1	SECRETARY'S ADVISORY COMMITTEE ON
2	HERITABLE DISORDERS IN NEWBORNS AND CHILDREN
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9	Friday, January 27, 2012
10	Afternoon Session
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- 1 CHAIRMAN BOCCHINI: All right. Let's go
- 2 ahead and call the meeting to order. I know we
- 3 have a couple of more members who are probably
- 4 returning, but I believe we have a quorum. And we
- 5 do have a lot of business in this session. And we
- 6 do want to finish on time so that people could get
- 7 to their airplanes.
- 8 So we're going to start with Nancy Green
- 9 giving a report on Implementing Point-of-Care
- 10 Newborn Screening, tab seven in your agenda book.
- 11 And this may require a vote for product support; is
- 12 that correct? Okay.
- DR. GREEN: Thank you, Dr. Bocchini, for
- 14 allowing me to give this report. And I think I
- 15 don't have to say the obvious, which is I think
- 16 this is a timely report given the focus of the
- 17 various foci of this meeting. So thank you very
- 18 much.
- 19 And I look forward to the discussion
- 20 following my presentation and expect that Coleen
- 21 and Jeff, as current or former co-chairs and
- 22 involved with this process, as well as Alex Kemper

- 1 and others around the table, who have been active
- 2 writers, co-writers, that you'll be involved with
- 3 the discussion as well.
- 4 So it was just about a year ago to the
- 5 January meeting of 2011 that we first started
- 6 talking about pulling together the thoughts on
- 7 point-of-care newborn screening. And I would like
- 8 to point out that the gestational period for a
- 9 horse is 11 months and for a camel is 12. So, just
- 10 FYI.
- [Laughter.]
- DR. GREEN: Okay. So I'm going to
- 13 summarize the manuscript that's in your reading
- 14 materials. I think what you have is probably
- 15 accurately described as a penultimate draft.
- 16 Identify any remaining issues for the manuscript.
- 17 And in fact, some things that have arisen from
- 18 today's discussion I'd like to add. And then
- 19 solicit input, support, as appropriate from this
- 20 committee.
- 21 So, for the sake of time, I'm going to go
- 22 through the slides very fast, but please interrupt

- 1 me if you'd like a clarification or we can get back
- 2 to it.
- 3 So, the point-of-care testing itself has
- 4 previously been defined as testing, or in this
- 5 case, it would be screening at the point of -- site
- 6 of patient care, with the driving notion being that
- 7 the test and of course the results would be a
- 8 convenience and immediacy to the results. And that
- 9 would improve the likelihood of receiving results
- 10 and making timely medical decisions.
- 11 And obviously this centralized laboratory
- 12 would not constitute point-of-care screening.
- 13 So the context of the manuscript I think
- 14 is, as I said, is obvious, and the juxtaposition
- 15 between public health and pediatric care about
- 16 newborns also involved issues regarding how
- 17 decisions are made, the evidence review that we do
- 18 and then some of the others that came up earlier,
- 19 particularly the task force. And then the triple
- 20 Rs, the roles, responsibility and resources. And I
- 21 think actually Coleen, when you discussed the
- 22 report this morning of the Subcommittee on Follow-

- 1 up and Treatment, that the CCHD presentation from
- 2 Maryland was -- exemplified many of the issues
- 3 around those triple Rs. And in fact, the
- 4 manuscript as I hope you've seen, is far from
- 5 prescriptive. It really is to outline the issues
- 6 and that with the understanding that many of the
- 7 distribution of those roles, responsibilities,
- 8 resources will likely vary by condition.
- 9 And so I'd just like to list the
- 10 coauthors. If anybody here feels that they are not
- 11 on the list and feel that they ought to be, we're
- 12 happy to -- we've already sort of exceeded the six
- 13 author limit, so we'd be happy to include you and
- 14 right -- but I would like to acknowledge the
- 15 contributions of many wise people.
- 16 So again, this is a framework for
- 17 evaluation, defining what point-of-care screening
- 18 really is and whether then helping provide some
- 19 background as far as making decisions about whether
- 20 point-of-care screening tests could be added to the
- 21 panel. And but I'd say the slant of the manuscript
- 22 is really, we tried to take the public health

- 1 perspective, but also incorporate issues around
- 2 providers, nursery, procedures, and the like, and
- 3 the public.
- 4 So the manuscript is organized, as you
- 5 can see, the definitions, and the potential of
- 6 decentralized screening in terms of immediacy of
- 7 results. And that may be beyond the context of
- 8 this meeting, this discussion. But I would like to
- 9 sort of raise the question that point-of-care
- 10 screening, for some disorders where immediate
- 11 results and action are needed may lead to some
- 12 consideration eventually, depending upon a myriad
- 13 of issues including incapacity, around the current
- 14 panel, you know, galactosemia or something like
- 15 that. But again, that's not for today's
- 16 discussion.
- 17 So what are the characteristics of
- 18 newborn screening? I don't have to talk to this
- 19 group about -- and the point being, this is
- 20 essential public health activity. And I think,
- 21 again, this concept was described very well in the
- 22 discussion on hyperbilirubinemia screening, to

- 1 ensure uniform quality and evidence-based
- 2 recommendations.
- 3 So what would be then -- what we're
- 4 proposing as the inclusion criteria for point-of-
- 5 care screening would be all of the usual important
- 6 aspects, of course, newborn screening, and then
- 7 additional criteria. And that would be the urgency
- 8 of recognition and treatment beyond what would be
- 9 feasible for centralized laboratory and/or that the
- 10 screening would be physiologic based. Of course,
- 11 TcB or pulse oximetry exemplify that.
- 12 And so really, again, as the discussion,
- 13 I think, this morning really brought to light that
- 14 the issue is, in deciding whether something should
- 15 be -- a condition should be part of clinical care
- 16 or within the recommended uniform panel, if there
- 17 are better outcomes, if it's performed under public
- 18 health mandate. And I think that that's a guiding
- 19 principle.
- 20 And then the other aspects being
- 21 standardization of the technology; feasibility for
- 22 the decentralized implementation, which I think

- 1 makes everybody nervous because we haven't done
- 2 that yet and it's just happening now with CCHD;
- 3 that screening is feasible in nursery given how
- 4 orderly nurseries are; and assure, of course, that
- 5 follow-up diagnosis and care can be provided in a
- 6 timely and appropriate fashion.
- 7 So as I mentioned earlier, there's not a
- 8 single prescription for point-of-care screening.
- 9 It depends on the condition and then also, other
- 10 factors, including potentially state legislation.
- 11 And then other aspects that are relevant to public
- 12 health that are familiar to public health. And
- 13 those would be risk of missed cases, the complexity
- 14 of the screening paradigms. One can imagine if the
- 15 screening would require an MRI under anesthesia.
- 16 That's obviously a ridiculous extreme, but that
- 17 would not be something feasible for point-of-care
- 18 screening.
- 19 The extent to which the screening is
- 20 already part of standard care and I think that
- 21 topic has been covered -- exemplified this morning.
- The challenges of confirmatory diagnosis,

- 1 and we haven't really talked about that today, but
- 2 certainly, that's come up with those CCHD.
- 3 And the potential for variability in
- 4 screening procedures, the validity of the
- 5 procedures, actually both screening and diagnosis.
- 6 And those are obviously quite serious
- 7 considerations.
- 8 Okay, so just to try to sort of divide
- 9 the -- we used to say buckets -- but actually
- 10 you're saying lanes today, so I'm going to borrow
- 11 from you, Coleen. To identify the lanes, divided
- 12 this by public health providers and other entities.
- 13 So for public health, obviously, the
- 14 assurance about the quality and feasibility in a
- 15 statewide manner with the overriding issues of
- 16 quality, timeliness, and equitable delivery of
- 17 services; assuring feasibility of statewide
- 18 surveillance, and actually that's come up with
- 19 respect to CCHD; the integration of clinical
- 20 services and tracking into the existing systems for
- 21 newborn screening; and then to assess the impact on
- 22 clinical care and, certainly, informing the public.

