SECRETARY'S ADVISORY COMMITTEE ON GENETIC TESTING

Eighth Meeting

Friday,
February 16, 2001

Conference Room 6C-10
Building 31
31 Center Drive
National Institutes of Health
Bethesda, Maryland

FRIEDMAN & ASSOCIATES, COURT REPORTERS
11923 Parklawn Drive, Suite 203
Rockville, MD 20852
(301) 881-8132

IN ATTENDANCE:

Chair

EDWARD R.B. McCABE, M.D., Ph.D.
Professor and Executive Chair
Department of Pediatrics
University of California, Los Angeles
Physician-in-Chief
Mattel Children's Hospital
10833 Le Conte Avenue, 22-412 MDCC
Los Angeles, CA 90095

Members

PATRICIA A. BARR
Partner
Barr, Sternberg, Moss, Lawrence & Silver, P.C.
507 Main Street
North Bennington, VT 05257

KATE C. BEARDSLEY
Partner
Buc & Beardsley
919 18th Street, N.W.
Washington, D.C. 20006

ANN HAPP BOLDT, M.S.
Genetic Counseling Consultant
13987 Springmill Ponds Circle
Carmel, IN 46032

JOANN BOUGHMAN, Ph.D.
Vice President for Academic Affairs
Dean of the Graduate School
University of Maryland, Baltimore
520 West Lombard Street
Baltimore, MD 21201

WYLIE BURKE, M.D., Ph.D.
Chair
Department of Medical History and Ethics
University of Washington - Box 357120
1959 N.E. Pacific, Room A204
Seattle, WA 98195

IN ATTENDANCE:

PATRICIA CHARACHE, M.D.
Professor, Pathology, Medicine and Oncology
Program Director
Quality Assurance and Outcomes Assessment
Department of Pathology
Johns Hopkins Medical Institutions
600 North Wolfe Street, Carnegie 469
Baltimore, MD 21287

MARY E. DAVIDSON, M.S.W.
Executive Director
Genetic Alliance
4301 Connecticut Avenue, N.W., Suite 404
Washington, D.C. 20008

ELLIOTT D. HILLBACK, JR.
Senior Vice President
Corporate Affairs
Genzyme Corporation
One Kendall Square
Cambridge, MA 02139

BARBARA A. KOENIG, Ph.D.
Executive Director
Stanford Center for Biomedical Ethics
Stanford University
701A Welch Road, Suite 1105
Palo Alto, CA 94304

JUDITH A. LEWIS, Ph.D., R.N.
Associate Professor
Maternal Child Nursing
Director of Information Technology
School of Nursing
Virginia Commonwealth University
1220 East Broad Street
Richmond, VA 23298

IN ATTENDANCE:

VICTOR B. PENCHASZADEH, M.D., M.S.PH.
Professor of Pediatrics
Albert Einstein College of Medicine
Chief, Division of Medical Genetics
Department of Pediatrics
Beth Israel Medical Center
First Avenue at 16th Street
New York, NY 10003

REED V. TUCKSON, M.D.
Senior Vice President
Consumer Health and Medical Care Advancement
UnitedHealth Group
MN 008-T910
9900 Bren Road East
Minnetonka, MN 55343

Ex Officio Members

Agency for Health Care Policy and Research

DAVID LANIER, M.D.
Acting Director
Center for Primary Care Research

Centers for Disease Control and Prevention

MUIN KHOURY, M.D., Ph.D.
Director
Office of Genetics and Disease Prevention

Food and Drug Administration

DAVID W. FEIGAL, JR., M.D., M.P.H.
Director
Center for Devices and Radiological Health

Health Care Financing Administration

JEFFREY L. KANG, M.D., M.P.H.
Director
Office of Clinical Standards and Quality

IN ATTENDANCE:

Health Resources and Services Administration

MICHELE LLOYD-PURYEAR, M.D., Ph.D.
Chief, Genetic Services Branch
Maternal and Child Health Bureau

National Institutes of Health

FRANCIS COLLINS, M.D., Ph.D.
Director
National Human Genome Research Institute

Office of Human Research Protections

IRENE STITH-COLEMAN, Ph.D.

Executive Secretary

SARAH CARR
Office of Biotechnology Activities
Office of Science Policy
National Institutes of Health
6705 Rockledge Drive, Suite 750
Bethesda, MD 20892

C O N T E N T S

C O N T E N T S

P R O C E E D I N G S (10:19 a.m.)

DR. McCABE: Well, today we're going to be addressing our second major task of this meeting, which is finalizing the information template for health professionals. We reviewed the template which was drafted by Dr. Burke's Data Collection Work Group at our November meeting. Since then, the work group sought public comments on the draft. Dr. Burke will provide us with a brief overview, and then Dr. Haga will review the comments that were submitted.

Those are in your book. Do you remember which tab?

DR. BURKE: I think it's Tab 4.

DR. McCABE: Tab 4, if people wish to refer to the agenda book, the briefing book.

DR. BURKE: Actually, the remarks that I'm going to make are not what I originally thought I was going to make. They're based and driven very much by the discussion that we had yesterday, and I want to just reiterate where I think we are as a result of that discussion, which is that we are now talking about a premarket review of genetic tests that is based on the data template. So the data template has now two important purposes. One is it is the basis for providing information to health care providers and people who might be tested, but it is now going to become sort of the framework for premarket review, and what I believe our conversation said yesterday was that we've worked a lot with test classification schemes that might prioritize or triage tests into different levels of scrutiny, but in fact we can't come up with a

classification scheme that does what we want. That is, separates in a simple and reliable way the tests that need high scrutiny from the tests that don't need high scrutiny.

What we've also heard is that the template can itself form the basis of a streamlined review, and so what we're now looking at is that all tests come in using the same process and that process is based on the data template, and that, first of all, as this review occurs, this template-based review, the nature of the test and the analytic validity of the test are reviewed, there's very strong agreement that that's a go/no-go point, very noncontroversial, and here is I think the strength of this template-driven review: the next thing you come to is intended use. We're now thinking about it as it is outlined in the template, and I want to point out to you that this approach deals not only with a lot of comments about test classification, but also a number of comments that Susanne will review on the data template. In other words, we already in this process have begun to address in an important way public comment.

Then there would be review of the other data elements, taking into account the intended use -- I'll make another comment about that in a moment -- but also taking into account a points to consider. So now we're at intended use and review of other data, and elements taking into account intended use, points to consider, and again let me comment on that a bit in a moment.

As we think about this, I just want to bring back into this conversation elements that have been there throughout the process of discussing premarket review, and that is what kind of outcome results as a result of premarket review. Well, clearly, whether or not a test can be released is a major outcome of premarket review, but

another major outcome -- again, getting back to the structure of the template -- is labeling of the test. So I think again a theme that we've heard throughout and I believe is corroborated by our public comment is that premarket review has, as a major part of its goal, truth in labeling, accurate information on all the critical points about a test.

Just to keep all the pieces together, we've always said that one of the things that might come out of a premarket review would be requirements or recommendations for data collection. This is still something of a black box because the whole process of a coordinated, cooperative, interagency, public/private, postmarket data collection process remains to be fleshed out, but clearly that would be one of the elements that might be captured in a points to consider.

Just to reiterate why we're at this stage, and therefore why we should think about the template in this context, we really haven't been successful in creating a test classification scheme that was both simple and did what we wanted it to do, and we've seen that a template-driven premarket review process at this point in time looks like it could do what we want it to do, which is be a streamlined process, as long as all the information in the template looks good, and create the framework for picking up the red flags that say we better look at this test a little more carefully. The points to consider element of it, which remains to be developed, would be a critical part of picking up the red flags.

Let me just show you briefly one thing that you saw yesterday, somewhat modified. This is just very preliminary, very, very early, early draft kind of comment, but this was the table that Muin showed you yesterday, which I've gone ahead

and modified, and I did discuss this with Muin before he left.

Points to consider might include guidance of this sort. It might include that there's a box for clinical utility in the template and that box really has to have some substantive information if we're thinking about population screening, and Muin made a case that that box ought to have some substantive information for pharmacogenetics, but that box wouldn't necessarily be filled for other genetic tests. On clinical validity, the modification that you see here is we expect every test to have some information about clinical validity, but the small check here says that we might well have a lower bar for some tests than others.

Again, don't take this as sort of a final piece, but this would be an example of how the Data Team might continue to work on points to consider issues or statements for review.

So what I think would make most sense at this point would be to go to the public comment on the data template, acknowledging that all of the public comment was on a template prior to FDA's revision of it and prior to our pulling together this concept, but I think we'll find that some of the issues people raised are addressed by these suggestions.

Susanne?

DR. HAGA: We published in the Federal Register on this on December 12th, and we also sent a request for comment out to 87 professional medical organizations and societies, since it was recommended that we target those groups.

I just wanted to make one clarification. We put this comment out as a

data template for health professionals. It was not for FDA review requirements or something, so it's a little bit different how the comments came in, and the intended audience and how they were thinking of it.

We got back 16 comments, again, from a variety of groups. Most of the comments I would say are generally supportive. They thought it was a good idea. We need something like this. We need a PDR for genetic tests. We need to get this information out there in a concise method and get it disseminated out to those who are ordering genetic tests.

A couple of the commenters felt that a centralized information resource would be of value, that it may not necessarily be necessary for each and every lab to make up their own fact sheet, but perhaps we can have a general common fact sheet which the lab can overlay with their specific information, and that would reduce the burden on laboratories for coming up with the same information essentially for every test for cystic fibrosis, for example, that they can just overlay their specific values for analytical validity or clinical validity or what have you.

There was a recommendation to create a small demonstration project with a few laboratories to evaluate the time and cost for data gathering and compilation and for the review mechanism that would go into place for reviewing the data, whatever group that may be.

Again, there were comments on the definition of a genetic test. One stated that "The proposed template appears to capture all genetic tests indiscriminately and important distinctions are not being drawn with regards to the purpose of the test or

the information that it yields." Another comment again requested that it be more focused on inherited diseases and conditions.

As I said, there was a concern from the laboratories that we're creating a huge burden on the laboratories to come forward with all this information, but these types of comments were also split. Others felt that the manufacturers were the ones that should be responsible for supplying this information, for providing this information. They're the ones that have it, so it would make sense that they should be able to provide it.

Comments regarding who should review the templates suggest that FDA establish a panel to review the information, and determine whether updates are needed. CLIAC or CAP inspections may be able to do paper inspections of these templates. Professional societies or CDC or IRB-like bodies may be better equipped to be reviewing these documents.

Dissemination. Electronic dissemination was I think the preferred method, either through an FDA Website, as well as professional society newsletters, brochures, fact sheets. Make these available to the lab's clients, the hospitals that are using that lab the most. Through GeneTests, guidance reference documents, publications, advertisements, marketing activities, Websites, you name it. So there was a broad range of dissemination mechanisms.

I'm going to go over each element -- this was much easier to do than the classification methodology -- and just look at each element one at a time and the comments that were raised with regard to that element.

The first one was on purpose of the test. A couple of those specific comments were that the word "setting" in the first line needs more definition, suggest replacing "predictive" with "predisposition," and give more explicit and specific information on who should receive the test.

As I said, it wouldn't be practical for each individual testing facility to develop full description of all possible uses, clearly delineate and describe under what circumstances a lab will accept samples, and under source of information, there was a recommendation that the lab be required to provide references to literature.

For 2, it was the clinical condition for which a test is performed. One commenter said it wouldn't be appropriate to include prognostic information on product labeling, as prognosis falls under practice of medicine. If the criteria exist regarding whom lab will or will not test, this should be provided.

Also, it should be clear that a condition also includes a risk for developing a disease, not just the disease itself. This section should include a clear, concise definition of pattern of inheritance, expressivity of penetrance, and a suggestion to add a piece in italics at the bottom regarding who should be offered testing, and again, it shouldn't just be a recommendation that references will be supplied. It should be a requirement.

For 3, the definition of a test, it should clearly mandate that a clinician be provided information on how a test is done in order to interpret sensitivity and specificity of data. In particular to sequencing assays, a list of mutations may be impractical since hundreds of mutations may be known and any one of them detected.

Perhaps a locus would be more sufficient. And it's vital that laboratories discuss the meaning of positive, negative, and inconclusive test results.

Four, analytical validity. A suggestion to provide specific examples of precision, sensitivity, specificity.

A comment that although straightforward targeted mutation detection -- that this is more intended for those types of tests, it's less clear for genome scanning methods or more complex methods, and that the clarity of a simple methodology should not constrain a more highly complex use.

A comment that although analytical sensitivity may be more easily determined, specificity is less clear since no one really is funded to test normal individuals and they are unlikely to be represented significantly in diagnostic laboratories.

One commenter said that it would be imperative that a standard be established and that each lab demonstrate its ability to meet that standard for analytical validity, and another stated that what is really needed is a representation of analytic sensitivity of methodology to detect classes of mutations as well as representative mutations.

Again, literature citations should be required, not optional, but there was a comment that citing general literature for expected values or analytical studies is generally not accepted by FDA, that the data has to be provided.

Five is clinical validity. There was a request for additional guidance on data for predictive tests, although this data is extremely difficult to obtain and

time-consuming. A test's clinical validity should be discussed in an unbiased manner. There was a recommendation that analytical and clinical validity be combined into one section. Use terms that are common to genetics to facilitate a uniform understanding.

Again, penetrance and expressivity should be used here, as well as genotype/phenotype correlations. Again, peer-reviewed data should be necessary, and a suggestion that we mention that a performance of a test could be enhanced by other tests, either laboratory or clinical.

Six is clinical utility. There are a number of comments here. Information on interventions falls under practice of medicine and is not part of FDA labeling requirements.

We should add "or harms" to that last sentence, "other potential benefits or harms," because physicians need to be able to describe the negative responses as well as the positive benefits.

Needs to more clearly state that there can be other benefits from testing, even when treatment is unavailable, specifically referring to psychosocial benefits.

Another commenter thought that clinical utility was too complex of a term to be used in this type of setting, that even though it was reasonable to provide possible therapeutic interventions, though you want to avoid practice of medicine in the laboratory, the term "clinical utility" more commonly includes cost/benefit to outcomes analysis and it may be confusing as it applies to testing specifically, and that there should be a list of patient advocacy groups. That would be helpful to health

professionals.

Who should provide the information? One, information on interventions should be substantiated by the literature. It should be the responsibility of those making the assessments. If we set up some kind of a central database or registry, this would facilitate clinicians being able to enter the information, since they're the ones that see the patients.

Again, a review of relevant literature or a reference list on clinical utility. Professional guidelines or standards of care should be provided or listed.

The sponsor of the test will generally establish clinical utility through carefully designed and controlled clinical evaluations, and a physician, including a pathologist or laboratory director, should be able to provide information on clinical utility.

The last element, which also received a number of comments, was cost of test and billing and reimbursement. The comments were split between yes, we should provide information on costs and reimbursement, and no, absolutely not.

We shouldn't support including pricing information on FDA-cleared or approved IVDs. Labs should specify billing as well as the payment options, but it really shouldn't be the responsibility of the laboratory to provide reimbursement information, that each health care third-party payer is different, and that the laboratory will not be able to list every single payer in the country and be able to describe reimbursement mechanisms, and also because medical necessity is something that is taken into consideration on the third-party payer end and the laboratory really doesn't

have too much of a role in determining that.

Lab contact information should be made available, but there was concern that sometimes discounted costs are available for large-volume clients and it wouldn't be appropriate to publish.

Pricing information is going to change frequently, requiring frequent updates.

Again, I think most thought it was reasonable for labs to provide suggested CPT codes for billing and reimbursement for the use of the tests.

Other people we may want to consider listing as additional sources of information. Test kit manufacturers, pharmaceutical companies, the inserts, laboratories we already had, public agencies, consumer advocates, and counselors, physicians, and the researchers.

There were also a number of comments that suggested additional data elements that are not included on our list. One is test interpretation. There were several comments that asked to have information on the informed consent, confidentiality, and information to patients or families, or the implication of this information to patients and families.

Additional laboratory tests. Some genetic tests can't be interpreted on their own, and that the physician should be advised of whether additional tests are critical for proper patient care.

Location of genetic services and support group information, information on genetic banking, availability of genetic counseling, types and samples

accepted for testing, specimen requirements for laboratories, patterns of inheritance, et cetera.

One commenter kind of nicely tailored this to pharmacogenetic testing, since it's a little bit different from, I think, what was proposed, and that the requirements would be a bit different. I'm not going to go through all this, but it just tailors it specifically for pharmacogenetic testing, the unique circumstances around that type of testing, and that that should be taken into consideration when we're drafting this template.

