



PROTECTING HUMAN SUBJECTS

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New research challenges

The FDA wants to improve the quality and trust in human subjects research because the challenges of multisite studies and those conducted outside academic centers are becoming more complex



Joshua Sharfstein

The U.S. Food and Drug Administration (FDA) has begun a wide-ranging effort to improve quality and trust in human subjects research, according to Joshua Sharfstein, FDA's Principal Deputy Commissioner.

Today's research environment includes numerous challenges, he said, such as the fact that clinical trials are more complex, there's a dramatic increase in the number of studies conducted outside academic centers, more research is conducted outside the United States, and there are more large, multisite studies.

In addition, while there is an increased interest in FDA's oversight of the clinical trials process

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Research results must be returned to donors -



Stephanie Fullerton

For research ethicists, the controversy about returning biorepository research results to the people who provided biological material is settled, according to University of Washington bioethicist Stephanie Fullerton.

"In some cases, results must be returned," she said.

The question about returning results, especially in genetic studies, raises thorny problems related to the clinical usefulness of research results and the logistical difficulties of getting them to donors in a responsible way.

Another question is what to do about the original consent form that donors signed, which "almost invariably said we will not return anything," Fullerton said.

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"Enhancing the Contributions of Community IRB Members"

San Diego meeting explored innovations, educational resources

Prominent individuals in the field of human subjects protection and community members of Institutional Review Boards from more than a dozen research institutions and federal agencies gathered in San Diego on December 4th for an invitation-only workshop on "Enhancing the Contributions of Community IRB Members," prior to the PRIM&R conference.

This event, organized by Susan Rose, of the University of Southern California (USC), and Elizabeth White, of the U.S. Department of Energy (DOE), capitalized on a long-standing interest in enhancing the voice of the community/community member in the IRB process.

*by Elizabeth White,
DOE Program Manager for
Protection of Human Research
Subjects*

The meeting goal was to explore innovations, educational resources, and issues related to Community IRB Members. Following are several of the many questions asked of participants during the plenary and breakout sessions:

- How does your institution define community member (CM), which in the Federal regulations is termed, "unaffiliated member?"
- What makes CMs like/unlike other members, and how can appropriate community members be identified?
- What strategies/resources worked for enhancing the role of the CM? Why?

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San Diego meeting explored innovations, educational resources -

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- What strategies have not worked?
- What additional strategies/resources should be considered/employed/supported to enhance the CM's role?
- As a group, or individually, what can we create/follow-up/commit to that will last beyond this meeting to enhance Human Subjects Protection Programs and IRBs?
- Better defining what is meant by community member and what we expect of our community members
- Making existing training materials and resource manuals from USC, University of Kentucky, DOE, RTI International, and other organizations' community members available to the larger community

It was agreed that it would be useful to continue a dialogue, via a Listserv, with meeting participants on next steps. The intent is for both organizers and participants to follow up on the proposed strategies generated during the discussion, which included:

- Developing a best practices document which would include approaches used by IRBs that have successfully enhanced the contributions of the community IRB members to date, including:
 - nurturing an atmosphere of valuing different points of view during IRB meetings
 - linking all new community members with an experienced board member
 - providing training up front
 - requiring that primary/secondary reviewers of each protocol develop a one-page summary in layman's terms of the protocol and issues/concerns
 - engaging community members as serving as primary, secondary, or tertiary reviewers
- Revitalizing the DOE community member listserv
- DOE, USC, and potentially other organizations joining together to hold bimonthly educational sessions via conference call or using Skype for community IRB members nationwide. (These could be advertised via IRB Forum and the USC and DOE Community Member listservs.)
- PRIM&R holding a webinar for community members
- PRIM&R giving regional scholarships to community members to attend the annual PRIM&R meetings and introducing them as the awardees at the PRIM&R meeting
- In metropolitan areas with multiple IRBs, holding annual regional lunches for community members to meet and talk (rotate obligation to host the luncheon among local organizations)

- Enhancing organizations' websites with content for/about CMs and the community
- Getting publicity on this topic in journals and spreading the word at other professional meetings

The meeting drew community members, IRB chairs and administrators, and representatives from a variety of universities, research institutions, private organizations, and national laboratories. This included the vice president of AAHRPP and directors of OHRP and PRIM&R.Δ

Student guide to HS research

A student guide, "Making Sense of Human Subjects Research," was published in August 2010 by The University of Southern California's Office for the Protection of Research.

It is at http://www.usc.edu/admin/provost/oprs/private/docs/oprs/brochures/Student_Resource_Guide_Book_81010.pdf.

The guide includes discussion of IRB review requirements and faculty/student responsibilities in human subjects research.

Also included is a guide to what is and is not human subjects research, the types of IRB review, and an examination of student projects in the IRB review process.

Appendixes include tips for better IRB submissions, helpful links, a glossary, and an example of IRB application for "not human subjects research."

DOE: Assessments, reviews are critical to our responsibility to protect human research subjects -



Elizabeth White

For years, DOE has considered regular self-assessments and external reviews as critical components of the continuous improvement of our DOE site programs for the protection of human research subjects. (See related articles on pages 4 and 5.)

Our goal is not only to ensure that our research laboratories and other facilities across the country meet federal and DOE requirements, but also to become leaders in the field of human research subject protection. We have primarily used two approaches in the past three years.

*by Elizabeth White,
DOE Program Manager for
Protection of Human Research
Subjects*

AAHRPP

The first is the Association for the Accreditation of Human Research Programs (AAHRPP) self-assessment instrument and accreditation process (<http://www.aahrpp.org>). Two DOE laboratories have achieved accreditation through AAHRPP.

OHRP

The second approach is the combined use of the Office for Human Research Protections (OHRP) self-assessment instrument and voluntary submission to a comprehensive review by members of the OHRP Education Division (<http://www.hhs.gov/ohrp/education/>). Three DOE laboratories have participated in this process over the past two years.

Additionally, in 2009 DOE arranged for an external review of one of its major international research programs using the OHRP Quality Assurance (QA) consultation approach and tools.

This year, we have scheduled QA consultations at two additional DOE sites. OHRP has been kind enough to train several of us at DOE headquarters in how to conduct a QA consultation, and thus we will lead the upcoming QA consultations at these sites.Δ

HS publication

Ethical guidelines for contraceptive use in human subjects research

By Chris Kaposy and Françoise Baylis

In the September–October 2010 issue of *IRB: Ethics & Human Research*, the authors discuss ideal institutional policy for use of contraception by human subjects in research.

They cite the University of Nebraska Medical Center's policy that aims to balance protection of potential fetuses from harm against respect for the autonomy of women research participants. The policy draws on the U.S. Food and Drug Administration's Use-in-Pregnancy categories (A, B, C, D, and X) in an innovative way.

These categories are meant to help prevent the exposure of fetuses to harmful drugs when used for therapy by pregnant women. The UNMC IRB policy applies the FDA categories as a guideline for mandating contraceptive use among research participants. Clinical trials of drugs in the different FDA categories require different levels of contraceptive protection under the UNMC IRB policy.