- 1 And that's not something that we spent a lot of
- 2 time with this morning, but I think that's an
- 3 obvious point that would be noncontroversial.
- 4 Okay, so for the issues for providers and
- 5 for nurseries, understanding that they're not the
- 6 same. And we in the past, we talked about how
- 7 hospital -- agencies that represent hospitals have
- 8 not been part of this discussion. And so I just
- 9 would like to remind us of that.
- 10 But for providers in the nursery and
- 11 pediatric providers immediately thereafter involved
- 12 with the diagnosis and treatment, that there's
- obviously infrastructure required. As I mentioned,
- 14 the practicality of doing anything -- doing
- 15 anything in an already loaded nursery schedule.
- 16 Costs involved. As we've discussed, the
- 17 responsibilities of the providers within the
- 18 nurseries and then the providers who would be
- 19 involved with diagnosis and service delivery. And
- 20 I think that's something that actually needs to be
- 21 identified as an important factor.
- 22 And then, assessing the impact on routine

- 1 care.
- 2 And then, the other issues, certainly
- 3 around coordination, are not trivial, as I'm sure
- 4 most of you recognize, that there are many
- 5 stakeholders around nursery procedures, including,
- 6 of course, families. As I mentioned, the primary
- 7 care, the newborn nursery services, hospitals,
- 8 public health agencies, and payers; and that there
- 9 really needs to coordination, and collaboration,
- 10 and leadership, I guess, amongst the variety of
- 11 entities.
- 12 And the issues that I mentioned about the
- 13 coordination and avoiding disparities of poor
- 14 quality services.
- So as we understand, birth hospitals
- 16 would have considerable responsibility, obviously,
- 17 for providing high-quality, presumably standardized
- 18 screening equipment. They'd have to employ their
- 19 current or additional employees to do the
- 20 screening, to provide standardized techniques for
- 21 performing the screening, recording the results,
- 22 and communicating those results, both to the family

- 1 and to public health to ensure continuous quality.
- 2 And as I mentioned, the timely reporting.
- 3 And then the coordination across the diagnosis and
- 4 therapy.
- 5 So there are some additional issues just
- 6 to raise, including the criteria -- I think I don't
- 7 need to talk about this since we've, I think,
- 8 covered this very well this morning around
- 9 hyperbilirubinemia, around criteria for clinical
- 10 services vs. the recommended uniform panel. The
- 11 interface between all of the various stakeholders,
- 12 the assurance of input from professional
- 13 organizations and families, data capture, caps in
- 14 funding.
- 15 And then, a point that actually I'd like
- 16 to attribute to Jeff, if you don't mind, and that
- 17 is the acceptability to parents, because as these
- 18 conditions if they're added -- we don't know --
- 19 there's no sort of limit to the number -- but
- 20 they're all being done in front of parents. And so
- 21 there may be acceptability issues that are new.
- 22 And there have been studies done looking

- 1 at acceptability of hearing screening, for example,
- 2 where the vast majority of parents found that to be
- 3 acceptable over 90 percent. And these were
- 4 studies, I think, one performed a large study in
- 5 2001. But we don't know what subsequent screening
- 6 would do, and again, when we start talking about
- 7 multiple different procedures, there may be issues.
- 8 And again, according to this 2001 report,
- 9 only seven states -- well, seven states required
- 10 parental consent for hearing screening. So again,
- 11 what would that do to the understanding for most
- 12 states that consensus is not required for newborn
- 13 screenings?
- 14 So I think those are actually real
- 15 issues. So thank you, Jeff, for bringing that up.
- 16 So in summary, this is a manuscript that
- 17 hasn't been created, written by the Follow-up and
- 18 Treatment Subcommittee. And to paraphrase Winston
- 19 Churchill, "This is the end of the beginning" for
- 20 point-of-care screening.
- 21 And some of these issues as we sort of
- 22 think about and deliberate about both specific

- 1 conditions and also the sort of the generic concept
- 2 of point-of-care screenings that there may be some
- 3 implications for screening beyond the newborn
- 4 nursery that we should just kind of keep in mind.
- 5 So we seek the support of the manuscript
- 6 by the committee. And we've had some discussion
- 7 about whether this should be a subcommittee report
- 8 or in fact, if there are any subcommittee reports,
- 9 whether it should be instead a report from the
- 10 committee.
- 11 And then of course we would like to
- 12 submit this to peer-review publication and identify
- 13 next steps, which would certainly of course be the
- 14 existing issues, unfolding issues around CCHD as it
- 15 expands. And then also to really think about
- 16 whether we do need to engage additional
- 17 stakeholders, the hospital associations being just
- 18 one, probably the nurses in the nursery, and
- 19 potentially others. So I just raise those as
- 20 questions.
- 21 And we thank you.
- DR. BOCCHINI: All right. Thank you.

- 1 All right. This is open for discussion.
- 2 The paper was in the agenda book and available.
- 3 And so for my view, I think it's a very well-
- 4 written and comprehensive document. I think as you
- 5 indicated, it very nicely describes the issues and
- 6 where we are.
- 7 So, Coleen?
- BOYLE: I was going to add one thing.
- 9 Nancy, maybe if you could leave that last slide up.
- 10 We really like the pictures of the babies.
- 11 That one right there. So really what we
- 12 were considering was that this would be an
- 13 informational document that we would provide to the
- 14 Secretary, really for education information. So
- 15 that was your -- we go back to Sara's list. This
- 16 would be number two, I quess. Yeah.
- 17 DR. BOCCHINI: All right. Any questions
- 18 or comments? Any issues related to moving forward?
- 19 DR. GUTTMACHER: Can I just ask --
- DR. BOCCHINI: Yes.
- 21 DR. GUTTMACHER: -- for clarification?
- 22 Support of the manuscript by the ACHDNC, supporting

- 1 what? That we are formally endorsing it? Or we
- 2 are --
- 3 DR. COPELAND: You can't endorse it.
- 4 DR. GUTTMACHER: Exactly. So what is
- 5 support mean exactly?
- 6 DR. COPELAND: We think it's a good idea,
- 7 that it contains -- that we're in agreement with
- 8 what is said in the manuscript.
- 9 DR. GUTTMACHER: We're in agreement with
- 10 what's said?
- 11 DR. COPELAND: The points, the summaries
- 12 that were made.
- DR. GUTTMACHER: The summaries. That's
- 14 different from -- those of us who are Feds are
- 15 undoubtedly thinking, do we need to have clearance,
- 16 for instance, to do this? Obviously, if we were to
- 17 sign on to a document, we would need clearance.
- 18 And I'm just trying to tease out whether this
- 19 raises the level of action needing clearance rather
- 20 than just, gee, it's a great idea?
- DR. COPELAND: Beverly's not -- Beverly
- 22 can't say. The very specific issue is it's not an

- 1 endorsement, because that has legal implications,
- 2 and that's why it was not labeled as endorsement.
- 3 DR. BOYLE: And actually, it actually
- 4 would say that our usual disclaimer line on it, if
- 5 you look at the --
- DR. GREEN: So just to be clear then, I
- 7 guess what we're talking about is the byline,
- 8 right, would list all the authors and then it would
- 9 specifically identify the committee with the --
- 10 DR. GUTTMACHER: If it's listing the
- 11 committee members as somehow endorsing it, then I
- 12 would need to get clearance. Signing onto the
- 13 document -- just like any article, if I was writing
- 14 an article that said the sky was blue or anything
- 15 else.
- 16 DR. COPELAND: So this reflects the will
- 17 of the committee. And if the committee votes and
- 18 says they support this, it'll go forward. If you
- 19 need to abstain, you can. But it won't
- 20 specifically identify you, and there will be some
- 21 kind of disclaimer in there that this is not
- 22 individual works. This is not individual

- 1 representation, but this reflects --
- DR. GUTTMACHER: So it does -- and so the
- 3 members of the committee by supporting this are not
- 4 being listed as some kind of semi-authors or
- 5 whatever.
- 6 DR. COPELAND: Exactly.
- 7 DR. BOCCHINI: Which has been the process
- 8 for other articles that have come from
- 9 subcommittees here.
- 10 DR. KUS: Just to clarify, I think it's a
- 11 document that's out there that kind of frames how
- 12 you can look at this. We're not putting out any
- 13 specific recommendations in the document. So
- 14 that's kind of the way I would view it.
- DR. BOCCHINI: All right. If there are
- 16 no other questions or comments, I'll entertain a
- 17 motion to approve this report.
- 18 Jeff?
- 19 DR. BOTKIN: I move to support this
- 20 report under, is it category 2?
- DR. MCDONOUGH: Second.
- DR. BOCCHINI: Stephen seconds that

- 1 motion. So now we need to know if there will be
- 2 anybody who will need to abstain?
- 3 Hearing none, we'll go to the next up --
- 4 next up, we're going to -- your choice.
- 5 DR. COPELAND: Yes.
- 6 So, Cathy Wicklund.
- 7 MS. WICKLUND: Approve.
- 8 DR. COPELAND: Fred Lorey?
- 9 DR. LOREY: Yes.
- 10 DR. COPELAND: Charlie Homer?
- [No response.]
- DR. COPELAND: Don Bailey?
- DR. BAILEY: Yes.
- DR. COPELAND: Joe Bocchini?
- DR. BOCCHINI: Approve.
- DR. COPELAND: Alexis Thompson?
- 17 DR. THOMPSON: Approve.
- DR. COPELAND: Andrea Williams?
- 19 DR. WILLIAMS: Approve.
- DR. COPELAND: Agency for Healthcare
- 21 Research and Quality?
- DR. DOUGHERTY: Approve.

