:22	86:10,15 91:4	298:11	254:18 271:16
rural 40:8 166:14	160:15 161:20,22	95:5 96:9 121:7	secret 313:9	282:13
223:22 300:4	185:21,22 186:13	143:4,19,22 144:3	section 48:16	selection 260:14
rush 345:19	225:16 278:14	144:20 189:13,19	172:13 180:19	selections 91:19
rusty 87:5	317:7 327:1 329:7	190:2,6 226:15,18	244:19	self-report 326:5
	337:6,9	226:20 250:6,18	see 20:15 40:2	send 55:22 289:1
S	says 42:2 132:20	253:3 270:6	41:21 53:5 54:20	350:15,17
safe 6:23 14:14	137:13 143:15,16	280:19 285:20	55:12 58:13 65:19	Senior 10:8 11:8,16
23:2 308:13 309:6	172:11 176:13	288:20 290:20	69:10 70:17 78:10	12:13 13:1
310:10,10,21	216:6 250:18	291:1,4 293:19	80:14,22 81:17	sense 40:6 47:7
311:12,14 312:19	317:21 319:17,20	330:11 336:4,4	83:4,15 96:4	77:20 78:6 91:9
312:21 313:6,10	334:20 335:9	339:21,22 340:1	113:17 119:11	94:17 99:1 102:2
313:13,14,15	scale 140:5 160:1	scope 15:13 225:12	126:19 146:16	118:19 149:17
safety 10:1,3 12:14	252:20 270:9	225:14,19 235:20	147:17 151:1	178:16 187:6
12:21 167:12	271:17,17 289:15	307:10,13 308:19	157:8 165:14	214:13 225:7
187:21 308:14	289:17,19 294:20	308:20 309:8,22	172:11 182:14	256:6 300:8
310:13,17,18,19	305:21,22	314:14,15,18	189:1 206:7 211:4	311:20 350:22
311:2,8,20	scales 244:16,21	316:9,9 323:2	211:9 213:20,21	sensitive 176:15
sake 314:12	291:19 305:19	324:8,9,14,17	216:7 230:11	262:11
sample 33:4 41:19	scans 156:6	325:13,22 326:2,3	231:8 233:21	sensitivity 38:22
66:21 79:15 92:2	ScD 2:13	327:8,13 349:17	234:2 235:16,18	133:4
95:12 242:14	scenario 293:9	score 251:20	251:17 255:5	sent 153:19 352:13
sampling 242:13	scenarios 220:5	260:22 285:16	261:5 262:13	separate 233:10
San 154:10	293:18,20,22	304:13	263:19 266:17,19	277:17 313:13
sat 133:17 302:11	schedule 151:12	scores 181:15,16	269:1 272:6,8	separated 183:11
346:17	schema 183:8	244:14,20,21	275:21 291:2	separating 122:2
satisfaction 239:4	scheme 281:11	254:17 261:7	295:20 308:10	sepsis 180:7,12
246:5,6 260:17	SCHIP 333:16	271:5 298:16	316:13 317:8,14	sequelae 28:4
262:16 263:19	school 10:17 14:10	302:15 323:7	317:22 318:7	sequence 19:12

sequentially 64:15	shirts 126:2	114:22 117:15	252:5	12:12
series 288:3 289:9 334:5	shocked 336:14	153:16 157:17	situation 35:4	sonogram 165:7
serious 75:17 84:20 90:1	shorter 242:9 342:10	161:1 175:4	256:11	sorry 11:10 14:6 48:1 59:2 84:11 91:2 93:16 132:10 133:9 138:21 195:4 231:3 245:21 250:1 252:4 260:12 267:2 274:22 288:18 308:3,4 312:12 335:5,18 338:18,20 346:12 349:19
seriously 23:4 56:6	shots 237:19	178:12 245:11	situations 162:8 257:17	sort 17:10 25:7 26:5,8 30:3 31:14 39:10 44:11 47:13 54:2 57:4 60:9 61:10 62:2 64:13 64:14 65:6 78:21 87:21 92:2 106:22 108:9 120:7 126:8 135:7 138:9 146:22 148:10 154:14 177:2 187:9 193:5 220:2 242:8 247:11,13 247:16 251:8 253:1 255:22 257:12 258:3 259:16,19 262:3 263:9 266:5,14,16 268:15 269:20 270:7 276:5 278:7 281:5 285:15 287:21 295:1 296:2,4 312:1 316:2 351:12
serve 83:2,4	show 121:4 163:10 182:2 187:16	253:5 268:18 321:3	six 114:17 123:11 192:20 205:16 208:7 227:4 228:7 234:11 236:12 325:8	size 57:14 178:2,12 222:4 232:9
served 186:17	189:7 190:7	significantly 51:1 68:7 180:12	size 57:14 178:2,12 222:4 232:9	sizes 95:12
serves 155:3	192:10 273:6	181:17 243:1	skied 249:6	skied 249:6
service 259:7 285:4 331:16	showed 68:21 75:16	334:18	sleep 281:8	slightly 289:16
services 49:22 277:13 300:18,19 335:11	showing 38:20 114:12	similar 33:14 54:4 66:5 74:21 85:11 123:14 132:4 133:21 138:11 213:9 216:13 244:17 245:10 269:9 272:20 300:16	slippery 137:9 323:15	slippery 137:9 323:15
serving 12:18	shown 134:16	Simon 54:15	slope 323:16	slopes 137:9
session 202:3 232:6	shows 62:9 187:21 272:14 296:12	simple 200:19 220:9	sloppy 56:7	small 30:11 31:16 32:3,6 41:19 50:9 50:20 69:17 78:11 78:14 114:19 164:4 165:22 166:15 173:19 186:4 188:15 196:10 204:5 206:4 222:8 230:10 300:21
set 54:3 106:13 108:4 158:9 166:12 180:6 214:9 239:11 240:4 253:7 254:6 256:21 259:20 302:18 322:16 350:2	shunt 3:8 18:2 19:20,22 20:20 21:1,2 22:14,15 22:17,19,22 23:1 23:3 24:1 25:20 27:15,15 28:11,15 35:1,8,22 36:1 38:15 39:5,8,9 40:9 43:19 45:3 50:1 54:19 57:14 60:3 80:22	simpler 220:15	SNAC 346:17	social 162:8
sets 62:6	shunts 18:21 20:8 28:22 32:18 36:9 36:17 37:17,18 80:1,2	simplicity 220:7 222:7	Society 54:6 97:6	socioeconomic 81:19 294:18 331:8
setting 93:11 104:17 146:11 246:3 262:10	sick 56:18 219:8 271:14	simplify 196:22	smaller 111:3	sodium 202:9