The authors agree with the insight that contraceptive requirements in research could helpfully be guided by the current and future FDA Use-in-Pregnancy guidelines. However, they argue that in several places, the UNMC IRB policy unjustifiably prioritizes the protection of potential fetuses from potential harm at the expense of respecting the autonomy and well-being of women research participants.

You may read the abstract of this article and see the comparison of policies table here.

<http://www.thehastingscenter.org/Publications/IRB/Detail.aspx?id=4876>

Accreditation demonstrates the commitment of BNL personnel involved in human subject research, from the investigators to the administrative staff and committee members, and the extraordinary quality of its human research program.

After three years of documentation, revision and review

Brookhaven earns AAHRPP accreditation -



Darcy Mallon

Brookhaven National Laboratory (BNL) has received full accreditation from the Association for the Accreditation of Human Research Protection Programs (AAHRPP).

BNL received notification of accreditation on Sept. 23, 2010.

Human subject research has been ongoing at BNL for over 50 years

and has always complied with federal, state, and local regulations.

Commitment

However, AAHRPP accreditation demonstrates the commitment of BNL personnel involved in human subject research, from the investigators to the administrative staff and committee members, and the extraordinary quality of its human research program.

The accreditation process looked at the research program in its entirety. This includes the initial protocol applications, to the review process, to the documentation of protocol status and system processes that provide the highest possible standards of human subject protection.

Revisions of accreditation process

Several revisions of the accreditation process occurred since BNL's initial application three years ago. One of the main differences is that there are now two separate steps.

The first involves submitting policies and procedures, including backup documentation, along with an application form. The policies and procedures are reviewed by AAHRPP, and feedback is supplied to the institution.

When BNL applied, there were five domains, 20 standards, and 77 elements.

However, Domain II pertains to the Research Review Unit, including IRBs. Since BNL uses the State University of New York at Stony Brook (SUNY-SB) IRB, there was less documentation required as part of the BNL submission.

Policies and procedures revised

With feedback from AAHRPP, the policies and procedures were revised as necessary to meet the requirements.

The second step involved submitting the revised policies and procedures, along with other required documents.

Following the submission of Step 2, the 2-day site visit was held during July. Reviewers conducted interviews during the visit with personnel from all aspects of the Human Research Protection Program (HRPP).

They also reviewed all HRPP policies and procedures that had been submitted as Step 2 to assess whether BNL was complying with its own policies and procedures.

Several revisions of the accreditation process occurred since BNL's initial application three years ago.

More feedback

Following the site visit there was more feedback from AAHRPP based on the reviewer's assessment. These were addressed and the final application package was sent to the next AAHRPP Council meeting, at which BNL was awarded full accreditation.

The experience was very enlightening and I believe has enhanced the BNL Human Research Protections Program.Δ

AAHRPP accreditation

For information about the Association for the Accreditation of Human Research Programs, see <http://www.aahrpp.org/www.aspx>

LLNL chooses OHRP-provided QA consultation -

Lawrence Livermore National Laboratory chose OHRP QA consultation rather than accreditation because the nature of the lab's research made it a better choice



Ann-Marie Dake

When Ann-Marie Bucaria Dake volunteered Lawrence Livermore National Laboratory (LLNL) for an Office of Human Research Protections (OHRP) QA consultation, she wasn't worried.

Well, mostly she wasn't worried.

She knew the program was sound, the people extraordinarily capable, and the IRB seriously conscientious about its responsibility to oversee human subject research.

Still, a visitor from Health and Human Services' Office for Human Research Protections (OHRP) would carefully examine documents, scrutinize procedures, and talk to everyone during the assessment process. In addition, the two DOE human subjects program managers would also be part of the team.

Something could go wrong. Some documentation may be missing. Some procedure possibly unacceptable or vague.

Paying off

But none of that happened. The assessment is complete; the results were even better than she hoped, and the care that she and others took to assure the assessment went well is paying off because LLNL's program is now even better organized than it was before.

LLNL was the third national laboratory to participate in an OHRP QA consultation. Both Oak Ridge and Sandia National Laboratories completed the process in 2008. Brookhaven National Laboratory chose to seek accreditation from the Association for the Accreditation of Human Research Protection Programs, which it achieved in September 2010.

Dake acknowledged that the preparation and the subsequent on-site visit by OHRP and DOE was stressful just because that is the natural response when another set of eyes, or sets of eyes in this case, is reviewing your work.

"But I came to understand that there was no need to be worried, in part because they are not coming 'for cause,' or because there was 'something wrong,'" she said. "They're coming to review and help, not to impede, punish, or criticize. It's an educational visit."

On-site review team

The on-site review team consisted of Elizabeth White, DOE Human Subjects Program

Manager; John Ordaz, the NNSA Human Subjects Program Manager; and Michelle Feige, a public health analyst with OHRP.

Dake said LLNL chose self-assessment rather than accreditation because of the nature of research at the Lab. The DOE management supported this choice.

"They're coming to help, not to impede, punish, or criticize. It's an educational visit."

"Many of the Lab's studies are collaborations with University of California campuses and are biomedical in nature. We also deal with on-site studies involving potentially vulnerable populations such as other lab workers who could feel coerced into participating in the research study. However,

at this time the Lab is not involved in clinical trials or FDA-regulated research, which is why we felt that OHRP's process of self-assessment would be more useful and applicable to us," she said.

Advice for others

Her advice for others who choose QA consultation is to thoroughly examine and organize all documentation, perform an extensive file review, and send as much information as possible to OHRP and/or DOE in advance of their on-site visit (that is, if your organization agrees with this method.) Both OHRP and DOE had requested a number of documents in advance of their visit. Dake and John Knezovich, the IRB Chair, felt it was in everyone's best interest to comply with the requests.

"When they get here, time is short. We thought that if some of the work could be reviewed prior to the visit, they would have more time to discuss issues and suggestions when they're here. This was indeed the case, and afforded all parties the opportunity to have a cogent, focused conversation regarding various aspects of our program."

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“Because we had a good program to begin with, this was mostly a matter of getting everything together, getting it as close to perfect as possible in our eyes. Then when our visitors came we could say, ‘This is who we are.’”

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She also suggests talking to people at other labs about their experience. “I spoke with my colleagues at the National Laboratories who had completed the process. This proved to be very helpful in describing what to expect. Hearing it firsthand from someone who had completed the process was both reassuring and enlightening.”

Among the work she did to prepare was a complete revamping of the program’s Web site. Dake wrote an entire set of standard operating procedures (SOPs) while revising the IRB Policies and Procedures.

In addition, she worked with an IT individual to have all the IRB forms redone into a PDF format, which is the format of choice at LLNL. “We now have a new set of standard operating procedures for our IRB. The new PDF forms are user friendly, current, and have an overall ‘cleaner look,’” she said.

Discussions with board members

Dake and Knezovich also discussed at length the planned assessment with the IRB members, ensuring, among other things, that they were fully knowledgeable about the new SOPs and the agenda for the visit.

Prior to the visit, Dake and Knezovich organized a telephone conference with the review team and LLNL’s Institutional Official, Thomas Gioconda, who could not be present for the inbriefing (due to previous commitments). Dake and Knezovich felt this step was essential as Gioconda was new to the Laboratory and the IRB. This was well received by all parties involved and afforded an informal way to dialogue and discuss the details of the impending visit.