1 DR. COPELAND: Centers for Disease 2 Control and Prevention? 3 DR. BOYLE: Yes. 4 DR. COPELAND: DR. BOTKIN: 5 DR. BOTKIN: Approve. 6 DR. COPELAND: Peter Matern? 7 DR. MATERN: I approve, too. 8 DR. COPELAND: Steve McDonough? 9 DR. MCDONOUGH: Aye. 10 DR. COPELAND: Okay. Food and Drug 11 Administration, Kellie Kelm? 12 DR. KELM: Approve. 13 DR. COPELAND: Health Resources and 14 Services Administration, Michael Lu? 15 DR. LU: Approve. 16 DR. COPELAND: National Institutes of 17 Health? 18 DR. Guttmacher: Approve. 19 DR. COPELAND: And Charlie Homer, are you 20 on the phone? 21 [No response.]

DR. COPELAND:

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Okay. So the motion

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- 2 DR. BOCCHINI: All right. Thank you all
- 3 very much. Thank you.
- DR. GREEN: Oh, thank you very much.
- 5 DR. BOTKIN: Joe?
- DR. BOCCHINI: Yes?
- 7 DR. BOTKIN: Can I raise a topic for
- 8 conversation about this. And I think the paper
- 9 does a nice job of sort of articulating what the
- 10 general framework is, what the potential
- 11 responsibilities are of different stakeholders, et
- 12 cetera. I don't think it yet, and I don't think
- 13 it's right for this determination, but just to
- 14 raise it for perhaps some discussion here. How do
- 15 we decide of those point-of-care examinations that
- 16 are common for babies, which ones might fall within
- 17 the purview of this committee and which ones might
- 18 not?
- 19 And we had a little bit of that
- 20 conversation with hyperbilirubinemia. And so if
- 21 the Academy of Pediatrics says we think every baby
- 22 ought to be screened for hyperbilirubinemia, what's

- 1 the difference between that sort of recommendation
- 2 and one that might come to this committee? And are
- 3 there aspects of the condition or aspects of the
- 4 funding or politics or whatever that would bring it
- 5 before this body as opposed to the other
- 6 professional bodies that make recommendations all
- 7 the time about what they think the standard of care
- 8 is?
- 9 And again, I don't think this paper is
- 10 ready to make -- to draw that line. But I think at
- 11 some point, the committee needs to think about that
- 12 issue.
- DR. BOCCHINI: It is an important issue.
- 14 And I think you're right. As time goes on, there
- 15 will be other things that we'll need to address
- 16 more formally. I agree.
- DR. GREEN: Maybe the paper needs to be a
- 18 little more explicit about that, raising that
- 19 question.
- DR. COPELAND: Well, there's also the
- 21 fact the any consumer can bring or any group can
- 22 bring forward a condition whether or not they think

- 1 it should be added to the newborn screening panel.
- 2 And hopefully that public health impact in that
- 3 analysis will be robust enough in the condition
- 4 review that if it goes to the condition review that
- 5 that will be adequately addressed. And hopefully
- 6 those will be some options.
- 7 The other reason that we -- the other
- 8 reason for cooperating more closely with Community
- 9 Guide and the U.S. taskforce is that if we can get
- 10 a process that is closer to theirs, in terms of
- 11 condition voting, et cetera, there may be a
- 12 possibility for having some reciprocity between the
- 13 two groups. And so we do get something that might
- 14 be more appropriate for the taskforce it may be
- 15 something that we can develop a mechanism to
- 16 address.
- 17 DR. BOCCHINI: All right. Chris?
- 18 DR. KUS: Nancy brought up the idea about
- 19 something else in early childhood kind of
- 20 screening. And I think there's some -- one of the
- 21 things about this universality is the idea that
- 22 you're in the hospital and it's right after you're

- 1 born. When you do screening in clinical care, you
- 2 have to be in that healthcare system. Some people
- 3 are not in the healthcare system. And so in terms
- 4 of finding and doing universal screening, it really
- 5 brings another issue.
- 6 So I think that's why CCHD, which is
- 7 saying kids are in and newborn hearing screens are
- 8 in the hospital; that's the way you capture them.
- 9 After that, I think there's a lot of other
- 10 complications in doing it. An example in states
- 11 with lead screening mandates, we've got lead-
- 12 screening mandates but we're never getting it to
- 13 100 percent, and the way we follow it is to provide
- 14 feedback to docs about what's happening in that.
- 15 But it's not -- it's not a captive population in
- 16 some sense.
- DR. BOCCHINI: Good point.
- 18 Okay. Let's move forward with the next
- 19 presentation on Critical Congenital Heart Disease
- 20 Implementation. I'm going to reverse the order.
- 21 Coleen has a plane to catch so we're going to let
- 22 her go first and talk about the Federal Plan of

- 1 Action for Critical Congenital Heart Disease.
- 2 DR. BOYLE: So that was a appended to my
- 3 morning's presentation. It's Boyle.
- 4 So I'll get started without the slides.
- 5 As you know or maybe remember, in September when
- 6 the Secretary decided to go forward with the screen
- 7 for -- accept the original proposal that was
- 8 brought forward by the committee and accepted CCHD
- 9 as part of the recommended uniform screening panel,
- 10 she came back with specific charges for the
- 11 agencies. And I'm presenting the work of the
- 12 various agencies, presenting for my colleagues, the
- 13 work of the various agencies and responding to that
- 14 directive by the Secretary.
- 15 And if you also remember, when the
- 16 recommendation went forward to the Secretary, we
- 17 actually highlighted for each agency as part of
- 18 that recommendation what the agencies -- the
- 19 responsibility for the agencies.
- 20 So it's there. Yeah. Great.
- If you just place that there. I've got
- 22 it. I've got it. Good. Great. This is my trying

- 1 to be efficient last night.
- 2 So as you remember, NIH was essentially
- 3 charged with research, both research in terms of
- 4 actually advancing that technology to identify
- 5 children with CCHD, as well as research related to
- 6 looking at outcomes related to care and treatment.
- 7 There's three bullets here in terms of
- 8 activities involving two NIH agencies, NHLBI and
- 9 NICHD. NHLBI is providing guidance relative to --
- 10 they have a common nomenclature tool for coding and
- 11 classifying congenital cardiovascular
- 12 malformations. Some of you may be familiar with
- 13 this. So this is being made widely available.
- 14 It's part of their pediatric cardiovascular
- 15 research network.
- 16 And if you skip to the third bullet
- 17 there, they also have a Pediatric Heart Network.
- 18 This is a nine clinical site. And they're
- 19 assessing the current practices related to CCHD and
- 20 whether or not the Pediatric Heart Network could
- 21 provide the venue for conducting evaluations of
- 22 screens. So they already have this network.