settings 155:18 239:17 277:6	side 83:20 160:13 160:14 168:7 181:10 233:3 323:11	simply 94:17 214:15 227:17	SNAC 346:17	somebody 79:6 115:5,22 116:2 204:9 272:21 273:1 331:1,3
settling 331:18	sidewalk 312:20	Simpson 271:8	single 36:16 43:8 95:14 148:14 191:22 199:4 202:3 215:10 228:1 309:12,13 309:22	somewhat 33:14 315:19
seven 207:21 227:4 301:2 325:8 348:19	signal 26:1 30:1 37:14 44:12,14 51:2	single 36:16 43:8 95:14 148:14 191:22 199:4 202:3 215:10 228:1 309:12,13 309:22	single 36:16 43:8 95:14 148:14 191:22 199:4 202:3 215:10 228:1 309:12,13 309:22	Sonja 2:16 6:11
severity 122:6 123:5,9,15 130:17 132:3 139:12 141:1 258:19	sider 83:20 160:13 160:14 168:7 181:10 233:3 323:11	singleton 153:13	single 36:16 43:8 95:14 148:14 191:22 199:4 202:3 215:10 228:1 309:12,13 309:22	
shaking 305:10	sidewalk 312:20	single-pool 194:21 194:22 198:12 199:8 232:4	single 36:16 43:8 95:14 148:14 191:22 199:4 202:3 215:10 228:1 309:12,13 309:22	
share 70:16 111:19 149:3 235:17 252:4 274:4 284:12 293:5	signal 26:1 30:1 37:14 44:12,14 51:2	sister 155:1	single 36:16 43:8 95:14 148:14 191:22 199:4 202:3 215:10 228:1 309:12,13 309:22	
sharing 143:1	signals 176:14	sit 302:10	single 36:16 43:8 95:14 148:14 191:22 199:4 202:3 215:10 228:1 309:12,13 309:22	
Sharron 2:4 10:16	significance 69:15	site 47:17 209:6 219:2	single 36:16 43:8 95:14 148:14 191:22 199:4 202:3 215:10 228:1 309:12,13 309:22	
shifting 106:19	significant 31:18 32:4,5 40:21 71:16 93:3 95:2	sites 47:17 48:9 69:7 131:8,21 191:21,22 209:14 217:17	single 36:16 43:8 95:14 148:14 191:22 199:4 202:3 215:10 228:1 309:12,13 309:22	
shifts 277:9,10		sitting 237:13	single 36:16 43:8 95:14 148:14 191:22 199:4 202:3 215:10 228:1 309:12,13 309:22	

so-called 125:18	158:4 231:21	stars 169:14	statistical 69:14	stratify 45:16
Spartan 322:21	specifies 117:8	start 8:18 16:8	95:12	213:6 241:14
speak 154:10	specifying 120:11	41:21 54:10 56:4	statistically 95:15	242:17 333:11
200:21 232:1	spend 320:11	67:16 78:15	170:18	streamline 23:9
238:21 257:7	spends 311:22	117:17 156:12	statistically-signi...	50:6
261:18 300:10	spent 18:8 116:4	184:15 206:6	90:4 117:3	Street 1:20
speaker 15:5	301:2	207:3,6,7 208:11	statistician 64:22	stressor 310:22
speakers 8:17	spill 177:2 313:17	221:13 255:11	statistics 87:5	311:1
261:17	spina 18:20 35:7	296:13 303:9	169:16 290:12	strict 241:3
speaking 60:19	36:20 37:1,5,18	326:4 329:9 350:8	status 318:14	strictly 50:16
172:9 302:21	spinal 21:6	350:18 351:2	319:14 331:9	stripped-down
304:9 310:5	spinning 290:15	started 8:5 49:11	stay 6:10 162:10	322:21
339:15	splay 271:6	54:13 55:19 70:4	237:10 243:5,6	strong 21:15 32:13
special 17:14	splits 87:18	87:16 122:4,16,21	244:4 247:13,15	112:19 226:2
specialized 117:14	spontaneously 20:3	123:19 124:3	258:5,7,7,12,14	253:15 309:18
120:6,7	springing 98:14	125:12 131:13	259:6 275:15	strongly 20:19
specialty 30:12	squeeze 175:22	153:2 208:9	staying 276:17	40:12 129:22
56:14 112:20	stabilize 29:15	211:13 237:5	Steering 1:7,17	329:7
113:6	stabilized 29:21	241:4 248:3 253:8	13:12 47:12 84:18	structure 52:13
specific 32:14	stable 29:5	261:22 273:14	186:18	245:6
38:21 39:8 54:18	staff 2:17,18,19,19	303:3	Steiner 41:14	structured 76:11
57:16 73:9 81:10	2:20,21,21,22 9:2	starting 49:14	step 38:9 268:7	76:13
81:12 98:1 103:8	11:6,14,19 14:21	67:18 139:20	276:6 284:15	struggle 277:2
105:16 109:20	23:6 46:8 50:10	157:1 191:10	316:14	struggles 312:14
124:12 147:11	58:6 83:14 194:13	235:7	stepped 268:1	struggling 267:13
164:7 177:14	267:16 294:12	state 9:14 55:4	steps 116:20	267:22 268:3
218:12 265:12	351:20	62:21 101:15,19	209:17 254:12	299:3
275:8 347:4 350:1	stakeholder 249:1	138:2 163:11	348:17	STS 35:15 129:6
specifically 32:1	standalone 343:3	181:18,22 207:16	steward 12:18	studies 65:16 77:21
39:4 65:18 75:7	standard 3:21	209:5 210:11	238:14 328:16	111:9,9 184:3
97:17 98:12	42:15 108:4	334:15	331:21 346:21	study 36:10 65:10
105:13 112:11	142:17 143:9	stated 168:19	stewards 234:22	82:9,12 100:14
160:19 162:19	197:18 204:12	statement 257:3	238:11	220:22 280:19
193:2 198:14	208:1 293:4 296:3	309:17	stick 302:16	stuff 54:16 56:17
200:22 262:20	305:21 345:6	statements 21:21	stifle 301:12	57:17 106:21
304:12 305:18	standardization	334:5	stint 117:18	184:9 193:5
346:2	149:7	states 33:4 41:11	stop 135:14	235:14 301:3
specification 117:8	standardize 147:4	79:14,18 82:16	story 287:7,8	stuffed 303:4
