PROTECTING HUMAN SUBJECTS

U.S. DEPARTMENT OF ENERGY • OFFICE OF BIOLOGICAL AND ENVIRONMENTAL RESEARCH

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Contents

The Role of the IRB: Collegial or Adversarial?

Institutional Review Boards (IRBs) protect human research subjects by providing local assurance that the rights and welfare of human subjects are protected in accordance with 10 CFR 745 (Federal Policy for the Protection of Human Subjects, known as the Common Rule). A cooperative and collegial relationship between IRBs and researchers is beneficial for all parties, especially the human subject. However, because IRBs may be in an authoritarian role, there is potential for researchers to view IRBs as adversaries rather than partners.

To explore the dynamics of this delicate relationship, an examination of how adversarial relationships may develop, and appropriate IRB actions to pursue a more cooperative collegial relationship with researchers will be reviewed. Within the Department of Energy (DOE) laboratories and academic institutions around the nation, the IRB/researcher relationship is a primary concern. Individuals involved in these relationships are actively searching for processes to strengthen this collaboration.

Public Responsibility in Medicine and Research (PRIM&R), a well-respected organization serving researchers, IRBs, and the public, delved deeper into this complex issue at their annual conference in fall 1996. Dr. Jeff Cohen, Research Compliance Officer at the University of Albany and keynote speaker at the conference, explored why some IRB/researcher relationships deteriorate to an adversarial level and presented suggestions for developing a more facilitative relationship.

Dr. Cohen discussed common IRB operational approaches, each of which may result in a different relationship with researchers. The most comprehensive and constructive of these approaches, the facilitator of ethical research, builds on components from each of the others. Operational styles may include:

- Enforcer of Federal and state regulations
- Judge of research
- Protector of human subjects

- Educator on problem areas and other new developments in human subject protections
- Facilitator of ethical research.

While each of the above objectives are important on an individual basis, the ideal mode of operation includes components of each. For example, a facilitative IRB must legally enforce Federal and state regulations and evaluate research, while also protecting human subjects. However, education is also a vital link in providing researchers and IRBs with the tools needed to effectively work together. The facilitative IRB reviews a human subjects project to see how it can work with the researcher to move the project forward while following the spirit of the Common Rule, as opposed to simply denying approval. When researchers see that they and the IRB are on the same team, they are better able to nourish the facilitative relationship that best fits the goals and objectives of both parties. When a partnership develops between the IRB and the researchers, the research process itself also benefits.

Working Toward a Facilitative Relationship

An IRB and the institution it represents can take specific actions to become a facilitator of ethical research. According to Dr. Cohen, the following efforts are important in working towards a facilitative relationship:

- Strong, unwavering support from the highest level of institutional management is vital in the development and maintenance of a facilitative, cooperative environment.
- Management must support IRB autonomy and decisions, including the addressing of difficult problems with no easy answers.
- Management needs to ensure that necessary resources for the IRB to function are available.
- An official written institutional policy must be in place. This policy should not simply state that the institution will comply with Federal regulations; it must address the spirit of the regulations.
- Creating an approval process that reduces paperwork and minimizes delays in decision making also advances the goal of a collegial relationship. IRBs may use on-line electronic submission forms and create clear, concise forms in differing formats for a variety of uses.
- Success entails developing and maintaining a fair and objective approval process that is easy to use, fast, and provides sound decisions.
- Education and communication plans should be established and maintained by both the IRB and investigators. Each must consider the concerns of the other as plans are put in place to educate the institutional community.

Ms. Paula Knudson, Executive Coordinator of the Office of Research Support at the University of Texas Health Science Center, further supports this view of the IRB as a facilitator of ethical research. With more than 20 years experience working in human subjects and success at developing and maintaining a collegial, cooperative IRB relationship at the University of Texas, Ms. Knudson is able to offer insights on the ingredients of success. Education is the key theme of her comments:

- IRBs need to create an attitude of support, have a stake as a research partner, and be an advocate for subject rights.
- Education can take many forms. For example, Ms. Knudson teaches ethics and scientific responsibility at the university and is involved in many research courses taught in other schools. In addition, when ethical issues of genetic testing emerge, local colloquiums and national meetings are organized to share solutions.
- Orientation and continued training are core elements of the Health Science Center's education program.