I also wanted to point out that Vysis provided a package insert. We've been talking a lot about package inserts, and they provided their package insert for the HER-2-neu FISH kit. If you saw it, it was 12 pages long and in a very small font, and I was talking to Michele, and she said that all of that information is required by FDA, and not all of that information that is in that package insert is in our proposed data template.

So I wanted to see if I could find a home brew test to see what types of information they supplied. Most of it I think now is online, so I had one catalogue and was able to look up a genetic test that they offered -- it was for hemochromatosis -- and see what types of information that the nurse is going to be looking up or the physician when they're ordering a test.

You have the name of the test, what they do on the test -- it's a PCR assay for any specific mutations -- they give the requirements for the type of specimen that they want, what forms need to be filled out, and the analytic time, turnaround time, five days. They do give the cost of the test here, and they list the CPT codes that they

would suggest using.

But they really give no information on the analytical validity of the test, the indication for the testing, the clinical condition, the clinical validity, and nothing on clinical utility, and this is a commercial laboratory that I took this from. So that's FYI.

I've finished.

DR. McCABE: Thank you very much.

I'm going to take the Chair's prerogative, and the Data Team had some further discussion, and I think it fits nicely in the discussion we're about to have. So I'm going to ask Wylie to present from the Data Team, and then we'll open the discussion.

DR. BURKE: The Data Team, those of us who were able to meet, and I realize there were some members that were meeting in other groups, but some of us came together in an informal sense to talk about where we should go as the Data Team, and our thoughts were that there were two major tasks that the Data Team should be taking up at this point.

The first was to continue to work on the data template, obviously taking into account the kind of public comment we've just had, the kind of work that FDA has already done in revising the template, which I think begins to address some of the public comment, and also taking into account the thought that this would be the mechanism by which the premarket review would occur, and we will plan to interact with the FDA in this process. Two FDA people are on our team, so we think we can organize that efficiently.

As we go forward in that process, we thought that a major emphasis for us should be to begin to identify those areas where points to consider would be helpful in the review process. So think about the template in terms of what structure it should have and what kinds of comment should be there to help in the interpretation of data in the template.

Clearly, in doing this we need to work with other teams. If we think about the kinds of places where we might comment and we might have points to consider, some of them I think are well within the purview of the Data Team. For example, what should be in the clinical validity box, what should be in the clinical utility box for a given kind of test, et cetera. How should that information perhaps be displayed?

But other elements that would come under a points to consider document are under the purview of other groups. For example, guidance on the kind of test characteristics that might lead to a label suggesting counseling or documentation of informed consent we think comes in in another team. So we're prepared and happy to take perhaps some sort of organizational role, but we need to work with other teams in figuring out who's doing what.

We'd like to think about having a draft points to consider document by the May meeting, at minimum identifying those areas where points to consider commentary should be made and perhaps beginning to make that commentary.

The other major thrust of the Data Team we believe should be on addressing the issue of postmarket data collection, and we think there's a task that needs

to be taken up, which is really a sort of getting everybody together and figuring out what's going to happen and how it should happen.

We think therefore that there should be a meeting of all stakeholders, just putting out for discussion the possibility that maybe that meeting could be coordinated with our August meeting, and clearly there's a task before that in figuring out who all the stakeholders are, who should be at the table. The major focus at that meeting would be to get to an agreement on the data elements that are important in postmarket data collection and data dissemination, assuming that those are going to be very tightly tied to what the template is, but there still needs to be a discussion of that.

Then a discussion of a whole range of methodology issues, including collection of data, which means what data? So are we just talking about published data? Are we talking about unpublished, for example, laboratory data that might be helpful, and who does it and how do they do it?

Evidence tables. That is, the idea that as data is put forward, it should be displayed in very standard ways that provide the information that people want for different aspects of a test: prevalence, clinical validity data, clinical utility data, et cetera. There ought to be standard templates and an agreement on what those look like, those tables.

There needs to be discussion about how such a process would be coordinated and managed. This process doesn't work if there isn't updating of information, and that obviously gets to very practical questions about who's responsible and where the resources come to make that happen. Our first sort of thought on some of

these issues is that process probably should include a steering committee, and the CDC folks at our small meeting mentioned that there's already some discussion about reinventing the Lab Forum as a group that might be appropriate, but again, stakeholders is a very important issue. Who's at the table? Who's on the steering committee?

Fundamentally, the purpose of this meeting would be to figure out what's needed to get buy-in on the goals and the process for postmarket data collection. I think it's very possible that that meeting might identify some things that people can agree on very quickly and easily, and some thorny issues that may take some more work to work out, but it seemed like this is a big task and a complicated task, and it's got to be a coordinated joint task, that this kind of process would be the right way to start it.

DR. McCABE: We'll open this topic for discussion now. Is there anyone who thinks having this extra meeting or the meeting of the Data Team -- I would assume that would be before the August meeting, so that you could report to the Committee?

DR. BURKE: That would be ideal.

DR. McCABE: Anybody who feels that that's not a wise thing to do?

(No response.)

DR. McCABE: Well, why don't we then go ahead and try and see if we can begin to plan for that, so that you can hold it before the August meeting and have a report for that meeting. Would one day be sufficient?

DR. BURKE: Well, I'm sure one day would be enough to get some good discussion going. I hope so. But we may have to talk a little bit about that and

make sure we're clear on the agenda.

MS. CARR: We don't need to decide on a date for it now, do we?

DR. BURKE: No. I want to emphasize, not all members of the Data Team were actually at the meeting. I think we need to have some more email discussion, but the critical things and things hopefully that we can work on very quickly are is it just part of the August meeting, is it some period before, and also who ought to be there and what can we accomplish? So I think there's some more work to be done.

DR. McCABE: The other choice would be to have it the day after the May meeting, with then some conference call follow-up perhaps to have something ready for the August meeting, because that's a Wednesday-Thursday meeting in May, so you could extend it to Friday.

MS. CARR: Wylie, would you be ready by then?

DR. BURKE: I'm not sure. I think we need a little more time to think some of these things through.

DR. McCABE: We'll let you work with Sarah, and if you need a conference call with your team in between, and you can determine what schedule is best for you.

Other points for discussion of the information that's been presented today? One of the things we need to discuss is what has been a movement away from the flow diagram to more a template-driven decision.

Yes, Barbara?

DR. KOENIG: I just want to endorse specifically one of the public

comments, which was the issue that one of the things that templates for providers needed is to have a slot for informed consent issues, and I mean that broadly. I think it needs to have something like potential impact of testing on the subject or the testee, however we want to describe it, and that that be something that should be highlighted on the template that goes to providers. I think it's also an important issue for the evaluation template for the FDA, too.

But I'm getting a little confused about all these different templates and how they're all going to coordinate with each other, so I was hoping we could maybe discuss that, but now it might need to wait until Wylie can engage in this.

DR. McCABE: Wylie?

DR. BURKE: I'm sorry?

DR. McCABE: Yes, there was some discussion about the various templates and how they might be sorting themselves out.

DR. KOENIG: I was trying to make the point that I think we need to add a sort of box for impact on the subject, informed consent kind of issues on the template that goes to health professionals, which I think is a great start, but then shouldn't we also have it on the sort of FDA slot? Wouldn't you want that information also to be something that would be presented?

One of the reasons I'm bringing it up is that the informed consent committee is really thinking about a set of principles about the issues of documenting consent and under what categories. We'll talk about that this afternoon.

DR. BURKE: Yes. I think there are two ways to go about that. If

there is clear guidance that emerges, for example, from the informed consent committee, so that a test offeror is well aware of what kind of test would be recommended for a certain kind of informed consent procedure, then it might well be reasonable to ask in the template for the manufacturer to identify which category they're in for informed consent coming into FDA.

It seems to me the other place, and these aren't mutually exclusive, is that in our points to consider to FDA we would be saying if X, Y, and Z are present in this template, this really is the kind of test that ought to have a label. Again, there could be already an agreement about what that label is which lays out some careful language about the appropriateness of pretest counseling and documentation of informed consent.

I agree. I think that's very important as we go forward in this points to consider process.

DR. McCABE: Yes. I think one of the things that I was going to bring up, and this fits nicely with it, is we talked yesterday that not all the boxes in the template would need to be filled in necessarily at the outset, but I think it's going to be very important for your group to determine which ones are critical, which ones could be left empty, which ones could be left vague, which will trigger certain other actions. So if you would be willing to take that on as well.

Judy?

DR. LEWIS: One of the things we talked about in our working group this morning that I'll be reporting out later is the need to have both the purchasers of health insurance and the insurance payers involved in terms of education as well as

other areas, and it seems if we're putting a working group together to start looking at postmarket review, to get those people who are going to be responsible for really determining whether or not the services can get to the public, which are the payers. You know, to have that access perspective as well as the professional associations, it would seem to me that that would be an important interface for your working group and the one that I'm leading.

DR. BURKE: Yes. I think that's a good point.

DR. McCABE: Joann?

DR. BOUGHMAN: I actually have more of a process question. We have put two different things or two different entries into the Federal Register, the flow chart and the data template, and asked formally for public comment on them. I believe that we have in fact listened carefully and incorporated those, but we are coming to I believe -- a different model, if you will, is evolving after our two days here.

In what manner do we assure that -- if we're confused about which template is which and how they're going to be incorporated, I think it's important that by the time we finish this discussion that we as a group understand some of the next steps and how the first draft of the template that the FDA put on the table yesterday for initial discussion fits into it and would come back in a different way and be publicized.

I'm just trying to get some clarification.

DR. BURKE: No, I think you're sort of keeping us on task in a helpful way. I think there are two different things to think about. One is a pulling together of what it is we are now talking about or how the premarket review process

now looks to us, and the question of whether that should again go out for public comment. I don't know. It seems to me answering that question would be strongly influenced by an understanding of the FDA process.

I think what we heard was two things. One is FDA will continue to work on the data template and is very happy to work with us interactively, so there is certainly going to be some evolution of that, taking into account public comment.

At a certain point, the FDA process will require FDA to put things out for public comment, so whether there need to be two separate public comments or whether our task now should be to work with FDA as they move toward the point where they put things out for public comment, I think that's sort of the question before us.

DR. McCABE: But the other thing that I hear you saying, Joann, is that we asked on two occasions for feedback on the flow diagram. We've gotten lots of feedback and lots of criticism on that, and we could go back to those who have provided us with those critiques and let them know that we're going in a new direction and ask them to consider this direction. Is that part of what you wereÊ--

DR. BOUGHMAN: That in fact is part of what I was saying. These individuals, groups, organizations that have taken the time to read the Federal Register, to give us thoughtful comments, we have considered those, and if in fact all of a sudden a diagram that they have studied carefully, sometimes without benefit of the discussions that we've had -- on the one hand, I think that we heard several affirming statements. Some of the comments and dismay that was expressed was reflective of our own troubles in simplifying and now, we believe, oversimplifying that process, but whether

it is sufficient to merely recontact those that actually made public comment or whether the record of this Committee's deliberations in their usual format is sufficient, I'm not sure.

DR. McCABE: Pat?

DR. CHARACHE: I think it'd be wonderful to get back to the people who took the time to respond and say, "Thank you for your input. We are working on a different direction and your views have been helpful." I think it may be premature to give them a template because right now it's still being tested by the groups that helped develop it, applying it to things and therefore expanding it, and I think that the data group is going to be extremely helpful in filling in and fleshing out what some of these boxes mean and working with the FDA on it. So I wouldn't want to give them the template at this point, but I think it would be very nice to acknowledge their contribution.

DR. McCABE: Yes. Sarah's reminding me also that our oversight report said that we were going in one direction and that we would report to the Secretary, and one of our obligations is to inform the Secretary of the direction that we're headed as well. I mean, definitely not the final template, but at least let the Secretary know that we're headed off in a somewhat different direction.

Wylie?

DR. BURKE: Yes, I also want, just for the record, to say I don't think we're headed in a different direction. I think it's very important to say that we haven't changed. In fact, what we've really done is change the point in the pathway where

certain points come up for consideration.

So what we've said is intended use, we agree with public comment and with our own concerns that intended use is a very important component of the test evaluation. We're just saying we had gotten to the point where we couldn't use it for test classification and subsequent discussion says maybe we can't use anything for test classification before review. Rather, we're moving those critical elements that we've identified consistently all along and that public comment supports into the review process, and we now see a way to do that.

DR. McCABE: And I think that what we've also seen is that while we have tried to develop a nice, linear pathway decision tree, that it's more complex and the feedback that we've heard from the public on two separate occasions, and really three if one includes the template feedback, is that it's not so simple as a linear decision tree and that it's more of a matrix decision, and that the template then allows us to consider the various elements of that matrix in a fashion.

So I think that's important, Wylie, that it's not that we're headed off in a different direction, but it's that we've been informed by the public comment, and that we're trying to reconcile the need to have some upfront decisionmaking with the complexity of the issues involved.

I have Steve, and the Kate. Did you want to say something, Steve?

DR. GUTMAN: While the issue came up about how to obtain public comment and since the agency is planning to move forward, at least with registration listing, it does seem to me that there is an opportunity for at least some of that comment

to come to us again, that it may be appropriate to look at broader comments about the package as a whole, but certainly for the FDA piece, an appropriate place to start would be for us to test the waters and see what comment would generate.

DR. McCABE: Kate?

MS. BEARDSLEY: I was just going to say if we're going to write something to the Secretary anyway describing how we've shifted the focus a little bit, it might be useful to take that or something else and get back to the commenters who gave us information about the template, because I think there were a lot of those comments that were really thoughtful and really helpful yesterday, and it would be nice I think to just specifically tell those people how their information was used.

DR. McCABE: Some of the people who gave us public comment at this meeting are in the audience today, and I'm wondering if anyone would wish to provide any feedback to us at this time in terms of whether they feel that this fits with suggestions that they've made to us. We have a mike back there which was working intermittently or you can come to the speaker's mike up at the front here.

Dr. Berger?

DR. BERGER: Good morning.

Is this on?

DR. McCABE: Yes.

DR. BERGER: The template approach and the matrix I think allows for the robustness of having a lot of the different issues addressed in a single pass, and it also gives us a lot of direction on what materials we need to collect prospectively to

make it a much more streamlined process. So I applaud the move away from the linear process. It looks good.

DR. McCABE: Thank you.

Dr. Schoonmaker, you spent a lot of time helping us understand how our flow diagram would fit the FDA process. Would you like to comment?

DR. SCHOONMAKER: Sure. Thank you.

I think the template approach is very consistent with what is currently done by the agency that's been recommended to review the test, and I think it would fit very nicely with the scheme of things, given a little bit of modifications to include the special considerations for genetic testing. I don't think we want to overburden any of the sectors in producing more and more and more information or more work than is really necessary, but to do it, as Dr. Berger said, in a streamlined fashion to get the job done.

DR. McCABE: Other comments? Wendy?

MS. UHLMANN: Hi. I was just going to echo, I guess, a lot of what Dr. Schoonmaker has just said and just kind of thank the SACGT for inviting public comment on all this.

But I think that as it keeps going in different directions, I think at a certain point you can't keep asking for comments on every draft. So I think you certainly owe it to the public to keep posting summaries at your Website. I mean, you've made transcripts of these meetings available so people see the thought process, you've had some nice summaries of what's happened at these meetings, and I think

certainly sending letters may be acknowledging that or making that available. I think to switch the direction now and ask for comment, then switch in another direction and ask for comment, it's going to keep increasing your work of what you need to go through, and I think you've got to have faith and confidence in what you're putting together and to go with it.

DR. McCABE: Thank you.

Also, people who were listed to comment later can make specific comments to this now and still have time later if they wish.

DR. WATSON: Relative to this one, I think certainly the flexibility in the matrix is much, much better to deal with than I think that flow diagram allowed. So I think I appreciate that shift in the focus.

The one thing I am a bit still concerned about, though, is how do we deal with those things already in existence which I think we've talked about bringing into this entire model versus those things that are just coming into the laboratories, because I can see where it can be tremendously costly for individual laboratories to individually reinvent that which we've based our practice on for a long time in many of the already existing tests.

DR. McCABE: Wylie?

DR. BURKE: Yes, just if I could ask you a question, Mike. I think we heard from Dr. Feigal yesterday that there's already a sort of comparable process where a new regulatory system is created and there are in that case devices on the market that would come under that, and an orderly process of sort of bringing them

under review might occur. We've suggested some sort of deemed process for that, and I think perhaps we would all acknowledge that that has to be an orderly process that takes whatever time it needs to take.

But my question to you would be, given, for example, what we just saw for an HFE mutation test, would you considerable it reasonable to go out to people offering such a test and say -- you know, under some orderly process, not putting them under time pressures that are unreasonable, certainly not taking the test away -- could you provide the information we want in the template for your test?