218:5 230:2	standardized 4:13	157:3 160:10	329:21	Stumbo 2:15 7:11
320:16	7:7 63:19 83:16	184:4 185:4	straightforward	312:9,9 314:1,7
specifications 29:2	83:22 110:15	205:15 207:18	107:21 108:5	317:4,6 328:20
42:2 47:1 150:19	293:12 327:14	286:22 345:12	190:16	332:8 334:8 335:5
215:13 304:14	standardly 219:20	347:11	strategy 66:4	335:16,20 336:19
specificity 38:21	standards 1:3	static 15:4 217:4	101:12 140:1	337:11,21 338:2
58:15	264:8 344:11	stating 329:15	stratification 222:3	338:12,16,21
specified 47:4	standpoint 19:22	statistic 88:20	230:1,9,20 331:22	339:3 345:4
117:19 145:17	27:16	216:20 217:8	333:6 334:11	346:12

subdomain 37:10	sum 151:18	328:20 336:19	252:15,22 253:2	systems 185:4
subdomains 45:12	summarize 16:1	337:9 338:12	253:22 254:9,10	S-E-S-S-I-O-N
subgroup 309:11	summarized 152:2	342:18 349:12	255:13 257:10	237:1
subgroups 70:13	summary 16:3	surgeon 9:18 12:7	260:21 261:10	<hr/>
222:10	231:5 290:11	65:1 78:3 81:11	263:14,16 266:3,3	T
subject 146:7 166:8	311:10 349:11	81:12	267:8 268:8,19	table 16:14 17:19
294:14	summation 154:16	surgeons 20:19	269:22 273:15	69:9,11 82:12
subjective 259:15	summative 244:21	23:20 24:4 25:2	279:15 281:6,14	91:22 111:2 150:5
264:3,9 294:3	summer 235:7	40:12 126:1	282:3 287:12	150:8 265:5
330:20,22 331:19	superb 352:1	202:20	288:1 292:11	288:16 297:17
submission 148:1,7	superficial 92:5	surgeries 78:12	297:1 306:3 307:6	301:17,18 346:10
235:9 335:6	super-important	79:13,17 85:1,7	317:21 325:6	tabled 5:5 14:16
submit 207:6	323:3	115:2,2 116:7	328:22 329:4	348:18
251:11 290:10	super-satisfied	surgery 3:22 33:15	330:13 341:7	tabs 170:7
submitted 14:20	252:16 272:7	33:21 55:7 60:2	342:15 343:1,3	tac 131:3 137:5
248:9,12,13 307:6	support 158:12	63:20 64:2 65:3,5	345:11 346:3	tachycardia 122:11
submitting 345:4	164:16,17 171:4	65:19 66:1 68:1	347:18	127:5,10,18 128:6
subsequent 346:1	187:3	68:13,14 72:3	surveys 239:5,7	take 16:21 18:6
subsequently 74:18	supporting 13:4	75:2 78:4 80:4	247:19 251:3	22:3 23:4 27:5
subset 31:16	234:3	81:15 82:15 85:3	258:22 259:18	48:2 56:4,6 67:1
240:17 249:12	Suppose 168:20	90:10 91:1,20	260:17 265:21	71:17 99:10 108:9
subsets 163:9,12	supraventricular	92:14 95:9 99:5	278:2 279:13	108:14 138:17
subtracting 168:13	122:10	99:18 100:6,16	282:8	140:9 141:18
subtracts 173:13	sure 17:3 21:3 22:6	101:16 113:2	survival 20:21	148:11 154:3,12
successful 81:15	23:2,13 24:21	115:4 126:3 270:1	77:14 182:5	158:15 160:4
sufficient 29:6	27:12 31:14 35:21	276:12	susceptible 145:17	209:17 212:21
289:4 330:6 336:3	37:6 42:7,19 44:9	surgical 23:11	suspect 266:1,4	222:8,20 236:7,8
sufficiently 85:18	44:12 45:6 46:7	24:20 55:9 75:8	349:1	256:12 276:5
94:20 189:6 288:5	46:20 47:19 48:4	77:1 80:12 81:10	suspected 22:18	277:15 287:6
288:9	50:10 56:1 61:9	84:5,19 93:13	127:6	324:20
suggest 19:11	64:8 67:19,22	96:21 97:6,12,16	suspicion 148:19	taken 22:20 104:21
25:10 57:20	69:1 72:1 74:9,22	97:18 102:17	suspicious 24:6	159:17 239:20
188:21 206:15	88:15 100:12	104:22 106:5	Sutter 181:13	266:2
225:2 230:12	127:21 138:10,20	219:16 258:16	191:1,7	takes 46:17 138:15
313:12 345:18	141:10 149:11	surprised 55:12	Suzanne 2:21 11:13	223:17 224:20
suggested 61:11	174:4 178:5 184:8	96:5 100:11 337:3	switch 220:16	take-home 161:3
231:14	185:7 195:10	surrogate 178:17	switched 220:8	talk 38:3 93:5
suggesting 297:22	198:17 203:20	surrounding 44:8	sympathetic	104:12 106:17
suggestion 57:4	205:3,8 208:20	surveillance 313:9	345:15	121:10,17 122:21
60:17 146:21	214:1,6 216:9	survey 6:8 12:13	symptom 319:9,12	184:6 203:11
150:8 206:9	217:5 220:19	237:8 238:21	symptomology	213:2 216:11
303:21 307:4,7	221:7 237:15	239:7,8,11 240:22	319:15	282:2 329:19
suggestions 150:15	240:13 242:1	241:19,20 242:9	symptoms 24:3	351:13
152:2 303:1	255:17 257:6,16	242:10 243:2,2,10	system 9:4 15:5	talked 220:19
suggestive 24:3	268:11 281:6	243:15 245:7	163:3 234:1 276:8	246:13 254:7
suggests 210:11	292:18 309:19	248:7,13 249:14	284:14 285:2	256:17 318:21
Suite 1:19	314:8 326:2	250:12,22 251:5	systematic 345:13	334:14 350:7