- Seasoned researchers must keep current on new developments and ethical challenges. Copies of relevant papers, articles, and issues are provided to investigators on a regular basis.
- The IRB office should always be available to assist investigators with putting protocols together.
- The institution should implement a comprehensive, iterative educational program that addresses many needs" basic training, continuing education, education for those pursuing research careers, and emerging changes in the field.
- IRBs need to demonstrate firmness with collegiality.
- Flexible deadlines, but never flexibility with compliance requirements, are also essential. Basically, IRBs should have and convey an attitude of support for the research efforts. This effort takes considerable effort and time, but the result is excellence. When the IRB process is considered excellent, researchers will want to perform research at that institution. Attracting top researchers undoubtedly improves the reputation and success of an institution.

In speaking of the goal and mission of a facilitative IRB, Ms. Knudson remarked, "IRBs are NOT the IRS ... we are part of the research team."

Dr. Susan Rose, DOE Program Manager of the Protecting Human Subjects program, noted that "strong management support of human subject protection activities was evident at several recent Human Subjects reviews of DOE laboratories. "At the facilities she reviewed, Dr. Rose was pleased to see a strengthened partnership between IRBs and investigators and an increased awareness of the importance of these activities. This worthwhile endeavor will nonetheless require continued support, oversight, and education.

ARENA and PRIMR Annual Meeting

"Education is the key to establishing and maintaining a strong IRB/researcher relationship," says Dr. Susan L. Rose, Program Manager, U.S. Department of Energy (DOE) Human Subjects Program. With this goal in mind, DOE enabled sixteen DOE-wide working group members to obtain practical and formal education to improve their sites' IRBs by attendance at the Applied Research Ethics National Association (ARENA) and Public Responsibility in Medicine and Research (PRIM&R) annual meeting. By convening a working group meeting prior to the conference, a substantial cost savings was realized by DOE.

The ARENA and PRIM&R workshops were held on Nov. 10-12, 1996, in San Diego, CA. Conference sponsors included the Office for Protection From Research Risks, the Office of Extramural Research at the National Institutes of Health; Tufts University School of Medicine; and the University of California at San Diego.

Conference attendees found the workshop's main topic, How to Cope with an Ever-Increasing Workload and Strategies for Addressing the IRB's Current Obstacles: Holding It Together and Measuring Our Success, particularly relevant. In addition to informative and provocative presentations, such as Dr. Jeff Cohen's keynote address on The Role of the IRB: Facilitative or Adversarial (highlighted on page 1) and Dr. Robert Levine's interesting presentation on Our Historic Legacy and Impending Challenges for IRBs, the attendees benefited from lively, interactive curbstone sessions and workshops devoted to the sharing of ideas with colleagues. Many of the workshop topics are highlighted in this issue.

DOE Human Subjects Working Group Meets

The Department of Energy's (DOE) Human Subjects Working Group was formed to enhance the protection of human subjects involved in research at DOE facilities and also to provide networking and educational opportunities for the DOE human subjects community. Sixteen members of the group met in conjunction with the Applied Research Ethics National Association (ARENA) and Public Responsibility in Medicine and Research (PRIM&R) workshops held Nov. 10-12, 1996, in San Diego, CA. By convening a working group meeting prior to the conference a substantial cost savings was realized by DOE. Participation in these workshops help Human Subjects Working Group members identify ways to improve their Institutional Review Board (IRB).

Topics reviewed by the working group included: (1) the need for an Internet home page for group members; (2) the production of a genetic informed consent document; (3) the development of a collection of case studies related to unique human subjects research projects; and, (4) the need to share resources, such as educational plans. The group also reviewed a generic consent form to be shared throughout the DOE system. Not only did working group members have the opportunity for professional development, they also shared valuable lessons learned.