During the on-site visit, the review group spoke with board members “and that went especially well,” she said, “because every one of our Board members came to the meeting, which I thought said

a lot about their interest in participating and strong dedication to our program.”

The review group also spoke with six principal investigators who discussed their experience interacting with the IRB. “While that was going on I met with Michelle Feige to go over in great detail all of our policies and procedures, SOPs, protocol files, and other documentation.”

The visit, which lasted a day and a half, included an inbriefing during which the review team discussed what they would do, as well as an outbriefing, when they talked about what they found, highlighted the noteworthy practices, and offered suggestions for improvement.

The comments from the review group were both helpful and positive, Dake said.

Tweaking

“It went exceptionally well, largely because we had all the elements together. Some of what we do needed a little tweaking, which we are doing now; however, because we had a good program to begin with this was mostly a matter of getting everything together, getting it as close to perfect as possible in our eyes. Then, when our visitors came we could say, ‘This is who we are.’”

Dake said that it is important to understand that the process is thorough but that the review group is there to help. “They do find things to pull out, as all reviewers do, but the comments were sound, which will ultimately strengthen our program.

“This is an evolving process,” she said, “as new and revised guidance will continue to be generated within the human subjects’ community, and change is an ever-present element. However, we know our program has a strong foundation on which to grow.”^Δ

They do find things to pull out, as all reviewers do, but they were always things that will strengthen our program.

The FDA is employing enhanced enforcement, which means in part that there is more oversight while trials are in process to promptly correct problems.

New research challenges -

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and patients are concerned about the safety of clinical trials, patients want more access to clinical trial information as well as to investigational products.

Sharfstein also noted the ever-changing pool of clinical investigators. Citing recent findings, Sharfstein stated that about 63% of investigators have only one year of clinical trial experience, 12% have 2–4 years, and only 25% have more than five years of experience.

Complying with regulations is made more difficult, he said, because when new therapies are being investigated, patients want access to them and doctors want to help. In a recent study, 90% of doctors reported that it is acceptable to ignore certain entry criteria for a study if a patient could benefit from participating.

This makes “the job of conducting research within the lines more challenging,” Sharfstein said.

Focus will be on the one thing that goes wrong

Another challenge is ensuring transparency in research, including reporting of investigators’ financial ties to sponsors and products and reporting of adverse events. He said this transparency is especially important because of the interest shown by Congress, the media, and the public. “Even after 100 things go right, when one thing goes wrong that is what everyone will focus on,” he said.

Sharfstein noted various investigations of FDA oversight and of the research community generally. Their findings, related to financial conflicts of interest and other issues, have led to several FDA initiatives that the agency expects will result in greater accountability.

Among these is additional guidance on clinical investigator financial disclosure and training for

FDA’s review staff as well as more follow-up during investigator and sponsor inspections.

Procedural lapses

When the Government Accountability Office (GAO) found procedural lapses in FDA’s process of debarring investigators, the FDA revamped its system to provide more timely resolution of such actions and enhanced the transparency of pending cases, including a Web site that listed the names of people who have been debarred.

Sharfstein said the GAO found one case in which the investigator enrolled people who did not qualify, claimed one subject who did not exist, and submitted false information about the study. The investigator was eventually sent to prison in March 2004, but he was not

disqualified from participation in studies until May 2008 and was not debarred until September 2008.

“Try explaining that to the Government Accountability Office,” Sharfstein said.

Sting operation

A widely reported GAO sting operation that showed the IRB system’s vulnerability to unethical manipulation also spurred the FDA to more stringent enforcement, he said. The focus of the undercover GAO investigation was commercial IRBs. During the investigation, the GAO went to three IRBs asking for approval of a protocol to test a made-up device called “Adhesiabloc.”

The device was not adequately described, preclinical testing was incomplete, the investigator was not qualified, and the research facility was not appropriate. Two IRBs rejected the request, but one approved it, Coast IRB, which has since ceased operations.

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63% of investigators have only one year of experience, 12% have 2–4 years, and 25% have more than five years of experience

Fostering trust by working from the principle that, “responsible research is ethical, not just compliant . . . because the regulations are the ethical floor, not the ceiling.”

New research challenges

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“This was a wake-up call on due diligence in [FDA’s] oversight of IRBs,” Sharfstein said. Before it went out of business, Coast IRB had 300 active trials involving 3000 sites and 14,000 patients.

Building quality and trust in clinical trials

Having provided this backdrop, Sharfstein proceeded to discuss FDA’s efforts to foster quality and trust in clinical trials. The agency is using a multipronged approach—focusing on science (well-designed, quality trials), instituting process improvements and enhancing enforcement, and collaborating with partners.

The agency is building quality and trust in research partly by working from the principle that “responsible research is ethical, not just compliant . . . because the regulations are the ethical floor, not the ceiling,” he said.

The FDA will try to enhance that confidence through a combination of ensuring that research begins with a scientifically valid protocol, utilizes monitoring appropriate to the study design, and has safeguards to protect subjects and the generation of credible data.

Getting answers more quickly

FDA is also encouraging the design of more efficient trials, including some that might operate better by not using the standard models. For example, it may sometimes be possible to get the same amount of statistical validity with fewer subjects, which would also provide more timely answers.

This could result in a more ethical system, Sharfstein said, because if the investigation found that a drug was not effective, the study would have exposed fewer subjects to it, and if it is effective, we can get it to patients more quickly.

Sharfstein discussed several new guidances and regulations under development at FDA as well as improvements that are being made to the agency’s internal procedures. Recent guidances better define clinical investigator supervisory responsibilities in clinical trials and help to reduce the burden IRBs face in their review of multiple, unevaluable individual adverse events.

Recent guidances better define responsibilities and help to reduce the burden IRBs face in their reviews.

Several regulations are being developed, he said, including one on “reporting information regarding falsification of data” in the course of proposing, designing, performing, recording, supervising, or reviewing research, or in reporting results.

The agency also recently issued new regulations intended to improve access to investigational drugs for patients with serious or life-threatening diseases who lack other therapeutic options. In a companion regulation, FDA is also permitting sponsors to charge for a broader range of investigational and expanded access uses.

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Bioethics resources

Indian Journal of Medical Ethics

<http://www.ijme.in/>

Bioethics blog, written by the editors of The American Journal of Bioethics

<http://blog.bioethics.net/>

The Hastings Center bioethics forum

<http://www.thehastingscenter.org/Bioethics-Forum/Default.aspx>

New research challenges

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Enhanced enforcement

In addition to the actions the agency is taking to prevent participation in research by investigators who fail to comply with FDA's regulations or who have broken the law, FDA has also instituted an early intervention program for its bioresearch monitoring inspections.

By targeting more inspectional resources to ongoing trials, he said, any problems that are identified can be corrected earlier. The agency is also posting the results of clinical investigator inspections on its website as well as pending and completed clinical investigator disqualification actions. This helps to alert IRBs and study sponsors of problems identified by the agency.