talking 22:16,17 62:20 70:1 73:3 73:17 78:15 79:2 84:3,5 90:11 101:22 105:11 114:15 128:1,4 147:15 178:8 196:10 216:13 248:18 254:6 277:9 283:8 308:6 324:3,5	ten 107:10 124:9 207:21 tend 84:13 125:14 289:15 336:21 tends 101:4,11 term 5:6 149:15 153:12,13 155:11 160:15,20 161:22 164:2 166:5 170:13 175:5 176:14,19 178:13 182:3,7 184:21 294:18 295:9	47:18 240:10 253:12 tetology 116:8 text 151:2 thank 8:7 15:6 21:18 27:21 59:2 59:4 63:14,16 82:6 104:1 109:5 110:9 111:1 125:15 151:8,11 152:4,10,19 154:9 158:16 193:21 194:3,5,6 234:22 235:22 236:4,5 296:14 306:9,16 306:19 348:3,14 352:2,5,17	75:3,9,12 78:15 81:14 87:7 88:3 97:21 98:10 101:4 106:6,11 113:4 128:22 135:1 136:17,21 137:12 162:6,6 172:5 177:22 180:17 186:10 201:6 210:6 215:8 216:5 216:6 218:21 219:13,18 222:6 232:10,11 245:5 246:22 250:19,20 278:2 281:11 287:18,18 291:19 292:6 298:8,9 312:21 346:8 350:8	124:3 125:20 128:18 129:4 130:19 131:15 132:15 135:2,14 136:7 137:17 138:7,8,14,22 140:12 141:4,6 142:6,11 143:2,7 144:18 146:4,5,18 147:7,8,21 148:9 150:15 152:6,10 160:16 168:14 170:3 177:2 180:15 182:1 183:20 184:1,5 185:10 186:21 187:6 188:19 195:13 196:1,18 196:20 197:6,21 198:3 200:18 201:7 203:18 204:1,16 206:4 207:7,9,15 208:14 209:16 210:5,10 210:12,19 211:2,7 211:8,13,15 214:17,22 215:16 218:18 219:18,19 220:10 221:3,12 222:14 223:9,13 224:1,21 225:7,13 226:3 227:19 229:11 231:4 232:12,15 234:5 234:15 235:9 236:2 237:4 238:17 243:3 246:3,19 251:16 252:15 253:6,20 254:12 258:18 259:22 267:6,8 269:18,21 271:2 273:17,18 274:12 275:15 276:22 278:2,7 280:1,16 280:18 283:4,6 285:5 292:19
tall 99:14 Tamara 54:15 tangentially 34:21 target 138:7 203:11 207:3 236:2 targeted 42:12 55:16 targeting 52:6 targets 208:2 teaching 33:8 274:19 275:20,22 team 16:19 93:13 275:7 301:2,5,21 303:18 teams 351:21 tease 224:5 technical 38:6 44:17 technicians 278:18 278:19 technology-depe... 17:15 teenaged 249:20 279:13 teenager 249:3,22 telephone 2:10,12 2:13,14,15 253:2 tell 31:2 87:2 131:17 220:21 231:22 238:11 246:12 272:13 273:11 275:12,16 287:7 323:7 329:21 telling 68:14 81:10 tells 186:22	terminate 179:5 termining 168:13 terms 17:21 20:5 20:10,17 22:6,11 23:5 26:3 28:6 29:8,21 32:2 36:4 36:20 42:8 52:10 57:20 135:21 142:6,9 167:17 170:3 179:10,15 187:12 191:2 192:15 199:14 205:2 223:8 226:1 242:6 268:4 290:20 294:11 terrific 24:10 34:14 112:9 tertiary 40:10 41:1 test 37:12 39:1 41:21 42:16 60:15 148:20 172:20 275:8 294:14 tested 40:19 42:3 46:8 47:10 163:2 testing 42:8 46:7,9 46:11 47:15 48:2 58:9,13 62:12 101:21 109:20 146:16,20 147:1 149:20 150:4 195:22 196:3 217:13 330:14 testings 330:16 test/retest 46:10	Thanks 17:6 59:5,6 64:20 86:6 Theberge 2:21 11:13,14 theoretical 301:18 theoretically 282:16 theory 171:17 therapists 277:16 thing 11:12 29:1 34:1 46:22 49:15 50:4 55:18 56:3 56:10,17 68:15 70:20 72:16 83:9 130:19 136:11 141:18 159:2 170:16 177:6,14 180:17 186:2 220:17 231:20 247:11 257:2 259:9 261:9 272:1 275:5 283:5 286:14 295:19 309:15 310:15 315:17 320:15 351:12 things 18:13 24:15 29:18 35:12,14,16 36:12 39:7 45:5 55:8,13 63:8 71:1	think 8:4 20:6 23:22 24:9 26:10 26:20,22 28:14 30:19 32:4,16 33:10 36:21 37:21 39:9 41:14,18 42:16 43:15,17,21 43:22 44:2,6,17 45:21 46:17,19 47:5,8,13 49:8,15 49:17 51:18 52:5 52:15 55:15 58:5 58:9 61:5 62:14 62:15 63:8 66:20 67:19 68:14 69:10 71:12 72:18 75:10 77:9 78:2,8 79:7 80:1,10 81:8 83:3 85:10 86:7 90:15 92:12 95:13,17 96:1,19 99:15,21 100:12 101:14,17 103:1 104:14 105:7,12,22 107:3 109:8,12,17,21 110:10 112:6,17 113:3 117:20 118:2 120:18	

293:21 294:13	202:18 207:2	147:11 159:15	202:14 219:3	158:2
295:5 296:7	230:8 280:10,17	160:4 165:4 170:4	220:4	trauma/birth
297:14,16,18	292:22 322:10	185:16,20 199:12	Tom 9:6 24:8 33:12	166:21
298:21 299:2,6,18	334:2	204:22 205:1	57:2 71:11 108:6	treated 28:1 180:1
300:6,12 301:8	thoughts 349:13	207:10 208:4	134:20 180:14	321:4
303:14 304:1,2,5	thousand 79:17	209:4 210:22	265:16 288:14	treating 22:17
304:13,18 307:2	119:20	213:13 215:7	308:8	treatment 36:6,15
307:18 309:15,17	threatening 122:13	232:6,14,14 234:8	tome 298:6	202:5
314:17 315:13	three 14:4,8,15	235:10 242:15	tomorrow 57:17	tree 249:6
317:2,9 318:10,11	15:12 25:13 70:6	252:18 254:16	Tom's 106:10	trend 180:18
318:22 320:2	99:7 106:19 122:9	255:17 258:8	tons 164:16	191:22 192:2
321:3,13,14	125:1 148:16	259:13 276:18	tool 66:13 99:21	trended 95:1
322:10,13 323:6	163:13 176:3	284:5 285:15	105:7 124:8 248:8	tricky 169:12
324:7,8 325:10,13	192:6 201:19	300:5 301:7 302:2	248:13,19 249:18	tried 50:12 72:14
326:6,19,20	226:21 227:3	302:4,4,18 304:19	251:19 254:17,19	160:8 303:4
327:19,21 328:1	228:10,14 229:2	305:5 311:22	254:20 255:18	trigger 124:8
329:20 330:12	236:11 269:17	321:13 322:12	269:5 270:14	triggered 238:7