1 And then, some o	of you	u in	the	states	may
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- 2 know which states -- it would behoove you, I guess,
- 3 to know which states these networks are in. You
- 4 can link on this Pediatric Heart Network. And that
- 5 might help facilitate from your perspective some
- 6 ongoing evaluation as you roll out your state
- 7 programs.
- 8 The Health Resources and Services
- 9 Administration was charged with, appropriately,
- 10 helping with the implementation with state health
- 11 departments for screening, as well as the
- 12 education. And many of you, I think most of you in
- 13 the room, are aware of the fact that there's FOA
- 14 out on the street from HRSA to fund six
- 15 demonstration projects for the implementation of
- 16 CCHD in the states. Those projects will be funded
- 17 for 3 years.
- 18 HRSA has also assisting the Newborn
- 19 Screening Clearinghouse to work with NHLBI and
- 20 other stakeholders to have the most accurate
- 21 education materials on the website. There are
- 22 materials that are already available, and actually,

- 1 in prior meetings, we had several of those
- 2 presenters who have those materials come and
- 3 discuss those with us.
- 4 And they're also working within a
- 5 National Newborn Screening Genetics Resource Center
- 6 to provide state technical assistance as requested.
- 7 CDC was charged with the ongoing
- 8 evaluation and surveillance tracking, looking at
- 9 cost effectiveness and leveraging electronic health
- 10 records.
- 11 So in the first bundle, we surveyed, and
- 12 we have done this twice now, all of our state
- 13 programs to see where they are in terms of their
- 14 capacity. This one was prior to the actual
- 15 acceptance by the Secretary. And then most
- 16 recently, we resurveyed states to get a better
- 17 sense of what's going on there.
- This week, we just started what we call
- 19 an Epidemiologic Aid or EpiAid project in New
- 20 Jersey. This is a fairly intense view of really
- 21 what's going on, focusing on real mechanics,
- 22 looking at analyzing the data flow and tracking

1		-	'				
1	hospitals	and	iollowing	up	on	mıssed	screens.

- 2 So we'll have an evaluation with a 30-day
- 3 window for those EpiAid projects, so we'll have
- 4 results that could be shared and will be shared and
- 5 made available to others.
- 6 And then we have a webinar in March and
- 7 April really to provide technical assistance to
- 8 state birth defects and newborn screening programs.
- 9 Concurrent with what we're doing in New
- 10 Jersey, we're starting something new, which is
- 11 essentially the equivalent of an EpiAid but it's
- 12 economic aid. So we're trying to assess what the
- 13 cost to the hospital is, real-time cost to the
- 14 hospital for implementation of newborn screen.
- 15 And then, we're also developing a cost-
- 16 effectiveness model using the experience of three
- 17 other states within that context. Doing some work
- 18 in trying to leverage electronic health records.
- 19 This really predated what we were doing with the
- 20 Secretary's decision. So we had electronic health
- 21 record activity, which is interfacing with HHS
- 22 level activities. But now we're trying to

- 1 concentrate it much more on congenital heart
- 2 disease.
- 3 So that's my Federal update.
- 4 DR. BOCCHINI: Thank you.
- 5 Questions or comments?
- 6 All right. Thank you, Coleen.
- 7 Appreciate it.
- 8 Now we have Lori Garq. Dr. Garq is the
- 9 Medical Director of Special Health and Early
- 10 Intervention Services, Medical Director of Newborn
- 11 Screening and Genetic Services for the New Jersey
- 12 Department of Health and Senior Services.
- DR. GARG: Thank you very much. I know
- 14 that we're short on time. So I'm just going to
- 15 whip through this pretty quickly.
- 16 I was asked to speak about New Jersey's
- 17 experience with implementing pulse oximetry
- 18 screening.
- 19 I think probably the best place to start
- 20 is right at the beginning, and for us the beginning
- 21 was June 02, 2011. That is the date that Governor
- 22 Christie signed into effect legislation that put

- 1 New Jersey as the first state to mandate pulse
- 2 oximetry screening in newborns to detect critical
- 3 congenital heart disease. On the screen, I have a
- 4 excerpt of the key portion of our legislation,
- 5 which reads, "The Commissioner of Health and Senior
- 6 Services shall require each birthing facility
- 7 licensed by the Department of Health to perform a
- 8 pulse oximetry screening a minimum of 24 hours
- 9 after birth on every newborn in its care."
- 10 From the date of signing of the
- 11 legislation, we had 90 days until we needed to
- 12 enact the legislation, so that put us at August 31.
- 13 I also just wanted to mention that the legislation
- 14 was unfunded.
- 15 [Laughter.]
- 16 DR. GARG: The first thing that we needed
- 17 to do really was to decide what the role of the
- 18 department would be in all of this. And so while
- 19 the hospitals are mandated to screen every baby,
- 20 the decision was made that we weren't going to
- 21 mandate how they should screen. This was a point
- 22 of care test, pertinent to the discussion that we

- 1 just had earlier. The thought was that since the
- 2 babies are in the hospital under the care of
- 3 medical providers, that the hospitals really needed
- 4 to be responsible for ensuring follow-up and not
- 5 the Department of Health.
- 6 Along the same lines, the decision was
- 7 made that we would not conduct active follow-up of
- 8 the abnormal screens in the same way that we do
- 9 with abnormal biochemical newborn screens.
- 10 The division of licensing was charged
- 11 with overseeing the hospital compliance with the
- 12 legislation. And they are within the Department of
- 13 Health but a different division from where newborn
- 14 screening sits, which is over in Family Health
- 15 Services.
- 16 Initially newborn health screening was
- 17 charged with developing the best practice
- 18 guidelines document, but as we got into this rather
- 19 quickly, we realized that if we wanted to build an
- 20 effective screening and surveillance system that we
- 21 really needed to expand the scope of our
- 22 involvement really in order to support and guide

- 1 implementation efforts at the hospital level.
- 2 So the first thing that we did was we
- 3 convened a working group, the critical congenital
- 4 heart disease screening working group. It has been
- 5 a wonderful group of dedicated individuals. We
- 6 have cardiologists, neonatologists, pediatricians,
- 7 nurses, nurse midwives, parent advocates. We have
- 8 representation from the New Jersey Academy of
- 9 Pediatrics as well as our New Jersey Hospital
- 10 Association and our Maternal and Child Health
- 11 Consortia. And in addition, we have representation
- 12 from the Department of Health, so we have somebody
- 13 from newborn screening, somebody from birth defects
- 14 registry, somebody hearing screen and also from
- 15 licensing.
- 16 Initially, our main focus was really to
- 17 develop a recommended protocol, the concern being
- 18 that we weren't mandating how the hospitals are
- 19 screening, so we really wanted to get something out
- 20 to them before the effective date of the
- 21 legislation so they could look to that, because the
- 22 concern was that there was a potential that every

- 1 hospital would do their own thing, and potentially
- 2 not use the evidence in developing those protocols.
- This is a copy of our protocol. I'm just
- 4 passed out some copies of it. We were very
- 5 fortunate to be able to get a pre-release of the
- 6 algorithm that was to be published in Pediatrics
- 7 from the strategies paper. The algorithm was
- 8 developed by the expert panel from this advisory
- 9 committee. So we used that as the foundation for
- 10 development of our algorithm. Mainly the two
- 11 differences between the two are that our
- 12 legislation mandated screening of all babies in the
- 13 hospitals, so basically this reflects that and
- 14 includes babies in the protocol.
- The other difference was, to pass, you
- 16 needed to have 95 or greater in both extremities,
- 17 upper and lower. And the reason for that -- and
- 18 not just in one extremity. And the reason for that
- 19 really was to just try to increase the sensitivity,
- 20 though we did realize that it might also increase
- 21 the false positive rate. We also spent a lot of
- 22 time trying to simplify the algorithm. We weren't

- 1 going to have time to do intensive training, so we
- 2 wanted to try to make it simple and break up the
- 3 steps as best we could.
- 4 As far as education and training, we did
- 5 do two webinars. The first one was at the time we
- 6 released the webinar -- I'm sorry, the protocol.
- 7 And that one was really just to provide an overview
- 8 of CCHD, of pulse oximetry screening, to go over
- 9 the protocol and to talk with the hospitals about
- 10 implementation. And that was archived on our
- 11 website.
- 12 The second webinar that we did was a
- 13 couple months later, and that one was more around
- 14 data collection and reporting.
- 15 Informally, we have had a lot of frequent
- 16 communication with the hospitals, a lot of back-
- 17 and-forth, and a lot of technical assistance that
- 18 we have been providing. But we really have not had
- 19 time to do the intensive training efforts that we
- 20 would have liked, and we have a whole slew of
- 21 things planned. A lot of it is really dependent on
- 22 resources.