DR. WATSON: Yes. I mean, I think there's going to be a balance here of tests where -- I mean, certainly HFE, we've got a long way to go on HFE. I'm on the monitoring board and I know how far we have to go on that thing.

However, I think there are certain aspects of that test that are universal, that we could find ways of reducing the impact on the individual laboratories to reinvent, while still getting some critical pieces of information about the test and what they do in their laboratory relative to that test, and it's going to be I think variable across a large number of tests as to how much is sort of general, universal information that can be developed independent of every laboratory having to do that versus those things which may be unique in that laboratory about the way it does the test and the information it provides.

DR. McCABE: Thank you.

For the record, that was Michael Watson.

Vivian Weinblatt?

MS. WEINBLATT: Thank you.

I think it's pretty safe to say that from the community of genetic counselors the template idea would be pretty welcomed. I think the addition back into the system of some of the more complexities that go on with genetic testing with regards to issues of informed consent and issues of purpose of the test would be things that we are very accustomed to talking to patients about, and the lack of information in some of the boxes would be typical and expected and something that we would deal with all the time, and it's appropriate to share that with patients when testing is considered. So I think that counselors would be pleased.

DR. McCABE: Would you agree, though, that there might be some of those boxes that you would want to see filled, whereas others you would be less concerned about?

MS. WEINBLATT: Absolutely. Absolutely. I think there are certain -- obviously, we talk about analytical validity and assume that that's got to be there. I think that issues of clinical validity and clinical utility maybe vary a little bit from disorder to disorder, but I think that information in those boxes, as well as points to consider issues that don't necessarily fit very well in a particular box, but will vary from disorder to disorder, and type of or purpose of testing to purpose of testing -- so yes, I think that there would be some that would be absolutely required.

DR. McCABE: Thank you very much, and I appreciate the willingness of individuals to be put on the spot this morning and give us feedback in the midst of our discussion. Thank you very much.

Other thoughts from the Committee?

MS. BEARDSLEY: If I could just add one thing on the template?

DR. McCABE: Kate.

MS. BEARDSLEY: Like Barbara, I'm not exactly sure how the template will be used or exactly who's writing it, but it seems to me that there's potentially one other kind of data that we should at least think about, and that is whether the template ought to have on it the name of a person or a lab or a Website or some information that would allow people to lodge complaints, ask questions, whatever. I think one of the public comments mentioned that and that makes sense to me.

DR. McCABE: Steve, is that something that you use?

DR. GUTMAN: Well, I love the idea personally.

DR. McCABE: Is there any precedent for that in FDA that you're aware of?

DR. GUTMAN: Not in quite that active or proactive a manner, actually. There is a MedWatch system for complaint reporting and, for better or for worse, part of what happens when you register is you become obligated to report, particularly dire things, to the agency. It's not historically been part of labeling, but we're at the edge of the box in terms of review models, so there's an opportunity perhaps to add that to this template.

DR. McCABE: Thank you.

Pat Charache, and then Francis.

DR. CHARACHE: Two thoughts. First, this template had its origin

at the Professional In Vitro Device Roundtable, and I think we should acknowledge again Deborah Leonard, who drafted it -- because I think it's going to be extremely powerful and useful -- from AMP, Association of Molecular Pathologists.

I think that it really now has two purposes. One is that of the laboratory, the device review, and the other is adding to the template the medical and social components that were missing before and that will be a big part of what goes in.

I think your special points will be very helpful. I'd like to see whether we can get in, for example, the concept that Neil Holtzman, Tony, pointed out yesterday, which is not only the intended use at the time it's offered, which may be for diagnostic purposes, but some indication if this is a test that's likely to be used for predictive testing as well or other testing. I don't know if one can get into such a template how the test is going to evolve, but that will have a lot to do with whether informed consent would be required, and also the stringency with which it should be reviewed. If it's likely to be used in a very sensitive manner, then it should be helpful to capture that if we can.

I think also your data elements that you want to collect and recommend, I want to be sure that we include what data elements should be in the report form, what from the labeling should be provided to the physician who's ordered the test, such as the test limitations, and so on. So I think a lot of these things should be outlined as it evolves.

DR. McCABE: Thank you.

Francis?

DR. COLLINS: A couple of points. It seems to me we're at times confusing the two templates that are being talked about and maybe we could work on our language here a little bit between the FDA template and the health care professional template, because just in the last 15 or 20 minutes, I was not sure in some instances which one people were talking about, and that certainly isn't going to help us as far as coming to rigorous conclusions. So perhaps we could identify that by using template for only one of those or else putting in a modifier to say which one we're talking about, such as FDA and health care professional.

Maybe, before I go on to the other point, Wylie, do you want to justÊ--

DR. BURKE: Yes. I'd just comment quickly that I think the reason why they're not clearly separated now is that we started the discussion with a template for providing physicians and now realize that's the same mechanism by which the review can occur, and I think they are different, but I don't think they're very different.

So I appreciate your comment, but I would propose that we use the word "template" now for the information that needs to be available in premarket review, and then discuss "physician summaries" as one of the products that comes out and is available after the review very strongly embedded in or based upon the template used for review.

DR. McCABE: Just to clarify that, I think we should use the term "provider summaries" because it will not always be a physician.

DR. COLLINS: Okay. I like that suggestion and we'll call those

"provider summaries" maybe henceforth and talk about the premarket FDA template as the other document. That would help.

Just sort of a comment. I am deeply apologetic that I missed much of yesterday afternoon's discussion. It's been a bit of a wild week and it's still somewhat wild.

Sort of as an observation, it seems as if as a Committee we have gone through an interesting evolution, starting with an effort to try to categorize genetic tests that took into account a wide variety of different parameters in a rather complex flow chart algorithm with various discriminatory functions that we then tried to assign certain weights, and then ultimately decided that wasn't very workable, and gradually moved in the direction of something much simpler in terms of the flow chart that was put out for public comment.

Now we seem to have moved away from that, rather more back to where we were, although in sort of this matrix approach with points to consider to guide it, and I think it's interesting that we're now calling that streamlined, which was actually the justification for what we did in the last iteration, because it was supposed to be streamlined.

I mean, this is all fine. This is sort of the way the process works, I suppose, but I'm still a little worried that we may be in fact leaving a sufficient degree of ambiguity about exactly what's going to happen in the premarket review that FDA will find themselves being accused of arbitrary decisions because the guidelines are not very precisely laid out, and it may also be at some risk, because of the ambiguity, that the

process gets gummed up by uncertainty about what to do.

I guess before absolutely endorsing this approach, it would be very helpful to have some additional examples of specific tests and how in this new model they would find their way through the system in the template-driven approach, guided by the points to consider that are getting assembled, because I do think as a Committee one of our strongest mandates is to be sure we're endorsing a system that's workable and that is not going to get all hung up in the difficulty of making decisions.

I haven't quite figured out yet how that's going to play out, and I'd love to have some more meat on the bones here before we confidently state that this time we're on the right track.

DR. McCABE: Wylie?

DR. BURKE: Yes, I agree, but I do think that where we are is an evolution, not a turning a corner and going in a different direction.

What I think has happened is that we've realized we don't want two separate steps in the process. That is, we don't want to have a system that we have to try and make streamlined for classification that then leads into a system of review that we also have to figure out how to make streamlined.

Where I think the discussion got us to is, number 1, there are a number of factors that need to be involved and we can't oversimplify to the point of leaving them out. I think the discussion about intended use very much points to that, including the public comments.

Secondly, and this was where I think we were strongly influenced by

what we heard from FDA, we began to see a vision of a process that could be structured as a streamlined process if every item is hit right. So what we're saying is, if you create the template and you're able, in the framework of that template, to describe a straightforward test with straightforward clinical properties, it's going to be streamlined, the process will be very quick, and that same process I believe we are now envisioning allows us to see very quickly where the red flags are that slow the process down.

Now, that said, I completely endorse your suggestion that we're still in draft mode and we need to have more examples, and we need to fold in the points to consider concept, and make sure that this matrix really does go quickly for a simple test and pick up the right red flags for a complex test.

DR. McCABE: And I would also comment, Francis, I agree completely. Our mandate is to make sure that the public feels that they're getting testing, that they're confident, but equally our mandate is to not gum up the system and withhold the technology from the public.

I think that part of what I've been reading from the feedback and hearing from the feedback is that while we had come up with a system that we thought was straightforward and streamlined, that that wasn't perceived by the public or the professional groups as meeting that criteria, and so part of it is that what appeared simple to us was really quite complex and confusing to others, and that sometimes adding more information on the front end may make the process less complex.

I have Mary, Jeff, and Joe. So, Mary?

MS. DAVIDSON: Yes, just a follow-up on the need for information.

I just want to reiterate several of the public comments with respect to the provider summary, and under B, the clinical condition for which the test is performed, the importance of including disease advocacy organizations, genetic support groups, and the consumer community in the provision of information, especially around rare diseases.

DR. McCABE: Jeff's going to pass, so, Joe?

DR. BOONE: I would just like to say that to me there's a lot of synergy now that's being developed between the test and testing oversight, and Pat didn't have time yesterday to really talk about all the things that we did in the CLIAC Advisory Committee, but I really think that in terms of lab reports and the information that flows from those reports that there's much more closeness between the template that you've developed here and what we were going to eventually require of laboratories under CLIA. So we're getting into the mainstream, I think, approach now, which is really helpful for everybody.

DR. McCABE: Thank you.

Any other comments? Victor.

DR. PENCHASZADEH: Just one brief comment, a comment on a comment. I think that what has happened, Francis, in my view is that we used two indicators, which were essentially application screening and frequency of disorders, and we thought that those could be surrogates for many of the issues that we really thought that were of concern. You know, clinical validity, the social and medical implications, predictive versus diagnostic, and so forth, and I think that what the commentaries showed us is that they are not good surrogates. They're not good indicators for the

complexity of the matter.

The other point I wanted to make, I really would like to endorse, in terms of terminology, one of the comments that we heard summarized by Susanne at the beginning of the session, and that is using "predisposition testing" instead of "predictive testing." I think that the term "predictive" gives a connotation of a deterministic thing about a test that most of the time we will not know exactly what it is, and predisposition testing is simply what we're actually doing. We will test predisposition.

DR. McCABE: Very good. I think that's an important point, and I think it is much closer to the biology than the other, which has certainly some loading to the terminology "predictive" that is inappropriate.

Yes, Ann?

MS. BOLDT: I think, too, I just want to reiterate that the beauty of this template is that we have the empty boxes and that provides an objective way for us to decide high scrutiny, and that is one of our charges from the oversight document. So again, that can get tied into informed consent and the need for genetic education and counseling, and I think that way, then there's not these -- well, it's clear. It still can be a little muddy, but it's still clear with the empty boxes if we don't have the information.

DR. McCABE: Any other comment before we move on to the public comment? Any comment from the Committee?

(No response.)

DR. McCABE: Okay. So I think we have our plan laid out. You will work with your Data Team and the Committee and we will try and move forward as

quickly as possible with this.

I think also the comment was made that it will be important to try out some additional examples, so that as soon as you can get something to us or, using some of the information developed by the Committee and that was presented by FDA to us, at least to try that out with some additional examples might be quite informative.

Let's move forward, then, with public comment, and again, I have two individuals listed for public comment. If anyone wishes to add themselves to the list, please sign up outside at the table or let Sarah or I know.

So our first public commenter is Vivian Weinblatt, who is president of the National Society of Genetic Counselors. The NSGC has been represented I think at every one of our meetings so far and we're pleased to continue to have representations from the leadership of NSGC.

MS. WEINBLATT: Thank you very much.

I'm very pleased to be here today and in representation of NSGC, which is the leading voice, authority, and advocate of the genetic counseling profession. We are comprised right now of almost 2,000 genetics health care providers, the vast majority of whom provide direct clinical service to patients.

We'd like to commend SACGT on its activities to date and look forward to future advances and decisions from your group and remain available through that process. We have commented in written form to the issues that were under discussion both yesterday and today, and my comments today will touch tangentially to those, but will address some other issues which are of import from our organization.

The three issues that I think we really would like to bring up today are informed consent, which I'm pleased to hear has been talked a lot about in this meeting, result reporting, and access to care.

Informed consent, the process of discussing risks, benefits, and limitations of an invasive procedure, is really pretty familiar to most health care providers. Patients have learned to expect consultation if they're going to go for surgery or they're getting chemotherapy or they're having any other major procedure, and in fact many patients receive genetic counseling prior to their amniocentesis or chorionic villi sampling or other prenatal studies.

Genetic testing now is going to become minimally invasive with a finger stick or a blood test or a cheekbrush, perhaps, for those who are needle-phobic, and we are not accustomed to having an in-depth discussion or a signed consent for these kinds of studies, and I think that the ease of these methods of obtaining cells is deceptive, because the results of these tests have very significant implications, which are widesweeping and encompass not only the patient's condition, but in many cases his view of himself. The results may affect his family, he may fear it will affect his insurability, his career, and other relationships in his life.

We need to encourage health care providers to recognize the unique nature of these studies and importance of informed decisionmaking, pretest discussions, and genetic counseling. We understand that the SACGT Working Group on Informed Consent is considering these issues and we commend that process and remain available for comment.

We also think that consumer and health care provider education, via things like the provider summaries -- is that what we're calling it, provider summaries? -- is real important and we hope that the Education Working Group will also be addressing these kinds of issues.

Moving on to result reporting, I think that this issue is extraordinarily key, because knowledgeable clinicians and clear laboratory results are required to report results to patients. Genetic counselors are intimately involved in the interpretation of these results. We often are consulted by other health care providers and assist in that deciphering process. We can attest personally to the conclusions of some research which shows that results can be misinterpreted by clinicians who are unfamiliar with genetic test results.

The provider summary under discussion today will be an important tool to help clinicians to order the appropriate tests and then interpret results once they're available, but the lab report in and of itself really needs to provide the information in a way that is accessible to a clinician. I think that one of the important things that SACGT might be able to do is to provide some standards for terminology. Clear words like "affected," "unaffected," "homozygote," "heterozygote," things that people can understand -- maybe homozygote and heterozygote are not necessarily things that people can understand, but I think there needs to be some standard, so that laboratories can all communicate in the same way, so that providers can understand what is being communicated, and then appropriately provide that information to patients.

Issues like phenotype/genotype correlations, when available, are also important things to have included, and it can only assist in the accurate provision of information. I think SACGT can play an important role to support this process.

Finally, I'd like to talk a little bit about access to genetic services. Genetic counselors are committed to access to care to all individuals for both genetic counseling and genetic testing, and in fact we adopted a position statement specifically addressing the issue a decade ago in 1991.

We are often in the position of contending with the logistics of genetic testing, including obtaining insurance authorization, and our experiences to that end have uncovered fundamental inequity in the availability of genetic testing. Privately funded insurance carriers have come a long way in understanding and authorizing appropriate genetic studies, resulting in easier access in many cases. When insurance doesn't authorize testing, some people will consider paying for services out of pocket, depending upon their needs and their ability to pay.

Patients insured through the Medicaid and Medicare systems, however, are often denied coverage for genetic testing and genetic counseling, and are least able to turn to their own personal financial services in order to procure appropriate care. This dilemma is compounded when the test in question is done in a very limited number of laboratories, none of which are specifically involved in the capitation agreements associated with Medicare and Medicaid, and many of them will also require payment upfront with the specimen.

For example, a pregnant Pennsylvania Medicaid patient who's a 25

percent risk for having a child with alpha thalassemia requires sequencing of the alpha globin gene for herself, her partner, and the fetus. This study is around $2,000 the last time I checked. They're certainly not going to come up with that funding on their own. The laboratory's not going to accept Medicaid as payment. They're not going to be able to get studied. This does a great disservice to the patient and their potentially at-risk relatives.

Another dilemma arises when the genetic testing required needs samples from family members who are also not covered under their Medicaid or Medicare agreement, and then they're also denied access to genetic testing, because if we can't test the uncle who has important genetic information with regard to the study, then we can't provide the study.

These barriers are certainly not unique to the prenatal setting, but have occurred in realms of pediatric and adult predictive testing as well. Access to genetic services should not be determined by a patient's socioeconomic status and ability to pay. This gap between the wealthy and the poor is not unique to the realm of genetic testing, certainly, but SACGT can help to narrow this gap by supporting education efforts to be directed to Medicaid and Medicare administrators, medical directors, and case managers to try to close this gap and address this inequity.

To summarize, I think the NSGC is extremely supportive of SACGT activities, we applaud the efforts that you've made thus far, we're committed to assisting this Committee in its work, and we remain available for further comment should the need arise and when the need arises.

Thank you.

DR. McCABE: Thank you.