Regulatory Agency Update

The November 1996 Applied Research Ethics National Association (ARENA) Conference served as a forum for regulatory agencies to provide updates on recent events and new developments in human subjects research. Both the Office for Protection From Research Risks (OPRR) and the U.S. Food and Drug Administration (FDA) reported recent news.

Office for Protection From Research Risks Marianne Bentz, Compliance Oversight Coordinator, provided an update of current events within OPRR. She announced Melody Linn's promotion to Deputy Director and Tom Puglisi's promotion to Director of the Division for Human Subjects Protection.

Recent audits by OPRR have consistently found compliance deficiencies in informed consent documents and very heavy IRB workloads. According to Ms. Bentz, an "institutional climate of noncompliance" seemed apparent at some institutions. OPRR suggests that IRBs focus on these areas for improvement.

New flowcharts which will help clarify potentially confusing regulations, were created in response to questions frequently asked of OPRR staff. The graphic aids lead the reader through a series of yes-or-no questions to determine if:

- Definition of human subject (45 CFR 46 Section 102(f)) is met in the research activity.
- Research is exempt in accordance with section (45 CFR 46 Section 46.101 (b) (4)) regarding "research involving the collection or study of existing data." -Circumstances exist under which an IRB may decide that informed consent may be altered or waived (45 CFR 46 Section 116 (d)).

Contact OPRR at (301) 496-7005 to receive copies of these new resource materials.

Food and Drug Administration (FDA)

Gary Chadwick, Associate Director of Human Subjects Affairs in the Office of Health Affairs, provided updates on new FDA regulations in the human subjects field.

Xenotransplantation

Xenotransplantation, the process of introducing nonhuman tissue into humans, is becoming increasingly more prominent as its use as a treatment for heart and other diseases increases. An example of this type of procedure would be the transplantation of a baboon heart into a human.

The Sept. 23, 1996, edition of the Federal Register (vol. 61, no. 185, p. 49,921) contains a draft version of proposed regulations governing xenotransplantation. Comments were due Dec. 23, 1996. After comments are reviewed, a final version of the guideline will be published.

Humanitarian use devices

The FDA issued the final rule governing humanitarian use devices (HUDs) last year. The June 26, 1996, issue of the Federal Register (21 CFR 20 and 21 CFR 814) defines a HUD as "a device that is intended to benefit patients by treating or diagnosing a disease or condition that affects or is manifested in fewer than 4,000 individuals in the United States per year." IRBs can approve use of HUD devices without indications of these orphan diseases. However, the IRB may only waive consent in clinical settings, not research settings.

Informed consent emergency research

The new regulations more narrowly define informed consent in this area and provide researchers with points to consider when reviewing emergency research (ER) informed consent. These new rules address the increasing concern that current regulations may impede vital research related to emergency circumstances. See "Community Consultation" on page 4 for more details.

Emergency Medicine Regulations and Waiver of Consent

What is the new waiver of consent in emergency medicine? What is community consultation and why is it becoming more important? New Federal regulations (21 CFR 20 and 21 CFR 814) permitting waiver of consent in emergency medicine went into effect Nov. 1, 1996. The new rules, which include the important community consultation component, were established to address the increasing concern that current regulations may impede vital research for emergency circumstances.

Waiver Eligibility

IRBs must follow strict guidelines to approve a project for this "waiver." The situation must meet "and the IRB must document" the following criteria:

- The human subject faces a situation that is life-threatening, and the research is necessary to determine "the safety and effectiveness of particular interventions."
- Informed consent is not feasible; for example, the patient is in a coma. An intervention is needed before consent from an authorized representative is possible.
- Participation is in the subject's best interest.