1	Riaht	now,	we	are	working	on	develo	pina

- 2 best practice guidelines document. Members of the
- 3 working group have agreed to write some of the
- 4 sections. We're working on developing a parent
- 5 education brochure.
- 6 And some of the important things that I
- 7 would like to do, and we're slowly trying to make
- 8 headway with it, is to really get into the
- 9 hospitals to develop a train the trainer model, to
- 10 get to the nurses who are doing good screening, and
- 11 also to develop a standardized slide deck to have
- 12 cardiologists and neonatologist go around to the
- 13 different hospitals.
- 14 As far as surveillance, we actually
- 15 didn't get our data system up and running until
- 16 probably about 2 months after implementation. We
- 17 spent a lot of time at the beginning to try to find
- 18 a way to collect individual level data on the
- 19 babies, I explored the blood spot card, the
- 20 immunization registry, our electronic birth
- 21 certificate that we have. Unfortunately, that
- 22 would've been ideal, but it's an antiquated system,

- 1 so there was no way of adding any other fields to
- 2 the EBC. Fortunately for us, New Jersey is just in
- 3 the beginning stages of developing a new electronic
- 4 birth certificate, so hopefully within a year a
- 5 half or so we will have that up and running and be
- 6 able to collect individual level data.
- What we do and what we are doing in the
- 8 interim is collecting quarterly aggregate data from
- 9 each of the hospitals. We are requesting the
- 10 number of births and the number of the screens, and
- 11 then also there to explain any discrepancy between
- 12 the two numbers. And then also we are using the
- 13 birth defects registry to capture information on
- 14 all failed screens. The hospitals report fail
- 15 screens, whether it's a true positive or not, and
- 16 then right now what is happening is that one of the
- 17 nurses from the birth defect registry is calling
- 18 the hospitals and following up on those and asking
- 19 a series of questions that we developed to get the
- 20 screens resolved, the results of evaluation that is
- 21 done, prenatal history, and any pre-existing
- 22 histories done prior to the screen.

- 1 Fortunate for us, this nurse has been at
- 2 the department for over 25 years and has really
- 3 wonderful relations with all the nurses in the
- 4 different hospitals and has really facilitated the
- 5 communications. This has been a great learning
- 6 process for us. Eventually, we will go to an
- 7 electronic module, but this has been a great way
- 8 for us to get information to the hospitals and also
- 9 to get information back to help us refine our data
- 10 questions.
- It was mentioned that right now in New
- 12 Jersey, as we speak, actually, we have an -- going
- 13 on, and we do hope to get information from that.
- 14 They are visiting 11 hospitals and doing
- 15 interviews, so we hope to get information back from
- 16 that, that will help us further refine these
- 17 questions.
- 18 Ultimately, when the new EBC is up and
- 19 running, we will probably in a year and a half or
- 20 so be able to collect individual level data through
- 21 that. And then also we will likely continue
- 22 collecting the failed screens through the --

- 1 information on the failed screens through the birth
- 2 defects registry.
- 3 So I just wanted to switch gears a little
- 4 and share with you a little bit of the data that we
- 5 have so far. The first thing, this is from a
- 6 survey that I did of the hospitals in early August
- 7 before we have implemented, just trying to assess
- 8 the lay of the land. What I wanted to share with
- 9 you is that of the 52 hospitals at the time, nine
- 10 of them or 17 percent did not have access to
- 11 echocardiograms. And the significance of that is
- 12 that if those hospitals happen to have a failed
- 13 screen, potentially they would need to transfer the
- 14 baby.
- About 2 months into it, I sent out
- 16 another survey. This was actually right before our
- 17 meeting so I didn't do any follow-up, so I was
- 18 actually happy with a 50 percent response rate.
- 19 Interestingly, all the hospitals that responded
- 20 said that they were actually using our recommended
- 21 protocol. And overall, I asked them about
- 22 implementation was going and for the most part,

- 1 most said it was going fairly smoothly. I think
- 2 the biggest challenge that the hospitals face was
- 3 trying to develop a mechanism to track the babies
- 4 that they were screening. Some easily were able to
- 5 incorporate it into their EHR's, their electronic
- 6 health records. Others, it has been a challenge
- 7 for them. Some are still using paper and pencil
- 8 logs, which is very laborious for them.
- 9 I just wanted to mention back on that
- 10 slide, in addition, we really didn't get, or at
- 11 least I didn't hear that much pushback from the
- 12 hospitals. And most of nurses in most of the
- 13 hospital said it was fairly easy to incorporate and
- 14 just treat it as another vital sign.
- I titled this "preliminary data." It's
- 16 very much preliminary and if I could have put a big
- 17 watermark that said "draft" across it, I would
- 18 have. We just got our first quarterly reports
- 19 within the last couple of weeks. We have it on all
- 20 of the hospitals, except we are missing one
- 21 hospital at this point.
- 22 So this is really changing as we have

- 1 back-and-forth with the hospitals as we get -- the
- 2 data has been changing. But I just wanted to give
- 3 you a sense of where we are at.
- 4 So basically, the first number is the
- 5 number of live births that we would have expected
- 6 to have been screened, 24,807. Of those babies,
- 7 24,343 were screened, so that was 98 percent. We
- 8 had nine failed screens and two of those were in
- 9 asymptomatic babies that did have critical
- 10 congenital heart disease.
- 11 So I just wanted to discuss a little bit
- 12 of the challenges and the strengths, and then I
- 13 will close.
- 14 So overall, I think a major challenge
- 15 with a 90-day implementation period, we were able
- 16 to get up and running within that time, but we find
- 17 that now we are doing a lot of the things that
- 18 ideally we would have done prior to implementing at
- 19 the statewide level. This was an unfunded mandate.
- 20 We were short staffed before we started, and this
- 21 is put a stress on the staffing that we had, and it
- 22 has affected the speed with which we can move

- 1 forward. And I just put on here inclusion of all
- 2 infants including the NICU babies. It is not as
- 3 straightforward screening in NICU babies, as was
- 4 mentioned in the strategies paper. And I'm happy
- 5 to go into that further with anybody who is
- 6 interested afterward.
- 7 As far as education, I mentioned that we
- 8 really do need to get out and do more intensive
- 9 training. And speaking to the surveillance system,
- 10 the accuracy of the data has been a real steep
- 11 learning curve for us, but I think that is to be
- 12 expected with any surveillance system that is
- 13 implemented. And we are just at the beginning of
- 14 it.
- 15 As far as the aggregate data, I think it
- 16 is sufficient. I think it gives us a picture of
- 17 what is going on, but it is complicated. We have
- 18 babies, especially since we're screening the NICU
- 19 babies, that are born in one quarter, but,
- 20 appropriately so, aren't screened for a couple
- 21 months later, until the next quarter. We have
- 22 transfers in, transfers out. So dealing with that

- 1 in aggregate data is just challenging. Once we go
- 2 to individual level data, that will largely be
- 3 eliminated.
- 4 In quality assurance, obviously
- 5 incredibly important in data collection, and
- 6 something that will remain a challenge for us as
- 7 long as the resources are what they are.
- 8 So our strengths, I think you know the
- 9 good thing is we got up and running, and we got up
- 10 and running fast. And in the first 90 days, we had
- 11 greater than 95 percent of the infants in the
- 12 birthing facilities that were screened. In talking
- 13 with the hospitals, they are aware of the gaps in
- 14 the missed babies, and they think that that number
- 15 is only going to get higher.
- 16 We put in place a mechanism to collect
- 17 data for program evaluation. It is a work in
- 18 progress, but we're able to get a sense of what is
- 19 going on out there.
- I think we covered a lot of ground with
- 21 very limited resources, and it really couldn't have
- 22 happened without a committed working group, the

- 1 dedicated staff of the department, and I think also
- 2 the established connections that we already had
- 3 with the birthing facilities.
- 4 I close with a picture. This is baby
- 5 Dylan Gordon. He is the first baby that was
- 6 identified through the pulse ox screening program,
- 7 and there is just a quote that was from a letter
- 8 that his family had written to the governor.
- 9 And this is my e-mail address. If
- 10 anybody has any questions, I'm happy to shed light
- 11 on what we have done.
- 12 Thank you.
- 13 CHAIRMAN BOCCHINI: Thank you. That is a
- 14 wonderful presentation and shows a dramatic
- 15 implementation effort. That's wonderful.
- 16 Questions or comments?
- 17 Alexis?
- 18 DR. THOMPSON: Just for clarification, I
- 19 know that by any means we're going to hold you to
- 20 the numbers, but when you mentioned the two true
- 21 cases, that they were asymptomatic, during that
- 22 same time period, were there other cases that were