"Enforcement will enhance the credibility" of the research endeavor generally. "When there is one person who doesn't get caught through the regular channels, it really calls into question how the whole system is functioning . . . it undermines confidence in what we do."

Collaboration with partners

Sharfstein stressed the work FDA is doing with its partners to help improve the clinical trials

enterprise. Whenever possible, the agency is harmonizing with its sister agencies to reduce burden and enhance human subject protection. He mentioned that FDA and the Office for Human Research Protections collaborate on guidances and regulations and routinely conduct joint educational conferences.

Sharfstein also discussed the Clinical Trials Transformation Initiative (CTTI), a public-private partnership, with stakeholders from academia, industry, the federal government, patient groups, and trade associations, that is working to identify practices which, if broadly adopted, are likely to increase the quality and efficiency of clinical trials.

One of CTTI's projects is an examination of alternative monitoring methods to help answer questions, such as how much clinical trial monitoring is enough, what is the most effective method, and what factors determine the best method?

A broader discussion of FDA's human subject protection (HSP) and bioresearch monitoring (BIMO) initiatives can be found in its 2010 HSP/BIMO Annual Report.^Δ

“Results should be offered unless there is compelling evidence that participants would be harmed.” The obligation to return “might extend to including results that provide information a participant would want to know, whether it has clinical relevance or not.”

Research results must be returned to donors -

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“My argument is that this consent language may relieve us of a legal obligation to return, but it does not inform our ethical obligations. Also, we know that many participants expect they will get results back if they are meaningful no matter what the consent form said.

“Nor can time or distance from the time of recruitment inform our ethical obligation. These logistical concerns will complicate things, but that doesn’t relieve us of our obligations.”

Not if, but how

So, the question is not if, but how, she said. “What are the criteria we’re going to use to guide the return of individual findings?”

Until recently, returning results, especially in genetic research, has mostly been discouraged, she said. The primary argument against it is that it is inconsistent with the goals of research, which is to advance generalizable knowledge, not to provide individual benefit.

In addition, she said, some argue that there is ambiguity about what to return and so it is better not to return anything rather than enter into the complicated task of resolving when it’s best to return and when it isn’t.

Respecting persons

Arguments for returning include the value of respecting persons, which she said requires that “results should be offered unless there is compelling evidence that participants would be harmed.”

The strongest argument is that beneficence requires results to be returned when they have “compelling clinical relevance,” which might extend to including results that provide information a participant would want to know, whether it has clinical relevance or not.

Among the best examples of why research results should be returned occurred in breast cancer studies, Fullerton said. A woman was scheduled for a prophylactic mastectomy. The researchers were called to let them know about this and asked whether there is information she should know before proceeding.

The researchers knew she had not inherited the gene predisposing her to breast cancer and returned that finding to her before she continued with a clinically unnecessary procedure.

“The emerging ethical consensus,” she said, “calls for limited return, not routine return, of certain classes of findings, which include those that are clinically relevant or provide direct benefit or indirect benefit such as for reproductive planning.”

Participants expect they will get results back if the results are meaningful—no matter what the consent form said.

Fullerton acknowledged the potential difficulty of returning results when biological materials in biorepositories have been anonymized, “but while this might be hard, it is not impossible.”

Debate about relevance

She also acknowledged that the problem of returning individual findings is more complicated than reporting findings to study participants in aggregate. This is because there is a lot of debate as to what constitutes clinical relevance.

“Is it something that is clinically actionable, or is it narrower, something that is life threatening or life shortening? When exactly is there an overriding moral imperative to return? Do results with reproductive implications merit return?”

Fullerton said different donors will have different expectations, and it will be up to the research community to determine what is appropriate.

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The community will have to move quickly because “we are moving now to a new class of genomic investigation involving sequence-based investigations of large numbers of individuals.”

Research results must be returned -

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New class of genomic investigation

The community will have to move quickly, she said, because “we are moving now to a new class of genomic investigation involving sequence-based investigations of large numbers of individuals.

These will identify rare but often clinically relevant genetic information for which there will be a high moral obligation to return back to participants.”

Among the questions researchers and IRBs should begin discussing now, she said, are such matters as how best to contact affected participants, whether

they will be provided access to genetic counselors, and how it will be paid for.

Because of the kind of research being conducted today, there will be a sharp increase in the number of clinically significant findings and Fullerton said the legal and logistical objections do not outweigh ethical considerations.

“We can’t ignore this any longer,” she said. Δ

New study finding

85 IRB chairs discuss how they approach reviews of ethically challenging research protocols

Increasing IRB access to scientific experts, participant representatives, and ethics experts might aid IRBs in addressing ethical challenges when reviewing protocols, according to the results of a study published in *IRB: Ethics & Human Research* (September–October 2010, vol. 32, no. 5: 10–19).

The authors of the study interviewed 85 IRB chairs, asking them to rate the helpfulness of various resources. A majority of IRB chairs indicated that talking to scientific colleagues and experts, participant representatives, and ethics experts was very helpful.

“Fewer chairs felt that more guidance from the Office for Human Research Protections would be very helpful,” the authors said.

In addition, “we found that chairs whose committees reviewed fewer protocols were more likely to consider increased access to Internet resources and research ethics experts to be very helpful.”Δ

Research ethics

High School bioethics

(University of Pennsylvania)

<http://www.highschoolbioethics.org/>

The Collaborative Initiative for Research Ethics in Environmental Health

<http://www.researchethics.org/>

World Health Organization—Ethics & Research

http://www.who.int/rpc/research_ethics/en/

Resources for international research ethics

<http://bioethics.od.nih.gov/internationalresthics.html>

Center for Bioethics and Human Dignity

<http://www.cbhd.org/>

Playing the Devil's advocate, O'Rourke said she does not trust that information returned to her will be hers, will be accurate, and will be meaningful. Nor is it likely that it will provide her with peace of mind or something upon which she can act.

“Please don't share research results.”

A professor of pediatrics says returning results to donors is fraught with problems



Pearl O'Rourke

Pearl O'Rourke, a physician, provided the position of devil's advocate during a panel discussion about returning research results at the meeting in Nashville.

Her assigned position for the discussion was that research results should not be returned to donors of biological samples held in biorepositories.

In that role, she said, “Please don't share research results.”

An Associate Professor of Pediatrics at Harvard Medical School, O'Rourke said that people should not trust that information returned to them will be theirs, will be accurate, and will be meaningful.

Peace of mind?

Nor is it likely, she said, that it will provide her with peace of mind or “something upon which I can act.” The chain of custody in biorepository research is not as carefully controlled as in clinical care, she said.

“There are errors of labeling, transposing results, processing errors running the test itself, and sometimes the results are useless. I would wonder whether they even know it's my specimen.”

Accuracy? Meaningful?

Further, “is the result accurate? Who performed the test? And if the result is meaningful, to whom? My physicians? Me alone? The researcher? And for how long?”

She also argued that most published research findings tend to be biased and preferential to positive

results. In addition, “Findings are less likely to be accurate in smaller studies and hotter topics, including genetic research.” The combination of problems should make one hesitant to share the results.

Consistency of IRB's approach?

O'Rourke said she is suspicious of arguments supporting the return of results in part because “if it's such a great idea, why do IRBs lack a consistent approach to this issue?”