- The research "could not practicably be carried out without the waiver."
- The researcher must have IRB-approved procedures and guidance to use when providing a family member the opportunity to object to a subject's participation in the emergency research.
- Community consultation requirement has been met. This requirement involves advising the community from which the subjects are drawn about the plans for the study and the risks and benefits of the research trial. After the study is completed, researchers must report the findings to the community. The demographics of the human subjects and the study results are provided at this time. Again, the requirements stipulate that the public disclosure be completed both before the project starts and after it has been completed.

The IRB is required to ensure that the subject is informed as soon as possible of their inclusion in the research. The communication of research details, as well as the other requirements for informed consent under normal circumstances, then take place. If the subject cannot be informed, the legally authorized guardian must be informed, and then he or she may withdraw the subject from the investigation. If the legally authorized guardian is not available, a family member has the same rights.

The new regulations have changed the definition of "family member" to include "any individual related by blood or affinity whose close association with the subject is the equivalent of a family relationship." An unmarried partner or other significant person has rights to "speak" for the person unable to give consent within the "therapeutic window." The Federal regulations fully explain the "therapeutic window" as the short period of time in emergency situations where the medical intervention or research could save a person's life.

Why Community Consultation?
The community consultation requirement for "waived consent" has received much attention from researchers who need to learn how and when to consult the community, as outlined in these new Federal regulations. It is intended that community consultation will provide additional protection for human subjects who cannot provide informed consent.

Who Is the Community?
The aforementioned list of criteria is explicit; but how does the IRB judge how well the community consultation requirement has been met? Because the IRB has the ultimate responsibility for human subject protection, it, in fact, represents the community. But with no outreach to the immediate community of the human subject, how can an IRB member be an adequate representative? The full IRB should consider the community discussion while reviewing the study. A Nov. 7, 1996, FDA information sheet states that "the IRB may decide, among other things, that it is appropriate to attempt to exclude certain groups from participation in the investigation, or that wider community consultation is needed."

Meeting the Community Consultation Requirement
The type of community consultation sought will likely vary depending on the community of research subjects recruited for a study. For example, the African-American community would be consulted for a study on sickle-cell anemia. Many times, however, identifying the community of a research subject is difficult because health issues are not easily categorized. For example, young males are most often the victims of head injuries. However, this type of injury affects people of all ages or sexes. In most cases, the consultation will be with those in the general geographic area from which the subject draws.

Some optional advice for researchers and IRBs to meet community consultation requirements:

- Know your patient demographics.
- Create an advisory working group to assist the IRB. The working group should be composed of representatives from the institution and the identified community to advise the IRB on the best public disclosure methods. Representatives could include members from the targeted group, clergy, local political figures, patient advocates, IRB chair (and members), or a local reporter who covers health and medical news.
- Communication outlets for informing the identified community about the study should be explored. Some good ways to provide information about the study and its results, as well as to provide a channel to relate the larger implications of the research on the community, could include: the media, the Internet, targeted mailings, local meetings, church organizations, senior citizen organizations, and finally, children's organizations.
- Create focus groups, including former patients and members of target communities, to explore opinions and concerns about the proposed research. Ideas generated here may help guide the selection of information for public disclosure.

Timing
According to the FDA, community consultation should occur after researchers inform the IRB about the proposed study and before the IRB grants approval. The IRB will review the results of the consultation as a prerequisite to granting approval.

Benefits
One overriding benefit of community consultation has already become apparent to those who have instituted it: increased ethnic diversity in research participation and an increase in communication between the local cultural and ethnic groups and researchers. The University of Texas Health Science Center, a leader in developing and using community consultation, advocates ethnic diversity to "help eliminate cultural and practical roadblocks to participation in research studies." By creating a system that facilitates communication with specific groups, information about health care concerns, feelings about research participation, and other interests can be gathered. Understanding a group's concerns helps researchers plan future research.

NIH suggests "involvement of organizations and persons relevant to the populations and communities of interest . . . religious organizations, community leaders, and public and private institutions, in order to develop appropriate and culturally sensitive outreach programs . . . for recruitment and retention of the most diverse study population."