332:3,10 333:13	270:18,18 275:8	324:21 326:15	296:7	trip 154:11
336:5 338:11	277:9 298:8	328:12 350:2	toolkit 60:20 61:14	trouble 86:17
340:10 341:21	332:14 333:3	351:11	63:9	161:6 178:21
342:3 343:17	334:10 337:1	timeframe 322:14	toolkits 63:5	true 27:2 30:13
344:1 345:15,16	three-category	350:22	tools 61:2 262:4	73:5 206:13
345:18 346:11	270:8	timeline 254:4	top 89:17 183:14	289:18 334:7
347:6 348:20	three-point 271:17	351:14,17	270:13 351:10	truly 271:3,7
351:5	three-year 29:4,4	timely 342:20	topic 306:1	trump 57:17
thinking 29:10	29:11 30:19 43:7	times 53:5 87:12	topics 174:10	trust 38:10
32:11 39:11 45:10	43:21 44:14 55:14	201:19 203:14	total 37:19 66:17	try 13:21 18:18
49:18,20 64:15	70:3 268:17	timespan 266:18	72:20 320:20	23:8 40:6 61:22
119:13 135:14	threshold 34:3,8	time-limited 47:6	339:14	64:19 77:6 142:21
164:12 188:10	121:1,3 189:3	58:8 59:2 102:1	totally 138:7 142:1	152:15 200:22
207:8 223:18	threw 45:4	109:18 146:6	300:15 318:19	201:11 202:8
232:22 260:13	throw 133:7	149:21 193:13	tough 72:15	222:8 252:20
310:15 320:8	thrown 39:7	229:12,13 234:5	town 62:10	269:22 284:1
322:13 348:22	THURSDAY 1:12	298:13,21 304:16	track 29:9 52:1	349:4
thinks 335:22	tied 304:14	304:19	53:4 60:14 111:21	trying 18:12 21:9
third 22:9 36:11	tiering 106:18	tiny 113:2	252:18	29:16 44:3 50:18
115:2 183:1,3	tiers 106:19	title 153:12 194:16	tracked 31:1	61:19 74:21 78:10
192:6 340:13	tightening 47:9	278:11 300:14	tracking 253:11	78:20 92:14 99:2
third-party 239:16	time 16:22 18:9	307:9 318:7,8	traditionally 126:2	104:15 126:22
Thirty 33:9	23:10,10 30:21	today 8:6 10:4	348:10	127:7 143:8
THOMAS 2:7	33:20 35:9 40:10	13:14 16:4 17:7	trained 286:11,12	158:10 159:16
thought 29:20	40:13 46:14 50:6	71:3 111:2 213:15	transfer 183:7	160:16 165:13
33:11 36:18 37:3	52:2 53:5 57:14	290:13 300:2	transferred 183:6	166:12 171:19
55:10 67:4 72:10	58:4,15 59:5	328:17 342:20	translation 104:16	175:8 182:14
93:17 104:9	67:14 69:18 93:6	343:21	transparent 142:13	187:2 196:15
115:21 121:22	95:1 108:9 110:1	told 271:8	149:5	201:20 209:14
174:20 197:19	110:3,12 141:2	tolerate 201:18	trauma 157:13	211:2 212:20

215:4 221:1 236:3 263:18 265:10 266:5 269:18 284:21 285:7 308:5 315:18 320:12 351:15 TTN 172:18 173:11 175:16,17,20 182:15 tube 113:3 172:20 turn 267:2 310:5 turned 346:20 turning 102:3 turns 247:4 tweaking 155:16 Twelve 146:1 Twenty 102:16 twentyfold 95:10 two 20:4 21:21 25:7 25:13 32:10 54:21 58:12 59:8 62:6 75:16,19,20 90:4 99:6 122:8 132:3 140:13,17 146:3 158:3 160:2 168:17 171:17 177:18 193:22 195:13 209:12 213:19 214:11,12 226:14,21 227:3 227:21 228:10,14 229:2,21 232:11 247:19 252:7 265:4 277:10 298:9 303:11 313:22 315:12 327:18 348:21 349:1 351:6 two-item 317:15 two-service 285:14 two-year 70:3 type 46:10 53:20 71:1 105:13 112:20 134:2,4 166:8,13 221:10 338:4 types 18:21 100:1	103:12 105:4 133:19 134:3 167:20 210:7 220:22 typically 78:5 124:13 250:22 251:1 <hr/> U UCLA 10:15 UK 159:7,10 ultimate 41:15 171:9 255:18 ultrasound 161:12 161:18 166:10 umbrella 92:13 unanimity 323:8 unclear 161:7 251:8 uncomfortable 143:14 uncommon 73:11 157:6 underestimate 142:11 undergo 68:1 undergoing 3:22 4:14 63:20 110:16 underinsured 339:17 underlying 86:19 underscore 69:3 105:19 understand 28:21 46:8 72:2 81:20 92:15 98:9 111:13 117:20 136:3 142:2 159:6 172:14 174:4 187:1 200:14 205:4,7 212:20 235:13 267:15 270:18 273:1 277:18 293:17 337:12 understandable 49:3 97:1 144:21	160:19 227:15,19 291:13 340:11 understanding 36:5 78:11 83:19 97:19 98:20 101:20 161:7 207:11 214:6 232:22 283:9 294:9 understood 74:22 168:5 262:16 unexpected 175:3 unfairly 55:16 137:2 unfortunate 187:4 261:9 Unfortunately 157:16 308:8 unhappy 260:19 uniform 123:20 uniformly 143:11 unimportant 281:11 uninsured 339:12 unintended 336:15 337:8 unique 53:2 unit 100:5 207:17 208:10 211:19 221:11,12 224:18 224:19,19 United 79:17 157:3 160:9 184:3 205:15 universal 347:11 university 9:7 10:13,17,21 223:18,20 unmet 317:11 318:14 319:2 327:4 349:18,21 unnecessary 74:7 unpreventable 126:9,15 143:15 unreasonable 329:17 332:4,6,7 332:16	unrelated 317:20 unreliable 73:2 unsafe 312:16 313:12 unsatisfied 286:7 unsuccessful 201:20 untested 90:6 untoward 77:18 unusual 95:11 updated 268:17 346:3 upfront 39:10 upright 237:13 uptake 196:5 urban 166:15 urea 196:21 199:15 199:17,21 200:2,3 200:11 usability 3:15,16 4:6,8,23,24 5:13 5:15 6:4,15 7:14 48:14 49:3 51:5,9 95:4 96:19 97:9 