- 1 symptomatic that were also screened?
- DR. GARG: Yes, so in the nine fails,
- 3 yes, we are actually still having conversations
- 4 with the hospitals. But one of the babies was
- 5 prenatally diagnosed, asymptomatic but prenatally
- 6 diagnosed, so I didn't count that in the two. I
- 7 was trying to get at the two cases that we wouldn't
- 8 have otherwise caught.
- 9 CHAIRMAN BOCCHINI: Coleen, and then
- 10 Jeff.
- DR. BOYLE: Do you information on the
- 12 seven that words true cases?
- DR. GARG: I do, but I think I'd --
- DR. BOYLE: Would rather not share?
- 15 DR. GARG: I think I would have to talk
- 16 to the hospitals more.
- 17 Dr. GUTTMACHER: Your general
- 18 impressions?
- 19 DR. GARG: Of the fails?
- 20 Dr. GUTTMACHER: Yes.
- DR. GARG: So two of them, the best I can
- 22 tell at this point, I think probably would have

- 1 otherwise been detected, not from -- even if we
- 2 hadn't been screening. There were a couple that --
- 3 there was one that was diagnosed with sepsis. A
- 4 couple that we need to look into a little further.
- 5 I don't know at this point that I can say, oh, they
- 6 had conditions that wouldn't have been -- that it
- 7 was still important to detect. I don't know enough
- 8 about them at this point.
- 9 CHAIRMAN BOCCHINI: Jeff?
- 10 Dr. Botkin: Yes, question about funding.
- 11 I am wondering how the hospitals are billing this
- 12 out, whether they have had any challenges with the
- 13 billing for the screening service. And then on the
- 14 health department side, are you considering any
- 15 funding model for the level of support that you are
- 16 providing? Or is it going to continue to be an
- 17 unfunded activity?
- DR. GARG: As far as the hospitals, so,
- 19 it's anecdotal at this point. From what I know
- 20 about the hospitals, I think that the sense I'm
- 21 getting is that most of them have just absorbed it,
- 22 they are not able to bill for it, because they're

- 1 either bundled in their reimbursement -- so I don't
- 2 know that is something that when they negotiate --
- 3 the next time they have negotiations that they will
- 4 be able to include that or not.
- 5 We did get some concerns raised about the
- 6 cost, but it wasn't a huge pushback that we got.
- 7 Initially, with the probes and trying to find out
- 8 how to purchase that, it was something that we
- 9 heard a little bit about. But we had concerns
- 10 about will the transports be covered in WellCare
- 11 baby, but I don't have enough experience to know
- 12 that.
- 13 As far as at the department, we applied
- 14 for the HRSA grant. I think other than that, I
- 15 don't get the sense that if we go for a fee
- 16 increase that this would be -- that money would go
- 17 towards this. But our revenue is through the kits,
- 18 the newborn screening kits that we sell. I think
- 19 this is an unfunded mandate.
- 20 CHAIRMAN BOCCHINI: Yes?
- 21 Ms. LIGHT: Kelly Light. I just wanted
- 22 to say that, as a New Jersey resident and consumer

- 1 advocate, I want to commend you on putting together
- 2 a remarkable program with remarkable saturation and
- 3 coverage of the babies over a short period of time
- 4 with no funding. I think it is pretty incredible,
- 5 and I commend you for that.
- 6 DR. GARG: Thank you.
- 7 CHAIRMAN BOCCHINI: Questions, comments?
- 8 Again, I think the committee feels the
- 9 same way, so thank you very much.
- 10 DR. GARG: Thank you very much.
- 11 CHAIRMAN BOCCHINI: Thank you for coming.
- 12 The last implementation presentation is
- 13 by Mr. Bob Bowman. Mr. Bowman is the director of
- 14 genomics and the newborn screening program at the
- 15 Indiana State Department of Health. He oversees
- 16 the screening program in early hearing detection
- 17 and genetics program and --
- 18 Dr. Bowman: That is correct.
- 19 Well, things moved fairly quickly in
- 20 Indiana as well, not quite as quickly as they did
- 21 in New Jersey. But in the spring of 2011, we
- 22 started hearing that there was a bill that was

- 1 proposed to our state legislature to include
- 2 congenital heart defects on our newborn screening
- 3 and that was the proposal, that it would actually
- 4 be added to our newborn screening law.
- 5 There were other priorities for the
- 6 legislature that year, and it sort of just
- 7 disappeared for a while. We didn't hear much about
- 8 it. But then in June, we heard that it had been
- 9 added to our state law, and we were told that we
- 10 had to give a report to the legislature on October
- 11 31 and that we had to go to statewide screening as
- 12 of January 1, 2012.
- So this put us in a little bit of a
- 14 dilemma. We had to quickly access where we were
- 15 and what was going on. It also sort of spelled out
- 16 what our responsibilities were, by adding it to the
- 17 newborn screening law. What this meant, the way it
- 18 was incorporated, the state Department of Health,
- 19 specifically the newborn screening program, was
- 20 going to be responsible for developing a tracking
- 21 and surveillance component, but there's another
- 22 part of our law which says that we are also

- 1 responsible for the follow-up and the diagnostic
- 2 part, which that was set aside for pulse oximetry
- 3 screening.
- 4 So the first thing we did was we really
- 5 tried to quickly assess where we stood as a state
- 6 and what we needed to do. There are five things
- 7 that we sort of teased out that we needed to
- 8 address.
- 9 The first thing we wanted was the
- 10 complete recommendations from the Secretary's
- 11 advisory committee. Alex's paper had not yet been
- 12 released, so it made it a little difficult as to
- 13 what we could share with the different positions
- 14 and birthing facilities across the state. We have
- 15 100 birthing facilities in Indiana, give or take.
- 16 It seems to change on a daily basis.
- 17 The second thing, we wanted to determine
- 18 the capacity of the birthing facilities to do this
- 19 screen. How many of them actually have these pulse
- 20 oximeters, have the appropriate probes, how many of
- 21 them could do it? The third thing was we wanted to
- 22 get feedback from pediatric cardiologists in

- 1 Indiana.
- When this was first brought to our
- 3 attention, we did a little research to determine
- 4 how many pediatric cardiologists there are in
- 5 Indiana. And we are fortunate to have an
- 6 integrated database, and we actually have the
- 7 licensing information in Indiana. So we were able
- 8 to find out that there were 24 pediatric
- 9 cardiologists in the state, and most of them were
- 10 associated with one of the two larger birthing or
- 11 hospital groups.
- 12 So we wanted to get in touch with them
- 13 and find out their take, how did they think this
- 14 law, this new change, how would it affect them. We
- 15 also wanted to determine how the birthing
- 16 facilities felt about implementing the screen.
- 17 For us, this was arguably the most
- 18 important thing. And the reason that is, is we
- 19 have seen in the past that the medical field at
- 20 times can view these things as it is the state
- 21 telling us what to do, and we didn't want them to
- 22 feel this way. We wanted them to feel that this is

- 1 a collaboration, we're in this together, we will
- 2 get through this. And so we really wanted to see
- 3 how they took it.
- 4 There was some misconception that people
- 5 did not understand or didn't recognize that the
- 6 Secretary's committee had made this recommendation,
- 7 or even that their own legislature had passed this
- 8 law, so there was some education to do on that
- 9 side.
- 10 The final priority was identify what data
- 11 would be collected and how it would be collected.
- 12 This is our final priority, because we
- 13 realized that this was going to be a difficult
- 14 task. It was not something that we could probably
- 15 fully address by January 1. We figured we could
- 16 have a pretty good head start and hopefully
- 17 establish the framework to move forward.
- 18 So the first thing we did was we
- 19 developed a list of individuals that we felt we
- 20 needed to contact and start developing a rapport
- 21 with, that included the neonatologists, the nurses,
- 22 the pediatric cardiologists, and the birthing

- 1 facilities.
- We sent out a survey. As I mentioned
- 3 before, we have an integrated system in Indiana, so
- 4 we have access to a lot of e-mail addresses through
- 5 Medicaid and through the licensing board. So we
- 6 did surveys and e-blasts and things like that.
- 7 First, we just wanted to take a more
- 8 broad approach and determine where things stood.
- 9 We have things such as, does your facility already
- 10 perform pulse oximetry screening? Can you perform
- 11 it? Do you have the capacity? Do you have people
- 12 who are trained to do this?
- 13 And we heard back from about half of the
- 14 birthing facilities and what we heard in general
- 15 was that, yes, most of them did have the capacity
- 16 to actually do pulse oximetry screenings. So we
- 17 thought that was a very good thing and something
- 18 that we felt we could move forward with.
- 19 The other significant thing was that we
- 20 found that about 60 percent, 58 percent, that did
- 21 report back to us so said that they could do the
- 22 echo at their own facility as well, which meant