Any questions for Ms. Weinblatt?

(No response.)

DR. McCABE: Okay. Well, thank you very much for your comment.

Oh, Jeff? Please.

DR. KANG: I don't have a question, but just one comment, since I'm from HCFA and Medicare/Medicaid was mentioned. Actually, this came up in our Access Working Group that Judy chaired.

DR. LEWIS: We'll be talking about it.

DR. KANG: We'll talk about it, but I just wanted to say this is a legislative issue. It really needs to be legislated to get it as a benefit for Medicare and Medicaid. So that's my only comment.

DR. McCABE: Well, one of the things that we can do as the advisory to the Secretary is make recommendations regarding legislative changes that we find appropriate to recommend, so that if this is an area that's been identified by public comment, as well as by individuals on the Committee, then it seems like something that needs to be considered in that light.

MS. WEINBLATT: And NSGC is taking that tack as well, that we'd like to expand the law.

DR. LEWIS: And we'll be reporting on that. I didn't respond because we're going to be reporting on that this afternoon, but that was a big part of our

discussion this morning.

DR. McCABE: Thank you. We'll look forward to the comment of the access committee this afternoon.

Mike? I'm sorry. Wendy, is it appropriate for you to speak now? Wendy Uhlmann, past president of NSGC.

MS. UHLMANN: I just wanted to use this opportunity just to reiterate some of the comments I made in my written submission to the SACGT.

I'm fully supportive of coming up with a standard template, but I think it's really critical to come up with a categorizations system, much like the one that exists for medications, where you know that a Risk Category D medication is something that should not be taken during pregnancy, whereas a Risk Category A is one that is safe to take. So I would like to see a similar categorization for genetic tests, and particularly a Category 1, 2, 3, for example, for whether informed consent needed to be documented versus whether it just needs to be obtained, because I think that, again, health care providers are not going to take the time to read through a lengthy insert, as much effort that's going to go into it, and that there needs to be some quick way of ascertaining the needed information.

DR. McCABE: Thank you.

Any questions or comments for Wendy?

(No response.)

DR. McCABE: Judy Benkendorf, also a genetic counselor.

MS. BENKENDORF: Back at Georgetown Medical Center.

I just wanted to make a brief comment. I really applaud SACGT for the evolution of its thought processes and where you've come with the template and the provider summaries, and I'm delighted to hear that a recapitulating theme is the theme of informed consent and a real sensitivity to the impact of the information gleaned from genetic tests on individuals and their families.

One thing that I find is missing, although we haven't heard from Barbara's group on informed consent yet, is the fact that we don't want to lose sight of informed consent being a process, and I would hate for us to design these wonderful forms that are just packed with information where someone says, "See, I gave you this form."

Testing decisions are an interactive process, and if one could come up with some very clear points to consider that could be put on the provider summary, questions to ask your patients, saying, for example, how are you going to use this information? -- these are just off the top of my head -- what would your life be like without this information? Just some of the very basic questions that we ask in genetic counseling. Who would you share this with? Just things to think about, because once a person gets genetic information, you can't put the lid back on Pandora's box, and I think that without turning every provider into a genetic counselor, one could create some questions that would allow individuals to go through some values clarification that could be part of the informed consent process, so that it's really a truly informed consent, and not just perhaps a valid signing of a piece of paper.

DR. McCABE: Thank you. Also, thank you, Judy, for providing us

with information for the briefing book on the Minority Health and Health Disparities Research and Education Act, S.1880. Thank you.

MS. BENKENDORF: You're welcome.

DR. McCABE: The next is Dr. Michael Watson, who's executive director of the American College of Medical Genetics.

DR. WATSON: And will actually fit into my three minutes this time for a change.

I think one of the things on which the Committee would benefit from a bit of a reality check on is the volume of some of the areas that are encompassed by the recommendations. I've been involved with the FDA and the CDC discussions of these areas, and I've seen some eyebrows rise at the thought of the magnitude of a few of these areas. You know, we talk about there being maybe 300, 350 cytogenetics laboratories, 150 or so molecular labs, 80 laboratories that participate in really hardcore biochemical genetics testing, but I think you need to get a much better sense of a couple of areas of genetic testing.

Acquired disease testing, you're probably now moving into the realm of 5,000 to 10,000 laboratories or providers. You move into the area of biochemical genetic screening, organic screening, you're probably looking at comparable numbers of laboratories and hospitals throughout the United States.

Not saying that these aren't areas that don't have some problems, perhaps, and organic screening is one that often comes up high on my list as being an area of major concern, but they are very, very broadly distributed, and I think you'd do

well to have a good sense of really the magnitude of some of these laboratory areas that you're talking about.

I've already talked about the global assessments versus what every laboratory should do in order to manage the cost of complying with some of these processes that are developing.

My only other comment is in the area of the template of information relative to reimbursement and cost. I think to the extent you can facilitate laboratories' abilities to be able to get reimbursed, you've directly impacted access to testing, and I know that, as I understand it, the Access committee has already gotten a copy of a draft manual on billing and reimbursement that we've put together to guide providers into how best to get their services covered, particularly those, obviously, that they think are highly justified for their patients, because that has significant impact on access. We only finished this and mailed it two days ago, so I'm surprised that you got it that quickly, but I'm glad that you did, because I was going to make you aware of it otherwise.

MR. HILLBACK: Mike, could I just ask one question? I think I know the answer, because we were in this meeting earlier, but when you talk about there being 5,000 to 10,000 labs, you're now starting to include all the research laboratories, medical labsÊ--

DR. WATSON: No.

MR. HILLBACK: No?

DR. WATSON: No, I'm talking about every single pathologist in the

United States who looks at a tissue specimen for a marker for the staging of a tumor, for instance.

MR. HILLBACK: So you're really still talking about labs that would be officially -- labs reporting to patients, and then on top of that, you mentioned this morningÊ--

DR. WATSON: In the acquired area, in the acquired realm, the magnitude I think is overwhelming in number, and I don't want that to muck up the system, either, because if you're expecting to have a manageable, small volume of stuff, when you place focus in certain areas, I mean, you're talking about having to heavily resource an agency I think in order to not get mucked up and really being able to focus on some of the things you want them to focus on.

MR. HILLBACK: And then the other point you made this morning is that on the other side of the house, in the rarest of the rare diseases, you have the research laboratories that are on the border. That would add a lot to this count as well.

DR. WATSON: Yes. I mean, I don't want to impugn any particular institutions that I've ever been affiliated with, but I would guess that just in the top 20 major academic medical centers in the United States, which tend to be the ones I'm most familiar with, I wouldn't be at all surprised if there were 20 or so labs in every one of them that was not CLIA-certified and was a research laboratory identifying a gene and then doing that early translation, and perhaps continuing a bit beyond that.

DR. McCABE: And I think we'll hear more from the Rare Disease Group on that this afternoon.

Pat, and then Ann.

DR. CHARACHE: I don't want to subtract from Mike's assessment that this is a gigantic task, because I agree with him, because he hasn't counted some, but at CLIAC I'm pretty sure that we ended the discussions with the conclusion that every pathologist who is reading tissue pathology by the techniques they're currently using would not necessarily be included. Joe may remember that as well. So I think we can subtract 5,000, but I'm sure we'll add them back.

DR. WATSON: Yes. I'm really talking about this Committee (inaudible) because there is a lot of divergence among the agencies.

THE REPORTER: Dr. Watson, could you come back to the microphone?

DR. McCABE: Do you want to go to the mike, Mike?

DR. WATSON: That's okay. It wasn't worth going to the mike.

DR. McCABE: Okay, and Ann?

MS. BOLDT: This is actually a question for Mike. Could you tell us what the current efforts are, though, for the CPT codes? I think you're looking toward doing that again in terms of getting it for genetic counseling.

DR. WATSON: Yes. There's actually a range of activities. I've actually requested a meeting with the CPT Executive Committee that we're planning for May sometime to really talk about the evolution of the CPT coding system as it applies to laboratory genetics, first, because the multiplexing capabilities of laboratories are just -- I mean, we're going to be submitting hundreds of codes to describe a test we might

do.

We also think it's important that we begin to develop some disease specificity and some genetic indication specificity in the coding systems, so that ultimately, when you want to ask the question what difference did all this stuff we talked about make, you can say, well, there's very little of this kind of test occurring now, which we perhaps don't think should occur, but that most of the testing is focused in this area of diagnostic testing, perhaps, rather than population carrier testing. So we're trying to look at bringing some geneticization -- I sound like George Bush almost.

(Laughter.)

DR. WATSON: To bring more genetics into the coding systems, both ICD and CPT, so that it is much clearer what we're doing. Clearly, payers don't have a clue what we're doing, based on stacked, generic information that we provide them, and it causes a lot of difficulties back and forth in information exchange, the slowing of the process, and ultimately limitation of certain kinds of testing and transition into use.

DR. McCABE: Do you wish to respond for the record to Pat Charache's comment before?

DR. WATSON: Only what I said was that I think it's important for this Committee to appreciate the magnitude of some of these areas, even though it's clear, based on discussions, that many of these things are being deferred down to other agencies. Certainly, the CLIAC has addressed this and I think has made a bit of a change in their perspective of what is a genetic test that may not directly track with what you thought was a genetic test in acquired disease.

I guess the only other is the area of the clinical and counseling side of coding for services. We did propose before the committee, the CPT panel, the development of codes to define genetic risk assessment, for instance, and now that we have a more organized office, we're going to be taking the next step with that.

They denied our code. They recognize that there is clearly a difference between the physician-driven, professional components of a genetic risk assessment in a patient and there's a lot of nonphysician components, some of which are also professional, on either side of what they might do, and they want us to clearly break those out, though the AMA CPT panel has made a clear move now towards a much broader approach to the nonphysician components of health care services, and unfortunately it's targeted for the year 2002, but that is the year in which they intend to take a very hard look at all aspects of counseling, of not just genetics, but the entire concept of counseling from various kinds of communities and begin to build that much more formally into the systems, but in the process we have to begin to separate out who's doing what and where do you really need different levels of responsibility over certain kinds of work done with patients.

DR. McCABE: Thank you.

Before we break for lunch, I just want to have some discussion with the Committee. A number have told me that they're going to be leaving early this afternoon. Those who are leading the work group discussions, we have budgeted time for an hour for each of those. Some of you have mentioned to me that you think they could be shorter. Could we trim them to 30 minutes?

So this is Joann, Barbara, Judy, and Mary. Do you think we could cut them to 30-minute discussions?

DR. LEWIS: I think we could.

DR. McCABE: Okay. Because I'm worried that we're going to start losing people from those discussions.

So let me tell you, with that, also I think we could probably be back here at 12:30, rather than the 12:45. Oh, yes. Sarah's reminding me we still only had 45 minutes scheduled for lunch. We'll get people down before the rush, so let's try and resume at 12:30. We'll have 30-minute discussions, which means, even with some generous discussion, we ought to be able to finish here by 3:30, so I'll let people know that if you want to try and make changes in your travel plans for this afternoon.

(Whereupon, at 11:52 a.m., the meeting was recessed for lunch, to reconvene at 12:30 p.m.)

AFTERNOON SESSION(12:44 p.m.)

DR. McCABE: Well, thank you, everyone, for speeding up your lunch, and so we can move ahead a little more quickly. My understanding, just so everybody knows our schedule this afternoon, I'm on a cab leaving at 3:20.

(Laughter.)

DR. McCABE: So we will be finished by 3:20.

This afternoon, we're going to begin our series of work group progress reports with the Education Work Group, which is chaired by Dr. Boughman.

Joann, please.

DR. BOUGHMAN: Thank you.

I have listed here the members of the Education Work Group, who have continued to be extremely interactive and I think are getting even more excited about this.

I would like to point out, and it's in capital letters for a very good reason and you'll hear a little bit more, Susanne Haga is our staff member and has done a yeoman's job in putting together the things that we will be talking about over the next few minutes.

If you remember, the last time we talked about the educational issues, we had suggested that we would as a group try and put together a snapshot -- not a comprehensive picture, but at least a snapshot -- of current activities, and then compare the activities going on amongst agencies, organizations, groups, individuals, and compare those to the needs that we as a group have been talking about and are seeing evolving, and then actually focus on the gaps that are more easily identifiable.

The tasks that we had given ourselves were to first gather information about activities going on, and we had proposed that we would put this together in the form of a background paper, and that paper -- and now you know why Susanne Haga's name was in capital letters -- we do have a paper in progress that could be variously called a literature review or background paper. So far, we have about 38 pages or so of text and about 60 pages of tables and lists of activities going on, so I think you get an idea of the fact that we are doing a reasonable job of capturing the variety of activities out there.

The work group itself, after our meeting yesterday, is more directly invested in the editing of that paper and in our discussion we were able to identify some areas that were not being covered, and over the next few weeks the work group members will be getting information back to Susanne and we will be incorporating that.

We have also begun a very serious discussion of how we might disseminate this background paper, because the capturing of this information about the educational activities, in and of itself, the appropriate dissemination is an educational opportunity and activity. There is lots going on and I think we need to share that information more. So we're trying to figure out the best way to disseminate that information.

Separate from the background paper is our other charge to put forward to this group a white paper that could then be evaluated by the Secretary's Committee and encapsulated with any kinds of recommendations that the Secretary's Committee might have. Once again, Susanne has captured several of the comments that we've made and put forward some of the capture of the literature review into a draft. After our discussion yesterday, which was a very lively and active discussion, the work group members are now going to go back to look at that first draft, and we are going to put together a more focused redraft of that white paper, and the timeline, Chairman McCabe, is that we will be able to have that put together for the Secretary's Committee for the next meeting.

Now, if you will, what I have tried to do is capture the discussion from last evening on a rough outline, if you will, of how the white paper might go, and

we've distributed the overheads to a great extent for use by the members of the work group to start looking at the potential outline that we have.

Mary Davidson was actually very helpful and quite articulate in helping us refocus the challenge that we have before us, and in our relatively wide-ranging discussion, she captured the overall challenge I think extremely well, that we have, as Dr. Collins reiterated yesterday, an explosion of information in genetics. On the other hand, we also have an incredibly rapidly moving area of informatics. So on the genetics side, we are dealing with trying to educate, first of all, the providers and get that body of information to them, but at the same time, the informatics revolution is changing the way all of us do business. It's changing the way we learn. It's changing the kinds of things that we need to remember versus how we can access them and having point of presence access, so that we have these two extremely important activities going on.

The part that Mary crystallized for us was that in fact in part informatics, but in part the explosion of information about genetics, is also changing the patient-provider partnership. There is a different way now because consumers and patients can access this information also, that they are in fact challenging providers in a different way, so that there is a partnership participation.

So it is kind of that concept that we were working on, and the white paper right now, that's what the asterisk is for. In fact, it is that point in this process that we are focused on and identifying gaps.

In outline format, we believe the white paper needs to make comment

about the training of geneticists and genetic care providers and specialists, the idea that there are several organizations and groups working on content for a variety of issues. We know and have spoken before about the workforce study that HRSA has under consideration at this point, and we'll come back to that in a little bit, and there are questions being raised about do we have enough or how many would be enough, and what impact does that have on the need for additional training programs or support for training programs.

If we go then to the leader of the health care team in the physician arena, we would break this down into three different areas. First of all, in basic curriculum medical school, we need to capture the assessments that are going on now, and there are several different groups looking at this as well.

One of the other areas that has been identified is the insufficient number of faculty who have enough information to in fact infuse genetics into the curriculum across the board, so that faculty development in this area or ways to incorporate genetics into faculty practice so that it can then be translated into the curriculum is important.

Advanced education, especially at the residency level, and the idea of the advanced education in genetics for both generalists and a variety of specialists, whether that's pediatrics or neurologists or oncologists, who obviously need training in these areas, and then as you move on into that, the idea of continuing medical education and the generational gap of sorts that we have now, where in fact it is the medical students or the recent graduates who are much more up to date and those who have been

out practicing in the field that need to acquire this information.

So in outline format, we would like to concentrate on those areas.

Now, please don't take the shortness of this to be a slighting in any way. The plan would be in fact to discuss those areas briefly, the different stages of training, especially for nurses, because there has been more work done in the field of nursing than some of the other areas, but we also need to address at least briefly or comment on the incorporation of genetics in the training of other health professionals and associated professionals, including social workers, physicians' assistants, and so on.

Then, kind of switching gears, we had a theme going in fact that is in part educational paradigm, but I think it works well as an overlay, if you will. That has to do with educational objectives. Much of the focus in educational research over the many years was actually on the curriculum content, on the teaching component. That's obviously moving much more to the assessment of skill or competencies. In other words, the learning side of the teacher/learner equation.