102:19 104:13 107:4,6,6,9,12 109:21 142:7 144:17,18 145:3,5 145:9 190:11 192:15,16 227:12 227:14 228:3,6,9 291:10,21 292:1,3 340:11,19 use 9:16 21:18 29:9 43:16 53:22 57:9 66:7 82:5 83:22 84:8 101:7 109:18 117:11 123:7 148:3,6 159:5 167:6,16 168:18 170:11 175:7 177:13 185:3 190:22 197:13 199:19 203:10 215:17 223:8 233:6,11 241:20 242:8,20 255:5,6	261:3 262:3 274:17 285:7 286:21 290:5 294:9 300:14 304:22 useful 54:8 151:20 users 199:2 usually 93:11 244:22 259:2 272:6 300:20 311:11 332:20 334:4,9,12 usually-and 332:20 Utah 54:13 utility 168:19 <hr/> V v 131:3 137:5 vacation 351:11 valid 18:8 31:15 36:21 124:17 285:17 validated 6:8 47:16 68:17 89:11 90:20 108:1 237:8 240:16,22 validation 42:18 56:2 89:10 90:12 validity 38:3 39:12 46:11 48:7 58:10 91:9 111:20 114:9 189:17 240:9,11 240:11,20 242:3 254:22 289:22 290:11 304:4 316:10 330:11 332:7,9 333:6 336:4 339:21 valuable 72:3 211:3 232:19 value 30:9 49:5 145:1 227:16 277:22 291:17 314:6 315:13 340:14 values 149:3 value-based 106:22
---	---	--	---	--

valve 127:16	ventriculostomy 36:12	96:8 107:4 109:8 143:6,19,21 144:2 146:4,6 150:8 152:7 223:16 226:7 234:5 288:7 289:7 290:13 291:20 298:10,11 298:12,20 302:18 304:5,16 305:8 314:11 330:4	214:1,5 222:20 229:15,19 230:11 230:17 231:5,6 232:4,16 233:5 234:17,22 235:5,9 235:22 247:15 251:17 255:5 256:7 267:5 268:10 270:16 272:8 285:10 289:10 299:19 301:11 303:17 310:15 314:15,16 327:20 328:17 344:6 346:9 349:8 351:1 352:2	181:18 187:1 188:8 196:21 200:11 202:8 210:4,10,14,22 216:22 219:14 221:21,22 231:8 231:13 232:10 238:5 249:1 252:21 257:14 266:5 270:10 272:22 279:2 281:15 285:12 293:20 302:3 317:22 326:10 327:1 328:17 332:1 333:12 334:4 339:19 345:13 347:14,19 351:16
valvotomy 127:16	venue 141:9	votes 234:18 288:3 289:9 290:17	wanted 13:19 16:3 30:13 31:13 72:8 87:19 88:14 93:20 105:19 106:9 130:2 160:18 163:15 170:10 203:22 223:15 237:14 241:22 249:7,17 257:15 265:1 267:4 274:3 292:15,21 325:14 351:19	ways 67:5 97:19 155:17 177:7 196:16 280:8
variability 20:10 20:13 36:6 42:20 69:12 70:17 71:21 80:3,6,11 81:17 81:20 82:4 102:3 191:21 219:22	Vermont 174:12	voting 109:16 151:2 188:21 223:14 225:3,20 296:16 340:17	wanting 138:10 195:16	wearing 126:1
variable 158:6 210:2 216:17 258:5	version 157:14 242:12 255:3 256:18 257:5 262:1 279:20	VP 36:9	wants 99:8 181:8 280:11	web 283:4
variables 54:18 75:14,19 90:2 203:17	versions 191:7	vulnerability 202:14 332:1	ward 157:10	website 257:4 283:13,16
variance 29:22 44:8 182:17	versus 77:11 100:9 221:11 223:20 266:3 271:4	vulnerable 196:14 198:1 223:11	Washington 1:21 9:13 55:5 184:11 186:5	weeds 47:22
variation 30:21 32:20 44:20 55:12 125:4 133:12,14 162:22 163:7,11 163:13 176:9 179:12 181:8 209:16	view 154:2 227:20 250:6 253:3 254:14 255:13,14 260:1 264:3 267:9 267:12 270:7 272:8 285:20 298:9 309:7 314:13 343:14	wait 57:18 304:3	wasn't 42:7 79:4 130:8 230:9 302:8	week 201:19 202:5 343:9 351:9,9
variations 160:8 163:5 181:11,14	viewed 47:15 92:1 307:12	waiting 151:7 194:10	way 18:10 21:2 31:22 33:8 47:4 56:15,15 59:22 77:8 127:11 128:2 128:20 137:8 139:4,22 143:12 147:22 154:5 161:14,21 168:13 168:15 175:17	weekers 182:16
varied 114:3	virtue 69:15 105:2	walk 135:19 136:7 138:16 312:20	Washington 1:21 9:13 55:5 184:11 186:5	weekly 141:5
variety 63:7 65:6,9 65:15 68:2 69:6,7 75:14 84:22 86:18 104:17 294:17	virus 237:19	walking 312:17	wasn't 42:7 79:4 130:8 230:9 302:8	weeks 163:19 167:7 172:12 176:2 177:9 184:18 185:12 186:10 191:11 351:6
various 88:17 129:18 171:19 189:18 214:18 307:13 325:18	visual 153:20	want 16:21 34:18 46:7,20 48:15 49:10 56:11 76:4 79:8 101:10 102:2 111:1 113:11 127:21 129:16 136:13,19,20 137:10 138:2 141:12 143:5 146:20 147:17 148:11 149:14,22 153:18 154:3 155:11 171:14 173:21 174:3 182:1 185:7 186:16 195:8 198:9,16 202:12 202:15 212:3	wanting 138:10 195:16	weight 164:3 165:22 166:3 167:19 188:4
variations 160:8 163:5 181:11,14	void 158:11	want 16:21 34:18 46:7,20 48:15 49:10 56:11 76:4 79:8 101:10 102:2 111:1 113:11 127:21 129:16 136:13,19,20 137:10 138:2 141:12 143:5 146:20 147:17 148:11 149:14,22 153:18 154:3 155:11 171:14 173:21 174:3 182:1 185:7 186:16 195:8 198:9,16 202:12 202:15 212:3	wants 99:8 181:8 280:11	weighting 261:3
varied 114:3	volume 30:11 119:5	want 16:21 34:18 46:7,20 48:15 49:10 56:11 76:4 79:8 101:10 102:2 111:1 113:11 127:21 129:16 136:13,19,20 137:10 138:2 141:12 143:5 146:20 147:17 148:11 149:14,22 153:18 154:3 155:11 171:14 173:21 174:3 182:1 185:7 186:16 195:8 198:9,16 202:12 202:15 212:3	ward 157:10	weights 164:4 weigh-in 212:3 326:9