The benefit here is twofold: providing extra protection to those who cannot give consent in emergency situations and promoting the inclusion of a diverse body of research subjects.

Hot Spot: Certificates of Confidentiality

In September 1996, the Associated Press (AP) reported that copies of a "confidential" computer file of 4,000 AIDS patients were sent to the Tampa Tribune and the St. Petersburg Times. The anonymous sender told the newspapers that the disk was dropped by a Florida Department of Health and Rehabilitative Services employee after showing it to friends in a bar. According to the AP, this disclosure may be the most serious AIDS confidentiality violation in history. The newspapers did not publish the names.

Such improper disclosure of sensitive health information could have serious consequences for those receiving health care. Like the confidential medical information released in Florida, information gathered through involvement in a research project can be just as sensitive. When private information is released from medical or research records, it has the potential to impair family relationships, job security, employability, or even ability to get health coverage.

To address the improper release of sensitive health information collected during participation in human subjects research, the U.S. Department of Health and Human Services (HHS) and the National Institutes of Health (NIH) grant to projects a certificate of confidentiality to provide limits on the compelled disclosure of identifying information. The Public Health Act §301(d), 42 U.S.C. § 241(d) states that the certificate will "protect the privacy of individuals who are the subject of such research by withholding from all persons not connected with the conduct of such research the names or other identifying characteristics of such individuals." Certificate of confidentiality holders may not be compelled in Federal, state, criminal, legislative, or other proceedings to identify individual research subjects. This protection is designed to cover research of a sensitive nature, of which improper disclosure could seriously affect the well-being of the human subject. The certificates are issued by the HHS and NIH on a project-by-project basis.

John Fanning, Office of the Assistant Secretary for Planning and Evaluation, DHHS, reports that the certificate permits "honest promise of confidentiality" to subjects. With a certificate of confidentiality, human subjects are protected to the fullest extent of the law, similar to that found in physician-patient or attorney-client privileges.

Regulations regarding certificates of confidentiality do allow for voluntary disclosure, so a human subject can give permission to release identifying information and data. Although the certificate does protect against legal actions such as court orders, it may not be used to exclude or deny information to the Food and Drug Administration, the funding agency, or an individual human subject.

The certificate of confidentiality is not to be used as a loophole to avoid compulsory reporting of communicable diseases. For example, the State of Florida requires physicians to report cases of AIDS to the public health department. A reference in the 1993 Protection of Human Research Subjects Institutional Review Board Guide distributed by the FDA's Office for Protection From Research Risks states that "it is important that certificates of confidentiality perform their protective function, while not thwarting the goals of the communicable disease reporting."

Certificates of confidentiality were upheld by the New York Court of Appeals against a challenge that the law governing their use was repealed by a later statute on drug abuse patient confidentiality. The U.S. Supreme Court subsequently declined to hear the case.

Confidentiality certificates are a positive step toward improving privacy for human subjects. However, no certificate can prevent all misuse of research information. Human subjects must be advised of the limits of confidentiality so that they can make informed decisions about participating in research. Potential research volunteers should recognize that all research involving human subjects, with or without a certificate, is legally required to make adequate provisions to protect the privacy of subjects and to maintain the confidentiality of data.

National Bioethics Advisory Commission Meets

The National Bioethics Advisory Commission (NBAC), established by Presidential Executive Order 12975, held its inaugural meeting on Oct. 4, 1996, at the National Institutes of Health. This commission continues the work of several important precedent-setting groups, including the National Commission for the Protection of Human Subjects of Biomedical and Behavioral Research (1975), the President's Committee on the Protection of Human Subjects (1980), and the Advisory Committee on Human Radiation Experiments (1994).