We believe that we need to focus on and support the idea that we are really interested in the behaviors and the outcomes of these educational efforts. In other words, how does training all of these physicians and health care providers actually translate into providing the services and how does it fit into this rapidly expanding area of genetic testing? Therefore, at the end of the paper, we're going to be just at the beginning, I'm sure.

Our committee at this point is not at all ready to say where we think we are going to be in recommendations or conclusions, but I think we do have a few

points of focus that I will just reiterate for a moment.

If you remember the outline -- and I thought I might be able to get these on the screen simultaneously, but I don't think so -- if you remember, the first group was the geneticists, and we think that as a theme the workforce analysis and assessment of the need for additional geneticists -- for example, if we're talking about the genetic counseling or availability of counseling with regard to testing, that we need to focus on this, and one of the ideas is that this Committee may wish to affirm the need for that workforce analysis.

Once again, the dissemination of information and resources. We have all of these organizations, NCHPEG and GROW and ACMG and ASHG, and the list goes on and on, and we need to figure out if this Committee has any specific recommendations or ideas about continuation of dissemination of the information-rich Websites and/or resources that those groups might have.

In the physician area, in the basic curriculum, we were talking about making comments, recommendations, or drawing conclusions on the impact of the change in mode of learning and the need for faculty development. That relates, for example, to some of the HRSA activities going on now in faculty development, and we're going to gather some more information on that.

In the advanced arena, a focus on the graduate medical education and the integration into the curriculum. This would include the TRIP kinds of activities that are going on in federal agencies and some of the other studies that are currently going on that we might wish to support in some way or another.

For other key professionals, one of the things that we talked about was in fact the point of presence and access. That means two things, both in the dissemination of information and in making sure that we are including and incorporating all of the appropriate groups that we might not be as familiar with as we are for the medical profession.

I talked about the curriculum and skills and outcome and the movement of the educational paradigm, if you will, and I mentioned, too, that three of the areas that we were talking about were wanting to be able to assess the behaviors, and the group, I think very rightly, suggested that we need to define those behaviors first. What does it mean to integrate genetic medicine into one's practice of medicine? And we also need to focus some more on the determination of outcomes assessment measures.

I put these on the list because I think that the work group may have some suggestions or propose some ideas for recommendations to this group that can then be discussed at the later meeting, and in fact on the educational objectives there may be kinds of projects or programs at the federal level that we think should be supported in one way or another, which might be another one of our suggestions.

I would leave us with the themes. I really didn't know how else to incorporate this, but one of the major themes, and I'm going to do number 2 first, is the idea of the dissemination of this information. Once you see all of this put together, I think it has been a little bit surprising to all of us. We kind of knew that a lot of people were working hard out there, but there is a wealth of information.

The other essential element or theme is this reiteration of the collaborative model across agencies, organizations, consumers, the way that this Committee as a group has been working, and I think we heard that first thing yesterday morning, that that has been a real key. The Education Work Group believes that it is especially important in our discussion of the educational gaps and that the recommendations that we have that we in fact become a living model.

The last thing I would really like to end up with is where we started off, that we are basing this on a true partnership here and recognize clearly that this is the first step and that our focus here is where that asterisk was, but clearly understanding that education goes far beyond the providers, and that maybe the next work group's issue is to expand that to general consumer or public education, as well as to additional groups.

But that at least is where we are at this point and what we propose for our next meeting.

DR. McCABE: Thank you, and thank you to the Education Work Group, and I'm very pleased that you have a schedule and timeline for moving things forward.

I heard two things that you wanted some feedback, and there may have been others that I didn't pick up, but one was an affirmation regarding the workforce analysis and the other was mechanisms for dissemination of resources. Were those the two main things that you wanted feedback from us on?

DR. BOUGHMAN: Well, for today's discussion, I think those are

two of the more concrete issues that we are ready to discuss, but we certainly would welcome other comments from this group.

DR. McCABE: And we have about 10 minutes for discussion here, so Elliott, then Wylie.

MR. HILLBACK: Yes, I think Joann presented a good summary of the overall. I think where we want to eventually end up, at least my opinion of that, is not to duplicate the work that other people are doing, but to recognize that it's happening, and that's a lot of what Susanne did in documenting a lot of that and pulling that together. We want to figure out where our voice will matter in this whole discussion, either by adding on another voice to what's done or by asking a question in a little bit different way.

I thought that the most interesting part of the discussion last night, which got a little wild and crazy, in the sense that we started having a little fun with it, was this idea that we aren't really necessarily -- what we're trying to do is get people who are primary care physicians to use this stuff practically, and teaching them genetics and making them all geneticists isn't really the objective necessarily, and what we really want to do is understand how to know who to call, how to access, where to find things in databases, et cetera, and that that's a different teaching job than trying to make them geneticists or pseudogeneticists or closet geneticists or whatever.

So I think there are ways that we might express the issue and help the other groups, whether that's NCHPEG or various other groups that are already started, reinforce what they're doing and see if there are any places where we can add to it as

well, but I think that's sort of where we came from.

DR. McCABE: Wylie?

DR. BURKE: First of all, I want to express support for the workforce analysis, just to go on record.

DR. McCABE: Before you move on from that, is there anybody who feels that we should be at all cautious in our affirmation of the workforce analysis?

(No response.)

DR. McCABE: I think we've discussed this before and it's clear that with everything that's happening in the realm of genomics and genetics that there is definitely need for at least a workforce analysis. Many feel that the need is there because there are some concerns about the size of the workforce.

Go ahead, Wylie.

DR. BURKE: Where the voice of SACGT could make a difference, I think you've touched on points, and I just want to add a little bit of emphasis to two points.

One is coordination. What your committee has already done, in particular with help from Susanne, is document how much is going on, and when we think about how much is going on, and I know that you've already addressed this, I want to stay focused. There are two things that are tremendously important at this stage of the game. One is coordination. Dissemination's important, but I think coordination comes first.

So when one thinks about coordination, it seems to me that the

Committee and then ultimately our larger committee should be focusing on what advice can we give to make efforts to coordinate multiple different people, multiple different agencies, working on this issue come together, wheels not being reinvented, people learning from each other, et cetera. What's the role of NCHPEG in this? Is there some direction to NCHPEG in this? Is there some other body other than NCHPEG that should be out there doing this?

In addition to thinking very thoughtfully about that, I think the one other way in which SACGT might have some impact is to keep coming back to the point of evaluation, which is really we have to say everybody -- not everybody, but many people understand that genetics education is important. There's clearly a lot of activity going on. It's a lot of different activity. How are we going to know a year from now or five years from now what really works? What kind of outcomes are we looking for? I think focused attention on that as an important question, and potentially that as an area that needs resources put into it explicitly, would be useful.

DR. McCABE: Thank you.

Francis?

DR. COLLINS: Yes, I also appreciate the work your working group has done to get to this point, and obviously you have a lot of input from people on the group who are familiar with some of the other activities that are going on, so I'm trusting that this integration and coordination of all those efforts is probably going to go quite well.

One of the things that you could do, if it suits your working group's

general philosophy, would be look very carefully, if you haven't already done so, at the core competencies that NCHPEG has put together, which are going to be published in Genetics and Medicine in about a month and which are already up on the NCHPEG Website, and which were the result of about two years of deliberation of various professional groups trying to decide what should every health care professional know about genetics. You can imagine that was a contentious discussion in terms of how much depth should you expect, if you're really targeting this at all health care professionals, should they have.

A lot of it does come down to some of the things that Elliott was just saying, about knowing when you don't know and knowing how to find the access to somebody who does, but there is a general set of knowledge, skills, and attitudes that are listed in those competencies that NCHPEG at least felt ought to be the goal to strive for for all health care professionals.

It would be useful, I think, if your working group has the time and interest, to look carefully at those and even consider, if you love them to death, to endorse as another reputable body to sort of point to something that we could use as a foundation for where we want to try to move this effort forward. That's just a suggestion.

DR. McCABE: Joann?

DR. BOUGHMAN: One of the questions or issues that I have had and has come up in a variety of ways in the group is this concept of endorsement or support for any one or multiple organizations, especially those that are voluntary

consortia or whatever, and I would like to have at some point, because in several of these discussions it came up, well, it's nice for us to have this snapshot, but what we're really talking about is a legitimate clearinghouse. You know, some sort of place where this information could be kept up to date.

NCHPEG kept coming out of the mix, in part because of the breadth of the members of NCHPEG, but I would like to have some comment or response -- possibly not now. It may need to occur over a period of time -- about the appropriateness of this Committee coming forward to endorse any one activity or one consortium of organizations.

DR. McCABE: Could you perhaps, though, bring back to the full Committee at the next meeting a discussion or identify the appropriate individual to discuss the NCHPEG publication that's coming out? That might be something that you could do relatively briefly, but could at least inform the Committee about.

DR. COLLINS: That would be Joe.

DR. BOUGHMAN: Yes, it would be Joe McInerney, who unfortunately was not able to -- he is on the work group and unable to attend this meeting.

DR. McCABE: Okay.

DR. COLLINS: Could I just add one thing? Again, I didn't mean to imply that SACGT or any of its working groups should go out and endorse a particular organization, although I suppose there might be circumstances to do so. I was more inquiring whether it would be within your interest to look at this particular listing of

core competencies, which happens to have been produced by NCHPEG, but might have been produced by some other group, as basically a listing of what health care professionals might need to know in order for this revolution to happen in an optimal way, and that would not necessarily imply an endorsement of the organization that had produced them, but basically to say here's a published list of knowledge, skills, and attitudes that we are or are not in agreement with.

DR. McCABE: I'm going to take comments from Joe and Judy, and then we're going to move on to the next area.

DR. BOONE: Just a quick one, since Tim Baker wasn't here to represent the public health workforce development programs that we're working on in CDC. I really think that that's a parallel effort that really is trying to address the 500,000 to 600,000 workers in the public health workforce, and make sure that they are as competent as they can be with various aspects of their job in genetics. It's such a diverse group that it's going to be very difficult to reach that scope and breadth there, but I think it's equally important.

DR. McCABE: And Joe's comments reminded me of something that had come up in one of our previous meetings, and that was that we also need to look at the members of the government in terms of trying to educate them, and I didn't see them on your list of individuals, but something to keep in mind for the future.

DR. BOUGHMAN: Neither were the lab directors, but I've been reminded. And lab staff.

DR. McCABE: Judy?

DR. LEWIS: One of the things that we're going to be talking about when I present the report of the work group this morning is the need for education of a group that I think we had thought about before, which is those in industry who pay for health insurance, the purchasers of health care, of group plans, and also those who are the insurers, and we're going to recommend some collaboration so that educational efforts around what needs to be done in the area of genetics and in reimbursement for services, so that we educate both the purchasers and the insurers.

DR. McCABE: Thank you.

If there is nothing urgent, we're going to move on and our next work group presentation is from the Work Group on Informed Consent/IRBs, which is chaired by Dr. Barbara Koenig.

And I appreciate all of the work group chairs for making your comments succinct, so that we can have the greatest participation of our Committee members before people begin to disappear.

DR. KOENIG: The Informed Consent/IRB Team met yesterday and we began to try and deal with our area, which we feel is just enormous and very, very complex and problematic for many reasons.

Also, just as a prologue to talking about the informed consent and IRB issues, as we're moving increasingly to a system where the levels of scrutiny are less defined in terms of FDA, et cetera, or not less defined, but where we're more and more going to be dependent on labeling as a way of informing people about the characteristics of tests and what the implications are of different kinds of tests, I think the whole

informed consent area becomes increasingly important, including the issue of how the labeling information gets to the end user, such as the patient and the clinician.

So we met yesterday. We had a couple of additions to our team, Penny Kyler from HRSA, and now Wendy Uhlmann has joined us, which is extremely useful to have a genetic counselor on our group in terms of thinking about informed consent, and then also Irene Stith-Coleman, who is representing OHRP.

To remind you that one of the goals of our group had been to try and think about informed consent issues across the whole continuum of the introduction of genetic tests into the marketplace, and we were talking about this in terms of the oversight continuum. In our meeting yesterday, we really focused on the clinical phase. There are a number of reasons why it's a little premature for us to think about at this point the informed consent issues during research, and I'll try and get into that a little bit later.

Partly, that's because we have to coordinate with so many other activities going on, such as the regulations, or the suggestions, made by NBAC for overhaul of the human subjects systems, which, as Dr. Raub told us yesterday, are now being considered by the Department, as well as what will happen with OHRP as it's been reconstituted, and also we want to coordinate the PRIM&R because they're the group that does IRB education.

So what did we decide, what have we done, and what are we going to do? Well, one of the things that we did between the last meeting and this meeting, the SACGT staff developed what were -- we had called this a template, too, but so that we

won't have three templates and people won't be going totally crazy --

(Laughter.)

DR. KOENIG: -- I've changed it to a checklist from a template, so it's not a third template. We're calling it an informational checklist, which incorporates key elements of informed consent for genetic tests, sort of what would you want to know.

And in terms of the issue of what should be in this, we all had it ahead of time and we reviewed it, and what became clear is the most important piece of it in a way was a set of questions that we would want consumers to have to empower them to ask of any provider who was offering testing. So one of the things we did was to think about those questions.

So what we're going to do, we still think this is a good idea to have. In a way, this parallels the provider piece of information that was sent out for public comment this last time, which we're now calling what? Physician resources?

DR. COLLINS: Provider summary.

DR. KOENIG: Provider summaries. Thank you.

What we're going to do -- so we're now into our tasks and our timeline -- what we're going to do is further define the content of that informational checklist and we're going to do that in collaboration with genetic counselors and consumer groups. Wendy Uhlmann, for example, is going to send that out for comment to the genetic counselor group, and Sharon Terry is giving us input from her organization, so that we're clear that we've covered all the elements, because it wasn't clear that we had yet gotten all the correct elements into this checklist, this document, which the full

Committee hasn't seen as of yet.

Then we're also going to, because there are so many resources that have been developed by other groups, such as the CORN, Council of Regional Genetics, or various groups like that, that have developed some things that are very good background for what we're doing, so we decided that a way of dealing with that would be to identify and hire a contractor who could go through all of the existing resources and make sure then that once we've added content, would actually develop a final version of the checklist, and then also rewrite it to make sure that the language level was correct for consumers, because we found at the level that it is now, we identified that it was much too difficult to comprehend, and that that's a particular skill to translate something like this into a document that's comprehensible at the right grade level, et cetera. So that would be something that we would hire out, since none of us had the particular expertise to do that.

Then finally, the other thing that we'll do as a subcommittee or as a team is to identify the mechanisms for distribution of this checklist, and we talked about that a lot. For example, Reed Tuckson thought that this would be the kind of document that HMOs and other organizations would want to distribute to their patient populations.

Other ideas would be to possibly -- I think this was Wendy's idea, was to have a version of this available on a Website which could link to various other kinds of resources. The way that the checklist is set up now, it's a generic document for all of genetic testing, and one of the things that we could do would be to add hyperlinks, if it was on the Web, to specific sources of information.

So that's the plan, and the timeline would be to complete this prior to the May meeting, so that we could then have the full Committee look at it.

Then the second task that we started grappling with is in some ways the most difficult one, which is to try and match the requirements for documentation of informed consent with the various levels of scrutiny in the oversight process.

We had in our report to the Secretary indicated that we felt written documentation of informed consent was extremely important for high scrutiny tests, and since we probably no longer will have a category of high scrutiny tests, what we decided would be a good strategy, the way we were thinking about it, and I think it deserves discussion by the full Committee, is to instead of just saying, well, high scrutiny tests deserve documentation of consent, to instead develop sort of a list of overarching principles about informed consent in genetic testing.

I just put down a couple of examples of the kinds of things that we talked about. This isn't a comprehensive list yet, but the first is that we want to focus on the reality of informed consent, meaning the process of informed consent, not the documents, and so that in reality any clinical test, any clinical service or activity, requires consent at some level, even if it's just at the point of, you know, "May I come into your room?" or whatever. So we're starting with the overarching principle of all tests require some kind of an informed consent process, whatever that might be, and then moving into the issue of highly complex tests require written documentation of informed consent.

Then we're going to define in greater detail, and I actually have

another list of things that, in terms of the categories that we started thinking about, one example that Wendy thought was important would be to use linkage analysis as an example of a very highly complex kind of testing procedure that probably would require written consent.

But for example -- I had said predictive, but I'm going to change it to predisposition testing -- perhaps certain kinds of predisposition testing for very serious illnesses in terms of intended use would be an important one, tests with serious social and medial risks, low predictive value or low penetrance, and perhaps all tests that had reproductive consequences.