- 1 that these children would not need to be referred
- 2 to another facility. So this was significant as
- 3 well.
- 4 We discussed how exactly this would
- 5 happen, because we knew there were only 24
- 6 pediatric cardiologists in the state, and what we
- 7 heard was that a lot of them have the technicians
- 8 who can do the pediatric echo and then the results
- 9 would be transmitted electronically to a pediatric
- 10 cardiologist who they are working with, who
- 11 actually would interpret those results.
- 12 So that made us feel a little better as
- 13 well. And you can see down below. We started
- 14 teasing out some of the specifics. Riley Hospital
- 15 for Children is part of the I.U. health system
- 16 network and St. Vincent Hospital is part of the
- 17 Ascension health network, and those are the two
- 18 largest networks in our state.
- 19 After talking to Indiana physicians and
- 20 after actually getting the protocols from Alex's
- 21 paper, we provided the physicians with that
- 22 information. They reviewed the protocols. In

- 1 general they didn't see any problem with
- 2 implementing them statewide.
- 3 We still had a lot of questions.
- 4 Specifically, about NICU children, about premature
- 5 children, things like that. How would the screens
- 6 be done?
- 7 Through this whole process, I had a
- 8 number of discussions with our legal staff about
- 9 what we could do and what we couldn't do.
- 10 It was at this point that I was advised
- 11 that we could not make additional recommendations
- 12 about those children. Basically, all that we could
- 13 say was that it was up to each birthing facility to
- 14 develop their own protocols for NICU children and
- 15 premature children. So that's basically what we
- 16 had to tell the different birthing facilities.
- 17 That was not an easy thing for me to do,
- 18 and it was not easy thing for them to hear.
- 19 Also, we heard back a little bit from the
- 20 pediatric cardiologists. We didn't communicate
- 21 with them directly. We were working through the
- 22 neonatologists who were meeting with the pediatric

- 1 cardiologists. But the main things that we heard
- 2 from them was that they had some concerns about
- 3 once this goes statewide, what are we going to see
- 4 in the way of false positives. Because we do have
- 5 hundred birthing facilities, there are some smaller
- 6 birthing facilities. What it was the number of
- 7 false positives going to look like, and how
- 8 inundated are they going to become? That is
- 9 something that we don't have an answer for at this
- 10 particular point in time, because we just started
- 11 January 1.
- 12 The other real question that they had was
- 13 the transportation issue. Forty percent of the
- 14 children would need to be transferred to another
- 15 facility, and recommendations are "in a timely
- 16 manner, " so there is some question, what exactly
- 17 does that mean? Do we have to life flight the
- 18 children? Do we have to transport them by
- 19 ambulance? Can we tell the parents they can take
- 20 them in the car quickly to have an echo done?
- 21 Again, I was left with having to tell them it was
- 22 something that, an individual basis, they had to

- 1 determine their own protocols.
- 2 So, by October, we had gotten feedback,
- 3 protocols and we sent out our second e-blast to all
- 4 these individuals who are listed here. And we
- 5 included what the protocols were, what the
- 6 finalized protocols were, an update letter from us,
- 7 a link to our website. We developed a frequently
- 8 asked questions sheet that sort of took them
- 9 through a number of the different questions that we
- 10 were getting hit with. And we also told them that
- 11 they would be required to submit to us on a monthly
- 12 basis. So this was the part where we started
- 13 addressing the data.
- We have an integrated data system where
- 15 we're linking to birth certificates, newborn
- 16 screening results, hearing screening results. And
- 17 our latest application, which we refer to as
- 18 instep, that is for the Indiana Newborn Screening
- 19 and Tracking an Education Program. It is really a
- 20 third-generation application. And the way we
- 21 constructed it is basically it is modulized, so it
- 22 didn't take our programmers a whole lot of time to

1	develop	а	new	module	for	congenital	heart	defect

- 2 The key issue was what specifically were
- 3 we going to be asking the hospitals to report to
- 4 us? Based on our conversations with the birthing
- 5 facilities, we decided to go very similar to what
- 6 we were doing with other monthly reports for
- 7 newborn screening and for hearing screening, and
- 8 that was we would like to know those children who
- 9 do not pass. If they did not pass, we would like
- 10 to know where they were referred to. We would like
- 11 to know those children who were transferred to
- 12 another facility where they received the pulse
- 13 oximetry screen. And we would like to know those
- 14 children who did not receive a pulse oximetry
- 15 screening and why they did not receive it. Because
- 16 one of the things that we recognized is it would be
- 17 legally possible for a parent to refuse pulse
- 18 oximetry screening based on religious reasons,
- 19 which also meant we had to change the religious
- 20 waiver.
- 21 So we developed the second survey at that
- 22 time, and we asked very quick questions. We really

- 1 wanted to ascertain at this point whether everybody
- 2 had been alerted to the fact that pulse oximetry
- 3 screening, CCHD screening, would go statewide
- 4 January 1 and to make sure that they had some sort
- 5 of protocols in place as to whether or not they
- 6 were going to refer this children to.
- 7 So that's what this survey was really
- 8 trying to determine. What facility do you come
- 9 from? And where are you going to be referring
- 10 these children to?
- 11 And we heard back from, initially, 94
- 12 birthing facilities. That was as of 12/27. I
- 13 think we got up to 97, but then we found out that
- 14 there were few birthing facilities that had closed,
- 15 a few we're still working on, contacts who had
- 16 left, things like that. But for the most part, we
- 17 heard back from all the different birthing
- 18 facilities.
- 19 What we saw was a slight change in some
- 20 of the numbers. We saw 46.8, so almost 47 percent,
- 21 of the ECHOs would actually be performed in the
- 22 same facility, slightly lower than what we had

- 1 heard before, but we did get that information and
- 2 we were able to confirm that the different
- 3 facilities were aware of it, and they did have
- 4 protocols in place to move forward.
- 5 So based on the feedback we got, as I
- 6 mentioned before, we had updated the religious
- 7 waiver form. We updated he professionals website,
- 8 gave them a little bit more information. And we
- 9 created a parent education sheet.
- 10 And here it is. This is just part of our
- 11 webpage. It seems to get longer every day now.
- 12 This is actually the education sheet. And this is
- 13 something that we reviewed internally. We had
- 14 physicians look at it. We also sent it to a mother
- 15 of an Indiana child whose daughter had one of the
- 16 heart defects, and she reviewed it and she gave us
- 17 her input on it as well, and we were able to make
- 18 some adjustments to it as well.
- 19 The monthly summary report, I think I
- 20 have already talked about this. Like I said, our
- 21 programmers were able to move fairly quickly on
- 22 this. We had this up and tested in about 6 weeks.

1 So where we are right now with this is
--

- 2 every birthing facility has an individual who can
- 3 log into our web-based application and enter
- 4 information for heel stick screening and for
- 5 hearing screening. This is another module like
- 6 that.
- We have a problem now. And that is that
- 8 some of the birthing centers have designated
- 9 another individual to enter the information. So we
- 10 also had to do a paper form and distribute that to
- 11 the birthing centers, so that they could enter the
- 12 same information on paper, fax it to us, and we
- 13 would have to have staff enter the information into
- 14 our own system until we can get all the facilities
- 15 trained. Right now, it is about 50-50.
- 16 In terms of long term, where do we want
- 17 to go with this? We discussed this is good and
- 18 this is the way newborn screening had worked in the
- 19 past, but our ultimate goal is to have all the
- 20 screening information for each one of these
- 21 children, because we want to make it readily
- 22 available to pediatricians when the child is in

- 1 their office.
- 2 And we had discussions about if we don't
- 3 have any information, can we say that that means
- 4 that that child passed. None of us feel
- 5 comfortable with that. We feel that we need the
- 6 information.
- 7 So how do we get that information? There
- 8 are two ways that we've looked at. Currently, with
- 9 what we're doing with hearing screening, we are
- 10 getting that information on the blood spot card.
- 11 We have talked about what that would mean
- 12 if we added congenital heart disease to the blood
- 13 spot card as well. We're looking at about an 8x11
- 14 card at this point. It is still being considered.
- The other thing that we have discussed is
- 16 contracting with an outside vendor and getting the
- 17 results directly from the screening equipment. And
- 18 that is something that it seems very feasible, and
- 19 we are actually in the process of contract
- 20 negotiations with that right now. We are hoping
- 21 this is the way we can go. It's still a little up
- 22 in the air at this point.