various 88:17 129:18 171:19 189:18 214:18 307:13 325:18	volume/outcome 33:19	want 16:21 34:18 46:7,20 48:15 49:10 56:11 76:4 79:8 101:10 102:2 111:1 113:11 127:21 129:16 136:13,19,20 137:10 138:2 141:12 143:5 146:20 147:17 148:11 149:14,22 153:18 154:3 155:11 171:14 173:21 174:3 182:1 185:7 186:16 195:8 198:9,16 202:12 202:15 212:3	Washington 1:21 9:13 55:5 184:11 186:5	Weiss 1:22 2:2 58:14 91:15 147:3 168:2,3 172:8 183:12 262:5,18
vary 259:22	voluntary 1:3 124:4 141:15	wait 57:18 304:3	wasn't 42:7 79:4 130:8 230:9 302:8	
varying 133:20	vote 3:12,14,16,18 3:19 4:3,5,8,10,11 4:19,22,24 5:4,5 5:10,12,15,18,19 6:2,3,4,5,6,13,14 6:15,18,20 7:12 7:13,14,16,19 8:10 34:2,3,6 44:18 48:11,15,17 51:8 57:21 58:5 85:13,14 95:7	waiting 151:7 194:10	way 18:10 21:2 31:22 33:8 47:4 56:15,15 59:22 77:8 127:11 128:2 128:20 137:8 139:4,22 143:12 147:22 154:5 161:14,21 168:13 168:15 175:17	
vast 32:18 40:13,13		walk 135:19 136:7 138:16 312:20		
vastly 124:8 302:1		walking 312:17		
vendor 267:21		want 16:21 34:18 46:7,20 48:15 49:10 56:11 76:4 79:8 101:10 102:2 111:1 113:11 127:21 129:16 136:13,19,20 137:10 138:2 141:12 143:5 146:20 147:17 148:11 149:14,22 153:18 154:3 155:11 171:14 173:21 174:3 182:1 185:7 186:16 195:8 198:9,16 202:12 202:15 212:3		
vendors 284:8		want 16:21 34:18 46:7,20 48:15 49:10 56:11 76:4 79:8 101:10 102:2 111:1 113:11 127:21 129:16 136:13,19,20 137:10 138:2 141:12 143:5 146:20 147:17 148:11 149:14,22 153:18 154:3 155:11 171:14 173:21 174:3 182:1 185:7 186:16 195:8 198:9,16 202:12 202:15 212:3		
ventilator 156:5 172:20		walk 135:19 136:7 138:16 312:20		
ventilatory 172:21		walking 312:17		
ventricular 127:5 127:10,18 128:6		want 16:21 34:18 46:7,20 48:15 49:10 56:11 76:4 79:8 101:10 102:2 111:1 113:11 127:21 129:16 136:13,19,20 137:10 138:2 141:12 143:5 146:20 147:17 148:11 149:14,22 153:18 154:3 155:11 171:14 173:21 174:3 182:1 185:7 186:16 195:8 198:9,16 202:12 202:15 212:3		
ventriculoperito... 3:8 35:1 39:5		want 16:21 34:18 46:7,20 48:15 49:10 56:11 76:4 79:8 101:10 102:2 111:1 113:11 127:21 129:16 136:13,19,20 137:10 138:2 141:12 143:5 146:20 147:17 148:11 149:14,22 153:18 154:3 155:11 171:14 173:21 174:3 182:1 185:7 186:16 195:8 198:9,16 202:12 202:15 212:3		

264:11 282:6,11 282:18,22 283:11 283:18 319:20 321:11 322:9 326:9 328:12 331:11 346:6,14 347:6 welcome 3:2 257:20 303:10 well-established 289:17 well-known 165:19 well-prepared 267:10 well-specified 297:3 well-taken 81:9 went 30:8 38:16 45:6 130:20 152:21 213:13 236:15 238:5 246:18 283:13 weren't 37:6 98:17 151:16 210:17 Western 10:12 we're 110:9 128:13 222:22 we've 169:14 189:9 193:22 226:3 whatsoever 38:10 287:4 white 276:1 Whites 45:3 wide 65:6 84:22 94:21,22 217:10 widely 347:8 widespread 180:16 292:14 wiggle 58:20 willing 289:21 309:8 willingness 142:12 Winkler 2:22 9:1,2 9:15 34:10 51:11 84:2,17 96:12,16 107:10 109:12 110:6 113:11,20	144:6,9,15 145:6 145:10 146:1 189:8 192:17,20 193:8,18 194:3 226:10,21 227:3,8 228:7,10,14 229:2 229:5,8,17 234:11 234:14 248:6 288:13 330:7 340:7 341:2,10,17 350:4,16,20 withdrawal 162:11 woman 164:14 women 10:9 164:18 164:19 wonder 119:21 148:10 238:10 342:4 344:6 wondered 71:16 91:16 wonderful 238:13 303:21 306:9,10 wondering 24:18 25:9 35:3 62:15 70:10 74:1 82:21 184:13 205:10 216:20 218:10 258:3 261:18 294:10 327:4 wording 102:8 117:21 118:16 120:13 146:9,11 150:18 words 43:10 160:12 161:2 178:3 work 13:4 14:21 16:11 19:9 34:18 39:1 49:6 54:10 54:14 58:16 59:19 62:4 67:16 86:13 91:5 95:19 98:17 98:18 112:10,13 113:8 139:6 158:18 174:11 190:13 202:19 214:16 238:17 239:1 243:21	247:2,6 248:3,4 250:12 251:3 263:13 267:6 269:21 270:17 299:4 300:2,8 303:13,19 306:10 308:3,21 310:4 349:3 351:7,21 352:4 worked 16:20 87:21 169:6 179:11 worked-out 158:22 working 46:5 71:7 98:3 102:4 155:16 184:11 232:2 257:5,20 263:11 264:21 270:4 303:10 308:6 works 140:19 300:11 305:2 330:18 workup 179:15 world 270:4 337:13 worried 48:6 302:13 337:6 worries 120:15 135:13 worry 135:6 344:10 worse 44:5,10 169:22 171:20 329:14 333:8,14 worth 76:7 worthy 31:16 wouldn't 73:16 74:18 200:15,22 211:8 219:21 220:15 250:4 257:19 311:22 wrap 287:21 Wrapup 7:22 write 207:18,22 261:12 303:9 350:14 writeup 250:17,18 written 148:1 165:11 216:12	309:19 334:5 wrong 