We actually tried to talk through the issue of what was current practice in terms of informed consent in, say, prenatal testing, and there is apparently no standard for getting written informed consent at this point for prenatal testing. Now, there is informed consent, say, for the procedure, for the amniocentesis procedure, is what I was told or what the members of our group concluded, but not really for the genetic tests themselves that are performed as part of the reproductive issue. So the whole issue of whether reproductive would be a category that would require a documentation of consent is something we need to discuss.

In terms of mechanisms of documenting the informed consent to make sure that it had happened, I think we basically were all in agreement with many of the public comments and discussions we've had from labs that it's really not the role of the laboratory to actually obtain consent, but what could we do to make sure that the information actually -- were there any situations where we were so interested in having

consent documented that we would want to actually require them to know that consent had took place before they would be willing to do the test?

So a couple of mechanisms that we talked about. One would be to have a checkoff box on a laboratory order form which a clinician could use when ordering a test, and this wouldn't necessarily mean that they had also done written consent and done a consent form, but just that they would document that they had engaged in an informed consent process with a client.

That was one mechanism, and another mechanism would be a more formal kind of research type of informed consent, although this wouldn't be a research context, although people in our group, and especially Pat Barr and a number of other people, were also very concerned that we didn't want to just recreate a research-type informed consent that became a meaningless ritual. We wanted to emphasize the process, as opposed to the bureaucratic elements.

The third thing that had been on our charge -- and by the way, in your binder is the charge to the Informed Consent Working Group -- the third point would be to continue thinking about the issue of how to harmonize informed consent across all the domains of genetic tests by commissioning a white paper.

Here's our timeline and our specific goal, is to actually create a detailed outline, that I, as the chair of the committee, would create a detailed outline of that, which we would circulate among the committee and then finalize here, and then we would also identify an author, a potential author, for a commissioned paper.

Then the fourth thing we agreed on informally, and then today looked

at the calendar and thought what might make the most sense, there seem to be so many informed consent issues, and I've just barely touched on them, that most of the members of the group felt that it would be important for us to have another meeting devoted specifically to informed consent, and that we would possibly try and schedule that for the day after the May meeting, but that's still somewhat tentative.

The other thing that we did yesterday was to have a briefing and it was on the general issue of the return of results in genetic research. As you know, because of the need to, again, harmonize with CLIA requirements about not returning any results to subjects if any tests are not done in a CLIA-approved lab, all those kinds of issues, as well as because of certain privacy issues, we had a briefing by Julie Kaneshiro from the NIH Director's Office, and basically what she talked about was the whole set of issues around returning investigational results and how that raises a whole set of issues that are relevant to the federal privacy regulations. It's a little difficult to talk about all those implications at this point because -- well, let me continue.

So basically, what we decided, based on her very, very helpful briefing, was, first, that we thought it would be very useful for the full Committee to hear about this issue of the interaction of the new privacy regulations with genetic testing and return of research results, and we recommended that the full Committee be briefed on that because it's so important.

Then, third, that perhaps we need to consider whether there are unique privacy issues in genetic testing and, if so, to consider developing guidelines for IRBs, and this, of course, would be one of the ways in which we would try and collaborate

with the Office of Human Research Protection.

So there are a number of tasks that overlap with other teams and working groups. For example, we have to coordinate this information checklist we're doing with the Data group and the physician resource, et cetera, and also with the Education group in terms of how we're targeting IRBs.

There are some questions and concerns that are remaining that we really haven't dealt with in our current timeline. One of those is the whole set of issues around informed consent for multiplex testing, which is very, very hard to even imagine how that's going to work out, and we don't have that yet in our timeline, but just have it up here as something to highlight, and then the other set of issues around defining and reviewing social harms we haven't yet addressed.

So that is it. If we could have the lights back on, and any discussion.

DR. McCABE: Yes, thank you very much, Barbara.

What I identified as the action items for this afternoon was you said you wanted some additional discussion regarding the overarching principles for genetic testing. I'm not sure if there were any other action items that I missed as we were going through, but are there any points of discussion from the Committee?

DR. KOENIG: I apologize for not doing it in terms of decision points. I guess just any general comments would be helpful, if our plan is okay, is there anything we've missed?

DR. McCABE: Yes, Judy?

DR. LEWIS: Barbara, I have a pretty comprehensive listserv of

members of nursing organizations that have specialty groups in the area of genetics, and when you get that data template that Wendy's going to circulate to the genetic counselors, if you'd like, I'd be happy to circulate it to ISONG and the American Academy's Expert Panel on Genetics if that would be helpful.

DR. KOENIG: Great. Okay.

DR. McCABE: Any further discussion? Any discussion of the overarching principles? They had to do with informed consent in a general sense and getting written informed consent for high complexity testing. Other issues about any other additional principles that individuals would like to discuss?

Yes, Wylie?

DR. BURKE: Well, I'll just throw in that it seems as though one thing that might come out of your discussion would be contexts in which genetic testing is more charged, let's say, or where there's more concern. I would just throw out as examples prenatal testing, testing of children, testing in the workplace.

DR. KOENIG: Right. Yes, workplace testing, we talked quite a lot about the issue of how informed consent becomes a different issue when there's no doctor/patient relationship or provider/patient relationship involved. For example, occupational medicine kinds of context and things like that. So I think that's one of the things that we'll do, is to develop a comprehensive list, and probably we will do that at our May meeting and then circulate it.

DR. McCABE: And I think you made an important point that for some, for the procedures involved with genetic testing, as amniocentesis, there is

consent for the procedure, but the concept of consent for the testing is frequently or may not be considered by all the practitioners.

DR. KOENIG: Is there any other discussion about how -- the other thing that would help us, I think, is the issue -- especially from the FDA, I guess, and Steve's not here at the moment, but we talked a little bit about other mechanisms for making sure that the information that's now going to be required in the label actually get to the consumer, in terms of how to make sure that that happens, because I think Pat Charache was concerned that sometimes if the labels are sitting in the lab that runs the test, this isn't particularly useful.

That seemed to be a procedural or administrative barrier. How can you deal with that without creating a lot of extra bureaucracy? We talked about could we actually print lab forms? We had a discussion about various things, various solutions.

DR. McCABE: Well, I think we've discussed in the past, and part of this will be an education of the public, people have come to expect inserts and can get them if they wish through a variety of mechanisms, and what we have to do is, first of all, create something that the public will embrace, and then educate them so that they will know that it's available.

Yes?

MR. HILLBACK: I think that there are some ways at this. First of all, I think a lot of the labs are working with the physicians that prescribe tests to them to have informed consent not just of the procedure, but of the test itself.

But secondly, it seems to me that if you think about some of the problems on the Education committee and some of the problems you're talking about, won't the same document be useful in helping the physician solve the problem of lack of knowledge and at the same time help increase the knowledge of the patient? I.e., if we can create a common approach with common, simple language, which was one of the discussion points made earlier, and make these available through the laboratories, it solves several different problems. It provides a little template for the discussion and it pushes the physician to use it and make something available to the patient. I don't think laboratories in general would feel adverse to getting involved in that process of getting something out there that was useable.

DR. McCABE: Mary?

MS. DAVIDSON: Yes, Barbara, I think you're making a really important point because just because information is going to be available and produced doesn't mean it's going to get to the right person at the right time.

I don't have exactly the answer that I can spin it out, but one of my concerns about the working committees, as they're currently directed, is whether or not the issue of the consumer being able to access the information they need at the time that they need it in a very straightforward, simple way, whether any of us are really looking at that in particular.

So I would actually differ with you, Elliott. I don't think that for a patient getting information from the provider is the only way.

MR. HILLBACK: It's just one more way, but if we have a

commonÊ--

MS. DAVIDSON: Right.

MR. HILLBACK: If we have a common, agreed on set of information that's got to be available and if we spend time putting it into a level of English and other languages that's useful, that's just one more tool, along with the Web, along with the other things, and along with counselors and more complex discussions that are needed beyond the paper.

MS. DAVIDSON: In thinking about it, the delivery system for information is not a small task, and it's really something that's very, very important.

DR. McCABE: Barbara, do you have a response?

DR. KOENIG: I was just going to say that in addition to the delivery system, which is extremely important, the other thing that we touched on which was not part of our charge, but which came up in our conversation yesterday, was the issue of who should appropriately produce the information and how to assure that the information would be unbiased, and we talked a lot about how do -- well, one of the things we're interested in is what really is out there. For example, we were told that there really is not, for example, a lot of good -- and Michele, maybe you can help us with this, but that in terms of even things like sickle cell testing, which is done fairly routinely now, that there aren't really good patient information materials available. I had on my list, actually, one of the things I was supposed to do was talk to you about what is available.

DR. LLOYD-PURYEAR: Actually, that's probably the one disease or

condition where there is a whole lot.

DR. KOENIG: There is a whole lot. Okay.

DR. LLOYD-PURYEAR: There's a whole parent handbook, but I don't think that's given at the time of the screen. It's afterwards. So you're probably right.

But, you know, I keep going back to immunizations. There is some analogy here that by law there were vaccine sheets that were created, and I think you could, if you decided what basic information would be needed about all genetic tests, you could have sort of general information, not about the specific test, but general information developed about testing.

DR. McCABE: Wylie?

DR. BURKE: Yes, I agree with Michele's comments.

I want to get back to Mary's comments and say I think the general issue of we produce stuff and it isn't getting into the right hands is really part of evaluating educational initiatives. In other words, I think when we say we want to make physician summaries or patient summaries, we want to make a summary checklist of informed consent, or anything else that we think might be useful, I think we should put our best efforts into making that happen or making the right bodies make that happen, but everything of that sort needs to be tied to an evaluation. Is it producing what we want it to be producing? Is it user-friendly? You know, can you alert people to an event and have them find it useful, et cetera?

DR. McCABE: The other thing is that I sat in on three of the four

work group sessions, and it was impressive to me how much overlap there is, and I think we're seeing that in the reports already, that it's hard to do informed consent without education so that people know what it is that they should be anticipating, and I think the term that was used was "empowerment," how they're empowered to expect to have certain information. So I think a lot of these issues, we need to be careful that they don't get built into silos within these work groups, because there's really a need for them to interconnect.

Barbara?

DR. KOENIG: But I'd like to make another point just in general about informed consent, about getting information to people, and I may have said this before, and I apologize if I have, but based on my experience with other issues within bioethics, and for example, the domain of advance directives to plan care, one of the failures of these documents which are meant to empower people is the systems within which they're used and the fact that often the systems don't work and people can't find them at the right time, all of those kinds of things.

So the alternative to the approach of focusing on the individual is to also focus on system innovation, so that you actually set up the genetic clinic so that you have not just a checklist for the patient to look at, but also a checklist for the provider, or an "I can't do this without" or "This comes up automatically when I'm going to offer this test," that you have to go through a certain process. I think sometimes that can be more effective than just documents that require the individual patient to take control. You have to have both.

DR. McCABE: Any other comments for Barbara and the Committee?

(No response.)

DR. KOENIG: Thank you.

DR. McCABE: Thank you.

Our next work group is on access, chaired by Dr. Lewis.

DR. LEWIS: And we're going to get the lights down in just a second.

I want to take this opportunity to thank the people who have been working on the Access group, and it includes Jamie Amaral, who is with the small business group in terms of insurance and is involved with looking at small businesses and their insurance payments, and Cecil Bykerk, who's with Mutual of Omaha, Pat Charache, Mary Davidson, Jeff Kang, Victor Penchaszadeh, Michele Puryear, Reed Tuckson, David Witt, who's a geneticist at Kaiser Permanente, and a special thanks to Suzanne Goodwin, who's worked so incredibly hard with us in terms of helping us formulate the issues and keeping us on track.

We've had two meetings since the last time the group met. We had a telephone conference call a bit ago, and then this morning we met for two hours in a work group meeting. This morning we dealt with two basic issues, an issue looking at health care disparities and then another issue looking at a model plan for a genetics benefit package.

This morning Dr. Stith-Coleman presented to us and talked to us about the Department's initiatives in the areas of health care disparities and talked about one of the major goals of the Department is to eliminate health care disparities. She

talked to us about six priority areas and several challenges, and basically challenged us to make sure that we develop services that really eliminate health care disparities.

We spent some time really focusing on the message that Francis gave us yesterday, which is that there really is not very much biological variation at the level of differences among racial and ethnic groups biologically, that we're much more alike than we are different, and we wanted to make sure that we kept that focus, knowing that there are some single gene conditions out there right now where there does seem to be racial and ethnic diversity, but, as the new genetics come and as we go down the road in the future, that we're really not going to be looking necessarily at the same categorization in terms of diversity that we have been looking at in the past, but that, that being so, that even though our genome may be relatively similar, there still may be issues related to access of services that relate to diversity among populations, so that even though people may not have individual genetic variations, there may be considerable variations in terms of access to service.

We also spent some time looking at issues related to reimbursement and knowing that there may be some real differences among groups in terms of their ability to get genetic services paid for, and we believe that's an important point to keep out in front in terms of the access issues.

The second hour of our meeting this morning we spent some time looking at, and during our telephone conference call, David Witt agreed to give us a straw man-type of thing in terms of presenting us with a model service package, of what a model genetic services package looked like, and we spent some time discussing

whether or not this was a minimal service package or a model service package. We spent a fair amount of time looking at that package and we will be discussing that with you further when I get to our timeline.

We also talked about that, in addition to looking at what the services were that we wanted to provide, one of the things we needed to be focused on is it's all well and good to say, you know, this is the best of all possible worlds, but who's going to pay for this? And that that became an issue, and it's an issue not only in terms of services at the level of the individual, it's certainly an issue in terms of services at the level of looking at public health benefits and looking at screening programs for populations.

We also recognized that many times, in order to do genetic services, that it's not just one insurer, that if you're looking at multiple family members, you might be looking at different kinds of insurance coverage, and we were likening it to the organ donation process, which is if somebody gets an organ from a live donor, who pays the donor's costs? Is it the recipient's insurance company or is it the donor's insurance company? And that as we start to look at multiple family members around the issue of provision of genetic services, that this might be something we need to address.

Some of our planned activities are we want the working group to be briefed on all of the agencies' efforts regarding health care disparities and looking at where, in the multiple pockets of HHS, there is activity related to health care disparities.

We want to continue to develop the genetic services framework. We'd like to present it to this Committee at our next meeting, and then after everybody

has a chance to see it after we're finished refining it, we'd like to send it out for feedback.

Another issue that became very important is, as we started talking about looking at reimbursement and at access issues, that clearly there's a need for insurers and for those who purchase insurance for employment groups to have some education, and we think that that's an appropriate interface with the Education group, and it wasn't a population we had thought about when we met last night. So it adds to our list, Joann.

We believe that there needs to be education of providers to foster the development of culturally sensitive and culturally appropriate care and that there may well need to be some efforts in terms of looking at the workforce to ensure that we had a pool of providers who are ethnically and culturally diverse as well, and we're not sure that we know the answer to that, but that that was an issue in terms of access.

That we need to support the addition of CPT codes for counseling services and also make sure that as those codes get put into place, that there's a way of including coding for nonphysician providers, and that in the area of Medicare and Medicaid that we may want to be recommending legislation to add genetic counseling services to mandated services in the area of Medicare and Medicaid.

We also recognize that all of the issues aren't on the table and that we're going to need to spend some time further defining some of the issues and looking at what the issues are that we haven't even identified yet.

Some of the issues we have identified for continuing discussion is

what is a medical benefit? For an insurer to pay for a service, there has to be some benefit. We had some discussion around whether or not information, with nothing else but information per se, is that a medical benefit sufficient enough to encourage reimbursement? Who pays for population screening? How does variation affect access to culturally appropriate services?

Inclusion to make sure that in the research process -- and this might be a place to interface with the IRB and research group to look at making sure that as tests are developed and as R&D continues, that there's inclusion of broad-based populations in the development, so that even though we're more alike than different, we're ensuring that we make sure that we have all of that diversity present in the pool on which genetic tests are developed.

Then we need to do continuing research regarding the contribution of biology to health care disparities, because the science isn't there and even though we all had some pretty clear ideas as to what we thought the answer was, it wasn't necessarily based on the fact that there's empirical data to support that.

Our deliverables and our time table, Mr. Chairman, we believe that by May we can have the draft document of the model genetic services benefit package to the Committee for full discussion, and perhaps have some draft documents regarding CPT coding, inclusion of nonphysician providers, and legislation to add counseling as a Medicare/Medicaid benefit, that we might want to have some draft documents that this Committee can review and then forward to the appropriate places, and that by August we'd like to be able to have had an opportunity to take the genetics benefits package out

to public comment and be able to examine the public comment at our August meeting.

DR. McCABE: Thank you very much to you and to your committee.

Is there discussion for Judy and the committee?

(No response.)