When surveyed, she said, IRBs reported that 56%

of them had no policy governing returning results, 7.7% said they did have a policy, and 36.3% were vague in their reply.

Testing quality?

She cited a letter from the Genetics and Public Policy Center at Johns Hopkins University to U.S. Secretary of Health and Human Services Kathleen Sebelius asserting that if the quality of testing is suspect, patients might be harmed.

Sebelius said that “accurate, reliable, and timely advanced diagnostics offer enormous promise, but poor quality testing can harm patients and waste scarce resources.”

These objections may overstate the case for not returning results, O'Rourke said, but there is nevertheless reason to be very careful.

So until there is more confidence in the clinical validity, utility, and actionability of findings, O'Rourke said, results should not be returned to study participants.Δ

*Is the result accurate?
Who performed the test?
And if the result is meaningful,
to whom?
My physicians? Me alone?
The researcher?
And for how long?*

Joan Scott: "If research results were not returned, people were 75% less likely to take part, 4% were more likely to take part, and for 22% it wouldn't make any difference."

People more likely to participate if given results -

Receiving results is a more important factor than receiving payment when people are deciding whether to become research subjects

A significant majority of people say they would be more likely to participate in human research if they are given the results of any testing conducted on them or their biological materials, according to Joan Scott, director of Johns Hopkins University's Genetics and Public Policy Center.

"If research results were not returned," she said, "people were 75% less likely to take part, 4% were more likely to take part, and for 22% it wouldn't make a difference."

A small percentage of people said they would sign up solely for the greater good it might provide, "with no expectations in return."

Exceeds import of payment

The study she conducted, which was funded by The Pew Charitable Trusts, found that getting results back exceeds the importance of financial payment, privacy, convenience, and other factors.

She also found that a small percentage of people said they would sign up solely for the greater good it might provide, "with no expectations in return," she said. Another "small but vocal minority said they would not participate under any circumstances."



Joan Scott

Most felt that the "devil is in the details" and they would participate, or not, depending on specific aspects of the study design.

Scott asked people in her survey about their attitudes regarding an entirely theoretical study that would enroll 500,000 people in a population-

based prospective longitudinal cohort investigation.

She spent two years conducting focus groups, a national survey, and town halls gathering people's attitudes.

Cross-checked with VA population

In addition, she cross-checked the results against another survey she conducted among military veterans getting care through the Veterans Administration health care system.

The results were almost identical.

The fictional study she asked about would require participants to spend half a day answering questions about themselves, getting a physical exam, and giving blood or other biological specimens. It would follow them for 10 years, during which they would be asked to return every six months or so for another exam.

Some would be asked to do more, perhaps including a specific diet and exercise.

"The samples and information they provide would be coded for anonymity, sent to the National Institutes of Health, and kept in a biorepository or database, but a link would be kept at the recruitment site.

Researchers from around the country would be able to use these to try to identify the genetic and

Results are from two years of focus groups, a national survey, and town halls.

Further, people said they want to receive results whether or not they are able to do anything about the information, including whether there is treatment available for whatever condition they learn about.

(Continued on page 14)

They are also being asked . . . whether they would want results returned even about low-risk predispositions, such as a 5% greater risk of colon cancer. And would they want the information even if we don't know what the results mean?

More likely

(Continued from page 13)

environmental contributors of various diseases," she said.

The primary question was to determine what if any results should be provided to the participants.

She found that almost everyone supported the concept of the study because its purpose was to learn more about the causes of disease.

She also found a fairly sophisticated understanding about how the interaction of genes and environment caused complex diseases and that it is necessary to study a lot of people for a long time to get answers.

Primary finding

The primary finding was that return of research results had the most effect on people's willingness to participate.

The burden required of participants was a more important factor for women and people living in rural communities than for men and those in urban areas.

Those who said privacy was not key to their decision were more willing to participate than others. When privacy was important, these people were more willing to sign up if they were promised that results would be returned.

Study proposed was hypothetical

Scott acknowledged that the study proposed in the survey was hypothetical and that nobody was actually asked to participate in anything. "What people say and what they do can be different," she said.

A follow-up study is beginning around the same study design, but spending more time asking questions about what people believe they will do with information they receive back.

They are also being asked, for example, whether they would want results returned even about low-risk predispositions, such as a 5% greater risk of colon cancer. "And would they want the information even if we don't know what the results mean," Scott asked.

"What if there are thousands of studies over many years that use biological materials they have donated? Would they want all of the information?"

"Let me decide"

Results from the focus groups, the national survey, and the town halls were consistent, including that 91% said they had a "strong interest in getting results back, both for conditions that could be prevented or treated as well as for health risks for which nothing could be done." People tended to say "Let me decide" what is important.

Of those who said they would not want results, the most frequently cited reasons were that it would create too much worry, that it would be more information than they would be able to deal with, and that they were simply not interested.

Among these people, there was "very little interest in getting results whether it was a generic or a genetic risk factor."△

Bioethics resources

The Community-Campus Partnerships for Health's Greenwall Foundation-funded study has published its first major paper, "Understanding Community-Based Processes for Research Ethics Review: A National Study."

The paper is in the *American Journal of Public Health*. The citation and abstract are at <http://bit.ly/ewNLun>

More information about the study, the paper, and other study products, including a poster depicting the relationships between community-based review processes and institution-based IRBs, is at <http://bit.ly/hjgQXV>.

Leanne Stunkel: Human subject volunteers may not care whether the informed consent form is four pages or 14, so long as it's clear.

Short consent form or long? Does it matter? -

Stunkel said she and her colleagues thought volunteers might be more willing to read a shorter informed consent form with less detail and repetition than a long and detailed form



Leanne Stunkel

Potential human subject volunteers may not care whether the informed consent form is four pages or 14, so long as it's clear, according to a study by Leanne Stunkel and others.

Stunkel, a fellow at the Clinical Center Department of Bioethics for the National Institutes of Health, said she and the other investigators were surprised at the results.

The study was undertaken because it is generally believed that the informed consent process is not perfect and that there are better and worse ways to do it.

"In one case study of 287 cancer patients participating in clinical trials, 70% of the participants did not understand that the experimental treatment they were receiving in the trial was unproven.

Striking result

"That's a pretty striking result; it tells us we need to find out where things are falling through the cracks. The data show that consent forms are getting longer and more complex, and it might be that the forms emphasize disclosure over volunteers' comprehension.

Stunkel said she and her colleagues thought volunteers might be more willing to read a shorter form with less detail and repetition than a long and detailed form.

"So we had three hypotheses going into the study," she said.

First, the level of comprehension would be the same whether they got the 4-page or the 14-page consent form.

Second, they would be more satisfied with the shorter form.

Third, that comprehension would be affected by select volunteer characteristics, including financial motivations.

The first hypothesis was confirmed. Indeed, comprehension was about the same between the two groups and relatively good in both (mean score 11 out of 15). Additionally, the volunteers in both groups said they felt well informed and that the forms were well organized and "about right."

But they were wrong about the second hypothesis, that the short form would be preferred. About 95% in both groups said the length was "about right" and the amount of detail in both was "about right."