100:19 101:2 103:2 113:4 159:2 168:4 212:6 238:5 248:11 wrote 204:9 301:4 <hr/> X <hr/> X's 142:19 x-rays 277:15 <hr/> Y <hr/> yeah 135:8 year 28:11 29:20 44:1 54:20 69:22 79:18 94:18 95:14 108:11 118:20 119:7 123:4 139:11 254:7 276:10 286:9 322:14 yearly 207:17,19 years 41:17 70:6 111:7 114:8 115:5 115:20 123:11 125:1 134:13 135:3 148:16 155:16 194:19 195:13 207:21 221:1 249:15 250:4,5 265:4,21 280:3,3 301:2 331:13 yeses 288:11,13 yesterday 10:2 11:11 13:20 15:15 16:10 30:8 37:8 61:11 63:3 319:8 yesterday's 8:9 314:11 young 113:16 223:2,9 younger 116:3 194:20 222:16 279:9 <hr/> Z <hr/> Zen 295:6	zero 114:19 150:1 221:22 Zima 2:10 10:14,14 257:22 258:18 260:4,10,13 261:15 315:21 318:6 319:7 334:22 335:9 Zimmer 165:6 Ziniel 2:16 6:11 12:12,13 238:16 243:16 244:12,16 245:8 246:2,16 247:7,10 248:9,12 248:17,20 249:10 249:14 250:1 251:4,22 252:12 254:1,5 255:10 256:4,7,22 258:6 258:21 260:8,11 260:16 261:21 262:17 263:8 264:21 266:8 268:21 269:6,10 270:5 271:15,22 272:17 273:3,10 273:21 274:21 275:9,13 277:4,11 277:20 278:16 279:6,11,15,19 280:1,16 281:19 281:22 282:10,15 282:20 283:3 284:4,10,18 285:1 286:12,18 293:11 294:22 295:14,17 299:14 306:6,16 zone 90:15 <hr/> \$ <hr/> \$17,000 28:13 \$20,000 28:13 \$200 28:14 <hr/> 1 <hr/> 1 16:11 19:9 20:8 30:6 75:13 94:2 100:21 133:20
--	---	---	--	---

157:7 178:9,10 244:22 250:13 274:15 293:3 1's 125:3 1,000 119:15 157:18 170:15,16 1-to-10 294:20 1-to-5 140:5 1.0 108:10 1.2 197:2,18 198:12 199:5,6,8 200:21 202:3,16 204:9,12 208:6 210:17,17 211:7,11,15,19 212:8,11,16 220:16 1.7 212:8,10,16 1:02 236:16 237:2 10 20:8,8 37:22,22 79:17 90:2 125:7 135:2 152:13,14 155:16 203:12,15 211:18,20 236:8 276:11 306:22 345:17,19 10,000 28:10 10-minute 152:18 10-point 305:22 10:30 110:11 10:57 152:21 100 118:22 119:16 119:17 169:5 173:13 176:5,6 209:15,18 107 4:8,9 109 4:10,11 11:10 152:16,22 110 4:13,16 112 4:18 12 46:15 58:17,19 196:18 211:16 226:10 244:7 305:4 315:8 320:19 12-month 194:18 12:37 236:15 120 253:8 255:11	120-item 240:18 1200 119:7 121 4:19,21 13 3:5 250:5 279:4 13th 1:20 13,000 123:22 14 22:20 341:20 143 4:22 144 4:23 145 4:24 5:2,4 15 37:22 69:9 70:11 70:18 82:10,13 90:2 111:7 114:19 152:14 181:6 236:8 250:3 280:3 280:3 285:5,8 286:6 329:13 334:11 339:13,18 15-minute 152:13 150 163:6 178:1,3 15000-gram 182:5 152 5:5 153 5:6 154 5:8 158 5:9 16 3:7 250:3 17 3:9 194:19 221:4 315:5 18 249:15 189 5:10,11 19 3:10 190 5:12,13 192 5:15,17 193 5:18,19 194 5:20 195 5:22 196 5:23 198 5:24 1991 287:13 <hr/> 2 2 88:9 94:2 101:1 108:11 157:18 173:15,22 208:6 293:4 309:4 315:5 351:2 2a 90:9	2a.21 335:1 2a.3 173:1 2's 125:3 2:54 352:19 20 27:1 66:11,15 87:12 102:10,14 102:14,20 103:5,6 103:16 133:21 339:14 200 163:6 333:14 2000 66:8 68:17 87:10 2003 33:4 68:17 89:12 121:18 2004 121:19 2007 123:20,21 212:5 329:4 2010 1:13 322:14 21 114:8 115:20 21-day 22:21 22 205:18 226 6:2,3 227 6:4 228 6:5 234 6:6 237 6:8 238 6:11 243 6:12 25 20:14 27:1 115:5 163:4 181:13 25-35 260:6 27 16:18 250:13 28 63:18 288 6:13 29 110:14 290 6:14 291 6:15 292 6:17 296 6:18 297 6:19	30 20:9,15 25:9,11 25:15 26:9 36:1,2 36:17 40:21 64:2 65:21 73:22 74:5 99:4 116:7 126:3 132:5 170:14 241:21 255:18 30-day 25:8 34:21 35:3 39:18,20 77:12 300 33:5 119:10 251:6 300-page 289:2 305 6:20 308 6:22 31 153:11 315 6:24 321 7:2 324 7:4 327 7:6 328 7:9 329 7:11 33 186:6 330 7:12 34 3:12,13 340 7:13,14 341 7:16 342 7:4,19 348 7:22 365 25:10 37 82:15 163:19 167:7 176:2,20 182:15 186:9 38 33:4 167:7 172:11 176:2 177:9 182:15 184:18 186:9 39 172:11 176:20 184:18 185:12 191:11	400 333:14,17 41 308:2,12 42 53:1,12 216:21 315:3 44 321:21 328:15 450 31:9 48 3:14 194:9,16 49 3:15 <hr/> 5 5 124:20 208:7 244:22 339:11,18 5's 125:2,6,8 5,000 79:12 50 181:6 186:3 306:21 327:13 50,000 119:18 500 119:13,15 181:16 51 3:16,17 57 3:18 570 66:18 58 3:19 59 311:15 <hr/> 6 6 1:13 60 25:9,22 60/40 321:16 600 1:19 31:8 119:10 601 1:20 62 242:6 251:14 253:7 63 3:21 66:16,19 68:3 65 3:23 84:21 65-year-olds 113:17 68 4:2 69 3:25 <hr/> 7 70 33:7 43:10 75 157:22 <hr/> 8 8 3:2 89:5
---	--	--	---	---

8:30 1:19 8:3
8:31 8:2
80 79:14 106:16
182:16 275:15,16
800 196:12 204:2
220:13
84 133:18
85 4:3 66:19 89:14
103:12 270:12
273:12,16 275:16
311:14 337:15
86 4:4 89:14
87 89:4

9

9 3:4 79:16 95:16
90 25:10,22 68:19
106:15
92 125:9
92.92 68:19
93 216:22
96 4:5,6
97 173:17
97.2 168:21
97.5 169:11
98 169:10 173:22
99.5 173:17