DR. McCABE: Well, one of the things that I noticed, you were talking about diversity in the workforce, ethnocultural diversity in the workforce to meet the needs of our diverse population. That seems like an area that we should discuss with those carrying out the workforce studies. We've affirmed the need for the genetics workforce study. I don't know enough about that study to know whether ethnocultural diversity within the workforce is part of that study. Does anyone have a feel for that?

DR. LEWIS: We just had a sense that we wanted to look at more than numbers. We wanted to look at the composition.

DR. McCABE: Right, right. I recognize that and I just don't know enough about whether those data are being gathered as part of the workforce study.

DR. LLOYD-PURYEAR: They will be.

DR. McCABE: They will be.

DR. LLOYD-PURYEAR: Actually, the workforce study is taking on a new twist or an additional twist. It is actually to look at the issue of genetic services, so look at workforce issues through the lens of genetic services, what that should be, and also to look at workforce issues in general.

Is that right, Judy? Okay.

DR. McCABE: And you brought up, and it came up this morning,

previously, about issues regarding Medicare/Medicaid reimbursement for genetic services. Since it's already come up in public comment this morning, it might be something that we should pursue a little bit in discussion with the Committee.

DR. LEWIS: One of the things that was brought to our attention -- and Jeff's not here at the moment, right? -- is that in order to get this into benefits, that it's a legislative issue, and so we spent some time discussing the fact that it might be appropriate for us to make a recommendation about introducing legislation to cover genetic services.

DR. McCABE: Right, recognizing that you lumped Medicare and Medicaid together, but they're actually very different programs.

DR. LEWIS: Yes, but both of them operate from the legislative basis, which was why we lumped them together.

DR. McCABE: Right.

DR. LLOYD-PURYEAR: Except that Medicaid is state-based.

DR. McCABE: Yes.

DR. LEWIS: Right, but doesn't the federal government have certain standards, minimum benefit packages, that states have to agree to in order to participate in federal matching funds?

DR. LLOYD-PURYEAR: They can recommend what a minimum basic package is.

DR. LEWIS: Because my understanding was that if a state got federal funds to match their Medicaid funds, that there was a floor of services that had to be

offered, and that part of what we might want to do is look at genetic services as part of -- you're shaking your head. Am I right?

DR. LLOYD-PURYEAR: I don't think it's ever that specific.

DR. WATSON: There's a Part A (inaudible).

DR. McCABE: Mike, why don't you go to the microphone?

DR. WATSON: (Inaudible.)

PARTICIPANT: But we're talking about Medicaid.

DR. LLOYD-PURYEAR: Well, we can look into it, because I know, with children with special health care needs, we recommend a benefits package, but it's where states are not mandated to include everything in there. For instance, there's a problem with medical foods, and it's not that the federal government's not recommending medical foods be supplied. States are not taking that on necessarily.

DR. McCABE: But this would be an area that we would require some additional education about and explore what possible recommendations we could make.

DR. LEWIS: So is that something you think that we should continue to work on and maybe present some information to the group at our next meeting?

DR. McCABE: Is that something -- you could work on the Medicaid side, Michele, is that right?

DR. LLOYD-PURYEAR: Well, with HCFA, because this is actually a good time to involve HCFA. This is what they do best.

DR. McCABE: And since Jeff isn't here, we will chargeÊ--

(Laughter.)

DR. McCABE: -- you and HCFA with working together, perhaps, to help inform us by the next meeting.

DR. LLOYD-PURYEAR: You know, in the Child Health Act, there's Title 28, which is about metabolic disorders in general, and it actually charges the feds to look into reimbursement issues for treatment for services. So both HCFA and HRSA, this fits.

DR. LEWIS: And maybe Jeff and I can get together and spend some time talking about that.

DR. McCABE: Joann?

DR. BOUGHMAN: Be it never said that I would shrink away from an issue just because it was a complex issue or a challenging one, but in this concept of putting forward a model package, a possible package, or whatever, I would hope that we would also bring information or the context not from merely the individual or the provider point of view, but the interface with the employer or the industry itself, because I think this hits very quickly into what a company would want or not want vis a vis their own company's business for the employee, let alone the family members of the employee, and I simply am not well enough versed to even articulate a question very well, but I know that there are some complex interfaces here that would need to be brought into the equation.

DR. LEWIS: And that came up in our discussion, and one of the issues that the insurance industry raised was wanting to make sure that privacy and confidentiality issues didn't hamper the ability -- you know, they were concerned that

full provision of services might get into some of those areas, so it was something we spent some time talking about, and I think we recognized the fact that you're absolutely right, because we can get the best package in the world and if nobody's willing to pay for it, it's not going to happen. So we talked about that.

DR. LLOYD-PURYEAR: We also talked about the need to not just look at health care in a narrow sense of that meaning, but also to look broadly and talk about public health services, access to public health services, 10 essential public health services.

DR. McCABE: And we have adequate consumer and advocate representation on that committee?

DR. LEWIS: Well, we were sorry this morning that Mary was very busy with the rare disease group and wasn't able to be with us, but we want to make sure that, yes, we do have that, and if Mary's not able to be joining us, we'll be talking to her about making sure that we have appropriate representation, yes.

DR. McCABE: Victor?

DR. PENCHASZADEH: We also discussed the need not only of consumer representation, but also of minorities and diverse populations in the committee.

DR. LEWIS: And maybe reactivating that group of consultants that we had last year, having them check in with us on some of these.

DR. PENCHASZADEH: I just wanted to follow up on Joann's comment. I don't think we as a committee can really take all the scope and the different

interests involved there, as far as your comment was concerned. Perhaps insurance is easier than with employers. I think we can come up with a consensus of services that people may require. Now, in terms of who's going to pay or whether different employers may be enticed to give those benefits or engage discussion with third payers to provide those benefits to their employees and so forth, that is a whole issue that you will find as much variation as genetic diversities.

DR. McCABE: Joann?

DR. BOUGHMAN: My response and my question, actually, was just to raise that specter, because the last thing we would want to do was, in the attempt to be proactive in putting something together, cause an adverse reaction from employers in general because they were seeing something that they could shoot at, actually, in a way that was not the intention to begin with, so that as the package or set of services or whatever is being developed, I think we just have to be sensitive to other than programmatic paying for those packages.

DR. PENCHASZADEH: I think we will be as close as possible to standards of care. You know, because that's the bottom line, and as defined essentially by the professionals, and then of course with input from the consumers. The rest is up for the political arena.

DR. LEWIS: And the other thing I think I hear you saying, and correct me if I'm wrong, is that we don't want to create an environment of expectation that can't be met. We don't want to promise things that are not deliverable, and I think that that's very important, because I think that's worse than not promising anything at all.

DR. McCABE: One thing I don't remember you discussing, and it may be because we have already sent the letter to the former Secretary of Health and Human Services, Donna Shalala, was genetic discrimination and the possibility of genetic discrimination limiting access, and while we sent that letter last spring, it was not acted on by that Congress. So I would encourage us not to feel that we've taken care of this, because we wrote a letter, but we didn't take care of this issue.

DR. LEWIS: Thank you.

DR. McCABE: It needs to remain on our plate.

DR. LEWIS: We'll keep that on the radar screen.

DR. McCABE: Yes, Barbara?

DR. KOENIG: Do you think we need to resend the letter? I mean, since we do have a new Administration, a new Congress, and there is a --

DR. McCABE: Just so you're aware, when Bill Raub was leaving yesterday, I offered that once the new ASH was appointed, that I would be willing to -- well, I've offered to brief the ASH on our activities. Obviously, we would need to be invited, but we would do that, and that would be an opportunity to bring that issue up again.

In addition, Judy Benkendorf was very busy on the Hill on this issue last year. She's returned to her day job, but I understand she keeps track of what's going on on the Hill still. So maybe you can let us know what's happening, Judy.

MS. BENKENDORF: Most of what happens on the Hill happens underground at night, so I can still fill that in.

The original co-sponsors of the bills which we embraced, S.1322 and H.R.2457, are gearing up to reintroduce. There was supposed to be a press conference this past week, which didn't occur, but I would say within the next seven days the bills will be reintroduced.

There's going to be some very minor tweaking to the bills, which is not really going to affect us at all. I think there was some broadening of, actually, the definition of genetic test, which is good, to make it parallel to the Executive Order definition, and a couple of other tweaks are legalities related to employment and civil rights law that escape me.

But I believe it's going to be Kennedy and Daschle on the Senate side that'll be the original co-sponsors, with a whole list of other people, and then of course Louise Slaughter in the House, and apparently Louise's office is quite excited because they've sent out "Dear Colleagues" already, starting practically the day the 106th Congress went down finally, saying be an original co-sponsor in the 107th, and they're delighted by the bipartisan support for the bill.

There is also going to be a big, across the board privacy hearing in the House on March 1st. I've already been in touch with the committee staff and they're looking for people to testify, and I know that genetic discrimination may be one of the privacy issues that come up. So I'll keep people posted.

DR. McCABE: And since the Committee had asked that I write a letter to Secretary Shalala, former Secretary Shalala, I would assume that I'm empowered to brief the Assistant Secretary for Health on this and, should it become

appropriate, to correspond with the new ASH and with the new Secretary. Do I hear any disagreement with that?

(No response.)

DR. McCABE: Okay. So I will, if we have to, correspond again or do whatever is necessary to keep this before the Secretary's Office.

Any further discussion before we move on?

(No response.)

DR. McCABE: We will now hear from the Rare Disease Testing Work Group. I think it's Rare Disease and Rare Test Work Group, or at least that was one name for it.

MS. DAVIDSON: We've had many names.

DR. McCABE: Chaired by Ms. Davidson.

Mary, if you would, please.

DR. CHARACHE: It's the rare group.

(Laughter.)

DR. McCABE: I must say that while it appeared that there was going to be a relatively small group in the rare disease/rare testing group this morning, the table was full, so a number of people came from other groups and worked on this.

MS. DAVIDSON: We've got a little bit of a technical glitch here. Are there any Mac people here that can help me with this PowerPoint?

MS. BENKENDORF: Yes.

MS. DAVIDSON: Yes? Okay. We just need to be hooked up.

DR. McCABE: While we're working on the alternate technology before us, yes, Joann?

DR. BOUGHMAN: I just had a question. After our presentation yesterday morning, in addition to the possibility of a briefing for the new Assistant Secretary, did I understand that it would be a good thing, an appropriate thing, for us to send a letter to the new Secretary of any sort in addition to that, or would the briefing be the first step?

DR. McCABE: Our reporting structure is that we reported to Dr. Satcher not in his role as Surgeon General, but in his role as Assistant Secretary of Health. So in discussions with Bill Raub, it was felt that the appropriate first step would be to make the approach to the Assistant Secretary of Health when that individual is appointed.

DR. BOUGHMAN: Okay. Thanks.

DR. McCABE: Yes, Barbara?

DR. KOENIG: While we're having technical difficulties, and since Steve is back, I had a question for you having to do with the issue of labeling for the Informed Consent Work Group. It has to do with any suggestions that you might have.

What we were struggling with is as we're moving to a system that's going to rely more and more on labeling as a way of telling people what they know and what they don't know, which is a key part of informed consent, do you have any suggestions, based on from the FDA side, on how to make sure that the right information gets into the consumer's hand at the right point?

We talked about various options. There are some drug options, but we don't know of any device options. You know, for example, with drugs like Accutane, you made some very stringent requirements about certain kinds of materials that would be distributed before a drug could be given, those kinds of things.

DR. GUTMAN: Yes, this is relatively new ground for us in devices. It's not absolutely new ground. We have on rare occasions, for confusing or high profile tests, worked with manufacturers to develop patient brochures. PSA was one where there was some interest in that.

But from a regulatory standpoint, it is not a strong area of authority, and from an experience standpoint, we don't have much experience. So the bad news is I don't have much to bring to the table. The good news is, of course, that we have a lot to learn and do recognize this as important, and in fact are planning to develop new regs. So there are all kinds of opportunities operationally in terms of guidance standards or even regulations to address this.

But you clearly are in an area -- informed consent and that kind of counseling has been in the context of investigational studies, not something we usually look at as a testing issue.

DR. McCABE: An alternative approach to the technical issues would be, if we had things hooked up, to email to an IBM, where there's a magical technological conversion that occurs. Or the other alternative is just to turn the screen around and we'll look at the computer screen.

MS. DAVIDSON: Well, let me just tell you how beautiful the screen

is. This is going to be a very short report, and just picture a beautiful blue screen, okay?

So this is a report on the Rare Disease Testing Working Group, which I don't know -- that's the name that we call it. We have had a couple of other incarnations. We were the Low Volume/Rare Disease Working Group, but now that we've moved on -- and the members are Kate Beardsley, Patricia Charache, Steve Gutman, Alan Guttmacher, Henrietta Hyatt-Knorr, Janine Lewis, Roberta Pagon, who was on the telephone at 5 o'clock her time this morning, Virginia Wanamaker, Mike Watson, Vicky Whittemore, Chris Palatucci, Ed McCabe, and Elliott Hillback also joined us this morning. That also reflects our desire to bring some industry interest into the group, and our plan is to also invite NORD to be part of the Rare Disease Working Group.

Now we're getting some technical assistance.

I want to thank everybody for the meeting and discussions this morning and the other meetings that we've had, and I want to thank everyone in advance for the ambitious tasks that we've laid out that I'm going to tell you about, and in particular, Susanne, both for your help thus far and your help to come.

We really outlined for our mission to identify the special considerations of rare disease testing for laboratories, IRBs, providers, and consumers, and so we wanted to bring together a group that really represents all those interests to help us with the task.

Our overall goals and needs are to determine the impact of new regulations and the accessibility and availability of rare disease testing.

The second goal is to identify necessary and available resources to assist research labs in meeting the new regulatory standards that we're in the process of recommending.

Third is to outline special considerations for rare disease testing throughout the whole, entire process, and also to get some consensus on rare disease definition, which is something that came up both in our discussion and certainly through public comment, that there are a number of different definitions of rare diseases. We want to be sure both that we're clear about what we're talking about and that also it suits the needs of the rare disease community, and particularly with the tests with small incidence that generate smaller amounts of data, that we're setting up definitions that really work in that process.

For a progress report, basically we've put together a group that represents what we feel are the interests and experience on this subject. We have had a telephone conference call, and then we met this morning for both a discussion about the implications of all this on rare disease testing so far, as well as to have two presentations.

There was a presentation by Judy Yost of HCFA on CLIA certification requirements, and she also has developed two drafts on technical assistance to laboratories, and those are the ones that have been passed out to you. There are two different pages on that, but they really outline -- and again, they're in a draft form, but they were really a challenge to the committee to think about how technical assistance to laboratories could be developed and delivered in a way that would really make sense

and would ensure that there is rare disease test access, both now, but afterwards rare disease access to greater quality tests, but also that what we're setting up will only increase access and availability of tests and will not result in some small, particularly the academic, laboratories becoming frustrated with the process and going out of business.

The tasks that we have set up for ourselves are, first of all, to develop a survey for investigators of research laboratories who are currently operating without CLIA certification, and our process for that, our goal, is to identify barriers for labs that will be seeking CLIA approval, to educate labs about the coming regulations and availability of technical assistance, to determine the impact of regulations and CLIA approval on genetic testing for rare diseases, again because we want to be sure that all of this results in increased access, rather than inadvertently decreased access.

Part of the process that we want to incorporate in this is to, going through GeneTests, identify labs that currently offer testing, but are not CLIA-approved, and do some spot telephone interviews to inform them of the development of a draft survey. Our timeline on this is to complete the draft survey for review in May and to disseminate and tally results by our August meeting. So that's our first task.

The second task is to develop a survey for IRBs because, again, since many of the small, non-CLIA-approved labs are IRB-approved and are in academic settings, it's important to understand what the particular technical assistance needs of IRBs are. The goals for this would be to educate IRBs, again, regarding coming regulations and CLIA requirements for genetic testing labs, to survey IRBs regarding

their policies on improving protocols for labs doing research genetic testing, particularly those that allow results back to patients.

Our process for this would be to contact IRBs, and part of the presentation this morning was by Jennifer Puck, who is here at NIH, and she described kind of her process in a particular research lab in becoming CLIA-approved, but also we want to be in contact with PRIM&R and other IRB education organizations to be sure to have the benefit from their information and use that to inform the development of a survey. The timeline for this is to have it ready for us to review at our May meeting and to disseminate it and tally results for the August meeting.

The third task is that we were thinking again about the technical assistance model that CLIA is suggesting, that it's tremendously important to think about building a coalition of organizations and agencies and consumer groups who can really help in that technical assistance process, so that the laboratories that are going to be faced, then, with passing and going through the CLIA approval process, that they will have someone to call where the information and technical assistance will be readily available, and we feel that that will create a climate that will really facilitate the process.