The commission's functions, as chartered by the President, are to advise and offer recommendations to the National Science and Technical Council, to Federal agencies, and to the public and other appropriate entities on bioethical issues. The Commission was asked to consider four criteria when establishing priorities for its activities:

- The public health or public urgency of the bioethical issue
- The relation of the bioethical issue to the goals for Federal investment in science and technology
- The absence of another body able to deliberate productively on the bioethical issue
- The extent of interest in the issue across the government

A Gathering of Experts
The president appointed experts from biology, allied health, medicine, philosophy, and ethics to form this 18-member panel. Dr. Harold Shapiro, President of Princeton University, is the chair for the Commission. William F. Raub of the NIH's Office of the Assistant Secretary for Planning and Evaluation has been appointed Acting Executive Director, and Henrietta Hyatt-Knorr of the Office of Research Integrity serves in the new post of Deputy Executive Director.

Subcommittees Established
As a first priority, NBAC, in two separate subcommittees, is focusing on the protection of the rights and welfare of human research subjects and the management and use of genetic information. Some of the pertinent issues to be addressed include the following.

Subcommittee 1: Protection of the Rights and Welfare of Human Research Subjects

- Radiation experiments on humans without consent
- Research performed within the armed forces
- Research with special populations
- IRB training and workload
- Improvement of IRB oversight
- Research in the private sector

Subcommittee 2: Management and Use of Genetic Information

- Stored tissue sample management and use
- Confidentiality

- Genetic discrimination
- Rights and welfare of families and groups who participate in research

Gary Ellis, Chair, Human Subject Research Subcommittee, Committee on Health, Safety and Food, National Science and Technology Council (NSTC), spoke at the initial NBAC meeting. He expressed NSTC's "strong desire to work with the National Bioethics Advisory Commission in any way that will assist the Commission in its consideration of protecting the rights and welfare of human research subjects."

Look for updates on the NBAC in future issues of this bulletin. Additional topics for NBAC review include areas of recent concern such as the ethics of human cloning.

Upcoming Workshops

The National Institutes of Health (NIH) and the U.S. Food and Drug Administration (FDA) sponsor a series of workshops on the responsibilities of researchers, Institutional Review Boards (IRBs), and institutional officials for the protection of human subjects in research. The workshops are open to anyone interested in research involving human subjects. The meetings should be of special interest to those who currently serve or plan to serve as members of IRBs. Issues discussed at these workshops are relevant to all other Public Health Service agencies.

For further information about these workshops or future NIH/FDA National Human Subject Protections Workshops, please contact-

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Office for Protection From Research Risks (OPRR)
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Rockville, MD 20892-7507
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August 6-8, 1997

Human Subject Protections: Research Issues Involving Native Americans and Native Alaskans
Seattle, Washington
September 25-26, 1997
Human Subject Protections
Charlotte, North Carolina

A DOE Interagency Workshop
Genetics Research and Human Subjects: The Changing Landscape
June 26-27, 1997 · National Library of Medicine, Bethesda, MD

This interagency educational meeting is planned by DOE and NIH for Federal staff and administrators who are involved in Federal human subjects research and oversight. The workshop will explore the latest bioethical concerns common to human subject protection and research related to the Human Genome Project.

Topics Include:

- Ongoing Congressional Interest in Human Subjects and Genetics
  Speaker: Mr. Chris Kline
- The Human Genome Project: Implications for Future Research
  Speaker: Dr. David Cox
- The National Bioethics Advisory Commission: Human Subjects Issues in Genetics Research
  Speaker: Ms. Alta Charo
- Scientific and Ethical Issues in Large-Scale DNA Sequencing in Humans
  Panelists: Dr. Pieter deJong, Dr. James P. Karr
- Gene Discovery Research in Families: Technology, Volunteer Recruitment, and Privacy
  Speakers: Dr. David Valle,Professor Bartha Maria Knoppers
- Psychosocial Impact of Genetics Research
  Speakers: Dr. Kimberly Quaid, Dr. Barbara Handelin
- Using Stored Tissues for Genetics Research
  Speakers: Dr. Ellen Wright Clayton, Dr. David Korn
- Design of Genetics Research: When to Disclose Results
  Speakers: Dr. Gail Geller, Dr. Judith Yost
- Neuropsychiatric Genetics Research and Other Nonmedical Genetics Research: What are the Controversies?
  Speaker: Dr. Dean Hamer
- Research Issues in Special Populations
  Speakers: Dr. Karen Rothenberg, Dr. Ben Wilfond, Dr. Georgia Dunston
- Educating the Nations Institutional Review Boards
  Speaker: Dr. Christopher Hook Panelists: Mr. Steve Peckman, Rev. William Nebo, Ms. Ruth Michels