"This is pretty surprising considering that one group had 10 more pages to read," she said.

Their third hypothesis was confirmed. Comprehension was affected by financial motives.

"My bias," Stunkel said, "was that people who had participated in previous studies would

comprehend more, but we didn't see that, we found no correlation."

Instead, they found that volunteers who reported financial motives for participating had better understanding of both the short and long forms than those who reported nonfinancial reasons for participating. "And the difference was pretty big," Stunkel said.

The account of their study was published in *IRB: Ethics & Human Research*, July–August 2010 (vol. 32, no. 4): 1–9. It was reported by Leanne Stunkel, Meredith Benson, Louise McLellan, Ninet Sinaii, Gabriella Bedarida, Ezekiel Emanuel, and Christine Grady.Δ

Consent forms are getting longer and more complex. It might be that the forms emphasize disclosure over comprehension.

Jane Jordan: "We are a very large academic medical institution whose mission is ethically driven, and we found ourselves in the middle of a federal investigation."

All of Emory University's 22 different conflict of interest policies were great, but there were many gaps

"What happened at Emory was that a faculty member, who for 17 years had been chair of psychiatry, didn't think he had to report almost \$1 million of outside income. As a result, we found ourselves spread all over the front page of the New York Times." -



Jane Jordan

universities but also by researchers, IRBs, and everyone else involved in the research enterprise.

When Emory began its investigation after charges were raised in Congress about Nemeroff, Jordan said they found 22 different conflict of interest policies in place.

"All were great, individually, but there were many gaps and misunderstandings. Part of the difficulty," she said, "is defining the term 'financial interest.'"

"How could this have happened?" Jane Jordan, Emory University's deputy general counsel, said the school was mystified when it found itself on the front pages of newspapers being accused of egregious violations of rules governing conflicts of interest in research.

"We are a very large academic medical institution whose mission is ethically driven, and we found ourselves in the middle of a federal investigation," Jordan said.

Grants suspended

In 2008, millions of dollars in National Institutes of Health grants were suspended from Emory when it was disclosed that Charles Nemeroff, who for 17 years had been chair of the Department of Psychiatry and Behavioral Sciences at the Emory University School of Medicine, had violated conflict of interest rules.

Nemeroff agreed to resign from that position and to follow new restrictions on his outside activities. The university tightened its policies governing conflicts after a task force investigated the gaps that allowed the problem to slip through institutional rules.

Jordan discussed what she said are some of the "very confusing regulations related to disclosure" that should be better understood not just by

What does it mean to say the rule applies to a "significant financial interest that would reasonably appear to be affected by research?" And when the rules refer to "economic interest," is this the same or different than "financial interest?"

Significant financial interest?

For the Public Health Service, Jordan said, "significant financial interest does not include equity interests, royalties, or other payments that are not expected to exceed \$10,000 over the next 12 months.

"But there is a lot of confusion about what has to be reported and what not. An important question for institutions such as universities is how we can ensure that we get all the relevant information from researchers.

"What happened at Emory was that a faculty member didn't think he had to report almost \$1 million of outside income. As a result, we found ourselves spread all over the front page of the *New York Times*."

So how much should be reported, and to whom? The Cleveland Clinic was the first institution to

(Continued on page 17)

"How could this have happened?"

Emory University's 22 conflict of interest policies

(Continued from page 16)

mandate financial disclosure to patients of any financial interest over \$2500, she said.

Other institutions have made different rules, which contributes to the confusion. To make the system more navigable, she said the research community should consider some of the following questions.

Perhaps most importantly for human research, she said, should investigators who are involved in participant selection, the consent process, and management of a trial be prohibited "from having a financial interest or relationship with any company whose interests could be affected by their research?"

Should disclosure be expanded?

In addition, when defining a significant financial interest, should disclosure be expanded? Should exemptions be retained? Are the current minimums reasonable? Should investigators disclose all financial interests related to their institutional responsibilities? Should large institutions have a committee to review disclosures?

To assure institutional compliance, should independent confirmation of disclosure be required, and how would this be accomplished? By independent audit?

Institutional conflicts more ambiguous

Beyond the issue of conflicts of interest for investigators, institutional conflicts of interest may be even more ambiguous. "How would this be defined?" she asked, and what would an institutional conflict of interest policy address in trying to assure objectivity in research?

Jordan said Congress has considered but not yet completed a "Sunshine Act" that would require very strict disclosure. She said the research community should not be surprised to see the legislation surface in Congress again.

The legislation was introduced by U.S. Sen. Charles Grassley (Rep., Iowa), the driving force behind the investigation of Emory in the Nemeroff case.

A model policy

A helpful starting point for institutions trying to develop good disclosure policies is a joint report

issued by the Association of American Medical Colleges and the Association of American Universities.

It includes a model policy for human subjects research and analysis of cases involving potential conflicts of interest. Also included is a comprehensive definition of financial interests. The report is at <http://www.aamc.org/jointcoireport>.

Additionally, Jordan said, consider getting clarity about who is covered under disclosure policies and about areas of vulnerability. Improve systems for collecting information about

disclosures and for monitoring management plans.

She said it would also be helpful to establish jurisdictional requirements for conflict of interest committees. In addition, the stakeholders who need to be involved should be brought together regularly.

The goal, Jordan said, should be to develop a system that is easy to navigate, that allows investigators to submit disclosures electronically, that ensures good monitoring of programs, and that allows you to learn what the regulations require.

"Most importantly, don't ignore this," she said.

"You don't want to find yourselves on the front page of the *Wall Street Journal* or the *New York Times* or getting a letter from Sen. Grassley."△

Congress has considered but not yet completed a "Sunshine Act" that would require very strict disclosure. The research community should not be surprised to see it surface again.

Related books

Trust and Integrity in Biomedical Research: The Case of Financial Conflicts of Interest, eds. Thomas H. Murray and Josephine Johnston (Johns Hopkins University Press, 2010).

Conflicts of interest in research: potential for disaster

The potential for disaster in conflicts of interest in research studies is best illustrated by the classic 1999 case that led to the death of 18-year-old Jesse Gelsinger, according to Robin Wilson, Washington and Lee University School of Law.

She said that the research community has done much since then to develop procedures for disclosure of potential conflicts of interest but is still struggling with the issue.

The problems raised by the death are worth continued examination, she said, because in 2004 and again in 2007 other people have died during gene therapies.

Cautionary tale

So this continues to be a cautionary tale for all researchers and IRBs.

The young man's death during a Phase I gene therapy experiment at the University of Pennsylvania led to a comprehensive discussion of conflicts of interest in research.

The conflict was related to the lead investigator, James Wilson, who founded and had a \$30 million stake in the company, Genovo, that financed gene therapy research at the university.

Gelsinger's family later filed suit against James Wilson and the university, alleging that there had been insufficient disclosure to Gelsinger about the potential conflict of interest. They also said he had not been adequately warned about risks of the procedure or the adverse effects of a similar procedure in animal studies.

Gelsinger had a genetic disease that did not allow his body to produce the enzyme ornithine transcarbamase, without which most people die when they are very young. He agreed to participate in Wilson's study because it was a promising cure for his condition by transferring copies of the enzyme genes to his liver.