So the task, again, for our May meeting is to draft the letter that will be sent out to professional organizations to recommend that they be involved in providing technical assistance for CLIA-approved workshops and other kinds of technical assistance. This letter, at least at this point, would emphasize this coalition's role in educating members and laboratories and IRBs regarding the importance of CLIA approval and to identify organizations who should receive the letter and organizations

that can provide specific kinds of technical assistance.

The process for this is to get some organizational input in the drafting of the letter and to really use the technical assistance proposal to inform the letter. The timeline is, again, to have this letter available for review in May and to review a list of organizations at that same May meeting, and disseminate it after the May meeting with then some reporting back in August.

Our fourth task is that we plan to survey the Genetic Alliance -- well, I should say the Genetic Alliance member organizations, but we'll certainly spread this out to as many groups as we can get it to, asking very specific questions that we're hoping will help us, again, identify some of the special considerations around rare disease testing.

The questions that we will be asking, first of all, is for groups to identify if they have a test available and where it is being done, and then, when we get those answers back, to then ask those specific groups to follow up with specific questions about the labs that are offering the tests to get some descriptors about the size of those labs and where they are and to begin to help us understand laboratories that might need technical assistance, what that might look like, issues of importance to people with rare disease, and the impact of regulations on rare disease genetic testing in general.

The fifth task is because there have been comments all along about the different rare disease definitions, we thought it was really important to collect those definitions, have them on one page, so that we could really understand what the

definitions are between CLIA and the Office of Rare Diseases at FDA and so on, and then decide what definition really meets our task, what definition's really appropriate to being sure, again, that access and availability of rare disease tests is maintained throughout this process, and that will be done by the May meeting.

The sixth task is to begin outreach to provider education efforts around rare disease issues, really looking at this as communication and back and forth between our committee, as well as those groups, and in particular we have outlined NCHPEG as a group to begin that effort, and Alan is going to be our conduit there I think. Also, the Education Working Group that is going to be looking at health professional education. If there are other organizations that people would like to suggest, we'd really like to hear them.

Then the last task really is to continue to bring rare disease issues to other SACGT working groups and committees, just to be sure that when we're talking about informed consent and access and education that rare disease issues are represented on those levels as well.

I'm sorry you didn't have the benefit of the slide show. It was very nice. But I really appreciate your input on the tasks that we've set up, whether you think that they're reasonable, whether they meet the overall goals of the Committee, and any other thoughts and suggestions that you might have.

DR. McCABE: One thing that Sarah reminded me of that I had forgotten, and that is that if we undertake any sort of a formal survey exceeding nine individuals or groups, that then we need to get OMB clearance for that. So we need to

be cautious in all of the activities of the various work groups about that.

Sarah, do you want to comment?

So we would need to be cautious about how formal this was or whether it was done under the auspices of the SACGT or not.

Yes, Wylie?

DR. BURKE: I just want to make a comment on your work on mechanisms to provide technical assistance to rare disease laboratories. I really wanted to commend the effort and the approach.

I was in a conversation last week with a colleague, and I'm sure many of us have had conversations like this, in which the subject of the need for CLIA certification came up, as it often does when we get into these kinds of conversations, and an irate researcher who does meticulous research identified himself as the source of certain tests that are important to certain families who is not CLIA-certified who feels an ethical obligation -- you know, the scene we're very familiar with, but what was striking was that it was his opinion that there was "no way" his lab could meet a CLIA-certification level. So I think this kind of work is just tremendously important.

MS. DAVIDSON: Yes, and what I'd like to emphasize is this survey, and I hope we're not limited to nine, but one of our thoughts with this survey is it's not only to get information about laboratories, but that it could serve really as an educational mechanism to really make the point that there will be technical assistance out there, and that ultimately this is in the patient's good, and to really try to build an alliance, rather than making it one more onerous thing.

DR. BURKE: Yes. Again, what was striking for me in the conversation I found myself in was that we could rapidly get to an agreement that everybody had the same goal, which was that a good test be done in a proper fashion and good results be given to a family, and the lab wouldn't want to sign off on that if that weren't the case, but just the feeling that there's a bureaucratic process that a small lab said he could not meet.

DR. McCABE: Joe, do you want to comment on this?

DR. BOONE: There are ways to do surveys apart from the Committee. If one of the professional organizations were to take this on, that would be another option that you could pursue, rather than this group chartering that type of activity.

I really do think that it's worthwhile. Judy Yost and I were talking about this before, that her activities through HCFA, it's difficult to come from the government perspective. We really need the professional organizations to step forward and help identify who needs to be CLIA-certified and start that process from the other direction.

DR. McCABE: Yes. I sat in on this work group this morning, and I think the real purpose was to gather information, but also to begin to educate.

The other thing that I think could be done is for presentations like Dr. Puck made to us this morning, which was really very helpful and she identified what were the few small hurdles that she had to overcome -- you know, just assignment of numbers, intake of specimens, some things that are done in a clinical setting that are

different than in a research setting, and how she handled quality assurance and that sort of thing.

So workshops by individuals who have gone through the process at their professional organization meetings could also help to desensitize some of the investigators about their fears on this.

Yes, Pat?

DR. CHARACHE: I was going to comment along those directions, because it was very impressive this morning that this process had appeared to be so lined with dark clouds, but when Dr. Puck got into it, she found that there were no problems or questions about the quality of the work, and all of the QC and so on that led to the accuracy and integrity of the test were all in place. There was no fuss about it.

But the areas in which she needed help are those in which a research lab is particularly error-prone, and that is for switching specimens from Patient A to Patient B, and when they are small and easy to correct that way, you end up with a thank you, and I think that the best people to help do the teaching are those who are identical to the physicians and researchers who are afraid.

I think also in the survey a question might be, "Are you aware of the aids that are available that make this a simple process?" and things of this kind to help teach them that this is not a punitive, looking at every detail type of review.

DR. McCABE: Yes, and Judy Yost identified herself, as well as people in the field in the HCFA field offices, regional offices, that would be helpful in this area as well.

Francis?

DR. COLLINS: Mary, I appreciate your giving us a clear description of what your plans are here, and I do think this would be extremely worthwhile to try to encourage laboratories that are doing tests for rare diseases to move into this better-certified arena.

I am a little concerned about the phone interviews that they be carefully structured, so that you don't have exactly the opposite effect of what you're hoping for. I can imagine a laboratory that's perhaps already a little uneasy about what they're doing getting a phone call asking penetrating questions about why they aren't CLIA-certified concluding, especially if it came from some government-sponsored advisory committee, that they're about to get cracked down on and maybe they just better stop testing right away. So I'd be very careful about how that gets organized.

MS. DAVIDSON: Yes.

DR. COLLINS: The second question, and I don't mean to put Mike Watson on the spot, but maybe I'll ask if it's possible to give a response, I agree with you that in order for this to go smoothly, in order for laboratories to feel that this is a pathway that they can travel, that there's no substitute for their professional organizations getting behind this effort and having people like Jennifer Puck stand up and say, "Look, I did it and it wasn't so bad. In fact, it actually helped me," but I think that would require some enthusiastic support, particularly from the American College of Medical Genetics, to assist in this effort.

So is that likely to be forthcoming, Dr. Watson?

DR. WATSON: No, I think that's actually pretty easy to do. The complexity is I think ours may be the same as CLIA's, in that the people who are associated with us tend to be board-certified laboratory directors who are CLIA-licensed.

Now, I do know exactly how to get to the people we're talking about, I think, so I think we could certainly develop something that would be educational and solicit the information we need, and I can partner with those organizations where I know many of the people that may be involved in this sort of thing. Certainly, through the Society, where many of the gene-finding researchers are. We're in the same building, same floor. I think we can facilitate getting to the right people, and certainly some of them are available through us.

But I think we can talk and sort it out more specifically, so that we actually get to the right target population for this, because by their very nature they tend not to be associated with a laboratory practice kind of organization, but I think we can get to them, because we know those groups.

DR. McCABE: The other group that we identified this morning was the Society for Inherited Metabolic Diseases, because that's another group that tends to be rare disease research membership. So I think there are certainly groups that one could contact.

I think you're accurate. There was discussion about not wishing to drive these laboratories further underground by any of these inquiries, and one of the things that Judy Yost reassured us is that HCFA and CLIA provide amnesty to the labs,

as it were, so that they can say, "Okay, we understand that you've been perhaps doing it this other way, but let's work to get you to doing it appropriately."

On the other hand, as IRBs are informed of the issues here, there's going to be a bit of a squeeze put on these laboratories, and the real unintended consequence that we don't want to happen is to see these tests disappear, and that's a major problem in the research environment. Grants change, people move on, and there are examples for rare diseases where the testing has just disappeared and become unavailable to the patient population. We wouldn't want it to start happening because of the squeeze from CLIA and the IRBs.

Mary?

MS. DAVIDSON: Yes, Francis, your point is very well taken and these tests are not meant to be like strike forces. They really need to be part of a thoughtful strategic plan that's very respectful of where people are now and that is first and foremost really educational in approach, and I think by having it be collaborative at every point, including the farming out, if I can use that term, to different organizations pieces of it, I think that it really builds in a collaborative spirit and structure that can support it.

DR. McCABE: I can tell you that this is one of the fears that I hear most commonly about our Committee from my friends and colleagues, many of whom are doing this sort of research laboratory-based testing and do feel an obligation. Some of them actually feel that if the granting agencies knew they were doing this, that they would be penalized because in fact their specific aims no longer include that aspect of it,

but they recognize that they are frequently a unique resource and feel an ethical obligation to the patient base from which their research ultimately derives. So there are some significant issues.

Yes, Joann?

DR. BOUGHMAN: But doesn't it create an interesting parallel that if the professional organization were the one to ask these questions, so that the message could be sent forward without identifying information, because the person or the laboratory who owns that information doesn't want themselves to be identified? It's an exact parallel to the situation that they in fact are in themselves in giving information to patients that the patients don't want anybody else to know.

So I think that there would be some real advantages to the organizations asking the questions, and therefore being able to aggregate and strengthen the message that would go forward about what those barriers are and what kinds of technical assistance are needed.

DR. BURKE: Ann?

MS. BOLDT: Mary, did you have any discussion about non-U.S. labs, too, in terms of the concerns, since there are some labs, like in France or whatever, that are the only lab that does a certain test?

MS. DAVIDSON: Committee members, help me out here.

DR. WATSON: We didn't specifically discuss it.

DR. BURKE: Barbara?

DR. KOENIG: I just wanted to ask if you could say more about the

way that you plan to interact with IRBs in terms of the issue of their enforcing of this requirement, too, that tests be done in CLIA-approved labs, because there was something on one of your documents about that, and I'm not sure if I exactly understand it.

MS. DAVIDSON: We're looking for your input.

DR. KOENIG: Okay.

MS. DAVIDSON: At this point, we know that we need more information to go forward, so please.

DR. KOENIG: Well, I'm not sure exactly -- I don't have an answer to that. I just think it overlaps a lot with the informed consent issue because of the issue of disclosure of research results, which is so complex at this point in time because of the evolving privacy issues.

And Sarah, I'm not sure what -- the issue is that, I think just to make this very clear, we're going to have a briefing on it for the full Committee, but my understanding, and please correct me if I'm wrong, is that the implications of the current privacy regulations are that there would be a legal requirement for information to be disclosed on request, but it's not at this point the law, so it's very confusing or -- I'm confused about the legal situation, Sarah.

MS. CARR: Right. I could just say that the privacy regulation was finalized, but I think it's under some review by the new Administration. I mean, I've read the part of it that addresses CLIA, and I'm not sure what I read in it, that there isn't something -- you know, some other provision -- that affects what I thought I read in

there, and so I think it's probably best if we wait a few months to see how that plays out and see what really does come out in terms of what it might require in terms of making research results accessible to patients upon their request. I think it's too early.

Unless, Irene, do you want to say any more about that?

DR. STITH-COLEMAN: The only thing I have to say is what Judy, who was nice enough to inform us -- I think that what she said is basically what you're saying, Barbara, is that the CLIA regs or the privacy regs require that results be disclosed to a participant. I mean, the subject.

DR. KOENIG: If they ask for them.

DR. STITH-COLEMAN: If they ask for them. Whereas IRB requirements, the common rule requirements, say something different if the information is not valuable in terms of impact or -- what is the information in terms of -- there's this whole issue of at what point should you disclose information to a subject, and I think that the definitions or the clarifications are not that clear, but it really means that -- they say opposite things and it's confusing.

MS. CARR: But there is an acknowledgement in CLIA and in the rule, and I thinkÊ--

DR. STITH-COLEMAN: Right, and I think that the other part to it is NIH's interpretation, and I know maybe Francis can speak to that, too. I mean, there are like three different interpretations, and I agree with you. Maybe we should wait until the timeline is over.

DR. COLLINS: I'd agree with that, because the degree of clarity here

is almost totally absent.

DR. STITH-COLEMAN: Yes.

DR. COLLINS: And rather than spending our time getting into that particular quicksand, maybe we'll hope for a solid ground to appear in a little bit, because it does not seem as if this set of regulations is considered by many people to be all that durable.

DR. STITH-COLEMAN: Right.

DR. KOENIG: Right, although I think it is important for the Rare group committee to be aware that this is on the horizon, the landscape, that we are sort of standing on quicksand.

DR. STITH-COLEMAN: Right. I agree with that.

DR. McCABE: Mike Watson, do you have a comment?

DR. WATSON: Yes, and it was a two-part discussion in our committee. It was partially to inform them about the fact that these people should be CLIA-certified, but it was also -- I mean, there is a reason that you pay attention to rare diseases, and from one perspective you may pay attention to a rare disease to facilitate manufacturers developing the kits that ultimately standardize the testing for a rare disease, and give them certain credits or benefits to encourage them to do those sorts of things.

One of the things you want an IRB to do is recognize that in rare disease situations, there may not be the same level of performance characteristics being fine-tuned about a test and that they shouldn't block a laboratory from delivering a test

just because the disease is rare.

So it was as much an educational process about how one thinks about rare diseases as it was telling them that the labs ought to be CLIA-certified. So it was a mix of issues.

DR. McCABE: Thank you.

Other discussion on this?

(No response.)

DR. McCABE: If not, any open discussion, general discussion, before the conclusion of the meeting? Other topics? Anything that we have not discussed that people want to bring up?

Francis showed us a sheet from the Washington Fax on the Slaughter-Daschle initiative, and that's being copied as we speak, so that we can get it to all the members of the Committee.

DR. COLLINS: If I could just say a word about that, I'm sorry I missed it. Half an hour ago or so, somebody raised this issue. The bill, which is 318 in the Senate and 602 in the House, was introduced on Tuesday of this week, which is pretty much the same bill that Senator Daschle introduced last year, also with sponsorship by Slaughter in the House.

I think there is some reason to be optimistic about additional forward motion this year, in part stimulated by the fact that the scientific advances have moved along very swiftly and that provides an additional wake-up call for people who've been saying, "Oh, we don't have to do this quite yet."

It is reassuring to see there's a co-sponsor in the House who's a Republican, that being Representative Morella, who's actually my Congresswoman because she represents Montgomery County.

It is also encouraging that there might be a better chance of this bill getting a hearing in the House with the changeover in the leadership of the Commerce Committee, which would have jurisdiction, and indication that Representative Tauzin, who's the new chair, thinks that this is an issue of some importance.

So while having been disappointed several times in a row it's hard to be a Pollyanna anymore, just the same, it does look as if maybe the stars are aligning here for a serious effort of a bipartisan sort this year to try to see this bill, which covers both health insurance and employment discrimination, seriously moving forward, and given that this Committee has previously expressed itself on this topic, I thought you might want to know those details and consider tracking it rather closely.

DR. McCABE: Thank you very much.

I just would remind the members of the Committee that should you communicate with your Congresspersons in any way about this, you need to do it as private citizens and not as members of this Committee. That's a very important distinction. Remember that you are special federal employees when you're serving as members of this Committee, and therefore you should not be supporting any specific legislation.

Any further discussion, then?

(No response.)

DR. McCABE: Well, again, I want to thank the Committee and the public for helping us with the progress that we've made. It's been an impressive week for genetics with the genome announcements and celebrations. The Secretary's Advisory Committee on Genetic Testing has met the challenge of the week, I think, and moved our mission forward impressively as well.

Thanks to Sarah Carr, Suzanne Goodwin, and Susanne Haga for all of the work that you've done supporting the Committee and the work groups.

I hope everybody travels safely, and we'll see you again May 2nd and 3rd for the next meeting of the SACGT. Thank you very much.

(Whereupon, at 2:45 p.m., the meeting was adjourned.)