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Genetic Tests and Descrimination

Genetic discrimination is a hot topic on national and local legislative agendas. In 1996, Maryland, New Jersey, Oklahoma, and Virginia have each enacted legislation relating to genetic information and health insurance. Because Federal policy is incomplete, states have been drafting and passing laws on genetic discrimination, and protection against genetic discrimination looms as an important health care and research issue. Due to the lack of comprehensive Federal protection, fear of discrimination is common, and actual cases of discrimination are increasing. More comprehensive policy is now being shaped by scientists, ethicists, lawyers, and others, to address these complex issues.

Genetic research and gene mapping are rapidly progressing. Gene defects that predispose individuals to certain diseases are now being identified. Although this knowledge can bestow enormous benefits, the implications of such knowledge have sometimes been overlooked. When individuals are concerned about possible insurance discrimination based on the identification of genetic risk for disease or illness, testing can become feared or avoided.

For example, Amy, a healthy 23-year-old retail manager, may be a likely candidate to undergo genetic testing for the breast cancer gene BRCA1, because her mother died of breast cancer. Her objective may be to either relieve her worries or to ensure appropriate preventative care decisions if the predisposition is found in her genes. However, fearing that a positive BRCA1 gene test may result in denial of insurance coverage due to a higher risk of breast and ovarian cancer, she may avoid getting tested. People like Amy may benefit from genetic testing but might not undergo testing because of a fear of discrimination in the workplace and in maintaining or obtaining insurance if she changed jobs.

Discrimination and Confidentiality

Genetics researchers must now also deal with the fear of many individuals that genetic testing is not confidential. For an individual who is tested for the BRCA1 gene and whose medical records unwittingly land in the hands of an employer, the rejection of health insurance coverage for merely being predisposed to breast cancer could mean the difference between having health care in the future and having none. The Alliance of Genetic Support Groups, in Chevy Chase, MD, says that "information learned about you and your family through your participation in genetic research can become known to persons other than the research team." A study by Virginia Lapham and colleagues at Georgetown University looked at the perceptions of 332 members of genetic support groups. Of the 332 individuals studied, "25 percent of the respondents or affected family members believed they were refused life insurance, 22 percent believed they were refused health insurance, and 13 percent believed they were denied or let go from a job" due to a disclosure of confidential genetics testing results. Of those survey respondents who were asked about a genetic disease on a health insurance application form, nearly half were rejected for coverage. This strong perception of discrimination is evidence that more research, as well as discussion and policy setting, is needed in this area.

Confidentiality Leaks

What if an individual's medical complications identified through genetic testing are revealed? When filing a claim for costs, the insurance company and possibly the employer can learn of the results. An employer may also become privy to confidential genetic information when an employee takes a leave of absence requiring medical documentation affirming the employee's return to work. The Journal of American Medical Association reported on Oct. 2, 1991, that "although the employer would not need to receive the part of the medical record that includes genetic information, unnecessary information is often disclosed in responses to a request for medical records." Because a large number of employers use self-funded health care plans, claims are often processed internally, giving people within the company knowledge of highly confidential information. This break in confidentiality could lead to adverse personnel decisions regarding the employee without his or her knowledge.

Developing New Policy

To address these emerging concerns, several groups joined forces to support the creation of new Federal legislation stronger than the Americans With Disabilities Act. The National Action Plan on Breast Cancer (NAPBC) and the National Institutes of Health-Department of Energy (NIH-DOE) Working Group on the Ethical, Legal and Social Implications of Human Genome Research (ELSI Working Group) organized a one-day workshop on Oct. 4, 1996, entitled "Genetic Information and the Workplace: Implications for Employment,

Insurance and Privacy." Meeting participants included researchers, scientists, lawyers, policy analysts, Federal staff, private industry, and others.