Robin Wilson

He died soon after being infused when his body suffered an immune reaction.

Crucial details buried

Because the family settled for an undisclosed amount, "the effect was to bury for a decade crucial details of the case," she said. "Understanding what happened can help us in thinking about how to deal with this in future cases."

For example, documents provided by a whistleblower at the university revealed that "a lot of

good people at the University of Pennsylvania raised alarm bells about the hefty stake that was being proposed for Wilson."

The informed consent document that Gelsinger signed indicated that the maximum dose being proposed would be below that received

by animals in previous trials. In those animal trials, high doses had caused death, but the consent form said precautions would be taken to ensure safety.

In a civil suit filed by the government, the U.S. Food and Drug Administration "alleged that Jesse's liver amounts were above the limit on the day he was infused."

Robin Wilson said the question raised by the Gelsinger case is whether any of what happened in the gene therapy trial "ultimately resulted from the conflict of interest."

What we do know, she said, is that there was a "fight between the people on the university's conflict of interest standing committee about what should be authorized."

It may never be known with certainty that the conflict was a direct cause of the tragedy, she said, but what IRBs and research institutions should learn from the case is that the appearance of a potential conflict created a terrible problem for the investigator and the university.Δ

Robin Wilson, a professor at Washington and Lee University School of Law, says the Gelsinger case is a cautionary tale for all researchers.

Nevertheless, the advantages of disclosure require it even though participants may not require the information.

Do conflicts of interest bother participants? -

Law professor says disclosing researchers' conflicts of interest has little effect on people's willingness to participate in studies



Mark Hall

Disclosing researchers' conflicts of interest to potential participants in human research has very little effect on whether people are willing to sign up for studies, according to a 6-year study by

researchers at Duke, Wake Forest, and Johns Hopkins Universities.

"The risks, benefits, convenience, and importance of the study rank as far more important" for people deciding whether to participate, said Mark Hall, the Fred D. and Elizabeth L. Turnage Professor of Law and Public Health at Wake Forest University.

In a panel discussion about whether and how to disclose conflicts of interest, Hall said the Conflict of Interest Notification Study (COINS), a \$3 million project headed by Jeremy Sugarman of Johns Hopkins University and funded by the National Institutes of Health, included information gathered from IRBs, researchers, and thousands of patients.

Ways to best disclose conflicts

Its recommendations include ways to best disclose conflicts to participants and to establish institutional management practices that ensure appropriate disclosure.

Perhaps the most important finding of the study is that while disclosure has little impact on people's participation, it will make a difference in their feelings of trust in the research endeavor generally.

That people don't understand or necessarily care about financial disclosure is not a good reason not to tell them about financial interests, Hall said.

In one part of the study, people were given three possible scenarios. One was to provide no disclosure at all; another, that the investigator had a financial stake in the study; and the third, that the investigator was receiving just enough money for the study to cover costs.

One in four patients who were told about the investigator having financial interest either asked a question about it or made a spontaneous negative comment, Hall said. "Only 5% said they would refuse to participate because of an equity stake."

Disclose, even when it's not required

Nevertheless, the advantages of disclosure require it even though participants may not use the information.

"It may serve to increase trust in research as well as to merit trust. Trust requires transparency and disclosure. And with more information, people can make better decisions about participating," Hall said.

Risks, benefits, convenience, and importance of the study rank as far more important.

A potential negative effect is that providing information about possible conflicts could "deter trust, making people less likely to participate. It also might confuse people because they would be focusing on factors that are less important than the core risk factors of the study.

"Or disclosure could have a neutral effect, the information either ignored or not understood. All those are quite plausible results," he said.

If investigators think that disclosure would have a negative effect, Hall said, "it might deter investigators from taking on conflicts."

(Results of the COINS study were published in a *New England Journal of Medicine* article (August 27, 2009).^Δ

Human subjects funding at historic high -

\$132 million total: \$81 million from DOE, \$51 million from other federal sources



Donald Watkins

DOE funding and other federal funding for human subjects research were both at historic high levels in FY 2009; however, both the number of human subjects and the number of research projects were lower in FY 2009 compared with FY 2008.

Funding reported in this article for human subjects research includes only projects receiving federal funding. Funding level from private sources is not reported here, although information other than funding level on privately funded projects is.

*by Donald Watkins, Manager,
DOE Human Subjects Database,
Oak Ridge Institute for Science & Education -*

The DOE Human Subjects Research Database (HSRD) is updated every year and contains information on all research projects involving human subjects that were not exempted by the local IRB and 1) were funded by the DOE, 2) were conducted at DOE facilities and performed by DOE or contractor personnel, or 3) used DOE workers as subjects. Detailed HSRD information and project data are available at

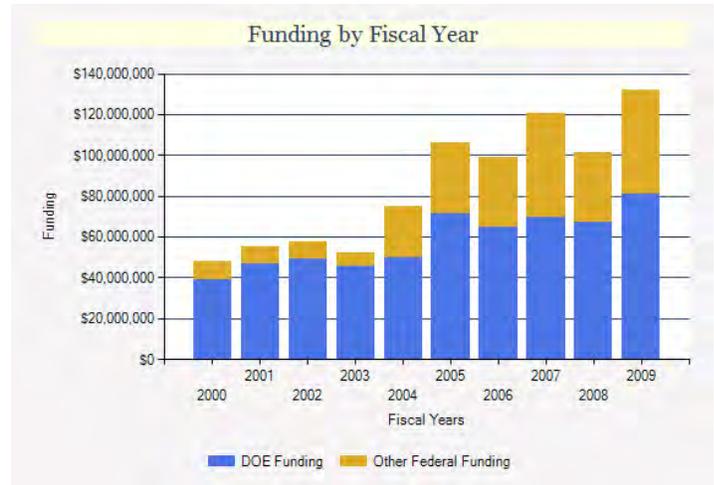
<http://hsrd.ornl.gov/hsrdreport/>.

38 organizations reported data

Thirty-eight research organizations reported data in FY 2009. Eleven of these were DOE sites and 27 were non-DOE sites, including universities, hospitals, and research institutes.

Both DOE and other federal funding have “see-sawed” in recent years with peaks in FY 2009, FY 2007, and FY 2005, as shown in the accompanying graph. In FY 2009, DOE funding increased by \$14 million over FY 2008 but dropped by \$3 million between FY 2007 and FY 2008.

Likewise, total funding (including DOE and other federal funding) increased by \$31 million from FY 2008 to FY 2009 after decreasing \$19 million between FY 2007 and FY 2008.



Individual projects got up to \$14 million

In FY 2009, funding for individual projects ranged from \$1,000 to \$14 million. Average project funding was \$696,000, and the median funding level was \$200,000.

Total funding for international projects was \$24 million, or 18 percent of total funding. DOE funding for its Former Worker Medical Screening Program (FWP) was \$23 million in FY 2009, or 17 percent of total funding.

As can be seen in the graph, since FY 2005 the total number of human subjects in all projects has held fairly steady, but the total number of human subjects involved in DOE-related projects dropped by 38 percent from the high of 827,000 in FY 2008 to 516,000 in FY 2009.