1	So	а	little	bit	more	about	the	monthly

- 2 with summary report. I think I already have gone
- 3 through this, with the did not pass or they did not
- 4 receive a valid screen. That was another exception
- 5 code that they birthing centers will be -- to it.
- 6 The long-term information, as I
- 7 mentioned, the pulse oximetry screening or CCHD
- 8 screening had gotten added to the newborn screening
- 9 law, there was no diagnosis, no follow-up part
- 10 attached to it, so this was completely separate.
- 11 This put us in a little bit of a dilemma and the
- 12 pediatricians, neonatologists and the pediatric
- 13 cardiologists agreed that that was not sufficient.
- 14 We needed to know outcomes for these different
- 15 newborns as to what happened, so how were we going
- 16 to do that?
- 17 There was talk about linking it to the
- 18 birth defects and problems registry, as these are
- 19 on the birth defects and problems registry, but it
- 20 means drastic revisions to the birth defects and
- 21 problems registry. As I mentioned previously, our
- 22 INSTEP application is our third generation. Our

- 1 birth defects and problems registry was our very
- 2 first web-based application.
- 3 Our birth defects and problems registry
- 4 functions by getting billing codes from hospitals
- 5 on children up to the age of 3. We have a hybrid
- 6 system where we have we -- we go to the individual
- 7 hospitals -- I'll remind you there are hundred
- 8 birthing centers throughout the State of Indiana --
- 9 and look as these children's medical records.
- 10 Children are reportable to the birth defects and
- 11 problems registry up to the age of 3. And it is
- 12 about 3 years later that we are doing audits on
- 13 these children. That is insufficient for CCHD. So
- 14 that means some major changes need to be made to
- 15 the birth defects and problems registry so we can
- 16 act a little quicker on some of the things that
- 17 we're considering right now.
- We also had to have some discussions with
- 19 our legal staff about whether if we have a child
- 20 who did not pass their pulse oximetry screening,
- 21 and we knew where they were referred, could we turn
- 22 that child over to the birth defects and problems

- 1 registry and go audit their chart.
- I was a little concerned about what they
- 3 would say, but they said, yes, that is something we
- 4 can do to confirm the child did not have heart
- 5 disease.
- 6 So this is how we plan on utilizing the
- 7 information in the birth defects and problems
- 8 registry, to ensure that those children who did not
- 9 pass the screen receive follow-up care, evaluate
- 10 the health-related outcomes for those children, and
- 11 evaluate and potentially modify the current
- 12 standards of care for Indiana children with CCHDs.
- 13 So where do we stand right now in
- 14 Indiana? What is still hanging out there? Well, I
- 15 already mentioned that probably the number one
- 16 thing is the lack of protocols for NICU or
- 17 premature or unhealthy newborns. This second thing
- 18 is the lack of recommendations for newborns
- 19 discharged prior to 24 hours.
- When I was first asked about that, I
- 21 thought well, we could do the same thing that we do
- 22 with the hearing screen or the blood spot

- 1 screening. It became obvious to me after some
- 2 discussions with some of the nurses that that was
- 3 not the case. This is different. It just won't
- 4 fit to have the exact same protocols.
- 5 So in terms of recommendations for having
- 6 those children come back or go to a facility, if it
- 7 is the case of the homebirth, in what timeframe
- 8 does that need to occur? That is something that
- 9 needs to be addressed.
- 10 Lack of recommendations for asymptomatic
- 11 newborns who needed to be transported for an echo
- 12 is another thing that needs to be addressed.
- 13 And finally, I tried to think of just how
- 14 many of the birthing centers asked me about which
- 15 pulse oximeters, which probes were acceptable,
- 16 because they wanted an actual list, and I was
- 17 unable to provide them with that. And I haven't
- 18 been able to find one. So if there's anybody in
- 19 the room right now who happens to know of such a
- 20 list, please tell me, because I would really
- 21 appreciate finding out about that.
- 22 Some other questions, will there be any

- 1 accreditation for referral sites? We were talking
- 2 about this with respect to what we do with cystic
- 3 fibrosis. There are different centers that are CF
- 4 accredited. And we can say with confidence, these
- 5 are the facilities they should go to.
- 6 Right now the recommendation is children
- 7 should have a pediatric ECHO that is reviewed by a
- 8 pediatric cardiologist. Are all those the same?
- 9 What I was hearing is that there is some
- 10 difference, so it's just something that has been
- 11 asked.
- 12 How will the program be evaluated? What
- 13 data should be collected, specifically on cost
- 14 analysis, and how should that be collected?
- 15 Because that is proving a little difficult, too.
- 16 Fortunately, I feel like we do have a
- 17 pretty good relationship with some of the
- 18 hospitals, and they have offered to provide us with
- 19 some of this information. And they would just like
- 20 to know what we are going to be asking for.
- 21 Once the FDA makes its recommendations
- 22 for pulse oximeters, will funding be made available

- 1 to birthing centers to meet these recommendations?
- 2 Because again, we have some smaller birthing
- 3 centers in the state of Indiana who, this is a
- 4 concern, how they will cover the cost of buying
- 5 these.
- 6 And finally, what CBT codes will be
- 7 developed for this? We've heard the same thing,
- 8 where there are problems with billing for
- 9 screening. Some have been able to roll it into the
- 10 overall newborn screening costs, but there have
- 11 been problems with that as well.
- 12 Future activities, this is something that
- 13 we said pretty much from the start: pulse oximetry
- 14 n the State of Indiana will be a work in progress.
- 15 It will be a work in progress for a while.
- We plan on implementing more data
- 17 collection as we move forward. Hopefully we go
- 18 down the path of the electronic transmission of
- 19 that data from the oximeters.
- 20 We will make sure that we train the
- 21 individuals who will be entering the information on
- 22 the monthly summary reports to us, so that

- 1 hopefully by June or July of 2012, all of the
- 2 facilities will be reporting to us electronically
- 3 instead of by paper, or half of them by paper.
- 4 And we hope to develop additional parent
- 5 educational material as we move forward.
- 6 So any questions? I feel like I have
- 7 gotten these looks quite a bit over the past few
- 8 months.
- 9 [Laughter.]
- 10 CHAIRMAN BOCCHINI: Thank you. Thank
- 11 you, Bob, for a nice presentation and another good
- 12 example of a real serious effort, and some of the
- 13 barriers and hurdles you need to go through to
- 14 implement this. So I think this is very telling to
- 15 the committee and very important for us as we
- 16 understand that implications of what we do and the
- 17 recommendations that we make.
- 18 Comments? Questions?
- 19 Was there any interaction between you and
- 20 other states that are doing this? Could you sort
- 21 of talk to them about the same things that they
- 22 were going through?

- 1 Dr. BOWMAN: I actually regret I did not
- 2 get in touch with New Jersey. I did hear from a
- 3 number of states who were calling me, asking me
- 4 what we were doing. But that was the level of it.
- 5 With the way it was added to our law, I
- 6 think it was a little different too, and that made
- 7 it a little unique.
- 8 CHAIRMAN BOCCHINI: Okay, thank you.
- 9 Any questions or comments?
- 10 If not, thank you again for the
- 11 presentation.
- 12 Are there any other issues for the
- 13 committee? I think the only thing that I want to
- 14 mention is that the Wisconsin group that brought
- 15 the nomination for the 22q11 Deletion Syndrome will
- 16 provide us additional data on distribution of the
- 17 severe immune deficiency and critical congenital
- 18 heart lesions in the wider spectrum of patients
- 19 with the disorder. We have not received that yet,
- 20 but when we do, we will go ahead and post that
- 21 along with the other information concerning the
- 22 meeting.

1		Any other issues that need to come
2	forward?	
3		Sara?
4		DR. COPELAND: Nope. See you in May.
5		CHAIRMAN BOCCHINI: Okay, if not, thank
6	you very	much.
7		Thank you for all your contributions to
8	the meeti	ng.
9		[Whereupon, at 2:40 p.m., the meeting was
10	adjourned	1.]
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