Karen Rothenberg, workshop planning committee chair, said "the workshop will be the first step in developing policy approaches to address access to and the use and misuse of genetic information in the workplace."Various strategies and ideas to better shape policy directions for the future were discussed, and the strengths and weaknesses of the strategies were evaluated by the participants. Future issues of this bulletin will cover developments in privacy protection and genetics legislation.

Genetic Research and Informed Consent Issues

Until there are stronger protections against genetic discrimination, researchers and research administrators need to continue efforts to fully inform human subjects of the risks and benefits of genetic research. With so few legal protections to a patient's privacy and increasing numbers of genetic discrimination cases, IRBs and researchers must work to ensure that informed consent documents used in genetic research address the unique factors relating to such testing and research. These documents should clearly indicate that the researcher cannot guarantee complete confidentiality. The benefits and restrictions of the Certificate of Confidentiality, which provide legal limits on the compelled disclosure of research subject identities, should also be discussed, if appropriate to the research project.

The Alliance of Genetic Support Groups, a voluntary organization committed to providing a national forum to address the needs of individuals and families affected by genetic disorders, suggests that potential human subjects carefully review the informed consent document for certain types of information. Although some of the following questions are applicable to consent forms in general, some are specifically related to genetic research. This indicates that general consent forms should be reviewed carefully to ensure all areas are adequately addressed.

1. General information

- What is the purpose of the study?
- What are the names of the investigators?
- Who would be the point of contact?
- What agency is funding the research?

2. Benefits of participating in genetic research

- How will the subject benefit from participating in this research?
- What are the benefits for family members?

3. Risks of participating in genetic research

- What are the general risks of participating in this research?
- What physical risks may exist?

- What are some of the personal issues that could cause harm to the subject or family? (For example, anxiety, discrimination, unpredicted disclosure of information.)

4. Treatment issues

- Will treatment be provided if unexpected problems arise while participating in the study?
- Who will pay for this treatment?

5. Support and special issues

- May friends or family members help decide on participation? May they help during participation?
- Will special services (e.g., interpreters, braille, child care) be available, if required?

6. Costs and reimbursement

- How will costs associated with participation in this research be handled?
- Is there compensation for the time involved?
- What other costs will be reimbursed?
- Are costs incurred by the subject directly or by insurance?

7. Storage of genetic information

- What will happen to the stored DNA sample or any genetic information after this project is completed?
- What will happen if the subject decides to withdraw from this project?
- If this research plan changes in the future, if additional steps are added, or if new findings emerge, will the subject be notified and asked to sign another consent form?
- Will any genetic information be distributed to genetic laboratories, government agencies or other companies?

8. Involvement of other family members

- What happens if other family members are requested to be involved in the study? How will they be contacted and by whom?
- What will happen to cells, DNA, or personal genetic information if family members choose not to participate or withdraw from the study?

9. Study results and confidentiality issues

- What will happen to the test results? Will the subject receive them?
- If so, how?
- May the subject choose not to receive the results? What if the subject changes their mind? Who will get the results?
- Will results be recorded anywhere else besides the research records?
- How will confidentiality of the records, including photographs, be maintained

10. Communication and follow-up

- How will the results of the research project be communicated to participants?
- If genetic services, tests, or treatments are developed from this research, how will the subject be notified about their availability?
- How will the subject be notified if information about the subject or family members is published?

*For information about the Alliance of Genetic Support Groups contact:

(301) 652-5553 or 1-800-336-GENE;
http://medhelp.org/www/agsg.htm; alliance@capaccess.org

Newsletter Information

This bulletin is designed to facilitate communication among those involved in human subjects research and to inform persons interested in human subjects research activities.

DOE Human Research Subjects Program

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