(Continued on page 21)

HS publication

Conflicts of interest

An article in the *Journal of Medical Ethics* (2010, no. 36: 505–510) discusses “Disclosures of funding sources and conflicts of interest in published HIV/AIDS research conducted in developing countries.”

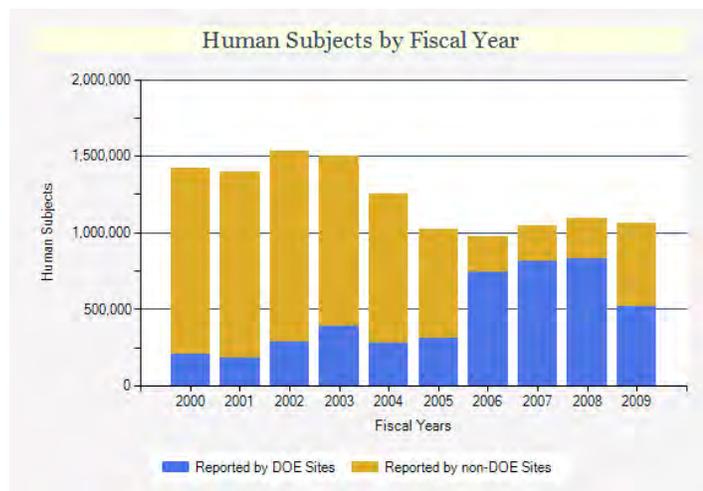
An abstract is at

<http://jme.bmj.com/content/36/8/505.abstract>.

Lawrence Berkeley National Laboratory had the greatest number of projects with 61, followed by Brookhaven with 41. About 8 percent of the 306 projects reported by DOE and non-DOE sites were international projects.

HS research funding at historic high -

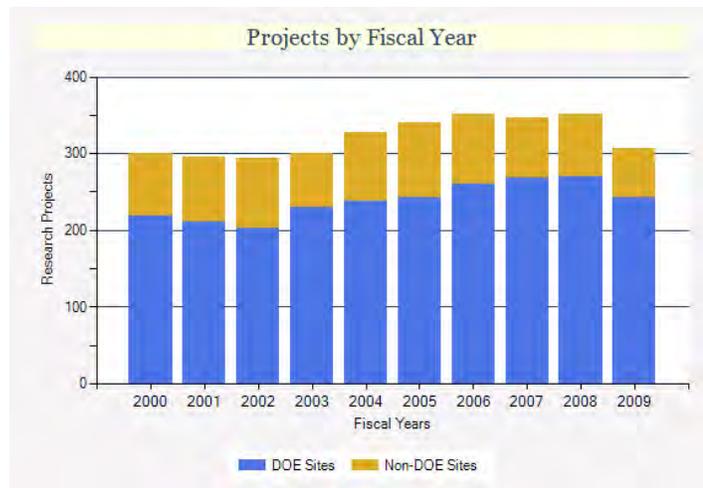
(Continued from page 20)



In FY 2009, 49 percent of human subjects participating in DOE-funded or conducted projects were reported by DOE sites. International projects accounted for 162,000 subjects, or 15 percent of the total. The FWP included 68,000 subjects or 6 percent.

Projects peaked in 2008

The total number of projects reported by DOE and non-DOE sites decreased to 306 in FY 2009 compared with the slightly upward trend in recent years, as shown in the graph.



The total number of projects peaked at 351 in FY 2008 and FY 2006. Seventy-four percent of 190 federally funded projects were conducted at DOE facilities and 26 percent were at non-DOE sites.

In FY 2009, 82 percent of all projects were conducted at seven national laboratories and two research institutes—Lawrence Berkeley, Brookhaven, Lawrence Livermore, Los Alamos, Sandia, Oak Ridge, and Pacific Northwest National Laboratories and the Oak Ridge Institute for Science and Education and the MIND Research Network.

Lawrence Berkeley National Laboratory had the greatest number of projects with 61, followed by Brookhaven with 41. About 8 percent of the 306 projects reported by DOE and non-DOE sites were international projects.Δ

HS publications

Empirical research on human subjects

The September 2010 issue of the *Journal of Empirical Research on Human Research Ethics* (vol. 5, no. 3) includes several articles related to paying research participants, communicating risk in consent statements, and institutional research integrity.

The articles include:

- “Why do we pay?”
- “Returning individual research results.”
- “Researcher perspectives on disclosure of incidental findings in genetic research.”

For information, see

<http://www.jstor.org/stable/10.1525/jer.2010.5.issue-3>.

Meetings

■ 20th Annual Meeting, Association for Practical and Professional Ethics

March 3–6, 2011

Cincinnati, Ohio

Presentations will include consideration of ethical issues in public administration, law, the environment, accounting, engineering, computer science, research ethics, business, and health care.

For information, see <http://www.indiana.edu/~appe/annualmeeting.html>

■ 2011 AAHRPP Conference: Breaking Down Barriers

April 6–8, 2011

Marriott Wardman Park Hotel, Washington, D.C.

For information, see <http://www.aahrpp.org/www.aspx?PageID=201>

■ 2011 ELSI Congress: Exploring the ELSI Universe

April 12–14, 2011

University of North Carolina, Chapel Hill

A research community congress to explore ethical, legal, and social implications (ELSI) of the new genomics, sponsored by the National Institutes of Health and others.

For information, see <http://genomics.unc.edu/genomicsandsociety/html/elsicongress.html>

■ 2011 Social, Behavioral, Educational Research (SBER) Conference

April 28–29, 2011

Renaissance Boston Waterfront Hotel, Boston, Massachusetts

For information, see <http://www.primr.org/Conferences.aspx?id=9195>

■ 2011 Advancing Ethical Research Conference

Dec. 2–4, 2011

National Harbor, Maryland (Just outside of Washington, D.C.)

Pre-Conference programs are on Dec. 1

For information, see <http://www.primr.org/Conferences.aspx?id=10199>



Protecting Human Subjects

This newsletter is designed to facilitate communication among those involved in emerging bioethical issues and regulatory changes important to both DOE and the human subjects community.

DOE Human Subjects Protection

Program Managers:

Elizabeth White, MPH, MBA

(elizabeth.white@science.doe.gov)

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Editor/Designer, Tim Elledge, Ph.D., timelledge@gmail.com

This newsletter is available electronically at no cost to anyone interested in or involved in human subjects research or the protection of human research subjects. To receive e-mail notification of new issues of the newsletter, please send an e-mail to:

doehumansubjectsnewsletter@listserv.ornl.gov.

Send suggestions to:

Human Subjects Protection Program
SC-23.2 / Germantown Building
U.S. Department of Energy
1000 Independence Ave., SW
Washington, DC 20585-1290
Phone: 301-903-7693
Fax: 301-903-0567
Email: elizabeth.white@science.doe.gov

Contacting the newsletter staff:

Protecting Human Subjects
Oak Ridge National Laboratory
545 Turnpike
MS 6495
Oak Ridge, TN 37830-6480
Attn: Gloria Caton
Email: catongm@ornl.gov
Fax: 865-574-7569

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